HEALTH SERVICES MANAGEMENT GRADUATE EMPLOYABILITY SKILLS: PERCEPTIONS OF EMPLOYERS AND GRADUATES

©Diana Messum BA Hons (Psych), MHP, GC Higher Ed.

A thesis submitted to fulfil the degree requirements for the

Doctor of Philosophy

School of Nursing and Midwifery

Western Sydney University

March 2017

Dedication

For my daughters, students past and future and the friends who helped along the way.

Acknowledgements

Statement of Authentication

The work presented in this thesis is to the best of my knowledge and beliefs, original except as acknowledged in the text. I hereby declare that I have not submitted this material, either in the full or part, for a degree at this or any other university.

Diana Messum

TABLE OF CONTENTS

OUTCOMES OF THESIS

PEER REVIEWED PUBLICATIONS

Messum, D., Wilkes, L., & Jackson, D. (2011). Employability skills: Essential requirements in health manager vacancy advertisements. *Asia Pacific Journal of Health Management, 6*: 22-28.

Messum, D., Wilkes, L., & Jackson, D. (2015). What employability skills are required of new health managers? *Asia Pacific Journal of Health Management*, *10*, 28-35.

Messum, D., Wilkes, L., Peters, K., & Jackson, D. (2016). Content analysis of vacancy advertisements for employability skills: Challenges and opportunities for informing curriculum development. *Journal of Teaching and Learning for Graduate* Employability, 6(1), 72-86. DOI: http://dx.doi.org/10.21153/jtlge2016vol7no1art582

Messum, D., Wilkes, L., Jackson, D., & Peters, K. (2016). Employability skills in health services management: Perceptions of recent graduates**.** *Asia Pacific Journal of Health Management*, *11*(1), 25-34.

Messum, D., Wilkes, L., Peters, K., & Jackson, D. Senior managers' and recent graduates' perceptions of employability skills for health services management. *Asia-Pacific Journal of Cooperative Education* (Accepted pending minor changes – see Appendix A).

PRESENTATIONS

Messum, D., Wilkes, L., & Jackson, D. *Employability skills: Perceptions of employers and graduates.* Paper presented at the Research Futures Forum School Nursing and Midwifery, UWS, July 2009.

Messum, D., Wilkes, L., & Jackson, D. *Employability skills: What health managers want.* Paper presented at the Research Futures Forum School Nursing and Midwifery, UWS, July 2010.

Messum, D., Wilkes, L., & Jackson, D. *Employability skills: What health managers want*. ACHSM Asia-Pacific Congress "Sailing the Tides of Turbulence", Fremantle 14-16 July 2010.

Messum, D., Wilkes, L., & Jackson, D. *Employability skills: Health managers' perception.* Paper presented at the Research Futures Forum School Nursing and Midwifery, UWS, July 2011.

Messum, D., Wilkes, L., Halcomb, E., & Jackson, D. *Graduate Employability Skills Required by Health Services Managers: Preliminary Results.* Paper presented at the Research Futures Forum School Nursing and Midwifery, UWS, July 2012.

Messum, D., Wilkes, L., Halcomb, E., & Jackson, D. *What employability skills are required of new health managers?* Paper presented at the Research Futures Forum School Nursing and Midwifery, UWS, July 2013.

Messum, D., Wilkes, L., & Jackson, D. *Employability skills for emerging health managers.* ACHSM Asia-Pacific Congress on Health Leadership and Global Innovations, Canberra, 9-11 August 2013.

Messum, D., Wilkes, L., & Jackson, D. *Graduate perceptions of employability skills in health science.* Paper presented at the Research Futures Forum School Nursing and Midwifery, UWS, July 2014.

Messum, D., Wilkes, L., & Jackson, D. *Employability skills in health services management: Industry needs and recent graduate's views.* Paper presented at the SHAPE International Symposium, Developing the Health Management Workforce, Sydney 9-11, July 2014.

Messum, D., Wilkes, L., Peters, K., & Jackson, D. *Employability skills to support changing roles in health services management.* Paper presented at the SHAPE International Symposium, Health Needs Innovation and Invigoration – How do we as Educators, Researchers and Practitioners Respond? Sydney 9-11, July 2015.

Messum, D., Wilkes, L., Peters, K., & Jackson, D. *Employability skills for health services management.* Joint ACHSM/ACHS Asia-Pacific Congress Health Leadership: Odds-on Favourite. Melbourne Victoria, 28-30, October 2015.

Messum, D., Wilkes, L., Peters, K., & Jackson, D. *Employability skills: Bringing it all together.* Paper presented at the Research Futures Forum School Nursing and Midwifery, WSU, 28-29 June, 2016.

Messum, D., Wilkes, L., Peters, K., & Jackson, D. *Synergy on employability skills for HSM*. Paper presented at the SHAPE International Symposium Building Competent Health Service Managers in Australasia, Melbourne 6-8 July, 2016.

Messum, D., Wilkes, L., Peters, K., & Jackson, D. *Senior managers' and recent graduates' perceptions of employability skills for health services management.* Paper Presented at the Australian Collaborative Education Network (ACEN) National Conference, September, 28-30, Sydney Australia. Available: http://acen.edu.au/wp-content/uploads/2016/10/ACEN-2016-Proceedings.pdf. Winner of the best paper award. See Appendix B.

LIST OF ABBREVIATIONS

ACEN - Australian Collaborative Education Network

CBI – Confederation of British Industry

DEET - Department of Employment Education and Training

ES - employability skills

ESECT - Enhancing Student Employability Co-ordination Team

GCA - Graduate Careers Australia

HEI(s) - Higher education institutions(s)

HRM- Human Resources Management

HSM- Health Services Management

IPC- interpersonal communications

IT- information technology

NSW- New South Wales

OECD - Organisation for Economic Co-operation and Development

SSPP – Shortlist, Secure, Perform, Progress

UK- United Kingdom

UKCES – UK Commission for Employment and Skills

WIL – Work Integrated Learning

ABSTRACT

There is no specific profile in the literature of skill requirements for health services management (HSM). However, to develop competent health service managers firstly their skill requirements must be identified. This thesis used an inclusive definition of employability skills (ES) from the Australian Commonwealth Department of Education Science and Training (DEST, 2002, p. 143)[1], where ES encompass skills "not only to gain employment, but also to progress within an enterprise." This covers technical or discipline specific skills, knowledge, capabilities and personal attributes. More recently, the Australian *Employability Skills Framework* (2012)[2] acknowledges ES as skills and knowledge that enable employees to perform effectively in the workforce and apply technical or discipline specific skills. This document further recognises the contextual nature of ES, suggesting that ES profiles will vary for particular jobs. Hence the importance of developing a profile of ES for HSM. Findings can be used in curriculum development, by careers advisors and by employers for ongoing professional development.

The aim of this thesis was to make HSM requirements more visible. To this end the study aimed to identify ES required to work in the field from the perspective of three data sources. The essential skills contained in advertisements for graduate HSM positions were used in this triangulation design. An integrative review of empirical studies using content analysis of job vacancy advertisements, was undertaken and published. Findings were used to inform development of analysis of vacancy advertisements for 100 graduate HSM positions in two major NSW newspapers and on two employment websites. Then findings from this publication were used in the development of surveys of the perceptions of senior health managers and recent graduates working in the field.

---

[1] Department of Education, Science and Training (DEST). (2002). *Employability skills for the future.* A report by the Australian Chamber of Commerce and Industry and the Business Council of Australia for DEST. Canberra: DEST.

[2] Department of Education, Employment and Workplace Relations. (2012). Stage *1. Final Report Employability skills framework.* Ithaca Group. January 2012.

A total of 38 senior managers and 42 recent graduates participated in email surveys, identified through a NSW metropolitan university placement data base. The surveys were designed to permit comparisons. ES important to managers were revealed and they also rated skill levels observed in graduates they supervised, using a five point Likert scale on ES 44 items. The same scale was used by recent graduates, rating importance of ES and their own skill levels. The findings from these three data sources are presented as a series of published papers in the thesis, including a publication in press that compares the perceptions of the two groups.

After communication skills, the advertisement revealed a unique finding that experience and understanding of the health field, then teamwork and tertiary qualifications were the most important ES required to work in HSM. Tertiary qualifications and job or discipline specific skills were not enough to gain an interview or secure a job. This has implications for work integrated learning in HSM courses. The surveys revealed strong agreement between senior managers and graduates on important ES. Again, the most important ES were generic, but integrity and ethical conduct trumped communication skills (written, verbal and interpersonal), as the most important ES, followed by teamwork, and being flexible and open-minded. For rating of skill levels, agreement was not found, with recent graduates' self-ratings higher than ratings given by senior managers. Specific skill gaps were revealed in this comparison, many of which recent graduates did not appear to recognise. Findings suggest that HEIs are not developing the ES in HSM graduates that employers require. Priorities for development were identified.

From the synthesis of findings, a new model of staged ES for HSM emerged as a new way of identifying skill requirements. The stages were gaining an interview meaning that graduates were short listed for a position, to securing a job, performing a HSM job, and progressing in the job. An inclusive definition of ES and using a triangulation design, including the seldom used approach of advertisement analysis was found to be valuable. In addition, the contextual nature of HSM was confirmed, reflecting different and overlapping ES requirements as the employment process progressed. Context may well explain discrepancies in findings about ES for many professions in the past.

CHAPTER 1

1. INTRODUCTION

This doctoral thesis was initiated to develop a profile of employability skill requirements for health services management for use by higher education, employers, graduates and students. The need for currency in discipline specific skills was recognised, but exposure to the literature quickly revealed that such skills were not enough to secure employment. There was a need to identify a broad range of employability skills (ES). This first chapter provides a brief historical overview including policy background and graduate recruitment issues, states the aim and significance of the study and outlines the structure of the thesis.

1.1. Historical Overview and Policy Background

Higher education is necessarily contextually based and responsive to the values and needs of various stakeholders including government, academics, employers and students. There is some sense of déjà vu with repeated calls in the last two decades from government and employers to improve graduate employability. The historical policy context, in which ES for graduates has received increasing attention, will be explored to set the framework for this study. The main themes are increasing government involvement in higher education, with investment in human capital to strengthen the economy through development of ES and expansion of university places.

In Australia, major changes to expand the higher education sector were initiated by the Dawkins, *Higher Education Policy Discussion Paper* (1987, p.1), in order to affect a "better educated and more highly skilled population". The perceived link between higher education participation and economic growth underpinned this commitment. A shift from elite to mass education was planned which included expansion of educational opportunities to those people who had not traditionally attended university i.e. people from lower socio-economic backgrounds, rural and isolated areas and Indigenous people. Fitzgerald (1994) went so far as to claim that higher education became the preferred alternative to labour market entry to avoid unemployment of school leavers.

Dawkins (1987, p.2) argued for "greater emphasis on broad and transferable skills as insurance against the uncertainties of the future". With the backing of unions, employers and professional groups, the government wanted graduates with both vocational and "general education" (Dawkins, 1988, p. 8), specifically referring to conceptual, analytical and communication skills. This policy view of higher education required not only education in chosen discipline areas but also in other skills. However, the subsequent Finn (1991) and Mayer (1992) reviews were criticised for their employment emphasis and statements of competencies. It was the Finn Review that first recommended employment related "Key Competencies", which were developed in the Mayer Review. These included communicating ideas and information, solving problems, collecting, analysing and organising ideas and information, using mathematical ideas and techniques, using technology, working with others and in teams, and lastly planning and organising activities. Ten years later, the *Employability Skills for the Future* (DEST, 2002) report funded by the Commonwealth government, was prepared by the Australian Chamber of Commerce and Industry and the Business Council of Australia. This report listed communication skills, teamwork, problem solving, self-management, planning and organising, technology, lifelong learning, initiative and enterprise. In this report, ES were defined as the "skills required to not only gain employment, but also progress within an enterprise so as to achieve one's potential and contribute successfully to enterprise strategic directions" (p. 122). The Allen Consulting Group (2004) stated that these skills were similar to those used in Canada, the UK, NZ, France, Germany and the US at the time. Importantly the skills applied over a variety of jobs and contexts. Arguing that ES are a subset of graduate attributes, Precision Consulting (2007, p.2) concluded that "Universities clearly want to produce graduates that have the skills that are highly regarded by employers and are seen to contribute to the country's prosperity and social capital." Generic graduate attributes were widely adopted in Australia after the West review (DETYA, 1998).

In the more recent *Employability Skills Framework* (Ithaca Group, 2012), there are still concerns about the lack of impact of approaches to develop ES. Differing definitions, failure to recognise the context specific nature of ES, incorrect assumptions that competence is automatically transferable, lack of specific focus on ES in workplaces and in education, insufficient confidence/capability of teachers to

address ES and difficulties measuring, assessing and reporting on ES were offered as explanations for failure. Common language about ES, recognition that skills expectations vary by stage of career, clearer statements from employers about performance and ongoing workplace support were also needed.

1.2.   Impact of Mass Education

The shift from elite to mass higher education was a global phenomenon (DEET/OECD, 1993, p. 2). Investing in human capital was the backdrop against which education policy in the UK was drafted. This led to funding commitments and rapid proliferation of new universities post 1992. The Leitch Review (2006, p. 9) went so far as to declare that "Achieving world class skills is *the* key to achieving economic success and social justice in the new global economy". A change in focus for higher education was recommended to demand-led "economically valuable skills" (Leitch 2006, p. 2) for the whole working population. He saw a direct link between skills, productivity and employment and recommended "improved engagement between employers and universities" to be achieved by "shared investment" by employers, individuals and the government. This sharing included the introduction of student fees. His review addressed the findings of the UK Lambert Review (2003, p. 107) which found "a mismatch between the needs of industry and the courses put on by universities" with widespread employer concerns about the job readiness of graduates and difficulties engaging with universities about skills requirements.

In Australia expansion of university places was announced (Gillard, 2009) with a target of 40% of 25-34-year old's to have completed an undergraduate degree by 2025, facilitated by demand based funding of student places. The rate in 2009 was 32%. Gillard questioned the impact of earlier policy designed to improve equity in access to university, noting that secondary students from a low socio-economic status background were one-third as likely to attend university as students from a higher socio-economic status background. Furthermore, people from regional and remote areas and Indigenous people were still seriously under-represented. She announced government funding incentives to improve on the current 16% of low socio-economic status background undergraduate enrolments, and achieve a target by 2020, of 20%.

There may be unforeseen consequences of expanding education opportunity. The Dearing report in the UK (1997) found that students' strongest motivation for entering university was the desire to improve their labour market prospects. Although graduates enjoyed employment advantages over non-graduates there was some evidence of graduate unemployment and salary inequity. Social equity is an issue not just regarding the chances of attending university, but also for university outcomes, securing a graduate position, salary levels and promotional prospects. Brown and Hesketh (2004) confirmed that employers tended to recruit new graduates from particular institutions. There have been similar findings in Australia (Graduate Careers Australia (GCA), 2016b, p. 13), where 38.6% of employers preferred to recruit from particular universities over others, based on perceptions of graduate calibre and relevant degree course. GCA (2016a) surveyed 183,000 graduates and found four months after graduation, 68.8% of were in fulltime employment (p.6), the lowest full-time employment rate for new graduates since GCA began measuring in 1982. Employment rates varied by discipline but working in a job in their final year of study was an advantage. To help find employment, many (19.7%) were enrolled into a postgraduate degree.

Once a job was secured there was evidence of salary differentials which related to gender, sector of employment and parental socio-economic status (Conlon & Chevalier, 2002); and ethnicity (Blasko, 2002; Smetherham, 2003; Connor, Tyers, Davies, Tackey & Mahood, 2004). In addition, age, disability and university impacted on employment opportunities (Moreau & Leathwood, 2006a). Todd and Preston (2012) found that the gender wage ratio in Australia was deteriorating for both starting salaries and after five years at work. Disability also impacted employment rates (GCA, 2016a) and there is evidence of under-employment of graduates or employment in non-graduate jobs, (GCA, 2016a; Scurry & Blenkinsopp, 2011; Green & Zhu, 2010). This raises questions about the capacity of the labour market to accommodate rising numbers of graduates, (Tomlinson, 2012; Power & Whitty, 2006; Keep & Mayhew, 2004). The conclusion was that a first degree was a pre-requisite for a job and increasingly for jobs where a degree was not traditionally required. A similar conclusion was drawn by GCA (2016b). Tomlinson (2012) confirmed ongoing structural inequity that policy changes were designed to alleviate. The challenge remains for higher education to:

> "…enhance the employment chances of the full spectrum of its graduates, whilst acknowledging that economic forces of various kinds will influence the graduates' success. However, treating all students the same way runs the risk of perpetuating disadvantage, as the relatively advantaged are able to sustain their position." (Yorke, 2006, p. 5-6).

This conclusion begs the question as to how disadvantaged students can be given a lift up to level the playing field. Interestingly, Brennan and Shaw (2003) investigated employment gains for the disadvantaged finding that confidence raising, self-esteem and building aspirations were more important than skills and competencies in securing good employment for low socio-economic and certain ethnic minorities. These are not defined as ES. In the UK, supervised work experience as a mechanism for ES development still disadvantaged women graduates "about which higher education is silent, perpetuating the framing of employability as a set of skills and abilities" (Gracia, 2009, p. 301). There is now some evidence from the UK, that graduate ES will not necessarily lead to social justice in the labour market (Eyre, 2011; Wilton, 2011). Traditional labour market disadvantage still appears to be an impediment irrespective of ES development. However, Mansour and Dean (2016) argue that the mismatch of ES and demand is the key issue if universities continue to generate more graduates than the labour market can absorb. Their answer is for employers not only to inform universities of their skill needs, but also for higher education to prepare graduates for a broader range of careers and to develop transferable skills for rapidly changing global work environments. They argued that employers were too focused on selection rather than development of employees, and that employees needed to prepare for change with ongoing career self- assessment, to better meet future job demands.

1.3. Graduate Recruitment Issues

Apparently, employers are having trouble locating the right graduates in Australia. *Graduate Outlook 2015* published by GCA (2016b) revealed that 26.8% of graduate employers had difficulty sourcing/recruiting graduates. This is higher than the equivalent figure of 23.4% in 2013, and 22.1% in 2012. Over half (51.5%) indicated that they would have employed more graduates if appropriate applicants had been available. Such findings are important to higher education because graduate employment outcomes are a sector performance indicator. Explanations for this shortfall need to be explored. Possibly graduates do not have the skills required, or

fail to apply not seeing that they have the required skills. Alternatively, they may have poor job search skills, or advertisements for positions may be too demanding or placed where potential applicants fail to look. How HSM graduates find employment is not known.

In the same *Graduate Outlook* report, (GCA, 2016b), it was noted that 89.2% of employers promoted vacancies for graduates via organisation websites, employment web sites SEEK and CareerOne (77.1%) and university careers services (73.6%). Furthermore, use of social media options (eg Facebook and LinkedIn) equalled 67% but newspapers were infrequently used at 12.3%. Significantly, 39.7% of graduates actually employed came from undergraduate placement programs and another 7.9% from employee referral programs. In fact, lack of work experience was a disadvantage: nearly one third (32.3%) of employers thought that university could better prepare their graduates for the workplace by providing industry-based experience (GCA, 2016b). This information has important implications for graduates when searching for employment, because placements can lead to employment. It has also been found that long term retention was very important to employers, which is not surprising when the median total cost per graduate hired was found by GCA to be $50,000 (2012, p.19). With as many as 11% of new graduates expected to leave by one year and 25% in two years (GCA, 2016b), attrition represents a significant investment loss.

GCA (2016b, p.19) provides a list of skills Australian employers are seeking from new graduates. The top ten in rank order were interpersonal and communication skills (58.3%), cultural alignment/ values fit (34.3%), emotional intelligence including self-awareness, self-regulation, self-motivation (26.2%), reasoning and problem solving (22.6%), academic results (19.6%), work experience (19.1%), technical skills (14.4%), demonstrated leadership (13.1%) extra-curricular activities (7.4%) and community/voluntary service (1.65%). When they rated their 2014 intake of graduates, verbal communication skills, work ethic and reliability rated in the top three, written communication skills, attention to detail, coping with work pressure and work readiness, were the bottom four. These findings suggest skill gaps and also where skill needs are being met. It is noted that the profiles for most important skill requirements and skill gaps have varied over the years, and can only be considered generic rather than industry specific. For HSM, no such information is available.

This brief overview highlights some key themes. These include increasing government involvement in higher education, and pressure from government and employers to focus on ES, where investment in human capital is assumed to support economic growth. This comes at a cost for students and with no guarantee that social equity will be improved. In times of economic downturn, expansion of university places has meant that competition for graduate jobs has grown, and graduates now see higher education as a personal investment. A degree is not necessarily enough to secure employment. The important additional generic skills required by employers are known but skill gaps are still identifiable. Given that ES are recognised as context specific, there is a need to identify specific ES skill requirements by profession/industry. There is a sizable and growing HSM workforce in Australia, totalling 22,400 managers in 2011, with 11.5% growth since 2006 (Martins & Isouard, 2014). The skills they require need to be identified.

1.4. The Aim of the Study and Research Questions

The aim of this study is to identify ES skills for HSM. Specifically, the following research questions will be addressed:

1. What are the skill requirements on public record as advertised in job vacancies for HSM?
2. Is there a difference in perceptions of skills most important for HSM, whether job specific or generic, for senior health managers and recent graduates?
3. Is there a difference in self-rating of skill levels by recent graduates compared with supervising managers' observations?

The most highly regarded ES will be revealed in answering questions 1 and 2. Similarities and differences about importance of ES across the two groups will also be revealed. Gap analysis of the quantitative data for Question 3 will reveal the actual reality of skill levels exhibited by recent graduates. There may be important ES not well demonstrated by recent graduates. Answers to these questions will provide important feedback for curriculum development, for course marketing and for potential students, for employers regarding ongoing professional development, recruitment efforts, and performance appraisal.

1.5.   Significance of the Study

It is hoped that through use of three perspectives, seeking views from senior health managers and the recent graduates they supervise, as well as examining essential skills in advertised job vacancies, a strong and valid profile of ES will emerge. If ES for HSM are made explicit, those ES important for working in this field can be used to inform curriculum development, and improve course relevance and currency where needed. Course employment outcomes may also be improved. The findings can encourage students to identify, better articulate and demonstrate the ES required by employers, whether on placement or at job interviews. Marketing of courses can benefit from clearly stating HSM skill requirements. Writers of vacancy advertisements may use findings from this research to more accurately list essential skill requirements including experience and personal attributes to improve application rates and applicant quality. Employers can also use the findings for targeting performance assessments of employees and ongoing professional development. Furthermore, professional bodies can use the findings to update competency requirements consistent with current experience.

1.6.   Structure of the Thesis

Consistent with the UWS PhD rule (Clauses 95-95) this thesis is presented for examination as a series of peer reviewed scholarly articles, as listed in thesis outcomes. All such papers were derived from the study, developed during the candidature and integrated within this overarching thesis. Each paper is placed in this document in logical order and formatted according to requirements of the journal of publication. In addition to the published papers, this thesis text provides more detail including background information, a literature review, and methodology, and presents a model of the study findings and outcomes of the overall project as follows.

Chapter one is an introductory chapter, which provides insights into the context and historical development of ES, outlines the study aim, demonstrates the significance of the research and outlines the thesis format.

Chapter two comprises the literature review exploring conceptions of ES, skill requirements and skill gaps, from the perspective of various stakeholders.

Chapter three outlines methodological considerations including justification of the method, data collection and analysis, ethical considerations, rigour, reliability and validity.

Chapter four provides an integrative review of 40 studies using content analysis of job vacancy advertisements. The aims of the studies, research methodology, study findings, value and limitations are discussed.

Chapter five presents the published findings from content analysis of 100 HSM job vacancy advertisements based on recommendations from the previous paper.

Chapter six presents published findings from the survey of senior health managers in NSW.

Chapter seven contains the published findings from survey of recent graduates working in HSM.

Chapter eight compares the findings from the two study groups, a refereed paper which won the award for the best paper at the ACEN Conference, November 2016. The details of the award and the award certificate are located in Appendix B. As a result, a further paper was invited for submission to a special edition of *Asia-Pacific Journal of Cooperative Education* (APJCE), which has been accepted pending minor amendments.

Chapter nine, the final chapter, draws together the findings of this thesis and describes a new model of ES for HSM. Strengths and limitations of the study, and recommendations for further research are also provided.

CHAPTER 2

2. LITERATURE REVIEW

2.1. Introduction

This chapter outlines contemporary problems with the variety of definitions of ES in current use and argues for an inclusive approach to ES. The previous chapter briefly outlined the historical context and government policy initiatives for ES to set the context for the topic. Chapter two builds on this background to explore the views of various stakeholders with an interest in ES including employers, academics, students, graduates and professional bodies. This provides a more comprehensive picture of findings on ES in general, while looking for profession specific information from overseas and Australia. ES considered to be important are identified, followed by skill gaps which are taken to reflect work-readiness.

2.2. Search Strategies

Literature from peer reviewed publications was sought to gain understanding of the topic, through electronic searches from January 2009 to February 2017. Electronic data bases were accessed at least monthly because of the scarcity of information specific to health services management. Data bases included CINAHL; Emerald; ProQuest; ERIC; PsycINFO; Business Source Elite; Educational Research Complete; Health Collection; Health Management Collection; Health and Medical Collection; Business Collection and Business Science Complete. Google Scholar revealed the grey literature of government publications. Key words of employability skills, transferable skills, generic skills, soft skills, technical skills, competencies, capabilities, recruitment or vacancy advertisements were entered. References lists were also scrutinised. The search was limited to English full text articles. Search alerts were set up to capture recent publications to ensure currency of information.

2.3. Definition of Employability Skills

The Australian Commonwealth Department of Education Science and Training (DEST, 2002, p. 143) definition of ES was used in this research where ES encompass skills "not only to gain employment, but also to progress within an

enterprise." This includes technical or discipline specific skills, knowledge, capabilities and personal attributes. This definition allows for a much broader interpretation and analysis of the ES. Some authors excluded profession specific skills focusing on non-technical skills alone (Jackson & Chapman, 2012). GCA (2015) seemed to confuse ES and essential skills listing some items as ES and some as essential requirements. The *Employability Skills Framework* (Ithaca Group, 2012) chose not to include attributes and personal qualities as being too subjective and difficult to measure. However, it acknowledged ES as skills and knowledge that enable employees to perform effectively in the workforce and apply technical or discipline specific skills. This argues for the context specific nature of ES and confirms the legitimacy of using a broad definition.

An advantage of using an inclusive definition is that the relative value of job specific skills as well as knowledge, attributes and generic skills can be ascertained. Different contexts place different weight on what roles are more important than others and subsequently competencies and skills required. The skills required for HSM may well be different to skills required in general management jobs. Furthermore, skill requirements may change over time in response to the context of use. This has been confirmed by longitudinal studies of newspaper advertisements in Finland (Varje, Turtianen & Vaananen, 2013; Kuokkanen, Varje & Vaananen, 2013); for specific professions, such as accounting (France, 2010; Omar, Manaf, Mohd, Kassim and Aziz, 2012) and librarianship (Kennan, Willard & Wilson, 2006). Changes in the health workplace in Australia have included the adoption of private sector management practices and on-going reforms making employment less stable, and affecting required practices, skills and competencies (Liang, Short & Brown, 2006). As stated by Massey (2010), skill sets are in transition, with a move towards generic skills or soft skills rather than job or profession specific skills (Cramer &Tenzek, 2012; Quinn & Rochford, 2013). This was anticipated by Bennett (2002, p. 453) stating that ready adaptation to change by maintenance and development of transferable ES was a requirement of the knowledge based economy.

Determining what skill sets preserve employability in rapidly changing, often global fields (Kennan, Cecez-Kecmanovic, Willard, & Wilson, 2009), is particularly important. Useful skill sets could include those needed to secure a job as well as progress in the employing organisation, which have previously been found disparate

skill sets (Semeijn, van der Velden, Heijke, van der Vleuten, & Boshuizen, 2006). This suggests that analysis of vacancy advertisements is more likely to reveal skills to secure employment rather than ongoing employment success. Furthermore, employers need to be asked if there are higher order ES characteristic of the more successful employees. Using structural equation modelling, Heimler, Rosenberg and Morote (2012) identified ES that human resources managers thought predicted job performance and career advancement. These were leadership skills and information technology. Furthermore, work ethic and critical thinking skills were strong explanatory variables for leadership skills.

Using a broad inclusive definition avoids the ongoing confusion and debate in the literature about what constitutes ES. Mason, Williams and Cranmer (2009) reported that some confusion surrounded nomenclature and classification of the types of skills (personal attributes, process skills, technical skills) that "purportedly enhanced graduates' employability". Earlier, Hillage and Pollard (1998) argued that definitions of ES ranged from a limited set of threshold skills to a wide range of attributes, knowledge and skills that graduates are expected to demonstrate. They found confusion between the terms core, key, common, transferable and generic skills. Furthermore, ES have been variously defined as "life skills" (Powney & Lowden, 2000, p. 3); "work context skills" (Cotton, 2001, p. 21); and "skills, understandings and personal attributes" (Layer, 2003, p. 2). For Hillage and Pollard (1998, p.2) employability was the "capability to move self-sufficiently within the labour market to realise potential through sustainable employment". Harvey (2001) only saw employability as the propensity to find work, rather than ongoing success. Yorke (2006, p. 8) offered another definition: "set of achievements- skills, understandings and personal attributes- that makes graduates more likely to gain employment and be successful in their chosen career". Dacre Pool and Sewell (2007, p. 280) added that ES "make a person more likely to choose and secure occupations in which they can be satisfied and successful". Precision Consultancy (2007, p. 11) in Australia acknowledged on-going confusion in terminology but elected to use the term employability skills because it was found to be the preferred term in industry.

Not only does the definition of ES vary in the literature, it extends to the definition of specific ES. Jackson (2009a) tried to unpack items, revealing an extensive and confusing range of definitions for individual competencies. The *Employability Skills*

Framework (Ithaca Group, 2012) still noted that common language and definitions were needed. In this thesis, respondents will be given the opportunity to explain what terms mean to them. At least all these definitions seem to imply that the person possesses certain characteristics.

2.4.   Rationale for the study

This thesis intends to inform higher education curriculum development by identifying skill requirements for entry level graduates working in health services management. As for many professions, accreditation documents exert a strong influence on teaching content, but there is little empirical evidence to support them other than expert opinion. For a curriculum renewal exercise, Litchfield, Nettleton and Taylor (2008) approached nine professional societies associated with specific management courses at the University of Technology, Sydney. Six common requirements were identified: ethics and professionalism, a global perspective, communication capacity, teamwork skills, ability to apply knowledge, also creative problem solving and critical thinking skills. However, when Ritchie and Yen (2013) reviewed the content of ten HSM courses Australia-wide, accredited by the Australasian College of Health Management (ACHSM), little commonality in content was evident. Empirical evidence is available for senior health management competencies, although sample sizes are small. Liang and Howard (2010) surveyed 29 senior staff in NSW from director general down to area CEOs with follow-up interviews with 13, and developed a list of 15 competencies for senior executives. The importance of communication skills, ability in managing processes, and self-awareness were recognised by more than half of the interviewees. A number of them also recognised the importance of analytical skills. A more recent study in Victoria used focus groups and an online survey with 16 senior health managers and identified six core competencies: leadership; leading and managing change; operations, administration and resource management; evidence-informed decision making; knowledge of healthcare environment and the organisation; interpersonal, communication qualities and relationship management (Liang, Leggat, Howard & Koh, 2013). Leadership competencies have also been examined rather than health management skills in general, based on competency lists from professional bodies (Calhoun et al., 2004; Stefl, 2008). There may be overlap between leadership skills

and management skills for senior and entry level health managers, but this has yet to be researched.

To address the gap in knowledge, this research focuses on perceptions of required ES from the perspective of employers (senior health managers), the advertisements they use to attract applicants, and on the perspectives of recent graduates working in HSM. Other perspectives have been used in the literature for example from students, academics and professional bodies (Litchfield et al., 2008; ACHE, 2015), but their views are outside the scope of this study. Importantly, many researchers have used more than one perspective to add weight to their conclusions (Ferns, 2012; Jackson & Chapman, 2012; Rosenberg, Heimler & Morote, 2012). However, relatively few have looked at advertisements for skill requirements or sought views of recent graduates. Harper (2012) reviewed 70 studies using content analysis of job vacancies for library information services. He noted a growing trend for this area of research and made recommendations as to how such research may be improved. Vacancy advertisements are a readily accessible source of current information on skill requirements. There is also an argument to support seeking views of recent graduates. They are well placed to identify skills important in the real world, based on employment in the field and current insight into what is valuable (Ainsworth & Motley, 1995). They can reflect industry expectations, which can be useful for future students and university curriculum development.

2.5. Perceptions of Employers

The primary source of information about ES required of new graduates is employers. This includes ranking of the importance of various skills and identification of skill gaps. Firstly, findings about importance ratings will be discussed because ES rated highly can be equated with job skill requirements. GCA (2016b) provides the big picture view from annual surveys of 638 employers across Australia. Findings for the top ten important ES have traditionally varied little until recently. Consistently interpersonal and communication skills were by far the most important skill that Australian employers would like to see in graduate applicants, over and above academic qualifications. After communication skills, in the most recent GCA report (2016b) cultural alignment and values fit ranked second and emotional intelligence third. In surveys of the previous five years, these skills have ranked much lower.

Academic results and work experience came next, followed by passion/knowledge of industry, critical reasoning and analytical skills/problem solving/lateral thinking/technical skills. Teamwork skills ranked highly in previous years but did not make the top ten in 2015. The most important ES are all generic.

The importance of generic skills has been confirmed in other countries. Careers New Zealand's (2017) list of skills that employers are looking for included communication skills, followed by teamwork, initiative, and problem solving, all generic ES. A UK survey of 233 employers found that generic skills were more important than technical skills and communication skills were paramount but considered deficient (Saunders & Zuzel, 2010). Archer and Davidson (2008) working with the British Council of Industry and Higher Education obtained similar results. A recent study was published by Times Higher Education (2016) surveying 2,500 senior recruiters and 3,450 managing directors of large international companies in 20 countries including Europe, UK, Australia, USA, Russia and Canada. Using a four-point scale, survey respondents gave the greatest weight to communication skills, motivation, adaptability, ability to work in a team, and flexibility. Clearly, the primacy of communication skills, in entry-level jobs is found across a wide range of countries and industries, also teamwork, problem solving and the ability to fit in. Other ES requirements are less uniform and may reflect context specific requirements, but the important requirements are all generic skills.

Oliver, Whelan, Hunt and Hammer (2011) used the *Graduate Employability Indicators* online survey with employers, graduates and accounting academics from four Australian universities. The ES rated very important by employers in rank order were teamwork, speaking clearly and effectively, ethics, thinking critically and analytically, writing clearly and independent learning. Lim, Lee, Yap and Ling (2016) also looked at ES for accounting from the perspectives of employers, final year students, auditors and accounting lecturers in Malaysia. They found 94% of employers valued communication skills as the top skill required, consistent with previous findings, but this was ranked much lower by the other groups, as was critical thinking skills. Analytical skills were highly ranked by all groups. Teamwork was not ranked highly by employers. Graduates may not have accurate perceptions of job skill requirements, which is something HEIs should address.

The relative importance of technical skills versus generic skills has been considered in a number of studies. An Australian study that compared employers', academics' and graduates' views on the importance of ES and rating of skill levels, for two large undergraduate programs (not identified) found that the 67 employers agreed that knowledge was important but it was not the most essential skill (Ferns, 2012). Problem solving, teamwork and communication were more critical elements of employability. For an American business school, a similar triangulation design was used with faculty, graduates and human resources managers who employed them, surveying over 500 participants (Rosenberg et al., 2012). For the managers, literacy and numeracy skills, leadership and work ethics were the most important for job performance. Graduates scored the last two of these as the most important. Beisma, et al., (2008) examined employers' perceptions of competencies of public health graduates in Poland, the UK and the Netherlands and found health specific knowledge was a useful starting point but communication and teamwork skills were ranked higher in importance in all three countries. Strong agreement on importance of ES comparing perceptions of employers and graduates for biomolecular sciences was also found by Saunders and Zuzel (2010). For managers, enthusiasm/willingness to learn, questioning/listening, attention to detail, oral communication and dependability were the key personal skills found more important than technical and subject related skills for bio-sciences. This supports the much earlier findings of Scott and Yates (2002) and Scott, Chang and Grebennikov (2010) looking at engineers in Australia, and nurses respectively. These studies found personal qualities were more important than formal credentials, mastery of specialised knowledge or expert skills. Discipline specific knowledge or technical skills may be implicit in a degree qualification but are not enough. This means that generic skills were more important than job specific skills. Agreement of employers and graduates lends weight to the findings in these studies and where findings differ, suggests that employer values may not be appreciated by graduates. There was no literature found that identified HSM specific ES, which this thesis will address.

There are criticisms of employer views on ES. Hillage and Pollard (1998) looked to employers for help defining terms without success. Teichler (1998) noted inconsistencies in recruitment practices and personnel policies. Yorke and Knight (2006) lamented that employer wish lists for ES could not be seen as objective

information. Holmes (2013) was critical of surveys that investigated the expressed perceptions of respondents without any attempt to devise some form of objective measures or refer to underlying theoretical propositions. Also, Harvey (2001) showed that sets of desired attributes varied within organisations by level: line managers, recruiters and strategic managers had different priorities. The managers that define job specifications, help word the vacancy advertisement and conduct interviews are the target group of interest for ES. Their perceptions of ES and requirements need clarification.

2.6.   Work-readiness and Skill Gaps

Employer perceptions of skill levels and gaps reflect work readiness of graduates. Although Hinchliffe (2008) found as many as one fifth of employers expected graduates to be immediately work-ready, an Australian study found employers regarded qualifications as a signal of potential for future learning and skills acquisition, not immediate competence (Ridoutt, Selby Smith, Hummel & Cheang, 2005). Bennett, Richardson and MacKinnon (2015) stated that HEI did not appear to be preparing their students effectively, supporting earlier findings (Harvey & Shahjahan, 2013; Walter & Radcliffe, 2007). The gap between higher education and being work ready could even be growing for some disciplines (Bennett, 2002; Bridgestock, 2009; Tomlinson, 2008). Semeijn et al., (2006) even questioned the extent to which generic competencies during university study actually predicted labour market outcomes.

Many of the UK 500 businesses surveyed by Confederation of British Industry (CBI) (2016, p.8) were satisfied with graduates' basic skills and general readiness for employment, reporting satisfaction or better with graduates' numeracy skills (91%), literacy skills (86%), analysis skills and team working (81%) problem solving (79%), communication skills (77%), knowledge about their chosen job or career and work experience (75%). However, these findings also mean that some 20% of employers were not happy with the last six items. Interestingly, Durrani and Tariq (2012) surveyed 167 employers finding only 32% required a first degree in a specific academic discipline but irrespective of academic program, numeracy tests were used in job selection processes. Furthermore, 70% of employers considered it "essential" that the tests be passed. In a much larger UK National Skills survey of over 90,000

establishments (UK Commission for Employment and Skills, (UKCES), 2016) the most common skills lacking among existing staff were people/personal skills and workload management, relating to poor time management and prioritisation of tasks (59%), demonstrating that staff struggled to cope with the various demands placed on them, followed by poor teamwork skills (56%). Employers faced challenges with management and leadership for example managing or motivating staff, persuading others, setting objectives/planning resources, representing 58% of all skills gaps. IT skill gaps and a lack of complex analytical skills among both job applicants and existing staff were noted. Rosenberg et al., (2012) found that employers and graduates agreed that more training in leadership and management skills was required. This confirmed UK findings from Saunders and Zuzel (2010) and Ringo and MacDonald (2008).

Deficiencies in management skills were also reported in Australia (Jackson & Chapman, 2012). They surveyed 211 business managers and 156 business academics from 38 Australian universities. They concluded that business schools were not meeting industry requirements in critical thinking and business management, and leadership skills were weak, as were skills in conflict resolution, public speaking, commercial awareness and meta-cognition. However, graduates performed well in other ES considered important: personal ethics, drive, organisational awareness, self-confidence, teamwork, initiative, organisational skills, self-discipline and professional responsibility.

Oliver et al., (2011) argued that information from academic teaching staff and employers on what graduates need to succeed and whether graduates generally demonstrate the capabilities that count, is not systematically collected in Australia. Course Experience Questionnaires and Graduate Destination Surveys, were not relevant to employability or curriculum issues, and lacked calibration against other perceptions such as employers and academics. So, Oliver et al., (2011) used the *Graduate Employability Indicators* online survey with 316 graduates, 99 employers and 51 accounting academics from four universities. Where stakeholder groups agreed that capabilities perceived as more important but less demonstrated included: work related knowledge and skills, writing clearly and effectively, thinking critically and analytically, solving complex and real world problems, and developing general

industry awareness. They argued for enhanced industry focus through authentic assessment.

Hinchliffe and Jolly (2010) further researched when ES were expected: on appointment, after one and after three years. Online surveys (105) were received from a variety of employers, including finance, local government, creative industries, IT, energy, construction, marine engineering and business support. On appointment employers expected personal qualities of honesty, integrity and trust, the ability to listen, present ideas clearly and cultural awareness. Writing skills were much more important than presentation skills. Employers were prepared to wait up to a year for technical skills to develop, the exception being engineering, which did require a range of technical skills at appointment. They concluded that technical skills may be less important when deciding whether a graduate should be offered a job. Even with highly developed technical skills the ability to be able to fit quickly into a team was more important. Furthermore, the quality and relevance of work experience had to be demonstrated by an ability to reflect on that experience. This has strong implications for curriculum development eg not just provision of field experience and placements, but analysis of the experience. However, finding employers willing and able to take students and provide quality experiences may be an issue.

The question as to where ES should be learnt needs consideration. Bennett (2002) found divided opinion as to who should teach personal skills: many employers were undecided, 30% thought this was a HE role, 25% felt industry should provide training. The experience of trying to "fit in" and adapt to the cultural expectations and language of the job was important. Furthermore, it has been found that HEIs rated their employability performance more highly than employers (Mourshed, Patel & Suder, 2014). Hall (2014) expressed concerns that employer spending on training and development has declined by about 40% over the past two decades to one of the lowest rates in the OECD. Employers believed they could externalise skills development to formal education systems, rather than invest in employee training, only to have other employers lure those higher skilled workers away. Quite another story is emerging from the UK, with CBI (2016) reporting growing business support for in-house training and skills development. Here employers are concerned about access to skilled graduates especially after Brexit, with decreased access to international job applicants.

In summary, from the perspective of employers, a pattern of ES requirements has emerged from this discussion. Specific findings for HSM are lacking in the literature, other than recommendations from professional bodies without empirical evidence. There was some evidence for senior management and leadership ES, but not for entry level graduates. However, for all graduates, communication skills, work ethics, teamwork, problem solving and critical analysis skills, and "fit" were consistently found very important. Motivation, flexibility, literacy, numeracy, speaking clearly and independent learning were frequently found important. Skill gaps were noted for communication skills, problem solving, critical analysis, literacy, numeracy and teamwork. These would all be considered generic skills. Management and leadership skills were considered weak, and the need for improved industry awareness and experience was noted.

2.7.   Graduates' Perceptions

From the literature regarding graduates' views about ES, several themes emerged: the over-emphasis by higher education on discipline specific skills, failure of higher education to help graduates relate skills to the world of work, the need for development of generic skills, specific skills gaps and ability to self-rate skills. These themes will now be addressed in turn.

Research that explores student perspectives on university to work transition is scarce, (Moreau & Leathwood, 2006b; Holmes, 2013). As Johnston (2003, p. 419) concluded: "voices of graduates were deafening in their silence". Tomlinson (2008) in Cardiff, Wales found that final year business students saw academic qualifications had a declining role in shaping employment outcomes and that they needed to add value: students did not think a degree was enough. To stand apart these students phrased community and voluntary experience in terms of developing teamwork and leadership skills, which are generic skills. More recently, Nilsson (2010) in Sweden found engineering graduates critical of higher education programs too focused on discipline skills, which rapidly became out of date and not focused enough on ES and life-long learning. An Australian study surveyed 167 Monash science graduates and found that generic skills were more important to them for their job than discipline specific skills (Sarkara, Overtona, Thompson, & Raynerb, 2016). Another Australian study surveyed 415 second and third year students from four universities,

in biosciences, health sciences, IT and social sciences, (Bennett et al., 2015). They found only 53% of students believed their degree would give them the skills and knowledge they required for a career.

To improve job prospects, students asked for development of generic skills, and for industry experience, with a closer match of studies to professional practice, because educators were not sufficiently industry aware, (Bennett et al., 2015). This confirms the earlier findings of Crebert, Bates, Bell, Patrick and Cragnolini (2004), at Griffith University surveyed 164 engineering, criminology and leisure studies graduates. Although only a 25% response rate was achieved, across disciplines, requests were consistent for greater practical emphasis in courses, more work placements and greater input from industry. O'Leary (2016) in the UK, surveyed 104 graduates from sciences, humanities, engineering and social sciences and found nine in ten graduates wanted employability to have greater emphasis in higher education, but the discipline link had to be maintained. The benefits included better understanding of employer needs (70%), improved student capabilities (55%) and the development of character and confidence (49%). The importance of teamwork, being given responsibility, and collaborative learning from placements was noted by Crebert et al., (2004). Tymon (2011) found work experience was considered essential to gain ES identified by business, marketing and human resources management students including communication skills, teamwork, information technology, planning and organising also flexibility and adaptability, being hard working, showing commitment and dedication. Findings from these studies consistently present students' and graduates' views that ES should be addressed in higher education, and through discipline based practical experience. This helps students understand the relevance of their studies to future work.

Disparity between what employed graduates identify as important ES and what was addressed in their degree has been reported, (Koppi & Naghdy, 2009). When the CBI (2008) surveyed 880 undergraduates from 20 HEIs, 29% considered their numeracy skills inadequate, although their highest priority was need for training in leadership and management skills. Durrani and Tariq (2012) voiced the concern of graduates that some academic programs did not provide opportunities to develop numeracy skills.

Oliver et al., (2011) found that Australian accounting graduates ranked thinking critically and analytically, using IT, communication skills, industry knowledge, teamwork and problem solving were the most important skills they needed on the job. However, they felt that their course contributed very little to development of speaking skills, problem solving and cultural awareness; and only somewhat to industry awareness, ethics, teamwork and writing skills. Engineering graduates in Sweden claimed that commercial awareness, leadership, analytical and problem solving skills were not well developed at university (Nilsson 2010). Engineering, criminology and leisure studies graduates asked for more oral presentations, written assignments, project work, leadership training, IT; and a greater emphasis on business administration skills (Crebert et al., 2004). Gedye, Fender and Chalkey (2004) in the UK, mailed a survey to 102 geography graduates and achieved a 52% response rate. They found that the course paid too little attention to job-search skills (77%), verbal presentation (61%), leadership (51%) and IT (40 %). Although university and class of degree have been found essential for getting a job (Brown & Hesketh, 2004) and graduates' views of university courses were strongly positive with respect to learning subject knowledge, Hinchliffe (2008) concluded courses have not been found useful for learning ES. The range of ES that need to be improved in higher education appears to be discipline and/or course specific, although there are some commonalities. However, graduates' views on HSM skill requirements are not known.

Some studies have looked at graduate's self-ratings of their ES. In a survey of graduates from 36 Australian universities shortly after course completion, most full-time employed bachelor degree graduates felt that they possessed high levels of skill for learning, teamwork, problem solving and communication (GCA, 2013). However, for IT and initiative/enterprise only 58.9% and 57.7% respectively rated their skills highly. This contradicts Ferns (2012) where graduates felt their IT skills were good. She found that employers and graduates agreed on the importance of knowledge, writing, speaking, problem solving and teamwork but only for IT did employers perceive graduates adequately prepared. Saunders and Zuzel (2010) found graduates typically rated their skill levels more highly than did their employers. Interestingly Wickramasinghe and Perera (2010) found gender differences in self-

rated ES (females rated their ES more highly than males) with engineering students in Sri Lanka, but most graduates agreed that their ES were deficient.

Clearly, there are limitations when relying on students' and graduates' views of ES. Graduates cannot identify the learning activities useful to help develop ES (Arnold, Harrington & Hart, 1999) and cannot cite evidence that skills have been developed (Fallows & Steven, 2000). Furthermore, students were often not aware that achievements might be of value when presenting job applications (GCA, 2016b). Research from the Dearing Report (1997) in the UK (The National Committee of Enquiry into Higher Education) concluded that undergraduates do not automatically see the relevance of what they are learning; or make connections between the situation in which they learn and the opportunities to use their learning or transfer learning between work and university. Andrews and Russell (2012) found that students did not necessarily avail themselves of opportunities to develop ES or articulate skills they possessed. Bennett (2016) confirmed that graduates lacked confidence in their ability to find work and to present their skills and knowledge to potential employers or clients. These findings imply that the way graduates sell themselves to prospective employers may not reflect the skills that employers are seeking. Students who could exhibit ES, achieved superior labour market outcomes, (Mason et al., 2009). There is a need to determine graduate understanding of the ES they possess and for higher education to assist students to articulate these skills.

2.8.   Role of HEI

The Allen Consulting Group (2004, p. 38) report to DEST stated that ES may be "fostered through both formal and informal learning and in a variety of contexts, including educational institutions and workplaces", at home, and in sporting and leisure activities. Hirst (2002) also included ES gained in voluntary and part time work. However, few research articles in Australia on the range of experience that may develop ES outside education settings were found. According to Mason et al., (2009), higher education policy in the UK rested on certain assumptions including that ES can be effectively developed in higher education, that there is agreement about what ES should be developed, and once developed that such skills can be transferred into employment. However, their literature review also found little

empirical evidence to support assumed outcomes and little agreement about what it is in higher education that may impact on ES.

Thirty academics across two unspecified courses in Australia were confident about teaching and assessing ES, but feedback from the other stakeholders suggested a significant gap in acquisition of these skills (Ferns, 2012). In the United States, faculty staff rated interpersonal skills, work ethics, leadership, critical thinking and literacy/numeracy as important skills for job performance (Rosenberg et al., 2012). The need for additional training in ES was the main finding from other stakeholders. Additionally, they were surprised that training in work ethics was not viewed as important by academics, contrary to employers' views and the recent literature. Such gaps were suggested to exist because academics were disconnected from industry and lacked experience in the field (Jackson & Chapman, 2012). This could be exacerbating ES gaps. Sharing responsibility with industry to teach such skills was suggested. However, despite policy endorsement and consensus on developing non-technical skills in higher education, many academics remain opposed to aligning curricula with industry requirements (Jackson & Chapman, 2012). Ongoing reform was recommended to address identified skill gaps.

2.9.   Work Integrated Learning

Crebert et al., (2004, p.153) found placements enhanced employment prospects and eased transition into work because of focus on teamwork, group projects and problem solving, which developed oral communication skills, provided opportunities for leadership development and fostered ethical standards. Debriefing and reflection on experience promoted learning. Mason et al., (2009) also found that found that employer involvement in courses and structured work experience was beneficial, but academic department involvement in explicit teaching and assessment of ES was not significant. Litchfield, Nettleton and Taylor (2008) also noted problems engaging academics in integration of required attributes into their teaching. Moreau and Leathwood (2006b) reported that students found it essential but not all Work Integrated Learning (WIL) experiences were of equal value: in practice, their quality varied. Cramner (2006) concluded some studies have found work experience during higher education is positively associated with finding the first job. However, not all

students exhibit similar levels of motivation or learning on the job (Van der Rhea, Verma, Plaschka, & Kickul, 2007).

The criticisms of higher education teaching of ES include not making embedded ES explicit, a problem which can be addressed through assessment practices (Ramsden, 2003). He argues that assessment requirements are strong influences on the approach to learning a student adopts. Demonstrating where ES can be developed and their value for future employment is needed. Graduate perspectives on how their ES were developed may throw some light on this too. Although there has been some change towards competency based teaching (Jackson, 2009b; Fleming, Martin, Hughes & Zinn, 2009) resistance to change from academics, especially in health-related programs (Calhoun, Spencer & Buekens, 2011) is an ongoing problem.

2.10.   Summary

Bennett (2002, p. 453) argued that transferable generic skills make people work ready and enable them "to participate in a flexible and adaptable workforce". However, there is an underlying assumption that development of ES will add value to higher education courses and better position graduates with work ready skills in a competitive global market. Evidence for these outcomes remains to be seen. The gap between employer requirements and skills graduates acquire has not improved, possibly explained by failure of higher education to actively engage with employers and lack of agreement as to what constitutes ES. There are different definitions and conceptions of what constitutes ES by industry, employer or higher education provider, and little research into graduate perceptions of ES. Evidence from profession specific ES studies is needed given the context dependent nature of ES, which is the rationale for the current study of ES for HSM. The effect of ES in securing a job through to career advancement and how social justice in employment may be achieved requires on-going investigation. It is important to define and show graduates what employers want, and also how to record and demonstrate their skills to help gain employment. Even as students, understanding of where and how they get these skills is needed and they may need convincing that ES help secure employment. Profession specific profiles will provide useful feedback for curriculum development and for course marketing. The long-term effect on productivity and performance is the bigger picture to research, something that is likely to change as

the nature of work changes. This means that ES will continue to be important into the future and worthy of study.

CHAPTER 3

3.   RESEARCH METHOD

3.1.   Introduction

This chapter provides an overview of the study design, and the steps taken as explained in diagrammatic form, from literature review of the ES topic, to an integrative review study for content analysis of advertised job vacancies, which was used to design a specific study analysing HSM vacancies, followed by survey of health services managers and recent graduates working in the field. Details of the study setting, data collection for each stage including recruitment into the surveys, data coding and analysis are outlined. Ethical processes and considerations are consistent with the values of National Health and Medical Research Council (NHMRC, 2007). These are addressed and include research merit and integrity, justice, beneficence, respect and confidentiality, and an explanation of how rigour, validity and reliability.

3.2.   Research Design

This study used an exploratory comparative quantitative design to reveal new knowledge for practical application in the field. Stebbins (2001, p. 105) explains that in social science, exploratory research is a "broad, purposive, systematic, pre-arranged undertaking designed to maximise discovery of generalisations, leading to description and understanding of an area". It is descriptive in the sense that it describes characteristics of a phenomenon, in this case employability skills, but rather than describing how, why and when, it focuses on the "what" question, that is, what ES are required for HSM? The descriptive categories used are quantifiable and allow for basic frequencies, means and *t* tests to be applied. Generality is therefore limited and causation is not explained as a result. Such a design is characterised by no manipulation of independent variable, no random assignment to groups, but often includes a control or comparison group (Cantrell, 2011). In this study comparisons were made among senior health managers' and recent graduates' perceptions about ES, and advertised requirements, namely essential skills listed in job vacancy advertisements. Using several sources of information like this is termed a

27

triangulation fix by Denzin (2006). Given that information specific to ES in HSM is not readily available in the literature, it was important to use a number of sources to improve reliability of findings and maximise validity of results to contribute to knowledge (Siedlecki, 2013). In the absence of a theoretical basis for this field of research, it is appropriate to use an exploratory research design (Creswell, 2014). This design was commonly used in the literature presented in the previous chapter, where survey research was typically used.

The research design is the blueprint for research activity and is best explained by the Diagram 1. The literature review revealed approaches taken to identify ES for various disciplines and perspectives such as employers, students and graduates, academics, professional bodies and advertised requirements in refereed literature. The grey literature revealed large scale government reports on the topic of employability, required skills and skill gaps. This discussion assisted in design of the study, the decision to survey both senior health managers and recent graduates, and selection of survey questions.

Figure 1: Research Design
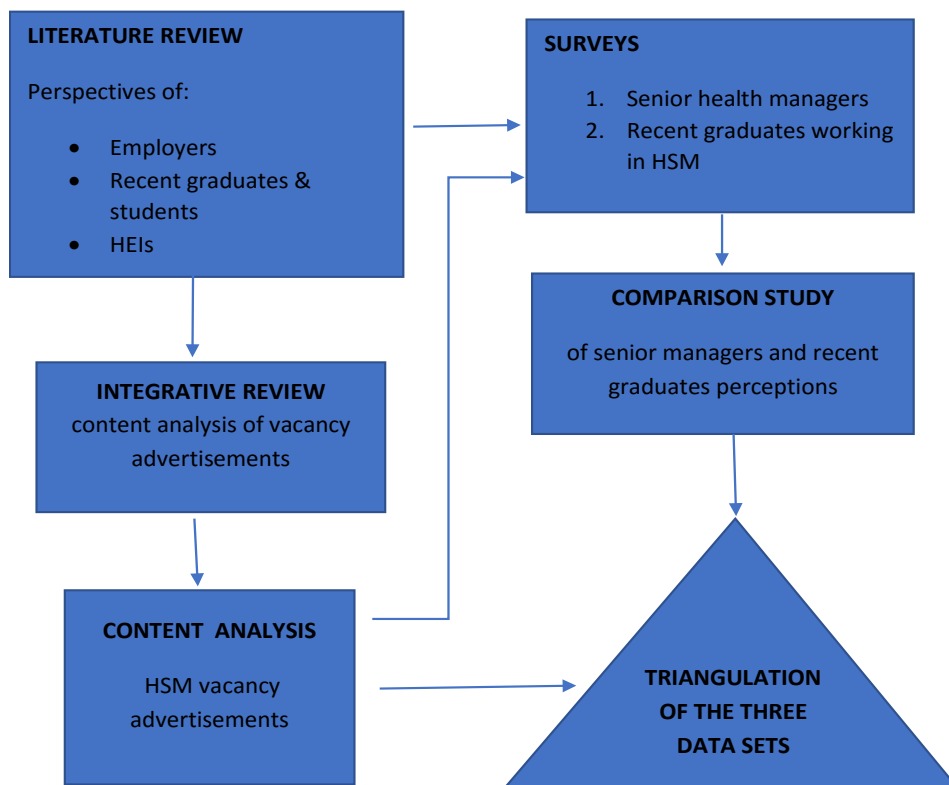
The literature review led to the decision to consider using content analysis of essential requirements in job vacancy advertisements. To secure better understanding of the use of content analysis for analysing job vacancy advertisements, an integrative review was performed, and published, as presented in Chapter 4. Based on recommendations from this review, content analysis of 100 vacancies for health management positions was performed, and published, as shown in Chapter 5. This study further helped in the selection of items for the five point scales used in the surveys of senior managers and recent graduates. The perceptions of senior practicing HSMs were sought about importance of various ES and skills levels observed in entry level health managers who had graduated in the last three years, that they supervised. Simultaneously, the perceptions of recent graduates about importance of various ES and self-rating of skills levels were surveyed. Both studies were successfully published and are presented in Chapters 6 and 7. A comparison of findings from these two surveys was presented at the national conference of the Australian Collaborative Education Network in 2016, winning the award for best refereed paper (See Appendix B). An expanded paper was subsequently submitted to a special edition of the *Asia-Pacific Journal of Cooperative Education* and is currently under review (see Chapter 8 for related paper).

3.3.   Setting of the Study

The setting was New South Wales (NSW) using a large metropolitan university as the survey study base. Recent graduates from 2010-2012 and supervising senior health managers known to the university through their placement data bases were surveyed. The advertisement content analysis study also focused on NSW job vacancies from September to December 2009.

3.4.   Collection of Data

3.4.1.   Articles for the integrative review

Details of how papers were selected for the integrative review may be found in Chapter four. Peer reviewed publications analysing vacancy advertisements for graduate ES were sought using electronic search engines and Google scholar, and references lists were also scrutinised. The search was limited to English full text articles, from 1997 through to 2015. The same search engines were used as in the

literature review as already discussed in section 2.2. Key words included ES, competencies, capabilities, job, recruitment or vacancy advertisements, job audit, generic skills, soft skills and content analysis. Search alerts were set up to capture recent publications. In the process of updating the original literature search, for this thesis, 54 articles were found, however after duplicates were removed, this left 48. These were screened to see if author(s) had conducted similar studies and only the most recent articles or those which used a different methodology were selected. This excluded another eight, leaving 41 full text articles. Lastly, one review article was removed.

3.4.2. Collection of job vacancy advertisements

As explained in Chapter 5, commencing mid-September 2009, a census of all consecutive job vacancies for New South Wales HSM graduate positions was collected prospectively, using the classified advertisement sections of major newspapers, the *Sydney Morning Herald* and *The Australian* and from the internet sources Seek and MyCareer. With a target of 100 advertisements it took three months to collect that number. Pre-defined search criteria were set consistent with online search engines for consistency including NSW, graduate positions, the fields of general health and medical excluding nursing and allied health; job title eg, manager, administrator, team leader, project officer, manager or co-ordinator; sector; work type eg full or part-time, contract, casual and temporary, with a salary ceiling of $65,000. For online advertisements alerts were set up, for which emails were received weekly and photocopies of each advertisement kept. The newspapers were read once per week and photo copies of advertisements taken. Duplicates were removed.

3.4.3. Survey questionnaires

Details of the survey data collection method is provided in publications presented in Chapters 6 and 7, for senior health mangers and recent graduates respectively. For the surveys of senior health managers and recent graduates, where possible, common questions were asked including the ES listed for rating. Questions were derived from the literature, with job specific items based on ES found in the content analysis of HSM job vacancies. A total of 44 items were clustered into four sub-scales for rating

of importance of skills using five point Likert scales ranging from not important (zero) to very important (four). The same items were also rated for the extent to which they observed recent graduates possessed these skills, from no skills i.e. requires training and development (zero) to excellent rated four. They were set out to encourage comparison of importance and observed ratings. The managers were also asked for some demographic information namely gender, position, how long they had worked there and also in the health arena, sector of employment. Information about graduates was sought relating to how work readiness was assessed, number of graduates employed, characteristics that differentiate the more successful graduates, professional competency development opportunities available to new graduates at their organisation, potential involvement with HEIs, anticipated trends and changes that are facing the professional area/industry over the next 3-5 years, and their ranking the top ten ES required.

Recent graduates rated importance and self-rated their own skill levels on the same 44 scaled items and demographic information. Additional questions covered how the job was found, relevance of completed degree, how work readiness was assessed and their ranking of top ten ES. Both survey forms are attached in Appendix C.

3.5.   Recruitment into the Study

An important consideration included identifying current senior health managers and recent graduates defined as having graduated in the last three years, to ensure currency of feedback about their ES. Convenience sampling occurred using a large metropolitan university placement data base which included contact details for both groups. Participants were invited by email to participate in an anonymous survey. The study was also advertised by word of mouth and LinkedIn. A total of 40 New South Wales senior health managers supervising students were invited to participate, once the university session commenced in 2013. Two recently appointed managers declined, stating that they had too little experience in the health sector, yielding a response rate of 95%. Equal numbers of males and females responded. However, it took three months for all surveys to be returned. Potential participants received a recruitment package including an information sheet about the study (Appendix D) and participation was voluntary. Participants worked in NSW only and in HSM

positions. Demographic details, job title, sector of employment and employment mode (work type) are reported with findings in Chapter 6 for the senior managers.

Recent graduates were found through graduation lists for the same large metropolitan university in New South Wales, as former students of the bachelor's degree in HSM 2010-2012. Contact details were obtained from the same placement data base as reported in Chapter 8. Students currently enrolled into the Masters of Health Science (HSM) were also emailed and included graduates from a range of educational backgrounds. The limitations of such convenience sampling have been acknowledged in Chapter 8. A total of 42 responded, 15 males and 27 females, a response rate of 84%. Reasons for non-response included out of date contact address for six former students, but for two reasons are not known.

3.6. Data Coding and Analysis

3.6.1. The integrative review

The qualitative checklist of ten questions from the Critical Appraisal Skills Program (CASP), (NHS, 2016) was applied to all 40 papers collected. The first three questions relate to clarity of the goal statement, appropriateness of qualitative method and justification of the research design. Authors, country where the research occurred, year and journal of publication were also tabulated. CASP appraisal questions about research method were also applied: the recruitment strategy eg advertisement selection; if it is clear how data were collected; whether the researcher examined their own role and potential biases; if data analysis was sufficiently rigorous eg how themes were derived, sampling method and sample size; clear statement of findings, limitations and value of the research. The last CASP question about ethics approval and consent is not relevant because data from advertisements is available in the public domain. Frequency counts were performed of findings relating to data sources, data sampling, the numbers of advertisements analysed, data coding methods and analysis, and rank ordering of ES found.

3.6.2. Content analysis of HSM advertisements

The content of collected advertisements was transcribed manually onto Excel spread sheets verbatim, by a research assistant. Column titles for data entry included job

title; employer and location; salary and essential job requirements. A pilot study identified common descriptors and assigned similar terms to categories. A panel comprising the Dean of Research Studies at University of Western Sydney (UWS) and a Professor from the School of Family and Community Health, UWS determined the categories. For example, CS meant that communications skills were required and if further details were included such as presentation skills, writing skills, or oral communication skills, this was also recorded. All codes were double checked by the PhD student and any discrepancies referred to the panel. Only two typing errors were found.

Enumeration included manual tally of employer, location; salary the number of different descriptors identified (35) and their mean number per advertisement, also ranking of frequency of ES requirements. These were compared with the DEST top ten ES as well as with health manager (profession specific) competency requirements from the ACHSM (2015) and overseas HSM colleges.

3.6.3. Surveys

All but one senior health manager returned the survey questionnaires by email, and return of the completed survey was considered as consent to use the data collected. Returned surveys were printed, checked for omissions and only identified by code number for data entry. The one survey returned by mail was discarded because the respondent had not noticed that the survey had been printed two sided and did not provide responses to half of the questions. One respondent sent a completed questionnaire by mail but also emailed their reply, but matched responses and handwriting was picked up by the coder and only one version used. Only three surveys were returned by mail from recent graduates, the others were all emailed. The content of these surveys was then transcribed onto separate Excel spread sheets one for the managers, one for the recent graduates, by a research assistant. Column titles for data entry included demographic information, verbatim coding of open-ended items and scores for the 44 Likert scale items. All codes were double checked by the researcher.

All quantitative questions were copied across from the Excel spread sheets into SPSS version 20: one data set for the senior managers, the other for recent graduates. The ES items were checked for internal consistency using Cronbach's alpha. Factor

analysis was not attempted given the small sample size. With respect to the senior managers' data set, for the total of 44 items, internal consistency was strong with a Cronbach's alpha coefficient of 0.89. The reliability of sub-scales was also examined. Four of the five sub-scales with the exception of the experience and knowledge of health sub-scale, achieved a satisfactory Cronbach's alpha over .7, (ranging from .82 to .92), suggesting good internal consistency, meaning they were measuring the same underlying construct. It is common to find quite low Cronbach values with scales of ten items or less (Pallant, 2013), so the four experience/knowledge items were combined with job specific skills to total 18 items and this improved Cronbach's alpha coefficient to .87. The experience/knowledge of the industry sub-scale was originally included because this selection criterion was found frequently in the advertisement analysis study (Chapter 5) and was ranked fifth in importance in the 2013 GCA survey. Additional analysis included paired samples *t*-tests for comparison of importance and observed skills levels in recent graduates that they supervised, with p set at 0.05, two tailed test as appropriate for an exploratory study (Pallant, 2013).

The ES items from the recent graduates' surveys were also checked for internal consistency using Cronbach's alpha. For the total of 44 items, internal consistency was strong with a Cronbach's alpha coefficient of 0.93. Furthermore, the four sub-scales achieved a satisfactory Cronbach's alpha over .7, (ranging from .82 to .92), which according to Pallant (2013) suggest good internal consistency, meaning they were measuring the same underlying construct. Other analysis included paired samples *t*-tests for comparison of importance and self-rated skills with p set at 0.05, two tailed test for an exploratory study.

3.7.   Ethical Processes and Considerations

The NHMRC *Australian Code for the Responsible Conduct of Research* (2014) and the *National Statement on Ethical Conduct in Human Research* (2007, updated May 2015) were followed in this thesis. The project was subject to peer review through the Confirmation of Candidature (CoC) process undertaken as part of the program of doctoral studies at the UWS to ensure research merit and integrity. After CoC approval, national ethics approval was sought and gained without amendment, from the UWS Human Ethics Committee (University of Western Sydney, number H9344,

9 July 2013), as provided in Appendix E. How ethical principles and values of integrity, respect for persons, justice and beneficence were addressed, will now be discussed.

3.7.1. Research merit and integrity

The research merit and integrity of the study was confirmed by the CoC as contributing to understanding and current knowledge of ES requirements for HSM. Independent transcription of the content from analysis of advertisements occurred, and was verified by an independent panel. The same procedure was followed with data entry for the surveys of senior managers and recent graduates. Additionally, expert statistical analysis and support was sought from the university, acknowledged and followed. Results of the research were subject to peer scrutiny at the annual symposiums of the Society for Health Administration Programs in Education (SHAPE), which includes special discussion sessions for presentation of PhD research. Presentations were accepted here and by ACHSM/ACHS international congresses. These are the two peak bodies in Australia for HSM. Findings were also presented at the ACEN national conference, as well as annual Research Futures Forums at the university, for further scrutiny. Subsequent scrutiny from publication processes throughout the candidature also helped ensure research integrity. Winning the award at the ACEN Conference November 2016 for the best peer reviewed paper is some evidence of research merit.

3.7.2. Justice

As required by the NHMRC, procedures for confidentiality and anonymity were put in place to ensure justice and beneficence and to safeguard participants from harm. A participant information pack (Appendix D) was emailed to senior health managers explaining the aim of the research, ensuring confidentiality through anonymity, explaining the value of the study and voluntary involvement and included details of the doctoral candidate. The questionnaire (Appendix C) was emailed, for anonymous return by Australia Post to the university. This return of the questionnaires implied consent. The same procedure was replicated with recent graduates. All health managers and recent graduates on the placement data base for HSM were considered eligible for study inclusion and invited to participate.

3.7.3. Beneficence

While there were no direct or immediate benefits to the participants, research results aimed to improve curriculum relevance for HSM, something in which employers have a vested interest. This is because findings may help develop ES of graduates, thereby improving the potential employee pool for employers. Advertising of vacancies can be enhanced reflecting ES requirements with common understanding of the terminology used. The information graduates provided will offer insights for future graduates: feedback from the survey can clarify employer skill expectations of new graduates, what can be expected at interview and on the job. Ability to articulate ES in job applications and at interview may improve. Possibly skill gaps can be identified by recent graduates useful for targeting ongoing professional development. The study was also evaluated as low risk under NHMRC (2007) guidelines, and was confirmed by willingness of participants to return survey forms. In the participant information pack, reference was made to counselling services available should unforeseen negative consequences from participation occur.

3.7.4. Respect and confidentiality

Confidentiality was maintained by saving files on a password protected computer. Questionnaires were anonymous, and to avoid respondent identification by email address, were printed on receipt and the original email deleted. The independent research assistant only received hard copies. The level of descriptive detail sought was not considered threatening and participants could omit any questions if they wished. A high survey response rate and full completion of forms, with the one exception already mentioned, suggests that this was the case. To ensure respect, the data entry assistant was not aware of the names of any participants invited to participate in the study, which helped protect anonymity. In addition, participants were assured that only aggregated data would be disseminated. Hard copies of the returned questionnaires were stored in a locked filing cabinet at Western Sydney University. Other than the principal researcher no one else had access to the cabinet. Electronic data was password protected, the password only known to the PhD candidate. After five years, the hard copies will be shredded and electronic copies erased.

3.8.   Establishing Rigour, Validity and Reliability

Essential elements in any research study to ensure credibility include transparency of procedures for study rigour, validity and reliability. Therefore, in seeking to ensure rigour, validity and reliability in this study certain strategies were put in place.

3.8.1.   Rigour

An accepted standard for establishing rigour involves application of the CASP (NHS, 2016), which is extensively used in health research. CASP appraisal questions about research method relate to the recruitment strategy; how data was collected; whether the researcher examined their own role and potential biases; if data analysis was sufficiently rigorous; clear statement of findings, limitations and value of the research. CASP underpinned the extensive literature review in this thesis, undertaken to identify stakeholder perceptions of ES, and was used in the integrative review publication (Chapter 4). The lack a theoretical base or conceptual framework to organise empirical research has held back research into ES. When investigating an issue about which little is known, Struwig and Stead (2013, p. 7) identified three possible options, one of which was to survey individuals who are likely to have opinions on the subject. They argued that this is an acceptable exploratory strategy which can be strengthened by information from more than one source. Surveying senior health managers and recent graduates working in HSM is therefore an appropriate research method.

3.8.2.   Validity

To ensure validity, the relevant populations (ie. senior health managers and recent graduates working in HSM) were recruited via convenience sampling (Siedlecki, 2013). Face and content validity (Creswell, 2014) was assured in the development and administration of questionnaires by using appropriate experts to review content. Firstly, the independent panel reviewed questionnaire content, looking for understandability, logical ordering and inclusivity of scaled items about ES. Then three practicing senior health managers were asked to review the draft ES scales, looking for omission of items and agreement was secured for face and content validity. Agreement was sought that items subjectively measured ES (face validity) and that the scales sufficiently represented all facets of ES (content validity). The

revised questionnaires were pilot tested with three recent graduates and three health managers. Questionnaires were also subject to statistical analysis of quantitative data for internal validity using Cronbach's alpha. Steps were taken to ensure objectivity and accuracy in data entry and coding, with double checking of entries and use of an independent panel to resolve discrepancies in coding. The methods used to analyse data were confirmed through consultation with university statisticians as credited in the acknowledgements to this thesis. Although the sample size was too small for factor analysis to identify underlying constructs, and health managers declined the option to be contacted for follow-up interviews, comparison of findings across groups adds weight to findings.

3.8.3. Reliability

Reliability is evident in acceptance of findings for presentation at industry events, particularly at SHAPE symposia where thoughtful discussion promoted study rigour. Acceptance of articles for publication and ongoing citation of publications on the Research Gate website suggest recognition of the reliability of findings. Sufficient detail of study processes in published findings assists with confidence in reliability of findings, but study external validity for generalisability of findings is limited by sample sizes (Pallant, 2013) and dependant on replication. Indeed, a purpose of exploratory study is to stimulate further research.

3.9. Summary of Research Process

Care was taken to ensure and protect the research integrity of this study, through university support from PhD supervisors, CoC and ethics procedures, consultation with experts in the field, and through presentations at scholarly symposia and conferences. NHMRC principles and values for human research guided the study.

CHAPTER 4

4.   CONTENT ANALYSIS OF VACANCY ADVERTISEMENTS

4.1.   Publication

Messum, D., Wilkes, L., Peters, K., & Jackson, D. (2016). Content analysis of vacancy advertisements for employability skills: Challenges and opportunities for informing curriculum development. *Journal of Teaching and Learning for Graduate Employability, 6*(1), 72-86. DOI: http://dx.doi.org/10.21153/jtlge2016vol7no1art582

4.2.   Relevance to thesis

This paper presents a qualitative integrative review of 40 studies looking at ES, through the use of content analysis of job vacancy advertisements. The value of the study was that it identified current skills required across countries and over time for many professions. Using the CASP (NHS, 2016), a checklist for qualitative research, revealed the range of application, research methods used and findings also the advantages and challenges associated with analysing job vacancy advertisements. The main value for the thesis was that recommendations emerged as to best practice in use of the method. It also revealed the most common ES across different professions and over time.

Content analysis of vacancy advertisements for employability skills: Challenges and opportunities for informing curriculum development

Diana Messum[1], Lesley Wilkes[1], Kath Peters[1] & Debra Jackson[2]

d.messum@uws.edu.au; l.wilkes@uws.edu.au; k.peters@uws.edu.au; djackson@brookes.ac.uk

[1]Western Sydney University, [2]Oxford Brookes University, UK

Abstract

The process of curriculum development can be informed by seeking the views of stakeholders, including employers, academics, students and recent graduates, about the skills, attributes and personal characteristics required by various professions. The views of several stakeholders may also be compared to help ensure reliability of results and identify areas of agreement or variance. However, there are documented limitations regarding the perceptions of academics and students of employability skills, and also problems with employers' and recent graduates' views. Another approach to identifying the skills required in various professions is content analysis of job vacancy advertisements. Content analysis of advertisements is a versatile way of identifying current skills required by various professions, and allows comparison across countries and over time to identify trends. Yet there is little evidence to suggest that this information is used to inform curriculum development. This paper presents a qualitative integrative review of studies looking at employability skills (ES) through the use of content analysis of job vacancy advertisements. Here ES are equated with essential requirements stated in vacancy advertisements. ES is the term adopted in Australia by DEST (2002) to define skills required to both secure employment and progress in an organisation. The Critical Appraisal Skills Programme (2014) checklist for qualitative research was used in this integrative review of 40 studies. The range of application, research methods used and findings are discussed in this paper, as are the advantages and challenges associated with analysing job vacancy advertisements as a method of identifying employability skills (ES) required by employers.

Key words: employability skills, generic skills, content analysis, advertisements, job vacancies

Introduction

Adequately identifying the required skills of professions and industry is important in higher education institutions (HEIs) to ensure that curriculum remains relevant and current, thereby yielding high rates of graduate employment (a sector performance indicator) and attracting new students. The requirements of industry must first be clarified for employability capabilities to be embedded in the curriculum and to help ensure the work-readiness of graduates, consistent with the recent *National WIL Strategy* (Universities Australia, 2014). Furthermore, the contextual nature of employability skills (ES) has long been recognised (DEWR, 2012), which means that industry specific ES need to be identified. Although industry generally appears satisfied with the discipline-specific skills of graduates, there is ongoing evidence that ES are under-developed (Precision Consultancy, 2007; Graduate Careers Australia (GCA), 2015). While employer preferences for graduates who can 'hit the ground running' have been

reported (Ferns & Lilly, 2015; Semeijn, Veldon, Heijke, Vlueten, & Boshuizen, 2006; Ridoutt, Selby Smith, Hummel, & Cheang, 2005), deficiencies in written and oral skills (GCA, 2015; CBI, 2013; Archer & Davison, 2008) have been reported. GCA (2015) found deficiencies in self-management skills, planning/organising, initiative/enterprise and problem solving skills in their annual survey of a range of industries across Australia. Communication skills, teamwork and technology skills were rated better, but were still in need of improvement. In the UK, deficits in integrity, teamwork, problem solving, literacy, numeracy, critical analysis skills, planning, organising and self-management have also been reported by employers (Hinchliffe & Jolly, 2014; Tymon, 2011). These generic ES seem more useful than job-specific skills for coping with rapidly changing and complex work environments such as in the health field (Liang, Short, & Brown, 2006) and library information services (Harper, 2012). Although employee expectations for work readiness are also typically defined in terms of generic rather than discipline specific skills, with communication skills consistently emerging as the most important ES, it would appear that these are not being sufficiently demonstrated. In 2015, 23.4 per cent of Australian employers indicated that they had difficulty sourcing/recruiting graduates and would have employed more had they been available. This is a serious problem for employers given the cost of interviews and staff retention issues (GCA, 2015, p. 5).

The Australian Commonwealth Department of Education Science and Training (DEST, 2002) definition of employability skills which was used in this research encompasses the skills *not only to gain employment, but also to progress within an enterprise* (DEST, 2002, p. 143). This includes technical or discipline specific skills, knowledge, capabilities and personal attributes. More recently, the Australian *Employability Skills Framework* (2012) specified that ES are those skills and knowledge that enable employees to perform effectively in the workforce and apply technical or discipline specific skills: these are considered context dependent. Typically the views of employers (GCA, 2015) or students are sought in an attempt to ascertain those ES which should be included in curricula (Jackson, 2013; Nilsson, 2010). The views of recent graduates and academics have been reported (Oliver, Whelan, Hunt, & Hammer, 2011; Gedye, Fender, & Chalkey, 2004; Crebert, Bates, Bell, Patrick, & Cragnolini, 2004). Other sources of information include capability lists published by professional colleges (ACHSM, 2014) and the analysis of essential skills identified in vacancy advertisements (Messum, Wilkes, & Jackson, 2015; Harper, 2012; Varje, Turtianen, & Vaananen, 2013). However, skills to gain a job appear to be different from those required once a job is secured (Semeijn, Veldon, Heijke, & Vlueten, 2006; Messum, Wilkes, & Jackson, 2015). Bennett (2002) found that job advertisements aptly represent the skills and qualities that employers are looking for because the skills listed in the advertisements are carefully chosen to suit the position. It is argued that analysis of relevant job advertisements for current industry skill requirements may provide important information to inform curriculum development and may be useful for current or prospective students. This paper provides an integrative review (Whittemore & Knafl, 2005) of studies using job advertisements to identify skill requirements across a range of professions.

Research method

A literature search, (see Messum, Wilkes, & Jackson, 2011) of peer reviewed publications analysing vacancy advertisements for graduate ES was conducted. Electronic searches used Google Scholar to find peer reviewed articles and references lists were scrutinised. The search was limited to English full text articles, from 1997 through to 2015. Key search words included: ES, competencies, capabilities, job, recruitment or vacancy advertisements, job audit, generic skills, soft skills and content analysis. Search alerts were set up to capture recent publications. In the process of updating the original literature search, 54 articles were found. However after duplicates were removed, 48 remained. These were screened to determine whether author(s) had conducted similar studies and only the most recent articles or those which used a different methodology were selected. This excluded another eight, leaving 41 full text articles. Lastly, a review article was removed (Harper, 2012). A summary of the research strategy is shown in Figure 1.
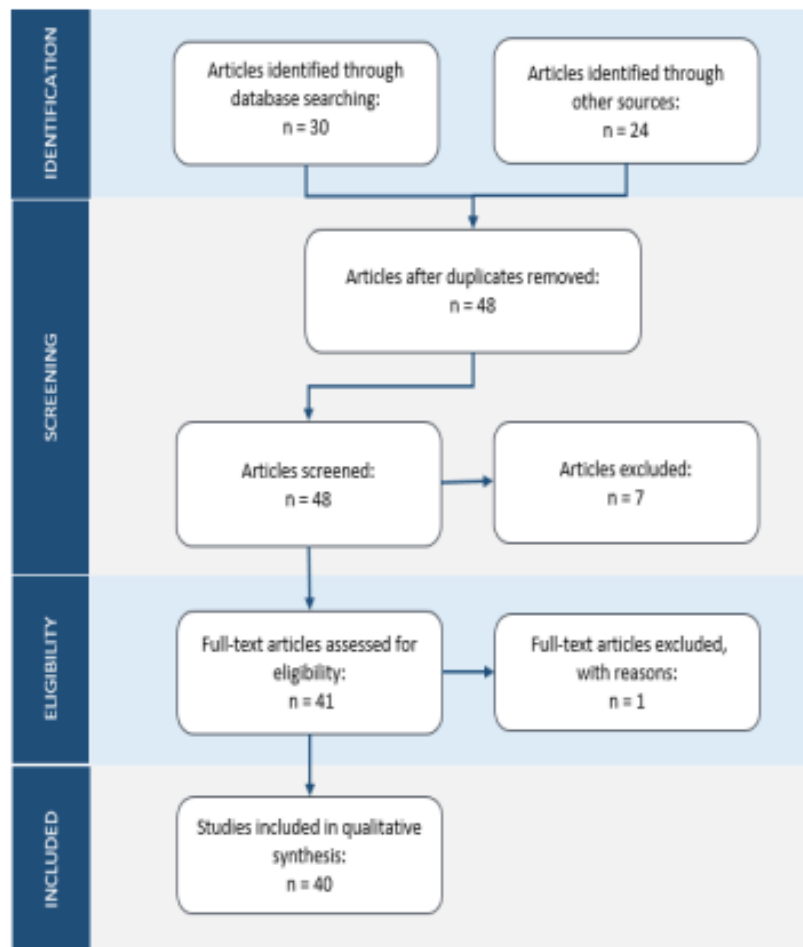
Figure 1: PRISMA 2009 Flow Diagram for Research Method

To critique the papers, the qualitative checklist of ten questions from the Critical Appraisal Skills Programme (CASP) from the UK National Health Service (2014) was applied. The first three questions relate to clarity of the goal statement, appropriateness of qualitative method and justification of the research design. The data generated included: authors, country where the research occurred, year and journal of publication, and goal statements, (Table 1). Further CASP questions relate to the research method, namely the recruitment strategy; clarity of data collection procedures; whether the researcher examined their own role and potential biases; rigour of the data analysis (e.g. how themes were derived), sampling method and sample size; clarity of findings and consideration of limitations; and value of the research (Tables 2-5). The CASP question about ethics approval and consent is not relevant because data from advertisements is available in the public domain.

Results

Studies analysing advertisements for ES from 1997 to 2015 were conducted in the UK, USA, Europe, Japan, Malaysia, Australia and New Zealand. All except three studies were published in profession-specific journals, for example various management journals, marketing, social work, advertising, information technology (IT), medicine, leisure and librarianship. None were found in journals relating to higher education and only two were retrieved from a human resources journal. One recent study was found on an employment website. This is consistent with the context specific nature of ES recognised by DEWR (2012). However, it means that exposure to the process and findings from content analysis of job advertisements, is limited.

Table 1: Publication Details and Study Intent

No	Author, year, country and journal	Goal statement and industry
1.	Redman & Mathews (1997), UK. *Public Personnel Management*	Recruiters requirements for public and private sector marketing and HRM managers
2.	Communal & Senior (1999), Britain, France, Germany. *Management Leadership & Organisational Development Journal.*	To identify if any differences and similarities in the characteristics required of managers can be explained by reference to the impact of culture.
3.	Hawkins et al. (2000), Australia. *Australian. Social Work*	Sought insight into advertised employment opportunities for social workers.
4.	Bennett (2002), London, UK. *Journal Vocational Education and Training*	To identify personal skills required in marketing, finance, general management and HRM.
5.	Arcodia & Barker (2003), US. *Journal Human Resources in Hospitality & Tourism*	To classify event management competencies, number of jobs available and track changes for course evaluation.
6.	Pember (2003), Australia. *Australian. Academic & Research Libraries.*	Knowledge and skills sought by employers for record keeping jobs.
7.	Cremin (2003), UK. *Sociological Review*	Incidence of personality traits describing the ideal corporate employee.
8.	Cullen (2003), Ireland. *Leadership & Organization Development Journal*	To identify sectoral differences in management cultures in Ireland.
9.	Johnson & Zlotnik (2005), USA. *Mentoring and Tutoring: Partnerships in Learning*	Use of mentoring as an ES for psychology academics.
10.	Chao & Shih (2005), USA. *IT, Learning, and Performance Journal*	Types of Information systems (IS) jobs in demand.
11.	Kennan, Willard & Wilson (2006), Australia. *Australian Academic & Research Libraries*	To monitor trends in ES requirements for librarians.
12.	Mar Molinero & Xie (2007), UK. *Journal of the Operational Research Society*	Skills employers want for operational research, job tasks and employment conditions.
13.	Den Hartog, Caley, & Dewe (2007), UK. *Human Resource Management Journal*	How do organisations find leaders? To what extent is the 'vocabulary of leadership' used.
14.	Marchal, Mellet, & Rieucau (2007), France and UK. *Human Relations*	Do online vacancy search engines connect or select for jobs as sales managers & engineers?
15.	Orme et al. (2008), UK. *Library Review*	Employers' requirements for library and information (LIS) professionals.
16.	Kennan et al. (2009), Australia. *Australasian Journal of Information Systems*	Knowledge, skills and competencies demanded of early career IS graduates.
17.	Massey (2010), USA. *Journalism and Mass Communication Educator*	Skills demand for multi-platform reporters. I.e. print, broadcast, the Web, and mobile devices.
18.	Sodhi & Son (2010), USA. *Journal of Operational Research*	To identify important ES and trends over time in operational research skills jobs.
19.	Wellman (2010), Wales, UK. *Marketing Intelligence and Planning*	To inform curriculum development in marketing.
20.	France (2010), NZ, Australia. *Journal of Business Ideas and Trends*	To identify differences between advertised expectations and pedagogy for management accountants.

Messum, D., Wilkes, L., Peters, K., & Jackson, D. (2016). Content analysis of vacancy advertisements for employability skills: Challenges and opportunities for informing curriculum development. *Journal of Teaching and Learning for Graduate Employability, 6* (1), 72-86.

21. Askehave (2010), Denmark. *Journal of Business Communication*	To analyse the way language is used to construct the ideal bank manager applicant.
22. Messum, Wilkes, & Jackson (2011), Australia. *Asia Pacific Journal of Health Management*	To identify current ES required of health managers and update course curriculum.
23. Wise, Henninger, & Kennon (2011), Australia. *Australian Academic and Research Libraries.*	To review and renew curricula for LIS. To identify skills in demand and decline.
24. Emery, Crabtree, & Kerr (2012), Australia. *Annals of Leisure Research*	Nature and diversity of employment required skill sets in sports management.
25. Ahmed, Capritz, Bouktif, & Campbell (2012), US, Europe, Asia and Australia. *Journal of Systems and Information Technology*	To find out whether employers' soft skills requirements for different roles of software development, are similar across cultures.
26. Reeves & Hahn (2012), USA. *Journal Education Library & Information Science*	To provide information on skill requirements for recent graduates, to update LIS curriculum.
27. Omar, Manaf, Mohd, Kassim, & Aziz (2012), Malaysia. *Asian Social Science*	Are graduates employable based on the current pattern of job demands?
28. Chipulu, Neoh, Ojiako, & Williams (2012). UK, USA, Canada, China, India, HK, Malaysia, Singapore. *IEEE Transactions on Engineering Management*	To explore key competencies for project managers, across multiple industries.
29. Quinn & Rochford (2013), Ireland. *Accountancy Ireland*	Role and characteristics required of management accountants.
30. Salleh et al. (2013), Malaysia. *International Business Research*	To explore and profile architecture industry-relevant competencies.
31. Kuokkanen, Varje, & Vaananen (2013), Finland. *Acta Sociologica*	To identify the ideal non-managerial employee.
32. Ahsan, Ho, & Khan (2013), NZ and Australia. *Project Management Journal*	To compare frequently advertised competencies for project managers by country and industries.
33. Cramer & Tenzek (2013), USA. *Journal of Health Care Chaplaincy*	To uncover trends in credentials and responsibilities expected of hospice chaplains.
34. Varje, Turtiainen, & Vaananen (2013), Finland. *Journal of Management History*	To analyse the changing representations of the ideal manager, 1949 to 2009.
35. Rear (2013), Japan and UK. *Asian Business and Management*	Identify changing work practices based on skills required in Japan and UK for IT, IS, engineering, manufacturing, banking, finance and retail.
36. Lavy & Yadin (2013), Israel. *International Journal of e-Education, e-Business, eManagement and e-Learning*	To map soft skills requirements in IT.
37. Broome & Gillen (2014), Australia. *British Journal of Occupational Therapy.*	To identify competencies required in high-demand areas of OT practice and compare with curriculum.
38. Harris (2014), Canada. Workopolis website	To determine the most in-demand skills by Canadian employers for all jobs, compared with posted resumes on the same website
39. Hong (2015), USA. *Journal of Geography*	To identify skill requirements of geographic information systems positions
40. Ooi & Ting (2015), Malaysia. *The English Teacher*	To examine the emphasis placed on technical and soft skills in job advertisements.

76

44

Study intent

The goals of the studies varied little. Generally they focused on providing insight into employment opportunities, namely types of jobs available and the skill sets, knowledge and competency requirements of industry, the relevant tasks and the diverse nature of a profession. Some compared competency requirements across countries/cultures (Communal & Senior, 2004; Ahsan, Ho, & Khan, 2013; Rear, 2013) or revealed institutional differences such as private versus public (Cullen, 2003; Redman & Mathews, 1997). All of the studies were based on a broad definition of ES, consistent with the DEST (2002) definition encompassing technical or discipline specific skills, knowledge, capabilities and personal attributes. Only one examined generic or 'soft' skills alone (Lavy & Yadin, 2013). Three focused on specific skills or requirements: the importance of personal skills, a UK government priority in response to employer criticism of graduates, (Bennett, 2002); and the language employers used to describe leadership (Communal & Senior, 1999; Den Hartog, Caley, & Dewe, 2007). The importance of experience as an essential job requirement was also identified (Salleh, Yusoff, Amat, Noor, & Suredah 2013).

Research was conducted to highlight not only current skills requirements, but also skills in demand or decline (Quinn & Rochford, 2014). Findings from analysing trends over time for particular professions were reported in accounting (France, 2010; Omar, Manaf, Mohd, Kassim, & Aziz, 2012) and librarianship (Kennan, Willard, & Wilson, 2006). Others undertook periodic analyses to understand skill changes and trends (Sodhi & Son, 2010; Cramer & Tenzek, 2013;) with the intention of keeping skill requirements up to date (Wise, Henninger, & Kennon, 2011) or determining what skill sets preserve employability in rapidly changing and often global fields (Kennan, Cecez-Kecmanovic, Willard, & Wilson, 2009). More recently studies have focused on identifying high-demand areas of practice within professions (Wise et al., 2011; Broome & Gillen, 2014). In Canada, Workopolis (2014) provided the most in-demand skills by employers across all job types, and compared the contents of online job postings with the available skills of candidates on the market to identify skill gaps. The Finns have sought to find a country's ideal employee across all jobs, analysing national newspaper advertisements, making comparisons over the last three decades (Kuokkanen, Varje, & Vaananen, 2013). They have also profiled the ideal manager using the same data sources (Varje, Turtiainen, & Vaananen, 2013).

Few studies sought information for the purpose of evaluating and renewing teaching and informing curriculum development (Wellman, 2010; Messum et al., 2011; Reeves & Hahn, 2012; Broome & Gillen, 2014). These studies explored the skills employers seek in recent graduates and the tasks they are expected to perform on the job. It was argued that although national competency sets exist for many professions, employer requirements may be different and present more up to date skill requirements useful for curriculum renewal (Broome & Gillen, 2014). Even if this was not the original intention, findings from other studies noted the implications for curriculum development (Lavy & Yadin, 2013; Emery, Crabtree, & Kerr, 2012; France, 2010; Kennan et al., 2009; Arcodia & Barker, 2003). Certainly employers have seen value in listing frequently used competencies to attract potential employees as opposed to using competencies described in the literature and from professional bodies (Reeves & Hahn, 2012; Cramer & Tenzek, 2013).

Data

Data sources

Table 2 summarises data sources and shows that nearly half the studies used online job recruitment sites and very few used professional publications, or employer websites. More recently, web based sites appear to be the major source of job vacancies. From one (Omar et al., 2012) to as many as 13 online sites were used (Emery et al., 2012). Print media was less

frequently used unless historical trends were being researched as in Finland (Varje et al., 2013).

Table 2: Data Sources

Data sources	N	%	Article number in Table 1
On line recruitment sites	19	47.5	4, 5,10, 16,18,19, 20, 23-30, 32, 35, 38, 39
Major newspapers	11	27.5	2, 3, 6, 7, 8,11,13, 31, 34, 36, 37
Professional publications	4	10.0	1, 9, 12, 15
Employer corporate website	1	2.5	21
More than one of the above	5	12.5	14,17, 22, 33, 40

N=number

Sample size and sampling procedure

Table 3 reports the number of advertisements reviewed and sampling procedures. Sampling was purposive whether determined by source, for example, certain newspapers or online job sites, time period, place (e.g. a country), profession(s), sector of employment, or type of ES or experience requirements. All studies removed duplicates. Some set a target number of advertisements for collection, for example, 100, a time period such as three months, or sampled within a time period, for instance the first Saturday of the month, one week every three months or every third advertisement, typically to remove seasonal variations. A few used a random number generator when numbers were large to avoid bias in selection of advertisements for analysis. Sample size varied from only one advertisement used in multiple locations across a country to over 3000. Over 40 per cent collected 500 advertisements or more and 22 per cent collected over 1000. Only four collected under 100, while for two studies sample size was not stated (Cremin, 2005; Harris, 2014). Use of large samples may be explained by the more recent ready availability of data from online job sites.

Table 3: Data Sampling and Number of Advertisements Analysed

Data sampling and size	N	%	Article number in Table 1
Random sample:	5	12.5	
<100 ads	0	0	
100- 499 ads	4	10.0	1,15, 25, 35
>500 ads	1	2.5	4
NS	0	0	
Purposive sample:	20	50.0	
<100 ads	2	5.0	21, 33
100-499 ads	10	25.0	2, 8, 10, 11, 17, 20, 23, 26, 35, 40
>500 ads	7	17.5	12,14, 26, 32, 34, 36, 39,
NS	1	2.5	7
Census over set time period:	15	37.5	
<100 ads	2	5.0	6, 30
100-499 ads	5	12.5	5, 16, 22, 27, 29,
>500 ads	7	17.5	3, 9,13,18, 24, 28, 37
NS	1	2.5	38

N=number, NS= not stated

Messum, D., Wilkes, L., Peters, K., & Jackson, D. (2016). Content analysis of vacancy advertisements for employability skills: Challenges and opportunities for informing curriculum development. *Journal of Teaching and Learning for Graduate Employability*, 6 (1), 72-86.

Data coding, analysis and study rigour

Manual data analysis was used in the majority of studies to count the most frequently occurring skills required as shown in Table 4. Five more recent studies used NVivo, Provalis Simstat, Leximancer or Wordstat. Cross tabulations were performed for comparison purposes in seven studies. Statistical software programs were applied to the derived data in a quarter of studies only, which had large enough sample sizes. Few used a predetermined coding frame to categorise data into themes.

Table 4: Data Coding and Analysis

Data coding and analysis	N	%	Article number in Table 1
Manual frequency counts of all key words	16	40	3, 5, 6, 8, 10,12,14,15, 20, 22, 25, 29-31, 40
Manual tally using pre-set codes	10	25	1, 2, 18, 19, 24, 26, 27, 32-34
Manual tally selected key words only	4	10	7, 9, 23, 36
Mixed methods e.g. word counting software applied, or manual coding then proximal plots or cluster analysis	10	25	4, 11, 13, 16,17, 21, 28, 35, 37-39

N=number *More than one item could have been used

Study rigour and control of bias was not well addressed in most studies. Only six discussed any pilot study to develop a coding frame, and five checked coder reliability. Three followed up findings with focus groups or surveys to verify findings, for example to find out why skills were listed by managers (Bennett, 2002) or to clarify the meaning of a term such as leadership (France, 2010; Messum et al., 2011). Acknowledgement of study limitations was found in one third of studies only. Ten noted the need for follow up and triangulation with employers, recent employees or job applicants to corroborate findings, and/or the need for a larger sample or longer time period to collect data. Five mentioned limited external validity, due to incomplete coverage or non-inclusion bias such as internal hiring, use of only one data source, or findings from one country only. Coding problems due to ambiguity in interpretation and the lack of shared understanding of the terms used occurred in five studies. One study noted that the ES identified may not reflect actual hiring decisions (Cramer & Tenzek, 2013), or the job demands once hired (Massey, 2010).

Most commonly identified ES

Table 5 reveals that communication skills were the most commonly advertised skill requirement followed by teamwork, job specific skills and experience. However, communication skills were also variously identified as social skills (Redman & Mathews, 1997) and interpersonal skills (Wise et al., 2011) or listed as an item in a cluster of skills. Other studies viewed communication skills as a distinct skill separate from interpersonal skills (Den Hartog et al., 2007; Omar et al., 2012; Hong, 2015; Salleh et al., 2013). Rear (2013) concluded that communication skills mean different things in different countries. Six studies did not report specific ES, or focused on one ES only, for example leadership.

Table 5: Rank Order of ES found in Advertisements*

Findings	N	%	Article number in Table 1
Communication skills	25	62.5	1, 4-8,10,12,13,15,18,19, 22-27,30-32, 35, 36, 38-40
Teamwork	13	32.5	4, 6, 15,18,19, 22, 26, 27, 30, 36-38, 40
Job specific or technical skills	10	25.0	6, 12,16,18-20, 31, 32, 37, 39,
Experience	10	25.0	3, 6,10,15,16,19, 22, 24, 26, 28
Interpersonal skills	9	22.5	2, 6,11,13,15, 23, 30, 35, 39
Organisational skills, planning	7	17.5	4, 5, 8, 19, 24, 38, 40
IT, computing, software skills**	7	17.5	4, 6, 12,19, 22, 27, 38
Tertiary qualifications	7	17.0	3,15,16,18, 22, 31,37
Leadership	3	7.5	8,18,29
Personal qualities	3	7.5	1, 27,34
Creativity and innovation	3	7.5	1,19, 25
Analytical skills	3	7.5	8,18,22
Problem solving	2	5.0	12,38
Project management	2	5.0	8,18
Work independently	2	5.0	20,40
Other eg good fit, commitment, drive change, ethical, service orientation, LLL, time management, collaboration skills	6	15.0	23, 25, 26, 35, 36, 38

N= Number *More than one could be reported. ** IT skills for IT industry are listed as job specific skills.

Value of the research

Various claims about the value of the research were provided. Several confirmed that generic skills were as, or more important, than discipline specific skills to secure a job, (Chipulu, Neoh, Udechukwu, & Williams, 2012; Varje et al., 2013; Lavy & Yadin, 2013; Broom & Gillen, 2014). Longitudinal studies showed changing skill requirements over time with increased emphasis on soft skills rather than job or profession-specific skills (Hawkins et al., 2000; Quinn & Rochford, 2013; Cramer & Tenzek, 2014). Monitoring of market trends to define current skill requirements was well supported although cultural and other contextual differences were acknowledged, (Cullen 2003; Den Hartog et al., 2007; Ahmed, Capritz, Bouktif, & Campbell 2012; Reeves & Hahn, 2012; Kuokkanen et al., 2013; Ahsan et al., 2013). In fact one third (13) of the studies specifically recommended that HEI should use their findings for academic advising, updating curriculum and to help new graduates align with skill requirements of industry. They argued that HEI should teach generic skills required by industry: in particular communication skills and teamwork should be addressed. One study revealed a poor match between curriculum and professional competency lists (France 2010). Three studies saw value in current employees, employers, human resources managers or graduates using their findings (Ahsan et al., 2012; Ahmed et al., 2012; Messum et al., 2011). The importance of work experience was also confirmed and taken to support the importance of work integrated learning and industry placements, (Messum et al., 2011). The value of using content analysis of advertisements as a supplement to employer interviews to identify job requirements was also confirmed (Reeves & Hahn, 2012; Emery et al.,2012).

Discussion

Content analysis of job advertisements has been widely used by various professions to identify commonly required ES and trends in skill requirements. However, relatively few studies were found in many different refereed journals. This may explain why content analysis of vacancy advertisements is not frequently used to triangulate ES research. It appears to be a worthwhile alternative or adjunct to employer surveys, with the advantages of currency, accessibility and low cost. Researchers even argued that results from their research challenged professional competency sets and found current curriculum wanting, (France 2010; Messum et al., 2011; Broome & Gillen, 2014). One third of the studies recommended that findings be used to inform curriculum development. Furthermore, additional uses to required skills lists were revealed in this integrative review. For example, Askehave (2010) found advertisements attracted male rather than female applicants, when the potential employment pool of females was the larger. Furthermore, the wording of their advertisement restricted rather than attracted applicants: feedback useful to human resources departments. Regular monitoring of advertisements can identify trends in ES requirements, areas of high demand within a profession, and where jobs are located, which is useful information for recent graduates and careers advisors.

There were consistent findings emphasising the importance of generic skills such as communication skills and teamwork. Furthermore, such skills have remained important over time as shown from longitudinal analysis of ES trends in advertisements, (Varje et al., 2013). Massey (2010), concluded that skill sets are in transition, with a move towards generic skills rather than job or profession-specific skills (Hawkins et al., 2000; Cramer & Tenzek, 2014; Quinn & Rochford, 2013). These skills may well protect and preserve employability. For example, the ES that are required to secure a job as found in vacancy advertisements have been found to be somewhat different skill sets to those that help employees progress in the employing organisation (Semeijn et al., 2006; Messum et al., 2015)). The skills for successful long term employment need to be studied. However, definition of individual ES is not agreed. For example, this review revealed that communication skills mean different things to different researchers. In depth studies exploring words like personal attributes, leadership and soft skills, included in this review, help to clarify understanding. Use of agreed definitions on web-based job vacancy sites is also recommended.

The ES profiles that emerged varied not only by industry and discipline, but also by country or culture (Marchal, Mellet, & Rieucau, 2007; Communal & Senior, 1999; Quinn & Rochford, 2013; Rear, 2013; Ahmed et al., 2013; Cramer & Tenzek, 2014). Our review supports the conclusion of DEWR (2012) that ES are context specific. It means that lists of ES for school leavers or university wide graduate attributes may not be enough to help students identify skill requirements for their chosen profession. Listing of the most frequently required ES is a start, but their importance for various professions has been found to vary, plus discipline specific skills or technical skills and experience requirements need to be known. The recommendation from this review is that researchers need to use a broad definition of ES such as that offered by DEWR, and identify current, context specific ES. Although GCA (2015) provides annual updates on the most common ES required by industry, there is still a need to disaggregate data by discipline.

According to the literature, another important, if not the most important ES requirement, was experience (Orme, 2008). This review found one quarter of advertisements required experience. Chao and Shih (2005) found experience was listed in 67 per cent of advertisements, Wellman (2010) reported 52 per cent and Kennan et al., (2009) 50 per cent. Some studies found that it was even a requirement for new entry positions (Messum et al., 2011; Reeves & Hahn, 2012; Chipulu et al., 2013). This finding may help explain recruitment shortages identified by GCA (2015), and has important implications for HEI and work integrated learning, as well as employers. The wording used in advertisements may deter applicants if experience is emphasised or narrowly defined.

There is a need to improve rigour in content analysis studies of advertisements. Some authors used a predetermined coding frame to categorise data into themes, but problems were noted about agreement of coders. The majority of studies allowed their coding frames to be data driven, tallying the advertised skill requirements to identify themes. Sodhi and Son (2010) argued that manual analysis is superior to computerised analysis in terms of accuracy of frequency counts, because words have different meanings in different contexts. However, this review found that few used pilot studies or cross checked coder reliability.

More recently, web based job sites appear to be the major source of advertisements. However, Marchal et al. (2007) argued that online job advertisements constrain employers by requiring use of pre-defined lists, keywords and input fields, making entries more standardised and quantified than newspaper advertisements. Similarly they found that search engine toolkits restrict wording used to find job skill requirements. Yet the opportunity is there for job sites to clearly define commonly used terms and overcome this problem.

Recommendations for further research

A mixed methods approach of content analysis followed up with employers and or recent graduates would be useful to verify findings. Then the extent to which selection criteria attracts suitable applicants can be investigated. This would help provide external validity for criteria used in job advertisements. However, the process of content analysis of job advertisements must be improved with larger data sets from online sites, and better measures to ensure reliability. Furthermore, researchers need to report both the frequency of occurrence of common ES, as well as the composition of clusters that emerge from more sophisticated data analysis. These serve different purposes: the first identifies commonly required ES across many jobs; the latter describes specific skill sets for professions and industries. This moves content analysis research beyond descriptive frequency counts to more useful information. It is also important that common definitions of terms be agreed, which more in depth study of particular ES may reveal. On line job sites could then provide definitions of ES based on the evidence.

Conclusion

Triangulation efforts for curriculum development have included not only employers, but also recent graduates, applicants for positions, professional bodies and recruitment agencies. Given the limitations of stakeholder lists of ES an objective, additional or alternative sources of information to at least corroborate views, is needed. The advantages of analysing advertisements for ES include: ready accessibility, potentially large data sets, at low cost and not always time consuming method to determine those ES required on the job. As a qualitative exercise it can provide a wealth of useful information to inform curriculum development, careers advisors, current students and graduates about the ES employers require in specific fields. However, the challenge is to improve external validity, sampling techniques, sample sizes and agree common definition of terms when using content analysis. Allowing the data to drive findings rather than forcing ES identified in advertisements into pre-determined categories is also recommended.

Messum, D., Wilkes, L., Peters, K., & Jackson, D. (2016). Content analysis of vacancy advertisements for employability skills: Challenges and opportunities for informing curriculum development. *Journal of Teaching and Learning for Graduate Employability*, 6 (1), 72-86.

82

References

ACHSM. (2014). Health Management Internship Program (NSW) *Emerging Manager Competency Framework.* N. Ryde: ACHSM.

Arcodia, C. & Barker, T. (2003). The employability prospects of graduates in event management: Using data from job advertisements. *Journal of Human Resources in Hospitality & Tourism*, 1:4, 1–18.

Ahmed, F., Capritz, L.F., Bouktif S., & Campbell, P. (2012). Soft skills requirements in software development jobs: A cross-cultural empirical study. *Journal of Systems and Information Technology*, *14*(1), 58–81.

Ahsan, K., Ho, M., & Khan, S. (2013). Recruiting project managers: A comparative analysis of competencies and recruitment signals from job advertisements. *Project Management Journal*, *44*(5), 36–54.

Archer, W. & Davidson, J. (2008). *Graduate employability: What do employers think and want?* London: The Council for Industry and Higher Education (CIHE).

Askehave, I. (2010). Communicating leadership: A discourse analytical perspective on the job advertisement. *Journal of Business Communication, 47*(3), 313–45.

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 and Training, 54*(4), 457–75.

Broome, K. & Gillen, A. (2014) Implications of occupational therapy job advertisement trends for occupational therapy education. *The British Journal of Occupational Therapy, 77*(11), 574–581.

Chao, C. & Shih, S.C. (2007). Organizational and end-user information systems job market: An analysis of job types and skill requirements. *Information Technology, Learning, and Performance Journal, 23*(2), 1–15.

Chipulu, M., Neoh, J.G., Udechukwu, O., & Williams, T. (2012). A multidimensional analysis of project manager competencies. *IEEE Transactions on Engineering Management*, 60(3). *Available: 10.1109/TEM.2012.2215330*

Cramer, E.M. & Tenzek, K. (2012). The chaplain profession from the employer perspective: An analysis of hospice chaplain job advertisements. *Journal of Health Care Chaplaincy*, *18*(3–4), 133–150.

CBI *Changing the Pace*. 2013. Available: http://www.cbi.org.uk/media/2119176/education_and_skills_survey_2013.pdf

Crebert, G., Bates, M., Bell, B., Patrick, C., & Cragnolini, V. (2004). Developing generic skills at university, during work placements and in employment: Graduates' perceptions. *Higher Education Research and Development*, 23(2), 147–64.

Cremin, C.S. (2003). Self-starters, can-doers and mobile phoneys: Situations vacant columns and the personality culture in employment. *Sociological Review, 51*, 109–28.

Critical Appraisal Skills Programme (2014). *CASP Qualitative checklist, Oxford.* Available under Creative Commons Licence: http://www.casp-uk.net/untitled).

Communal, C. & Senior, B. (1999). National culture and management: Messages conveyed by British, French and German advertisement for managerial appointments. *Leadership and Organization Development Journal, 20*(4), 26–35.

Commission for Employment and Skills. *National Employers Survey 2013: UK Results.* Available: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/327492/evidence-report-81-ukces-employer-skills-survey-13-full-report-final.pdf

Cullen, J. (2003). Identifying sectoral management cultures through recruitment advertising. *Leadership & Organization Development Journal, 25*(3), 279 –291.

Messum, D., Wilkes, L., Peters, K., & Jackson, D. (2016). Content analysis of vacancy advertisements for employability skills: Challenges and opportunities for informing curriculum development. *Journal of Teaching and Learning for Graduate Employability, 6* (1), 72-86.

83

Den Hartog, D.N., Caley, A., & Dewe, P. (2007). Recruiting leaders: An analysis of leadership advertisements. *Human Resource Management Journal,* 17, 58–75.

Department of Education, Science and Training (DEST) (2002). *Employability skills for the future. A report by the Australian Chamber of Commerce and Industry and the Business Council of Australia for DEST.* Canberra: DEST.

Emery, P.R., Crabtree, R.M., & Kerr, A. K. (2012). The Australian sport management job market: An advertisement audit of employer need. *Annals of Leisure Research,* 15(4), 335–353.

Ferns, S. & Lilly, L. (2015). Driving institutional engagement in WIL: Enhancing graduate employability. *Journal of Teaching and Learning for Graduate Employability,* 6(1), 116–133.

France, A. (2010). Management accounting practices reflected in job advertisements. *Journal of Business Ideas and Trends, 8*(2), 41–57.

Gedye, S., Fender, E., & Chalkey, B. (2004). Students' undergraduate expectations and postgraduate experiences of the value of a degree. *Journal Geography in Higher Education, 28*(3), 381–96.

Graduate Careers Australia (GCA). (2015). *The Report of the Graduate Outlook Survey: Employers' Perspectives on Graduate Recruitment,* 2015, p.8. Available: http://www.graduatecareers.com.au/research/surveys/graduateoutlooksurvey/

Harper, R. (2012). The collection and analysis of job advertisements: A review of research methodology. Library and Information Research, 36(112), 29–54.

Hawkins, L., Ryan, M., Murray, H., Grace, M., Hawkins, G., Mendes, P., & Chatley, B. (2000). Supply and demand: A study of labour market trends and the employment of new social work graduates in Victoria. *Australian Social Work, 53*(1) 35–42.

Hinchliffe, G.W. & Jolly, A. (2011). Graduate identity and employability. *British Education Research Journal, 37*(4), 563–84.

Hong, J.E. (2015). Identifying skill requirements for GIS positions: A content analysis of job advertisements. *Journal of Geography, 115*(4), 147–58.

Jackson, D. (2013). Student perceptions of the importance of skill provision in business undergraduate programs. *Journal of Education for Business, 88*(5), 271–279.

Johnson, B.W. & Zlotnik, S. (2005). The frequency of advising and mentoring as salient work roles in academic job advertisements *Mentoring and Tutoring: Partnerships in Learning, 13*(1), 95–107.

Kennan, M.A., Willard, P., & Wilson C.S. (2006). What do they want? A study of changing employer expectations of information professionals. *Australian Academic and Research Libraries, 37*(1), 17–37.

Kennan, M.A., Cecez-Kecmanovic, D., Willard, P., & Wilson, C.S. (2009). IS knowledge and skills sought by employers: Content analysis of Australian IS early career job advertisements. *Australasian Journal of Information Systems, 15*(2), 169–190.

Kuokkanen, A., Varje, P., & Vaananen, A. (2013). Transformation of the ideal Finnish employee ideal in job advertisements from 1944 to 2009. *Acta Sociologica, 56*(3), 213–226.

Lavy, I. & Yadin, A. (2013). Soft skills – An important key for employability in the "shift to a service driven economy" era. *International Journal of e-Education, e-Business, eManagement and e-Learning, 3*(5), 416–420.

Liang, Z., Short, S.D., & Brown, C.R. (2006). Senior health managers in the new era: Changing roles and competencies in the 1990s and the early 21st century. *Journal Health Administration Education*, Summer, 81–301.

Messum, D., Wilkes, L., Peters, K., & Jackson, D. (2016). Content analysis of vacancy advertisements for employability skills: Challenges and opportunities for informing curriculum development. *Journal of Teaching and Learning for Graduate Employability, 6* (1), 72-86.

84

Marchal, E. Mellet, K., & Rieucau, G. (2007). Job board toolkits: Internet matchmaking and changes in job advertisements. *Human Relations*, 60, 1009–1113.

Massey, B.L. (2010). What job advertisements tell us about demand for multi-platform reporters of legacy news outlets. *Journalism and Mass Communication Educator*, 65(2), 142–155.

Messum, D., Wilkes, L., & Jackson, D. (2011). Employability skills: Essential requirements in health manager vacancy advertisements. *Asia Pacific Journal of Health Management*, 6, 22–28.

Messum, D., Wilkes, L., & Jackson, D. (2015). What employability skills are required of new health managers? *Asia Pacific Journal of Health Management*, 10, 28–35.

Mar Molinero, C. & Xie, A. (2007). What do UK employers want from OR/MS? *Journal of the Operational Research Society*, 58, 1543–1553.

Nilsson, S. (2010). Enhancing individual employability: The perspectives of engineering graduates. *Education + Training*, 52(6/7), 540–551.

Oliver, B., Whelan, B., Hunt, L., & Hammer, S. (2011). Accounting graduates and the capabilities that count: Perceptions of graduates, employers and accounting academics in four Australian universities. *Journal Teaching and Learning for Graduate Employability*, 2(1), 2–21.

Omar, N.K., Manaf, A.A., Mohd, R.H., Kassim, A.C., & Aziz, K. (2012). Graduate employability skills based on current job demand through electronic advertising. *Asian Social Science*, 8(9), 1103–1110.

Orme, V. (2008). You will be.....A study of job advertisements to determine employers' requirements for LIS professionals in the UK in 2007. *Library Review*, 57(8), 619–633.

Ooi, K.B. & Ting, S.H. (2015). Employers' emphasis on technical skills and soft skills in job advertisements. *The English Teacher*, XLIV (1), 1–12.

Pember, M. (2003). Content analysis of recordkeeping jobs advertisements in Western Australia: Knowledge and skills required by employers. *Australian Academic and Research Libraries*, 34(3), 194–210.

Precision Consultancy (2007). *Graduate Employability Skills*. Report Prepared for the Business, Industry and Higher Education Collaboration Council, Australia, August 2007.

Public Health Resource Unit, UK (2016). *Critical appraisal skills programme (CASP), making sense of evidence: Qualitative checklist*. Available: http://www.casp-uk.net/checklists

Quinn, M. & Rochford, D. (2013). What management accountants do. *Accountancy Ireland*, 45(1), 58–60.

Rear, D. (2013). Converging work skills? Job advertisements and generic skills in Japanese and Anglo-Saxon contexts. *Asian Business and Management*, 12(2), 173–196.

Redman, T. & Mathews, B.P. (1997). What do recruiters want in a public sector manager? *Public Personnel Management*, 26(2), 245–56.

Reeves, R.K. & Hahn, T. (2012) Job advertisements for recent graduates: Advising, curriculum and job seeking implications. *Journal Education Library and Information Science*, 51(2), 103–119.

Ridoutt, L., Selby Smith, C., Hummel, K., & Cheang, C. (2005). *What value do Australian employers give to qualifications?* Adelaide: National Centre for Vocational Education Research (NCVER).

Salleh, R., Yusoff, A., Amat, C.A., Noor, A.M., & Suredah, N. (2013). Profiling industry relevant competencies of graduate architects through job advertisements. *International Business Research*, 6(11), 43–51.

Messum, D., Wilkes, L., Peters, K., & Jackson, D. (2016). Content analysis of vacancy advertisements for employability skills: Challenges and opportunities for informing curriculum development. *Journal of Teaching and Learning for Graduate Employability*, 6 (1), 72-86.

85

Semeijn, J., Veldon, R., Heijke, H., Vlueten, C., & Boshuizen, A. (2006). Competence indicators in academic education and early labour market success of graduates in health sciences. *Journal of Education and Work, 19*(4), 383–413.

Sodhi, M.S. & Son, B-G. (2010). Content analysis of OR jobs advertisements to infer required skills. *Journal of Operational Research*, 61, 1315–1327.

Tymon, A. (2011). The student perspective on employability. *Studies in Higher Education*, 38(6), 841–56. DOI: 10.1080/03075079.2011.604408

Universities Australia. (2014). *National WIL Strategy*. Available: http://cdn1.acen.edu.au/wp-content/

Varje, P., Turtiainen, A., & Vaananen, J. (2013). Psychological management: Changing qualities of the ideal manager in Finland 1949-2009. *Journal of Management History, 19*(1), 33–54. DOI: http://dx.doi.org/10.1108/17511341311286187

Wellman, N. (2010). The employability characteristics of new marketing graduates. *Marketing Intelligence and Planning, 28*(7), 908–930.

Whittemore, R. & Knafl, K. (2005) The integrative review: Updated methodology. *Journal Advanced Nursing*, 52(5), 546-53.

Wise, S., Henninger, M., & Kennon, M.A. (2011). Changing trends in LIS job advertisements. *Australian Academic and Research Libraries, 42*(4), 268–95.

Workopolis (2014).*The most sought after skills in Canada* Available: http://hiring.workopolis.com/research/thinkopolis/viii-skills/

Messum, D., Wilkes, L., Peters, K., & Jackson, D. (2016). Content analysis of vacancy advertisements for employability skills: Challenges and opportunities for informing curriculum development. *Journal of Teaching and Learning for Graduate Employability, 6* (1), 72-86.

86

54

CHAPTER 5

5.   ESSENTIAL REQUIREMENTS IN HEALTH MANAGER VACANCY ADVERTISEMENTS

5.1.   Publication

Messum, D., Wilkes, L., & Jackson, D. (2011). Employability skills: Essential requirements in health manager vacancy advertisements. *Asia Pacific Journal of Health Management*, *6*: 22-28.

5.2.   Relevance to thesis

This paper is the first of three papers that present findings from the larger study, to gain insight into ES required in HSM. Content analysis of 100 consecutive HSM job advertisements was undertaken using classified advertisements in two major metropolitan papers in NSW, Australia. Comparative analysis with competency requirements of the Australasian College of Health Service Management and overseas professional organisations revealed few common skills. Comparison was also made with DEST top ten ES. The findings revealed the most important ES for HSM which can be used by higher education to inform curriculum development. Communication skills was the top ranking ES requirement and was more important to health employers than other employers as indicated by the lesser frequency with which it was found by DEST. Experience in the health field was a very close second and three times more important in health than for other employment. HEI can use this finding to promote experience and knowledge of the health system gained in placements to improve graduate outcomes. Tertiary qualifications alone were not sufficient to secure employment. Furthermore, the work experience requirement may help explain employer difficulties recruiting sufficient graduates.

Employability Skills: essential requirements in health manager vacancy advertisements

D Messum, L Wilkes and D Jackson

Abstract

Background: Common understandings of what constitutes employability skills (ES), for graduate entry level jobs in health services management, are not well articulated. The Australian Department of Science and Training (DEST) provides a generic profile only which changes over time. In health, this is compounded by endemic reform. What is agreed is that a degree is not enough. Recruitment and personnel policies/practices have been found inconsistent, and wish lists for ES unreliable. In addition, different levels of managers in an organisation require different attributes for the same position. Higher education shows interest in generic skills because of pressure from employers.

Method: As public documents, job advertisements provide accessible data on employer skill requirements listed as essential requirements. Using predefined search criteria, 100 consecutive advertisements for health managers in New South Wales were collected from two major Australian newspapers and two internet sites, mid-September to December 2009.

Results: A total of 35 different essential requirements were identified. Communication skills were the most frequently listed followed by prior experience, tertiary qualifications and knowledge of the healthcare system. Findings were consistent with the DEST top three ES. Comparative analysis with competency requirements of the Australasian College of Health Service Management and overseas organisations is discussed.

Conclusions: Although ES are stated in vacancy advertisements for health management, understanding of some terms needs to be agreed and sufficient detail provided to help identify suitable applicants. Key ES are consistent with generic listings but there are also health profession specific requirements. Higher education providers can use these findings to inform curriculum development and improve graduate employment outcomes.

Abbreviations: ACHSM – Australasian College of Health Service Management; DEST – Department of Education Science and Training; ES – Employability Skills; HE – Higher Education; NFP– Not–For–Profit; NGO – Non-Government Organisations.

Key words: employability skills; job vacancies; health managers; higher education.

Ms Diana Messum MPH, GC H Ed, BA Hons(Psych)
Post-graduate Health Science and Public Health
School of Biomedical and Health Science
University of Western Sydney

Professor Lesley Wilkes PhD, RN
Professor
Family and Community Health Research Group (FaCH)
Clinical Nursing Research Unit
Nepean Blue Mountains Local Health District
University of Western Sydney

Professor Debra Jackson PhD, MN (Educ), BHSc(Nurs), RN
Faculty of Nursing, Midwifery and Health
University of Technology Sydney

Correspondence:
d.messum@uws.edu.au

56

- Job title eg, manager, administrator, team leader, project officer, manager or co-ordinator.
- Graduate positions.
- Sector: private and public.
- New South Wales only.
- Advertisement included essential requirements defined as ES.
- Work type: full or part time, contract, casual and temporary.
- Salary ceiling $65,000 for new graduates defined as having completed their undergraduate studies within the last three years.

Some vacancies appeared in several sources or over several weeks but were only included once in this study. It took three months to collect the required number. Content analysis included job title, employer and location, essential requirements and job status. Findings were coded onto Excel spread sheets. Preliminary analysis revealed that the cost of advertising space in major newspapers limited content and few (6%) made use of links to information on web sites. Most (81%) provided a contact name/telephone number for further information eg, position statement and information pack, and 13% only provided a post office box address with no contact or web site option. Enumeration included the number of different ES, mean ES per advertisement, and frequency ranking. These were compared with the DEST list

as well as with competency requirements from the health management colleges of Australia, America, Canada and the United Kingdom.

Results

In the 100 advertised vacancies, the most common position title was manager (45%), followed in rank order by co-ordinator (26%), project officer (12%), research officer (4%), team leader and executive officer 3% each and in one percent no position title was given. The miscellaneous category (6%) included consultant, people and capability officer, liaison officer (2), administrator, community and research development officer. Nearly two thirds of vacancies (64%) were permanent, eleven of which were part-time. Ten positions were temporary, six contract positions and three casual vacancies. For the balance (17%), employment status was not stated. The greatest number of vacancies (37%) were found in organisations that identified themselves as not-for-profit (NFP) in the advertisements, followed by private (20%), and public sector (18%), non-government organisations (NGOs) 17%, and only 6% for Divisions of General Practice. For two advertisements placed by an agency, sector was not stated.

The number of ES listed totalled 514, (mean 5.14), and the number of ES listed per advertisement is shown in Figure 1. Nearly a quarter of advertisements listed six ES, while three listed one or two only. At the other end of the spectrum, four advertisements listed eleven or more ES.

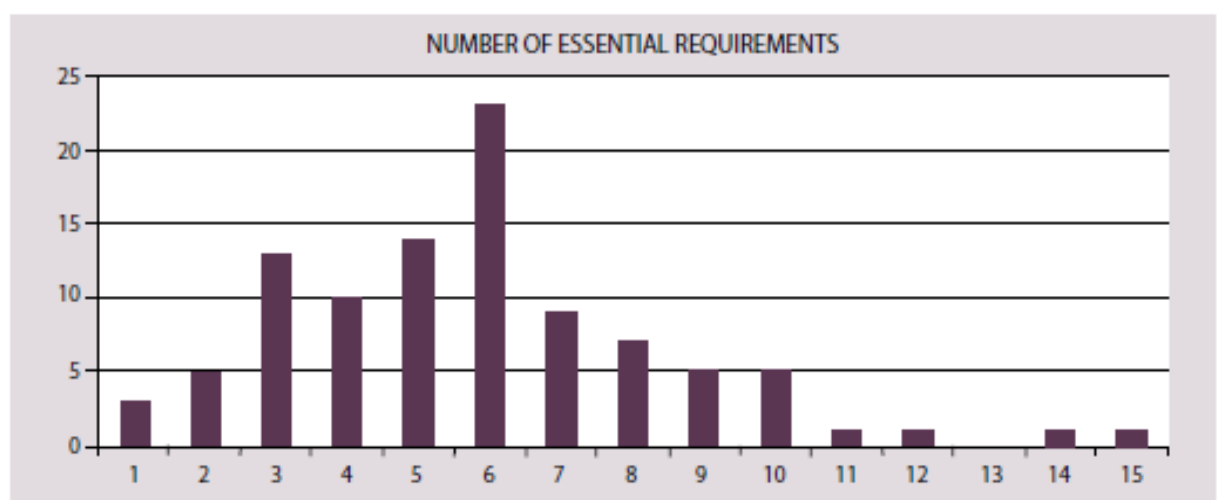**Figure 1: Frequency of ES in 100 consecutive New South Wales health management vacancies**

57

Table 1: Top ten essential requirements in New South Wales advertised vacancies

RANK	REQUIREMENT	%	DEST RANK
1	Communication skills	78	1
2	Experience	75	3
3	Tertiary qualifications	48	2
4	Knowledge of the healthcare system or a health field	26	NS
5	Teamwork	25	6
6	Conceptual /analytical skills	21	7
7	Computer skills	20	NS
8	Networking	17	NS
8	Organisational skills	17	NS
9	Financial management skills	15	NS
10	Leadership	12	4

A total of 35 different ES was obtained. The top ten appear in the Table 1, which shows that communication skills (written and/or oral) was the most frequent ES, appearing in 78% of vacancies. This compares with 57.5% in the DEST study. It was closely followed by experience (75%) nominated by 27.6% of DEST employers. Tertiary qualifications ranked third and were required in almost half the positions, compared with just over one third in the DEST study. Knowledge of the healthcare system, a particular field of healthcare/health management, ranked fourth. More vacancies required teamwork skills in this study (25%) than in the DEST study (16.6%).

The top three ES were similar to the DEST findings if in different order. Rankings 5 and 6 of this study matched 6 and 7 in the DEST study. Computer skills, networking and financial management skills were not in the DEST top ten. Leadership only achieved rank 10 in this study required by 12% compared to DEST rank 4, required by 18.1% of employers.

Comparison was also made with health management college requirements from Australian, American, Canadian and United Kingdom colleges as shown in Table 2. Variation by country is apparent with only three competencies in common: communication skills, leadership and knowledge of the healthcare system/environment, all of which appeared in the top ten from this study.

Other ES found in this study included a current drivers licence (12%), ability to work independently and/or in a team, (11%), project management skills (11%), research skills (9%), customer focus/caring approach (8%), management skills unspecified (8%), policy and planning skills (7%), time management (6%), staff management, change management, EEO and OHS skills (5% each), and professional development skills (3%).

A raft of personal qualities or characteristics also emerged as ES including being creative, energetic, having a fresh positive approach, 'can do' attitude, and enthusiastic (6%); attention to detail (4%); commitment to social justice principles, community language; reliable, trustworthy, hard working and being flexible (at 3% each).

The top three ES in this study were examined in more detail, beginning with communication skills. Of the 78 listings, 25 stated communication skills only, 24 defined this as written and oral skills, another 20 included interpersonal skills. Specific requirements were report writing skills, press releases and public speaking.

The second most commonly requested ES was prior experience, and 75% of employers asked for one or more types of experience, 23% did not mention any, and 2% stated it was not required. Where experience was essential, 122 specific experiences were listed, or 1.66 per vacancy. A

Table 2: Comparison of ES in the NSW advertisement study with four health management college requirements

NSW STUDY	AUST ACHSE [17]	US ACHE [18]	CANADA CHE [19]	UK SFH [20]
Communication skills	Cultural skills	Communication and relationship management	Leadership	Communication
Experience	Team work	Leadership	Communication	Personal and people development
Tertiary qualifications	Taking ownership eg, planning and organisational skills	Professionalism	Life-long learning	Information and knowledge
Knowledge of the healthcare system or a health field	Leadership and management	Knowledge of healthcare environment	Consumer and community responsiveness	Service improvement
Teamwork	Project management		Public relations	Quality
Conceptual/analytical skills	Communication		Political awareness	Equality & diversity
Computer skills	Analytical thinking, problem solving		Conceptual skills	
Networking Organisational skills	Client engagement		Results oriented	
Financial management Leadership			Resources management	

health background was required by 60%, and/or specific skill sets 45% and/or a general health background 3%. Time in a similar field appeared in four advertisements ranging from two to five years. Required health backgrounds included working with Aboriginal and Torres Strait Islander people, culturally and linguistically diverse communities, aged care, domestic violence, mental health, child and family, homeless, community care, working with disadvantaged, and health promotion. The list for specific skills was more

varied and included financial management skills and budget, research skills, government reporting, project management, accreditation, staff supervision and development, compensation, office management, partnering with stakeholders, fund raising and risk management.

Sector differences in experience requirements are presented in Table 3 which shows that experience was not listed as an ES in 25% of vacancies, including two which stated experience

Table 3: Frequency of advertised experience requirements by sector

SECTOR	VACANCIES ADVERTISED	EXPERIENCE REQUIRED			NUMBER OF REQUIREMENTS
		NOT LISTED	ESSENTIAL N	%	
NFP	37	6	31	84	48
Private	20	8	12	60	17
Public	18	4	14	78	21
NGO	17	3	14	82	20
Division of GP	6	4	2	33	4
Not stated	2	0	2	100	5
TOTAL	**100**	**25**	**75**	**75**	**108**

was not required. A quarter of vacancies requiring experience listed one type but most required several. Experience was less likely to be required in the private sector and Divisions of General Practice than elsewhere.

The public sector was the most likely to require knowledge of the health sector (half of the vacancies) followed by NGOs (41.6%) and NFP (24.3%). In total, knowledge appeared in 26 vacancies as essential and included 50 different requirements. Some 46% listed specific skills eg, legislation, policies and procedures, strategic planning, reporting requirements, research and business processes. Another 26% required general knowledge of the health sector and 28% asked for specific fields of knowledge similar to the clinical experience list.

Discussion

Communication skills were the top ranking ES requirement for health sector managers which confirms its importance as a HE graduate attribute. This skill is also more important to health employers than other employers as indicated by the lesser frequency with which it was mentioned in the DEST study. [7] Experience in the health field was a very close second and three times more important in health than for other employment. Understanding of the complexity of the healthcare system might explain this finding but this result is stronger than that reported by Riddout et al. [5] Sector variation was also apparent eg, experience is less likely to be required in the private sector. In the public sector, four in five vacancies listed experience as essential with even fewer opportunities in NGOs and NFP for inexperienced applicants.

Tertiary qualifications were advertised for in half the vacancies but clearly are not enough alone to secure employment in health, confirming the conclusions of Wells, [4] Tomlinson [2] and Scott. [3] Knowledge of the field was required in a quarter of jobs, something not found in the DEST study. Not surprisingly, team work skills appeared frequently for health positions, reflecting the way work is organised into multi-disciplinary teams. Conceptual and analytical skills also were important but to a much greater extent than DEST reported.

What was unexpected was the importance of computer skills which failed to rank in the DEST top ten. Another finding specific to health was networking. Organisational skills were often an employer requirement but are implicitly learnt at University, juggling studies and employment. It is also apparent that health graduates need to develop financial skills. Lastly leadership appeared to be more important in

the generic DEST study than in the health sector for new graduates. Such skills may be for development rather than expected of new workforce entrants.

Graduates may need help in identifying their skills and experience that relate to employer needs as expressed in position advertisements. Specifically, experience for example gained in placements and knowledge of the health system should be highlighted. Even if advertisements do not specify ES identified in this study, where possible they should be included in written applications to at least get a job interview. It is also important for applicants to follow up information made available eg, position statements and application packages. This is recommended because some advertisements contained so little information. Positions advertised without contact details or links to web sites may explain why employers cannot find enough graduates.

It may be unrealistic to compare graduate entry job requirements with competencies from professional bodies, a potential limitation of this study. However, competencies give a starting point and suggest skills for future development eg, leadership. Most health manager advertisements were quite specific about experience and knowledge requirements but leadership, organisational skills 'on the job' and even communication skills were less clearly defined. In future research, employers should be asked to define what ES mean to them and more importantly how these are identified in applicants. A further limitation is that this study analysed NSW vacancies, which limits generalisability of the findings.

What is now known is what essential skills health managers advertise as required in new graduates. Health management skills are not exactly the same as skills required by managers in other fields but include profession specific skills. Those essential skills necessary to achieve employment are clear, but sufficiency ie, how ES are measured and which skills lead to greater long term success in employment, however this is defined, has yet to be ascertained.

Competing Interests

The authors declare that they have no competing interests.

References

1. Dearing Report: The UK national committee of enquiry into higher education. 1997. Available from: https://bei.leeds.ac.uk/Partners/NCIHE/

2. Tomlinson M. The degree is not enough: students perceptions of the role of HE credentials for graduate work and employability. British J Soc Ed. 2008;29(1):49-61.

3. Scott P. The meaning of mass higher education. Buckingham: OUP; 1995.

4. Wells P. Accounting education: have we heeded the calls for reform in NZ? The 2003 AFAANZ Conference; 2003; Auckland New Zealand.

5. Ridoutt L, Selby Smith C, Hummel K, Cheang C. What value do Australian employers give to qualifications? Adelaide: National Centre for Vocational Education Research; 2008 Available from: www.ncver.edu.au/publications/1553

6. Graduate Careers Australia. Graduate outlook: a snapshot. Canberra; 2006.

7. DEST. Employability skills for the future. A report by the Australian Chamber of Commerce and Industry and the Business Council of Australia for DEST. Canberra: DEST;2002.

8. Allen Consulting Group. Development of a strategy to support the universal recognition and recording of employability skills. Report to the Department of Education and Training. Canberra: DEST; 2004.

9. Pruitt SD, Epping-Jordan JE. Preparing the 21st century global healthcare workforce. Br J Med. 2005;330:637-639.

10. Liang Z, Short SD, Brown CR. Senior health managers in the new era: changing roles and competencies in the 1990s and the early 21st century. J Health Admin Ed. 2006;Summer:81-301.

11. Teichler U. Higher education and the world of work: changing conditions and challenges. The UNESCO World Conference on HE; 1998; Paris, France.

12. Harvey L. Defining and measuring employability. Quality in H Ed. 2001;7(2).

13. Yorke M, Knight PT. Embedding ES into the curriculum. York: ESECT, the Higher Education Academy; 2004.

14. Orme V. You will be . . . a study of job advertisements to determine employers' requirements for LIS professionals in the UK in 2007. Lib Re. 2008;57(8) 619-633.

15. Cullen J. Identifying sectoral management cultures through recruitment advertising. Leadership and Org Dev J. 2004;25(3): 279-91.

16. Communal C, Senior B. National culture and management: messages conveyed by British, French and German advertisement for managerial appointments. Leadership and Org Dev J. 1999; 20(4):26-35.

17. ACHSE. ACHSE graduate health management program: Capability framework. Sydney: ACHSE; 2000.

18. American College of Healthcare Executives. Healthcare competency assessment tool. Chicago: American College of Healthcare Executives; 2009. Available from: www.ache.org/career.cfm

20. Canadian College of Health Service Executives. Professional competencies for the certified health executive program. Ottawa: Canadian College of Health Service Executives; 2005. Available from: www.cchse.org/assets/certification/2005%20Competencies%20for%20Certified%20Health%20Executives.pdf

21. UK Skills for Health. Management and leadership. Bristol: UK Skills for Health; 2009. Available from: www.tools.skillsforhealth.org.uk/suite/zip/id/20

References

1. Dearing Report: The UK national committee of enquiry into higher education. 1997. Available from: https://bei.leeds.ac.uk/Partners/NCIHE/

2. Tomlinson M. The degree is not enough: students perceptions of the role of HE credentials for graduate work and employability. British J Soc Ed. 2008;29(1):49-61.

3. Scott P. The meaning of mass higher education. Buckingham: OUP; 1995.

4. Wells P. Accounting education: have we heeded the calls for reform in NZ? The 2003 AFAANZ Conference; 2003; Auckland New Zealand.

5. Ridoutt L, Selby Smith C, Hummel K, Cheang C. What value do Australian employers give to qualifications? Adelaide: National Centre for Vocational Education Research; 2008 Available from: www.ncver.edu.au/publications/1553

6. Graduate Careers Australia. Graduate outlook: a snapshot, Canberra; 2006.

7. DEST. Employability skills for the future. A report by the Australian Chamber of Commerce and Industry and the Business Council of Australia for DEST. Canberra: DEST;2002.

8. Allen Consulting Group. Development of a strategy to support the universal recognition and recording of employability skills. Report to the Department of Education and Training. Canberra: DEST; 2004.

9. Pruitt SD, Epping-Jordan JE. Preparing the 21st century global healthcare workforce. Br J Med. 2005;330:637-639.

10. Liang Z, Short SD, Brown CR. Senior health managers in the new era: changing roles and competencies in the 1990s and the early 21st century. J Health Admin Ed. 2006;Summer:81-301.

11. Teichler U. Higher education and the world of work: changing conditions and challenges. The UNESCO World Conference on HE; 1998; Paris, France.

12. Harvey L. Defining and measuring employability. Quality in H Ed. 2001;7(2).

13. Yorke M, Knight PT. Embedding ES into the curriculum. York: ESECT, the Higher Education Academy; 2004.

14. Orme V. You will be . . . a study of job advertisements to determine employers' requirements for LIS professionals in the UK in 2007. Lib Re. 2008;57(8) 619-633.

15. Cullen J. Identifying sectoral management cultures through recruitment advertising. Leadership and Org Dev J. 2004;25(3): 279-91.

16. Communal C, Senior B. National culture and management: messages conveyed by British, French and German advertisement for managerial appointments. Leadership and Org Dev J. 1999; 20(4):26-35.

17. ACHSE. ACHSE graduate health management program: Capability framework. Sydney: ACHSE; 2000.

18. American College of Healthcare Executives. Healthcare competency assessment tool. Chicago: American College of Healthcare Executives; 2009. Available from: www.ache.org/career.cfm

20. Canadian College of Health Service Executives. Professional competencies for the certified health executive program. Ottawa: Canadian College of Health Service Executives; 2005. Available from: www.cchse.org/assets/certification/2005%20Competencies%20for%20Certified%20Health%20Executives.pdf

21. UK Skills for Health. Management and leadership. Bristol: UK Skills for Health; 2009. Available from: www.tools.skillsforhealth.org.uk/suite/zip/id/20

CHAPTER 6

6.   SENIOR MANAGERS' PERCEPTIONS OF EMPLOYABILITY SKILLS FOR HEALTH MANAGEMENT

6.1.   Publication

Messum, D., Wilkes, L., & Jackson, D. (2015). What employability skills are required of new health managers? *Asia Pacific Journal of Health Management*, *10*, 28-35.

6.2.   Relevance to thesis

This paper is the second of three papers that present findings from the larger study. Senior New South Wales health managers were surveyed to rate ES for importance and skill levels observed in recent graduates they employ. The gap between these two ratings was identified for 44 ES. Findings revealed that generic rather than job specific skills were important on the job. These included integrity and ethical conduct, interpersonal skills, teamwork, being flexible and open minded, written and oral communication skills, self-awareness, collaborative, planning and lifelong learning. The largest gaps between observed skills and importance ratings were found for written skills, collaboration, negotiation, teamwork, cultural awareness, computing and software skills, strategic thinking, ability to scan the environment and self-awareness. These findings can be used to inform curriculum development because other than writing skills, they are not the traditional skills taught by HEIs. Differences between skills listed as essential in recruitment advertisements and ES rated as important on the job are also discussed.

What Employability Skills are Required of New Health Managers?

D Messum, L Wilkes and D Jackson

Abstract

Background: Employability Skills (ES) for graduates are monitored by Graduate Careers Australia but not specifically in health management. Generic skills are increasingly important especially to help cope with increasing complexity and rapid change. There is little research in the health arena to identify specific skill requirements and gaps in observed skills to requirements. The study was conducted to inform curriculum development, help facilitate employment outcomes for new graduates and improve job matching for employers.

Method: Senior New South Wales health managers were surveyed to rate ES for importance and skill levels observed in recent graduates they employ. The ES gap between these two ratings was identified for 44 ES.

Results: Generic ES namely integrity and ethical conduct, interpersonal skills, teamwork, being flexible and open minded, written and oral communication skills, self-awareness, collaborative, planning and life-long learning are more important to health managers than job specific skills. Leadership skills were not found important. The largest gaps between observed skills and importance ratings were found for written skills, collaboration, negotiation, teamwork, cultural awareness, computing and software skills, strategic thinking, ability to scan the environment and self-awareness.

Conclusions: Generic rather than job specific skills are what health managers rate as important ES on the job. These findings can be used to inform curriculum development because other than writing skills, they are not the traditional skills taught by higher education institutions (HEIs). Employers also need to consider the essential skills used in job advertisements to better fill vacancies.

Abbreviations: ES – employability skills; HE – higher education; HEIs – higher education institutions; HRM – human resource management; ICS – interpersonal and communication skills; WIL – work integrated learning.

Key words: Employability skills; generic skills; health managers; higher education; leadership.

Diana Messum
Science and Health
University of Western Sydney
Penrith, New South Wales, Australia

Lesley Wilkes
Nursing and Midwifery
University of Western Sydney
Penrith, New South Wales, Australia

Debra Jackson
Faculty of Nursing, Midwifery and Health
University of Technology
Sydney, Australia

Correspondence:
d.messum@uws.edu.au

Introduction

The purpose of this paper is to identify employability skills (ES) that senior New South Wales health managers perceive as important and the extent to which they observe these skills in recently employed graduates. This information can also be used by higher education institutions (HEIs) to inform curriculum development and help improve graduate employment outcomes, a sector performance indicator.

The underlying assumption is that criteria used to select future employees, match skills required on the job. However, it is acknowledged that the skills for ongoing performance may be different. [1] The skills typically required by employers are defined by the Commonwealth Department of Education and Training [2] as:

Skills required not only to gain employment, but also to progress within an enterprise so as to achieve one's potential and contribute successfully to enterprise strategic directions. Employability skills are also sometimes referred to as generic skills, capabilities or key competencies.

According to Graduate Outlook Australia [3] from annual surveys of employers, the most important ES for the last five years have been interpersonal and communication skills (written and oral), passion/knowledge of industry/drive/ commitment/attitude, critical reasoning and analytical skills/problem solving/lateral thinking/technical skills, calibre of academic qualifications, work experience, cultural alignment and values fit, emotional intelligence and teamwork. This is consistent with earlier findings [4] that formal qualifications and expert skills were not enough to predict employment success, but were a threshold requirement. Qualifications were an indicator of potential future learning not immediate competence and experience was more important. [5] Furthermore, job specific skills were necessary but not sufficient professional performance requirements: interpersonal and communication skills were more important. [6] Students have also recognised that a degree is not enough to secure employment, [7] and are interested in achieving competencies that will improve employment prospects.

There is limited research exploring ES requirements in the health arena. It has been argued that health managers require context specific skills that change over time. [8] Impacts on health workforce competency requirements include a shift from acute to chronic care [9] and the adoption of private sector management practices by the public sector. Also at the time of this study (2013) in response to Commonwealth government health reforms, New South Wales had recently decentralised into local health districts with a new focus on activity based funding. One New South Wales study [10] found skills in planning, evaluation and decision-making have endured, but new skill requirements have emerged, namely leadership, managing and leading change, mentoring others, financial management and personal qualities. Some of these could be considered position skills. [11] On the other hand, generic ES may be more useful than job specific skills for coping with rapidly changing and complex work environments. [10]

The problem is that Australian employers have some difficulty locating suitable graduates to employ. Some 22.4% of employers [3] indicated they had difficulty sourcing/recruiting graduates in health/social sciences.

Over one-third in 2013 actively sought closer links with HEIs to improve recruitment strategies. Any mismatch may have several explanations. [8] However, ES are useful not only in recruitment processes but also for ongoing professional development because by definition ES are about advancement of both employees and employing organisations. This is recognised by the United Kingdom National Health Service which has used competency frameworks since 2000. [12] Certainly employers are increasingly recognising the value of generic competencies. [5,13]

The challenge is the process whereby current ES requirements are integrated into any curriculum. Higher education (HE) has traditionally focused on academic and technical knowledge competencies, keeping up to date through research activity and industry links. However, some academics are still resistant to the ES agenda, which they criticise as devaluing traditional tertiary qualifications, [13] but in this paper it is argued that the agenda is changing. For example, accreditation bodies and HEIs graduate attributes typically incorporate a mix of job related capabilities and generic skills. The growing interest in work integrated learning (WIL) with student industry placements is an example of how ES can be developed and better skill matching achieved.

This paper represents the second stage of a triangulation study exploring ES for graduates working in health services management. This higher degree research was undertaken with approval from the Human Research Ethics Committee, University of Western Sydney, (number H9344, 9 July 2013). The first stage analysed 100 advertised job vacancies for graduate health management positions in New South Wales, [8] identifying key ES. These ES were sorted into groupings or sub-scales for the current study, and the importance of all items was rated by senior New South Wales health managers in the current study. They also rated observed skills levels of recently employed graduates working with them in health management positions. The third stage will seek the views of recent graduates working in the field.

Method

Research Design

A survey was designed for completion by managers working in senior health management positions in New South Wales. Here senior managers were defined as Chief Executive Service or Senior Executive Service level employees or their equivalent. They were invited to participate because they supervised third year undergraduate and post graduate

students majoring in health services management from the University of Western Sydney on placement and in ongoing employment.

Survey sample

New South Wales senior health managers supervising students were requested to participate, once the university session commenced in 2013, a total of 40 managers. Two recently appointed managers declined, stating that they had too little experience in the health sector, yielding a response rate of 95%. Equal numbers of males and females responded. However, it took three months for all surveys to be returned.

Survey instrument

Based on a literature review and findings from our recent study [8] analysing ES required in graduate health management vacancies in New South Wales, an eight-page survey was designed. Questions for senior managers to complete included gender, years in current position, position, sector of employment, and ranking of top ten ES. A total of 44 items were clustered into five sub-scales based on the findings from the job vacancies study, for managers to rate using 5-point Likert scales ranging from not important (zero) to very important (four) and each cluster included a total score. The same items were also rated for skills observed in graduates, from no skills, ie requires training and development (zero) to excellent rated four. The five clusters included interpersonal skills and communication skills, experience and knowledge of the health industry (which emerged as important ES in the advertisement study), job specific skills, self-management and critical analysis skills. An open-ended question asked about perceived characteristics of the more successful graduates.

The survey instrument was pilot tested for usability with three current health managers, not included in the survey proper. They were invited to comment on the items allocated to each sub-scale and suggest changes or new items for inclusion, but no suggestions were made.

However, some repetition was removed and a question about years in the health industry added, not just years in the current position, given recent re-organisation of New South Wales health services.

Analysis

The ES items were checked for internal consistency using Chronbach's alpha. Factor analysis was not attempted given the small sample size. For the total 44 items internal consistency was good with a Chronbach's alpha coefficient of 0.89. The reliability of sub-scales was also examined. All

sub-scales except experience and knowledge of health achieved a satisfactory Chronbach's alpha over .7, (ranging from .82 to .9), suggesting good internal consistency, ie they were measuring the same underlying construct. It is common to find quite low Chronbach values with scales of ten items or less, [14] so the experience/knowledge items were combined with job specific skills to total 18 items and this improved Chronbach's alpha coefficient to .87. This experience/knowledge of the industry sub-scale was originally included because this selection criterion was found frequently in our advertisement analysis study [8] and was ranked fifth in importance in the 2013 Graduate Careers Australia survey. [3]

Results

Respondents

The 38 respondents were senior management including CEOs, general managers or directors of health districts, organisations or services. Half worked in the public sector, one third in not-for-profit (NFP) or non-government organisations (NGOs), four in the private sector and two in aged care institutions.

Table 1: Years employed in current organisation and in health

YEARS	CURRENT ORGANISATION		HEALTH	
	N	%	N	%
0-1	7	18.4	0	0
2-5	12	31.6	2	5.3
6-10	7	18.4	8	21.0
11-15	5	13.1	7	18.4
15-20	1	2.6	5	13.1
>20	6	15.8	16	42.1
Total	38	100*	38	100*

*Rounded to whole number

The mean number of years working in the current organisation was 8.13 and in health 19.46. About half the respondents had been employed in their current position for five years or less but half had worked in health for over 20 years. This was similar for male and female respondents. Seven had only worked in their current position for up to a year, but all had worked in the health field for much longer. All had supervised new graduates in the last three years.

Rating of employability skills

Overall mean scores for the four sub-scales comparing importance (the lower bar) of ES and skills observed in recent graduates (the upper bar) are depicted in Figure 1. In particular, this graph shows that actual skills observed were less than required on all items.

Interpersonal and communication skills (ICS), self-management and critical thinking were the most important ES for new graduates according to senior New South Wales health managers. Job skills and industry knowledge were less important. The biggest gap between rating of importance and observed skill level was for ICS. Each sub-scale will now be presented in turn.

In the self-management sub-scale shown on Figure 3, the most important ES of any in this study emerged: integrity and ethical conduct with a mean score of 3.91. After this flexibility and open mindedness, self-awareness, time management and lifelong learning were rated as highly important. The biggest gaps were for the same four items, the smallest gap was for tertiary qualifications. Experience in management and career planning skills were least important and also ranked lowest for skills observed.

Figure 1: Comparison of ES scales importance and observed skills in recent graduates
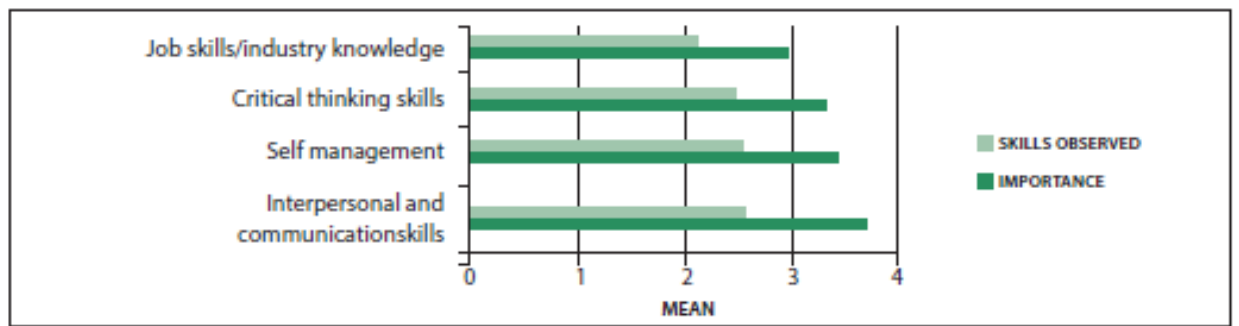
Figure 2: Importance of communication skills and rating of observed skills
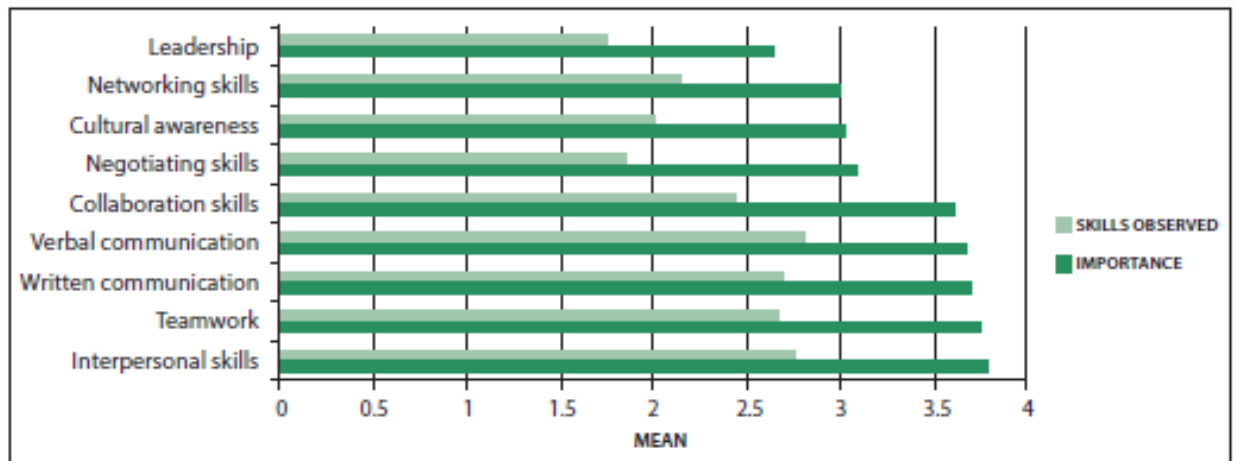
Figure 3: Importance of self-management and rating of observed skills
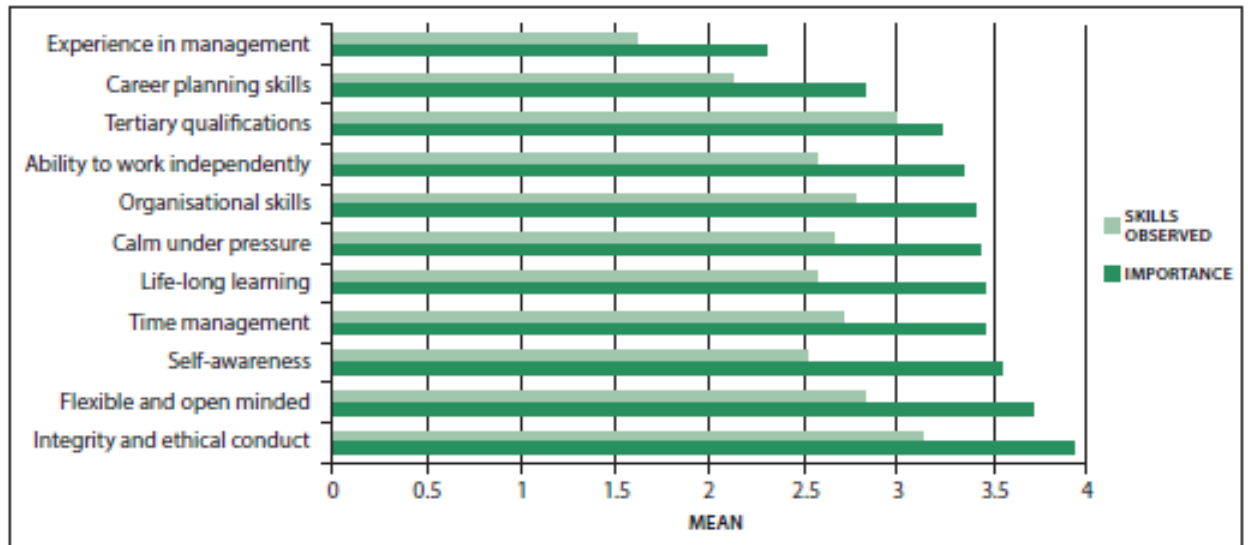
Figure 4: Importance of critical thinking skills and rating of observed skills
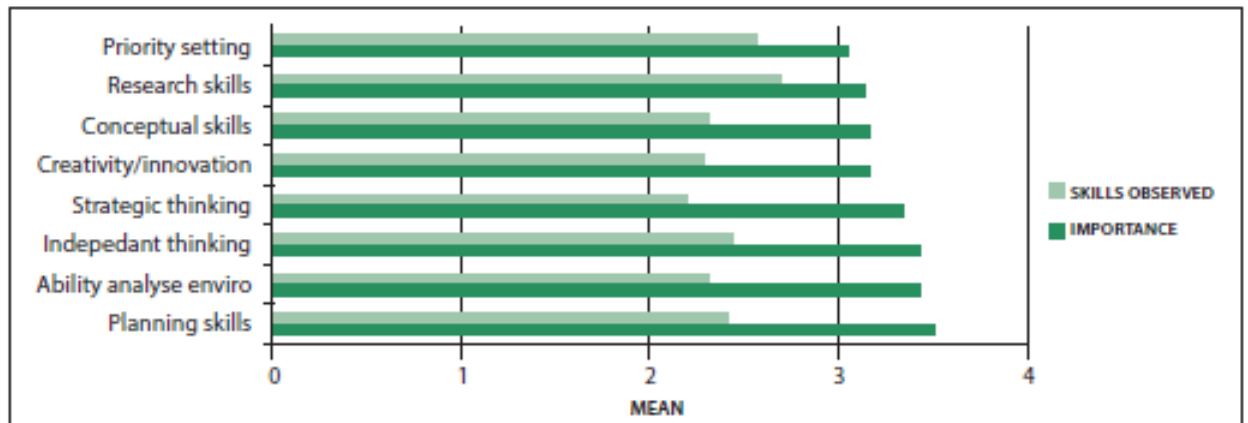
For the critical thinking skills sub-scale, importance rankings were all above a mean score of three. The most important aspects were planning skills, independent thinking, ability to analyse the environment and strategic thinking. The biggest gaps in observable skills were also for these items, the smallest for research skills and priority setting.

Lastly, Figure 5 shows the most important job skills and industry knowledge items as computer and software skills, followed by administration skills, project management then knowledge of legislation, standards and policy. The biggest gaps were for computing and software skills, budget/financial management skills, change management and project management. The smallest gap was for administration.

Figure 5: Job skills and industry knowledge importance and observed levels
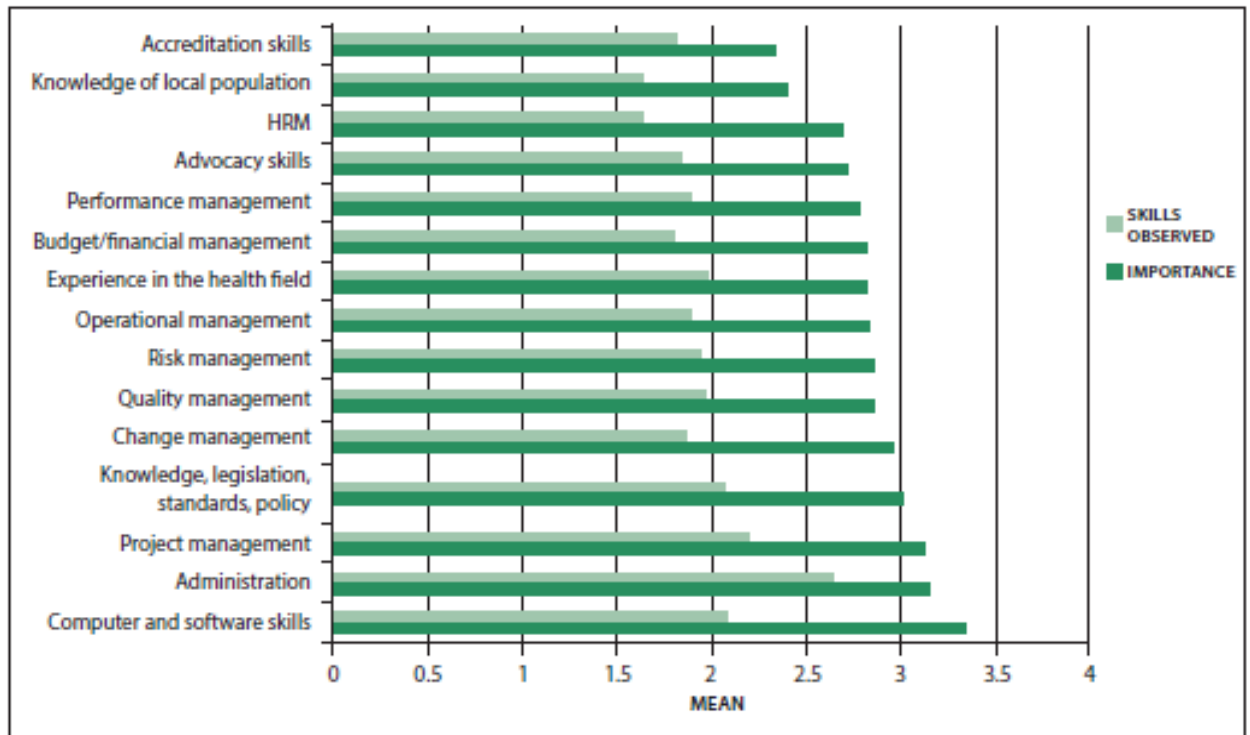
Open-ended questions

Two thirds of respondents stated that the most important characteristic of the more successful graduates was willingness to learn eg, taking extra jobs, seeking help, being able to follow advice, listening and receiving feedback, showing interest and avoiding reasons for not doing something, keeping abreast of broader issues and reading the newspapers daily, 'rather than just Facebook'. Taking the 'less glamorous jobs' and not being 'precious' were also stated. ICS was important according to one third of managers, also being flexible and easy to get along with and pleasant. A quarter of managers wrote being open-minded, adaptable, open to opportunities and being willing to take risks and 'give it a go'; analytical skills, problem solving and decision making; being professional, prompt, courteous and reliable; requiring minimal supervision, excellent time management and able to meet deadlines. Lastly strong work ethic and being motivated was mentioned by 20% of managers. These characteristics would all be considered generic ES.

Given that preliminary findings from this study were presented at the Asia Pacific Congress on Health Leadership, Canberra August 2013, clarification of senior health managers' understanding of the word 'leadership' was sought. Just over half of the respondents stated this meant the ability to achieve a shared vision, being future oriented or selling strategies and business goals, and influencing/ inspiring others to engage in that vision. Motivating, mentoring and encouraging employees, investing in team members and bringing out the best in people to achieve goals and celebrating accomplishments was noted by a quarter of managers. Leaders were seen as learning focused for themselves and others. Acting as a role model and leading by example were mentioned by a third of managers. Similar numbers said showing integrity, 'consistent behaviour' and making transparent decisions was important. Few (five) mentioned that leadership meant planning a vision, taking the initiative, being innovative and strategic, achieving change or searching out opportunities for improvement. Two noted that a leader could be anyone willing and able to drive improvement. One off comments included technical skills, working hard, showing perseverance, ability to say 'no', displaying corporate values in all interactions with stakeholders, being competent and having excellent communications skills. No one mentioned the difference between leadership and management.

Discussion

The top ten ES in terms of importance to senior health managers in New South Wales were: integrity and ethical

conduct, interpersonal skills, teamwork, being flexible and open minded, written then verbal communication skills, self-awareness, collaborative skills, planning skills and in equal tenth rank time management and life-long learning. These would be considered generic skills [5,13] and not job specific skills. Clearly communication skills were confirmed as the most important ES for new health graduates consistent with findings for all graduates from Graduate Careers, 2014. [3] Teamwork was also important and not an entirely surprising finding [8, 10] given the way health work is organised into multi-disciplinary teams. The primacy of integrity and ethical conduct may reflect social desirability bias but recent research has also showed that integrity is growing in importance [15, 16].

Collaboration, self-awareness and planning skills could be included in vacancy advertisements and ways found to assess these skills in interviews.

The bottom ES from last rank up were experience in management, accreditation skills, knowledge of local population, leadership, HRM, advocacy skills, performance management, budget/financial management, operational management and risk management. Many of these skills are covered in HEI curriculum. However, such skills may be better developed in context on the job.

The low importance given to leadership is consistent with other Australian findings [3,13] suggesting it is not expected of recent graduates. Leadership skills were considered to be the least important selection criterion to graduate employers in the Graduate Careers Australia report, 2014, [3] because employers viewed this as a skill that can be fostered once a graduate begins employment. In this study, senior health managers' understanding of the concept was more about the outcome of achieving a shared vision and motivating others to this end and less about planning a vision. Possibly they were not looking for leadership qualities in new graduates for this reason. If the more successful health graduates could be considered the potential leaders of the future, it appears that generic ES and personal characteristics are more important than positional characteristics especially willingness to learn and good communication skills.

Implications of the study
HE would be most interested in the gap between ratings of ES importance and observed skills in recently appointed health graduates. The largest gaps were found for teamwork, written skills, collaboration, negotiation, cultural awareness, computing and software skills eg, use of Excel, strategic thinking, ability to scan the environment and self-awareness.

Other than written skills, these may not be considered the traditional skills taught by HEIs but rather generic skills which are the skills employers of health graduates want on the job.

Closer partnership with HEIs through employment placements can facilitate student ES development and employment outcomes. Although all respondents supervised recent graduates, one third did not take undergraduate placements. A fifth lectured at UWS, five gave course advice and five participated in research. Clearly many opportunities for greater involvement with HE exist.

Comparison of the results of this survey with findings from analysis of ES listed in the job advertisements study [8] revealed some interesting differences. Once a job is secured emotional intelligence eg, self-awareness, critical reasoning and analytical skills become more important than academic qualifications, previous work experience and knowledge of the health industry. Yet these were frequently listed as essential in public sector vacancies.

Tertiary qualifications were a threshold requirement but not enough alone to secure employment in health. This confirms previous findings [1,4,6,7] that skills required to get a job are not necessarily the same as skills required on the job. Interpersonal, communication skills and teamwork were the exception and may be the ES [5] that indicate potential for further learning. Findings call into question the selection criteria used for vacancies: planning skills, collaboration and teamwork should also be included to help employers find more suitable applicants. Less emphasis on experience may also help close the skill shortage.

Furthermore, the characteristics observed in the more successful graduates reflected advanced generic skills namely communication skills, being flexible, open minded and self-aware. However, health managers also want new graduates who require minimal supervision, self-starters with a good work ethic. Again these characteristics may be included in vacancy advertising and ways found for them to be assessed at interview.

Further research
Limitations of the study are that senior health managers in New South Wales only were surveyed and the sample size was small, which limits generality of the findings. It was also limited to managers who supervise students of UWS. A larger replication study across Australia of managers who supervise students of other health management courses is warranted to confirm findings. Larger numbers would also

permit more sophisticated data analysis and verification of sub-scale items. These items were largely based on the study of health management vacancies, in New South Wales only. Again a larger replication study is needed. Furthermore, selection criteria could be evaluated for value in predicting employment success over the longer term, rather than just for recent graduates in the last three years. Lastly, to complete the picture, views of graduates themselves need to be considered.

Conclusions

For the New South Wales health arena there are some pertinent findings about skill gaps that both employers and HEIs can address. Also selection criteria to find suitable applicants need closer consideration. Promotion of characteristics of the more successful graduates, a combination of positional and personal qualities is something all stakeholders can strive to develop. The match of supply and demand can be facilitated by the ES agenda, and used by HEIs to improve graduate employment outcomes. ES can also be better used by health management employers in employee selection as well as ongoing performance measurement. [1]

Competing Interests

The authors declare they have no competing interests.

References

1. Semeijn J, Veldon R, Heijke H, Vlueten C, Boshuizen A. Competence indicators in a academic education and early labour market success of graduates in health sciences. J Educ and Work. 2006;19(4):383-413.

2. DEST. Employability skills for the future. A report by the Australian Chamber of Commerce and Industry and the Business Council of Australia for DEST. Canberra: DEST: 2002. p.143

3. Graduate Careers Australia. Graduate outlook survey 2013, Canberra; 2014. Available from: http://www.afr.com/rw/2009-2014/AFR/2014/03/20/Photos/a88bfb2e-b07a-11e3-8479-6f59541d5a86_Graduate_Outlook_2014.pdf p. 27

4. Scott P. The meaning of mass higher education. Buckingham: OUP; 1995.

5. Ridoutt L, Selby Smith C, Hummel K, Cheang C. What value do Australian employers give to qualifications? Adelaide: National Centre for Vocational Education Research; 2008 Available from: www.ncver.edu.au/publications/1553

6. Wells P. Accounting education: have we heeded the calls for reform in NZ? The 2003 AFAANZ Conference; 2003; Auckland New Zealand.

7. Tomlinson M. The degree is not enough: students perceptions of the role of HE credentials for graduate work and employability. Brit J Soc Ed. 2008;29(1):49-61.

8. Messum D, Wilkes L, Jackson D. Employability skills: essential requirements in health manager vacancy advertisements. APJHM 2011 6:22-28.

9. Pruitt SD, Epping-Jordan JE. Preparing the 21st century global healthcare workforce. Brit J Med. 2005;330:637-639.

10. Liang Z, Short SD, Brown CR. Senior health managers in the new era: Changing roles and competencies in the 1990s and the early 21st century. J Health Admin Ed. 2006; Summer:81-301.

11. Kouzes JM, Posner BZ. The leadership challenge. San Francisco, CA: Jossey-Bass 2006.

12. Mitchell L, Boak G. Developing competence frameworks in UK healthcare: lessons from practice. J Eur Industr Training. 2009; 33(8):701-717.

13. Jackson D, Chapman E. Non-technical skill gaps in Australian business graduates. Educ and Training. 2012: 54(2/3):95-113.

14. Pallant JF. SPSS survival manual: a step by step guide to data analysis using SPSS for Windows. 5th Ed. Sydney: Allen and Unwin; 2013.

15. Rosenberg S, Heimler R, Morote E. Basic employability skills: a triangulation approach. Educ and Training. 2012;(1):7-20.

71

CHAPTER 7

7. RECENT GRADUATES' PERCEPTIONS OF EMPLOYABILITY SKILLS FOR HEALTH SERVICES MANAGEMENT

7.1. Publication

Messum, D., Wilkes, L., Jackson, D., & Peters, K. (2016). Employability skills in health services management: Perceptions of recent graduates**.** *Asia Pacific Journal of Health Management*, *11*(1), 25-34.

7.2. Relevance to thesis

This paper is the last of three papers that present findings from the larger study. The purpose of this paper is to identify employability skills (ES) that recent NSW graduates working in health management perceive as important for the job and the extent to which they perceive they possess these skills ie their skill gaps. The importance of this paper is that recent graduates' perceptions of ES for HSM have not previously been identified. They are a valuable source of information for current, context specific job requirements. They can articulate industry expectations and provide qualitative feedback on the course they completed, where a degree was a necessary requirement for employment. They revealed importance-Y678s, providing useful information for higher education curriculum development. Job search strategies are also discussed and suggestions made to improve employment outcomes. They appreciated the value of placements in particular and supported closer engagement of HEI and employers.

RESEARCH ARTICLE

Employability Skills in Health Services Management: perceptions of recent graduates

D G Messum, L M Wilkes, D Jackson and K Peters

Abstract

Background: Employer skill requirements of graduates are monitored by Graduate Careers Australia, but health services management (HSM) specific employability skills (ES) perceived by graduates to be important on the job and their perceptions of skills they need to improve are not well reported. Academics need this feedback to improve course employment outcomes by helping current students identify and articulate appropriate competencies to potential employers. Also teaching of industry requirements can help improve job matching for employers.

Method: Recent graduates working in HSM in New South Wales, Australia were surveyed to rate ES for importance and rate their own skill levels on the same items. The gap between these two ratings was identified for 44 ES.

Results: ES important to recent graduates in rank order were: verbal communication skills, integrity and ethical conduct, time management, teamwork, priority setting, ability to work independently, organisational skills, written communication, being flexible and open minded and networking. Highest self-ratings were found for integrity and ethical conduct, ability to

work independently, being flexible and open minded, tertiary qualifications, interpersonal skills, written communication skills, time management, life-long learning, priority setting and administration skills. Generally graduates rated their skills lower than their ratings of importance.

Conclusions: Recent graduates can provide valuable feedback to universities about ES required for HSM positions and identify their own skill gaps for development at work or through study. Generic skills rather than job-specific skills are what they rate as most important. Closer engagement of universities and employers is recommended especially through placements.

Abbreviations: ES – employability skills; GCA – Graduate Careers Australia; HEI – higher education institutions; HRM – human resource management; HSM – health services management; IPC – interpersonal and communication skills.

Key words: employability skills; generic skills; graduates; health managers; university.

Diana Glen Messum
Science and Health
University of Western Sydney
Penrith, New South Wales, Australia.

Lesley Marie Wilkes
Nursing and Midwifery
University of Western Sydney
Penrith, New South Wales, Australia.

Debra Jackson
Faculty of Health & Life Sciences
Oxford Brookes University
United Kingdom of Great Britain and Northern Ireland.

Kath Peters
School of Nursing and Midwifery
Campbelltown, New South Wales, Australia.

Correspondence:
d.messum@westernsydney.edu.au

Introduction

The aim of this study was to identify skills that recent graduates working in the field of health services management (HSM) in New South Wales Australia, perceive as important for their jobs and how they rate their own skill levels. What they find important may include technical or discipline specific skills, personal attributes and employability skills (ES). The Australian Commonwealth Department of Education Science and Training [1] has defined ES as:

> Skills required not only to gain employment, but also to progress within an enterprise so as to achieve one's potential and contribute successfully to enterprise strategic directions. Employability skills are also sometimes referred to as generic skills, capabilities or key competencies. (2002 p.143)

This definition was the preferred option because ES is the term used by industry. The term encompasses not only skills related to getting a job but also ongoing employment, understanding of which is useful not only in recruitment processes for employers, current graduates and undergraduates but also for work-based professional development. Findings can also be used to inform higher education curriculum development and help improve employment outcomes. However, it is acknowledged that ES to secure employment may be different to skills required to progress in an organisation, [2] and some skills may best be learnt on the job.

Generic ES seem more useful than job-specific skills [3] for coping with rapidly changing and complex work environments. The Australian Employability Skills Framework [4] acknowledged ES as skills and knowledge that enable employees to perform effectively in the workforce and apply technical or discipline specific skills. This report found that failure to recognise the context-dependent nature of ES, lack of explicit focus on ES in education, also measurement and assessment difficulties helped explain poor development of ES in graduates. One key intention of this paper is to make ES more visible and explicit for the field of HSM.

Employers' perceptions
Many studies have explored the views of employers about skills required on the job, but relatively few report on the views of recently employed graduates working in the field [5,6,7] and no studies specific to HSM were found in the literature. Graduate Careers Australia annually conducts large scale surveys, reporting 23.4% of Australian employers indicated they had difficulty sourcing, recruiting and retaining graduates. [8] Where vacancies are advertised may help explain recruitment difficulties. Vacancy advertisements compared poorly with hiring rates for employee referrals and university placements. [8] Expectations about work readiness and employer preferences for graduates who 'hit the ground running' have also been explored. [9,10] Typically generic ES have been found more important to employers rather than discipline specific skills or degree results. [11] The most important ES to employers has consistently emerged as communication skills, written and oral, but skill gaps have been noted. [12,13,14] Other reported skills gaps related to integrity, teamwork, problem solving, literacy, numeracy, critical analysis skills, software skills, planning, organising and self-management. [15]

There is limited research exploring ES requirements from employers in the health arena. Messum et al 2011 [16] found that the main essential requirements advertised for HSM were interpersonal skills, experience, tertiary qualifications, knowledge of the healthcare system, teamwork, conceptual and analytical skills, computer skills, financial skills and leadership. Important to senior health managers was integrity and ethical conduct, interpersonal skills, teamwork, being flexible and open-minded, written and verbal communication skills, self-awareness, collaborative and planning skills rather than technical or discipline-specific skills. Only two common items were revealed for the top ten essential skills advertised compared with the top ten ES required by senior health managers: interpersonal skills and teamwork. [17] Specifically ES gaps in recent graduates that they supervised were reported for teamwork, written skills, collaboration, negotiation, computing and software skills (specifically use of Excel), strategic thinking, ability to scan the environment and self-awareness. [17] This study also found that health managers wanted new graduates with good self-management skills who required minimal supervision, and were self-starters with a good work ethic.

Recent graduate perceptions
Although employers have consistently rated core ES levels lower than new graduate employees' self-ratings with the exception of information technology skills, [18] it has been argued that recent graduates are well placed to identify skills important in the real world, based on employment in the field and current insight into what is valuable. [19] They can reflect industry expectations, which can be useful for future students and HEI curriculum development. Although the contextual nature of ES has long been recognised [4] no recent studies from graduates focusing on HSM were found in the literature.

Engagement with the concept of employability may predict development of ES as students: if they cannot see the relevance or importance of specific ES they may be less inclined to learn them and/or demonstrate them to prospective employers. [20] For example international students who failed to recognise the importance of communication skills and 'questioning accepted wisdom' exhibited higher unemployment rates. [21] Generally graduates are increasingly aware they need additional skills and attributes for career success, that a degree is not enough. [22,23,24] They hold an instrumental view of ES: [7] to secure competitive advantage because a degree only confirmed the ability to be ready for further training.

ES identified by graduates as important include communication skills, teamwork, information technology, planning and organising also flexibility and adaptability, being hard working, showing commitment and dedication,

26

[14] consistent with employer requirements. However, these skills were not necessarily developed at university. Rather, placements were highly valued for development of teamwork, as was being given responsibility and collaborative learning enhanced critical thinking, problem solving, decision-making and raised ethical awareness. [7,18,21] Specifically, the workplace team focus was found very different to the university culture of individualised work. [21] Vocationally oriented programs, well connected to employers using assessments based on lectures, internships, written assignment and oral presentations, characterised better performing universities in terms of employment outcomes. [25] Interestingly use of multiple choice examinations negatively correlated with outcomes. [25]

Graduate perceptions of their own skill levels have been studied. [6,7,26] In a survey of 36 Australian universities shortly after course completion, most full-time employed bachelor degree graduates felt that they possessed high levels of skill for learning, teamwork, problem solving and communication. [27] However, for information technology skills and initiative/enterprise only 58.9% and 57.7% respectively rated their skills highly. Three years later, ES were reported as much improved, especially self-management, initiative/enterprise, planning and organising, skills they identified as more effectively developed on the job rather than at university. [27] Some differentiation of ES best developed on the job and/or at university is needed.

Purpose of this study

The broad aim of this study was to identify the views of recent graduates working in the field of HSM about skills they need at work. More specifically this research aimed to determine the following:

- Perceptions of skills most important for work, whether job specific or generic.

- Any 'importance-performance' gaps [5] comparing importance ratings with self-ratings of skill levels, to reveal ES well developed or requiring further development.

- Where and how current employment was found.
- Best aspects of their HEI course and aspects for improvement as feedback for curriculum development.

This paper is the third stage of a doctoral triangulation study exploring ES for graduates working in HSM, undertaken with approval from the Human Research Ethics Committee University of Western Sydney, (number H9344, 9 July 2013). Stages one and two have already been published. [16,17]

Method

Survey instrument

The six-page survey included four Likert scales named interpersonal and communication skills (IPC), critical analysis skills, job-specific skills and self-management as per our previous publication. [17] Graduates rated items in each scale for importance and then rated their own skill level on a five-point scale, from no skills i.e. requiring training and development (rated zero) to excellent rated four. Each item was rated in turn for importance then skill level to promote understanding that comparisons were being made. Other questions covered current employment, sector, salary level, gender, type of work, how the job was found, and open-ended items asked about perceived gaps in skills and recommendations to inform future curriculum development.

Survey sample

The survey was emailed over a three-month period from February 2013, to 50 health service managers who had graduated within the last three years. Recent graduates were found through graduation lists for one large metropolitan university in New South Wales as former students of the bachelor's degree in HSM 2010-2012. Students currently enrolled into the Masters of Health Science (HSM) were also emailed and included graduates from a range of educational backgrounds. The limitations of such convenience sampling are noted in the discussion.

Analysis

The scaled items were checked for internal consistency using Chronbach's alpha. For the total 44 items internal consistency was good with a Chronbach's alpha coefficient of 0.926. Furthermore, all sub-scales achieved a satisfactory Chronbach's alpha over .7, (ranging from .822 to .915), suggesting good internal consistency, that they were measuring the same underlying construct. Other analysis included paired samples t-tests for comparison of importance and self-rated skills with p set at 0.05, two tailed test for an exploratory study.

Results

Respondents

A total of 42 responded, 15 males and 27 females, a response rate of 84%. Twenty had completed an undergraduate degree from one metropolitan university, 20 from a variety of universities across New South Wales and two from overseas. Nearly half had worked in their current position only a year, eight less than a year, another eight up to two years, and five for over three years. (Some had worked in that job prior to

Figure1: Overall rating of each ES scale by recent graduates (n=42)
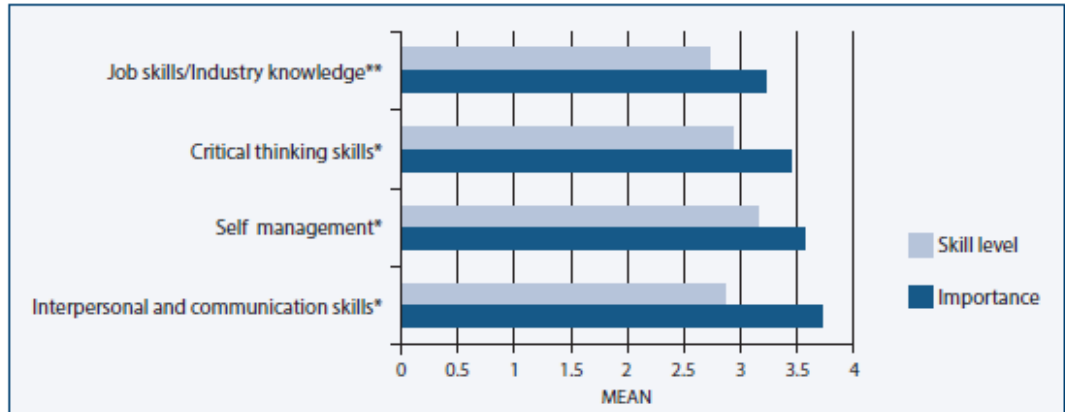
*p< 0.001, ** p<0.01

graduation, studying part-time.) The majority (88%) worked fulltime, but only four held a permanent position.

Over one third were currently engaged in part-time postgraduate study, in a ratio of two females to one male. Six worked as quality managers, four in general management roles, seven as project officers, and the others in support roles, eg personal assistants to senior staff. Three quarters (32) worked for state government, three for local government, six worked for not for profit organisations and one worked in the private sector. Nearly half (45%) earned in Australian dollars the salary range of $45-54999, 31% $55-64999, 19% over $65000 and only four under $45000,

(working part-time), compared with the median new Australian graduate annual salary of $52000. [28]

Job search strategies

The job search strategies that successfully secured recent graduates employment in HSM included finding out about the job from a university lecturer (29.3%), advertisement on the internet 22%, family/friends and university careers services both 9.8%, work contacts or 'other' both 17%, and print media only 7.3%. Under 'other' two mentioned employer web sites which equated to less than 5%. None found employment through careers fairs or employment agencies. Only three used more than one option.

Figure 2: Importance of and self-rating of IPC (n=42)
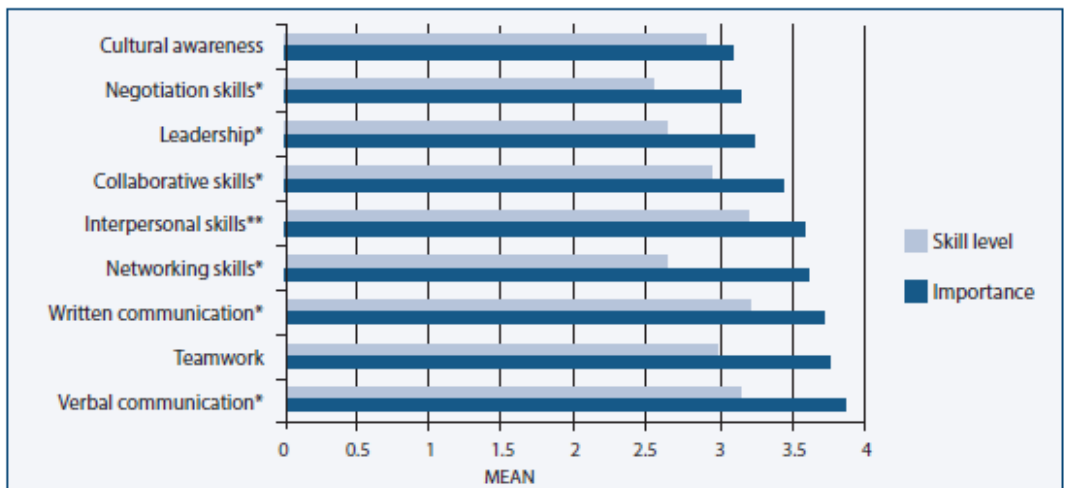
*p< 0.001, ** p<0.01

Figure 3: Importance of and self-rating of self-management (n=42)
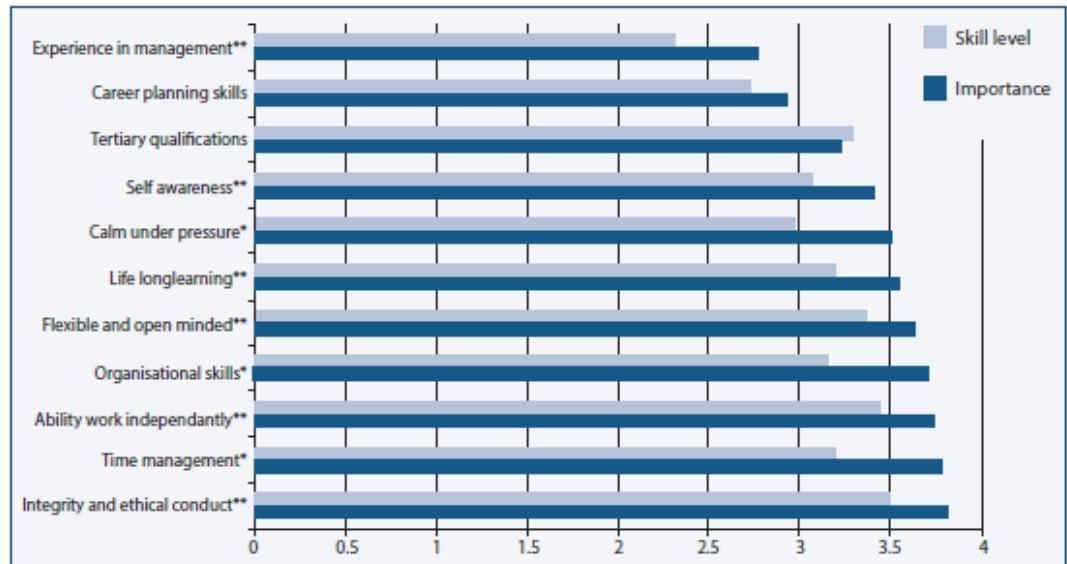
* p< 0.001, ** p<0.01, *** p< 0.05

Rating of employability skills

For each of the four scales, a total score was recorded by participants (n=42), and comparison of mean scores for importance (the lower bar) of ES and self-rating by recent graduates (the upper bar) are depicted in Figure 1. This shows that IPC, self-management and critical thinking were the most important ES according to recent graduates. Job skills and industry knowledge were less important. Self-rating of skills achieved significantly lower mean scores than importance ratings on each sub-scale. The biggest gap

between rating of importance and self-ratings was for IPC, then critical thinking, job skills and self-management skills.

Each scale will now be discussed in turn. For IPC (Figure 2) the most important skills for recent graduates were verbal communications skills, team working, written skills and networking. Leadership and negotiation skills were rated as least important. For all items on this scale except cultural awareness, graduates' ratings of importance were significantly higher than self-ratings. Self-rating was lowest

Figure 4: Importance of and self-rating of critical thinking (n=42)
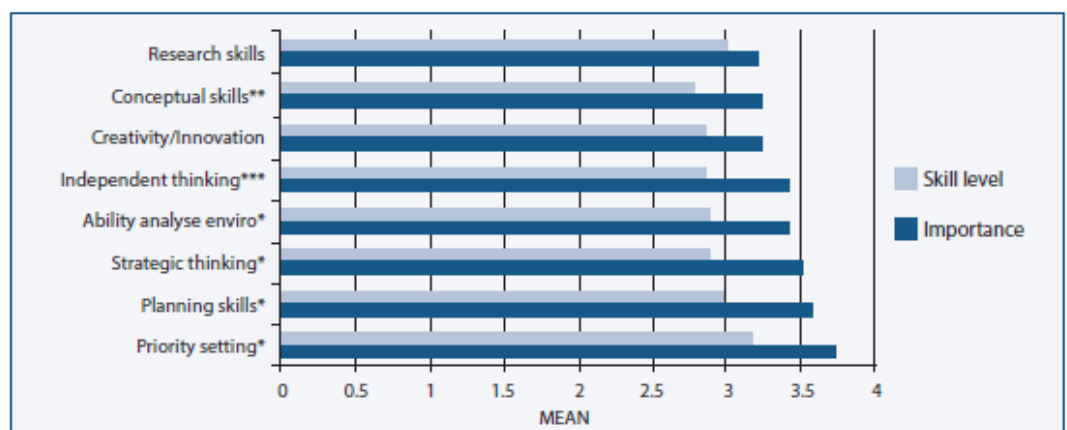
* p< 0.001, ** p<0.01, *** p< 0.05

for negotiating skills, leadership and networking, highest for interpersonal, written and verbal skills. The biggest skill gaps emerged for networking and teamwork.

In the self-management scale shown in Figure 3, the most important ES emerged as integrity and ethical conduct. After this, time management, the ability to work independently, organisational skills and being flexible and open minded were rated highly important with mean scores over 3.5. For all items self-rating mean scores were significantly lower than importance ratings except for tertiary qualifications and career planning. For career planning and tertiary qualifications no perceived skill gap was found. The biggest skill gaps emerged for being calm under pressure, time management and organisational skills.

For critical thinking skills the most important aspects for recent graduates (Figure 4) were priority setting, planning skills and strategic thinking, with mean scores of 3.5 or more. For all items except research skills and creativity and innovation, the differences between graduates' rating of importance were significantly higher than self-ratings. The biggest skill gaps emerged for planning skills and priority setting.

Figure 5 shows the most important job skills/industry knowledge items for recent graduates as computer and software skills and project management with mean scores over 3.5. For all items except administration, graduates' rating of importance was significantly higher than self-ratings. The lowest self-ratings were given to knowledge of the local

population, operational management, budget/financial skills and change management. The highest self-ratings resulted for administration, computer and software skills. The biggest skill gap emerged for change management, project management and performance management.

Graduates were asked how well they felt university prepared them for the workplace. One stated poorly, three were unsure, 35 (83.3%) said well and three felt university prepared them very well for their job. The most common response to an open ended question asking which aspects of higher education contributed most to skill development was placements (n=15), for industry exposure, to gain understanding and experience of the health system, how it works and health terminology. This was followed by development of writing skills from 12 respondents, specifically report writing and data analysis (four each). Supportive lecturers with health system knowledge and relevant field experience, who for example kept up to date with developments in the work environment, and offered 'relevant and authentic assessments' that prepared them for the world of work, was mentioned by six. Working in groups/teams was also mentioned by six.

Aspects that needed improvement included longer placements (n=11); greater emphasis on report writing and data analysis, grant applications, briefs, business cases, and critical analysis (n=6); development of computing skills specifically use of Excel and exposure to health data systems, more financial management content, group and teamwork

Figure 5 Job skills and industry knowledge importance and self-rated skill levels

* p< 0.001, ** p<0.01

78
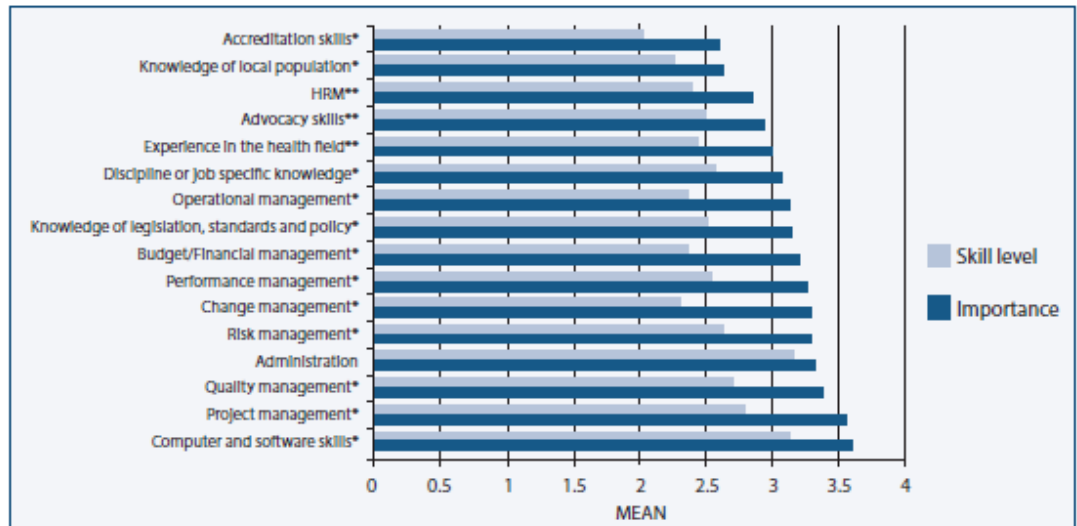
skill development, teaching of project management skills, and how to apply for jobs, (four responses each). Conflict resolution and managing people were also listed as needed by three graduates. The most common theme that emerged as a skill gap when commencing work in health management was lack of understanding and knowledge of the health system (n=11). None of these respondents held a health related undergraduate degree. Knowledge of health software and data bases (n=10) was the second most common response and in equal third place, writing skills, financial management and project management (four respondents each).

Discussion

Job search strategies of new managers in this study did not match the main ways employers advertise graduate vacancies in Australia: [4] none specified organisational websites heavily used by employers, mainly finding current positions through a university lecturer or internet employment sites. Also graduates felt that work experience placements gave them an advantage by helping develop ES, consistent with the literature. [6,7] These findings suggest that engagement of universities and employers could be mutually beneficial to improve job matching.

Undertaking post-graduate study was also seen as instrumental in progressing careers. Just over one third of survey respondents in comparison with the Australian average of 20%, [4] were enrolled in post-graduate study, but this rate is lower than the United Kingdom rate of 60%. [15] The low rate of permanent employment of respondents may serve as an incentive to develop skills through further study.

To further improve job matching, graduates views on the important ES that they need on the job revealed that IPC were the most important for new health managers, consistent with findings for all graduates from GCA [27] and our earlier study of health managers. [17] The ten most important individual ES for study participants, in rank order, emerged as verbal communication skills, integrity and ethical conduct, time management, teamwork, priority setting, ability to work independently, organisational skills, written communication skills, being flexible and open minded and networking. All of these would be thought of as generic rather than discipline-specific skills, [8,16] transferable to a variety of jobs. This well matched their employers' views. [17] The least important ES in this study were items in the job-specific scale that could be learnt on the job.

Recent graduates working in HSM consistently rated their own ES lower than the importance ratings for the same

items and were able to identify skill gaps, consistent with previous findings. [11] The biggest gaps were for generic skills of networking, teamwork, planning and priority setting, and job specific skills in change management, budget/financial management, project management and performance management. Some of these can be taught at university and some on the job. Specific gaps confirmed in an open ended question included understanding of the health system, health terminology, report writing, computer skills, health-specific software and using Excel, managing people, business planning and writing grant applications. These are skills that higher education can address best in collaboration with the health industry. The way university prepares graduates for industry can also be informed by the finding that respondents identifying the need for longer placements, more practical emphasis in assessments, written assignments rather than knowledge quizzes, group project work, and greater input from industry. These findings are also consistent with the literature. [7,18,21,28]

Implications of the study

Ratings of importance and self-rated ES of recent graduates working in HSM point to specific gaps that universities can use to inform curriculum development and/or employers can address in ongoing professional development. Closer partnerships between universities and employers through employment placements can facilitate development of ES, improve job matching and HEI employment outcomes. How graduates find employment also may help explain problems experienced by employers finding enough suitable graduate applicants to employ.

Further research

Limitations of the study are that results are from new health managers in one state of Australia only. The small convenience sample limits generality of the findings and a larger replication study is warranted. Furthermore, a larger sample size would permit factor analysis to validate the scales used. Comparison of graduates' views with other stakeholders such as current students and employers would also be worthwhile, and research to confirm actual skills levels. It is also not certain that ES have the same meaning for different stakeholders eg priority setting may be seen as a self-management skill rather than a critical thinking skill by recent graduates.

Conclusions

Paying attention to the views of recent graduates working in the field can be useful to inform curriculum development. They rated generic ES as more important than job-specific skills and significant gaps were revealed. Rating of

importance of ES for the HSM field is generally higher than graduates rating of their own skills with few exceptions, which revealed ES gaps. This new evidence about those skill gaps may stimulate academic discussion about curriculum development for HSM. Academics can also draw student attention to the ES requirements of employers and what recent graduates believe to be important in their jobs to foster engagement of students with learning materials. Furthermore, if curriculum is informed by discipline specific information, it may help improve employment outcomes. The need for partnerships of university with industry was confirmed because placements were found the best aspect of their course for ES development. However, resourcing, supervision, and greater academic engagement may be required to deliver authentic experiences supported by ES-based assessment.

Acknowledgement

Competing interests

The authors declare that they have no competing interests.

References

1. Department of Education, Science and Training (DEST). Employability skills for the future. A report by the Australian Chamber of Commerce and Industry and the Business Council of Australia for DEST. Canberra: DEST; 2002.

2. Semeijn J, Veldon R, Heijke H, Vlueten C, Boshuizen A. Competence indicators in academic education and early labour market success of graduates in health sciences. J Educ and Work. 2006:19(4): 383-413.

3. Liang Z, Short SD, Brown CR. Senior health managers in the new era: changing roles and competencies in the 1990s and the early 21st century. J Health Admin Ed. 2006; Summer:81-301.

4. Department of Education, Employment and Workplace Relations. Stage 1. Final Report Employability skills framework. Ithaca Group; 2012.

5. Oliver B, Whelan B, Hunt L, Hammer S. Accounting graduates and the capabilities that count: perceptions of graduates, employers and accounting academics in four Australian universities. J Teaching and Learning for Graduate Employability. 2011;2(1):2-21.

6. Gedye S, Fender E, Chalkey B, Students undergraduate expectations and postgraduate experiences of the value of a degree. J Geog Higher Ed. 2004;28(3):381-96.

7. Crebert G, Bates M, Bell B, Patrick C, Cragnolini V. Developing generic skills at university, during work placements and in employment: graduates' perceptions. Higher Ed Res and Dev. 2004; 23(2):147-64.

8. Graduate Careers Australia (GCA). The Report of the Graduate Outlook Survey: Employers' Perspectives on Graduate Recruitment. 2015. p.8. Available from: http://www.graduatecareers.com.au/ research/surveys/graduateoutlooksurvey/

9. Ridoutt L, Selby Smith C, Hummel K, Cheang C. What value do Australian employers give to qualifications? Available from: http:// www.ncver.edu.au/publications/1553

10. Oliver B, Hunt L, Jones, S, Pearce A, Hammer S, Jones S, Whelan B. The graduate employability indicators: capturing broader stakeholder perspectives on the achievement and importance of employability attributes. Proceedings of the Australian Quality Forum Quality in Uncertain Times. Gold Coast; 2010:89-95.

11. CBI. Changing the Pace. 2013. Available from: http://www.cbi.org. uk/media/2119176/education_and_skills_survey_2013.pdf

12. Archer W, Davison J. Graduate employability: what do employers need and want? The Council for Industry and Higher Education; 2008. Available from: http:/www.cihe-uk.com

13. Hinchliffe GW, Jolly A. Graduate identity and employability. BERJ. 2014.DOI: 10.1080/01411926.2010.482200

14. Tymon A. The student perspective on employability. Studies in Higher Ed. 2011.doi10.1080/03075079.2011.604408

15. Commission for Employment and Skills. National Employers Survey 2013: UK Results. Available from: https://www.gov.uk/government/ uploads/system/uploads/attachment_data/file/327492/evidence-report-81-ukces-employer-skills-survey-13-full-report-final.pdf

16. Messum D, Wilkes L, Jackson D. Employability skills: essential requirements in health manager vacancy advertisements. A Pac J Health Manag. 2011;6:22-28.

17. Messum D, Wilkes L, Jackson D. What employability skills are required of new health managers? A Pac J Health Manag. 2015; 10(1):28-35.

18. Ferns S. Graduate employability: teaching staff, employer and graduate perceptions. In Proceedings of the Australian Collaborative Education Network National Conference. Springvale; 2012. p.77-87. Available from: http://hdl.voced.edu.au/10707/259614.

19. Ainsworth M, Motley C. The value of management education: views of graduates on the benefits of doing a MBA. Higher Ed. 1995;30(2);175-187.

20. The Dearing Report. Higher Education in the Learning Society 1997: Main report of the National Committee of Inquiry into Higher Education. 1997. Available from: http://www.educationengland. org.uk/documents/dearing1997/dearing1997.html

21. Kennely M, Jackling B. the acquisition of generic skills of culturally diverse student cohorts. Accounting Ed: An Int J. 2011;20(6):606-23.

22. Moreau MP, Leathwood C. Balancing paid work and studies: working (class) students in higher education. Studies in Higher Ed. 2006;31(1):23-42.

23. Tomlinson M. The degree is not enough: students perceptions of the role of HE credentials for graduate work and employability. Brit J Soc Ed. 2008;29(1):49-61.

24. Brooks R, Everett G. the predominance of work-based training in young gradates learning. J Ed and Work. 2008;21(1):61-73.

25. Storen LA, Aamodt PO. The quality of higher education and employability of graduates. Quality in Higher Ed. 2010;16(3); 207-313.

26. Wickramasinghe V, Perera L. Graduates', university lecturers' and employers' perceptions towards employability. Education and Training. 2010;52(3):236-244.

27. Graduate Careers Australia (GCA). The Report of the Graduate Outlook Survey: Employers' Perspectives on Graduate Recruitment. 2013. Available from: http://www.graduatecareers.com.au/ wp-content/uploads/2014/03/Graduate_Outlook_2013.pdf

28. Graduate Careers Australia. Where grads go. 2015. Available from: http://www.graduatecareers.com.au/wp-content/uploads/2015/05/ GradsGo2015.pdf

29. Wilton N. The impact of work placements on skill development and labour market outcomes for business and management graduates. Studies in Higher E. 2012;37(5):603-620.

CHAPTER 8

8. COMPARISON OF HEALTH MANAGERS AND RECENT GRADUATES PERCEPTIONS?

8.1. Relevance to thesis

This paper presents a discussion of findings comparing HSM specific ES important to senior health managers and recently employed graduates, and their perceptions of skill levels. This paper was an invited publication when the full refereed paper presented at the 2016 ACEN Conference, Macquarie November 2016, as provided in the appendices, won the award for the best paper. This paper reveals information which is not readily available in the literature. There was strong agreement between the two groups on important ES, the top seven of which were generic skills. Their agreement adds weight to the findings. Although rate less important, there were also job specific skill gaps, many of which recent graduates did not appear to recognise. Findings provide valuable feedback to universities about ES required for HSM.

Senior managers' and recent graduates' perceptions of employability skills for health services management

DIANA MESSUM

LESLEY WILKES

KATH PETERS

DEBRA JACKSON

ABSTRACT

If work integrated learning (WIL) is intended by universities to meet the demand for work-ready graduates, identification of skill requirements is a necessary first step. Health services management specific employability skills (ES) perceived to be important by managers and recent graduates working in the field and their perceptions of skills they need to improve are not readily available in the literature. This research acknowledges the context specific nature or ES. Senior managers and recent graduates working in health services management were identified from a placement data base used at a NSW university, and emailed using a common questionnaire. Comparison of ratings for importance and skills observed is reported for 44 ES items. There was strong agreement between the two groups on important ES, and the top seven items on which they agreed were all generic in nature. Skill gaps were also revealed, many of which recent graduates did not appear to recognise.

INTRODUCTION

For higher education to embed the development of employability capabilities in curriculum to ensure work-ready graduates (consistent with the recent *National WIL Strategy)*, requirements of industry must first be clarified. While industry generally appears satisfied with the discipline-specific skills of graduates, there is some evidence that employability skills (ES) are under-developed (Precision Consultancy, 2007). Also the contextual nature of ES has long been recognised (Department of Education, Employment and Workplace Relations, 2012), which means that industry specific ES should be identified.

For the purposes of this research ES were defined as skills "not only to gain employment, but also to progress within an enterprise." (Australian Commonwealth Department of Education Science and Training, 2002, p. 143). This included technical or discipline specific skills, knowledge, capabilities and personal attributes. This is consistent with the European Commission (2011, p. 4) definition that ES are "The combination of factors which enable individuals to progress towards or get into employment, to stay in employment and to progress during their career." More recently, the *Australian Employability Skills Framework* (2012) acknowledged ES as skills and knowledge that enable employees to perform effectively in the workforce and apply technical or discipline specific skills. It noted that failure to recognise the context-dependent nature of ES, lack of explicit focus on ES in education, also measurement and assessment difficulties helped explain poor development of ES in graduates.

Employer preferences for graduates who "hit the ground running" have been reported (Ferns & Lilly, 2015; Semeijn, Veldon, Heijke, Vlueten & Boshuizen, 2006; Ridoutt, Selby Smith, Hummel & Cheang, 2005). However, only one fifth said they expected graduates to be immediately work-ready in the Hinchliffe (2008) study. In an Australian study, Ridoutt et al., (2005) argued that employers regarded qualifications as a signal of potential for future learning and skills acquisition, not as a signal of immediate competence. Scott (1995, p. 112) saw a degree as a threshold requirement and noted that formal credentials were a less reliable guide to success, finding that personal qualities were "more important than professional discipline, possession of specific credentials, mastery of specialised knowledge or even of expert skills." Furthermore, Tomlinson (2008) surveyed final year students and found students perceived academic qualifications as having a declining role in shaping employment outcomes. Students did not think a degree was enough. More recently, Weinstein (2014) cited a survey

by a recruitment website which found that 49% of recent graduates believed their university education did not adequately equip them for the world of work.

It is known that advertised ES profiles vary not only by industry but also by country (Marchal et al., 2007; Communal & Senior, 1999; Quinn & Rochford, 2013; Rear, 2013; Ahmed et al., 2013; Cramer & Tenzek, 2012) and over time (Varje et al., 2013). As stated by Massey (2010) skill sets are in transition, with a move towards generic skills or soft skills rather than job or profession specific skills (Hawkins et al., 2000; Cramer & Tenzek, 2012; Quinn & Rochford, 2013). In fact one third of the studies in a recent review (Messum et al., 20016, in press) specifically recommended that HEI should use their findings and/or teach generic skills required by industry.

Ridoutt et al., (2005) found employers also valued experience. This was confirmed by Orme et al., (2008) as the most important ES of all; Chow & Shih (2005) found experience was listed in 67% of advertisements, Wellman (2010) 52% & Kennan et al., (2009) 50%. It was even a requirement for new entry position (Messum et al., 2011; Reeves & Hahn., 2012; Chipulu et al., 2013). If experience is a major requirement it may help explain recruitment shortages. This finding has important implication for HEI and work integrated learning.

The most recent GCA survey (2015, p. 15) found that communication skills was the most important selection criterion for employers when recruiting graduates, nominated by 48.6% of graduate employers. Academic results and teamwork skills came next (24.% and 22.4% respectively) and around 20% of employers ranked aptitude as a key selection criterion, followed by interpersonal skills, leadership skills and work experience.

In our recent review of 40 studies (Messum et al., 2016, in press), two thirds listed communication skills as the most commonly advertised skill requirement. However, communication skills were variously called social skills (Redman & Mathews, 1997) and interpersonal skills (Wise et al., 2011) or listed as an item in a cluster of skills. Other studies viewed communication skills as a distinct from interpersonal skills (Den Hartog et al., 2007; Omar et al., 2012; Hong, 2012; Salleh et al., 2013). Communication skills mean different things in different settings and countries (Rear, 2013). Lack of agreement over definition of terms has been previously identified dispelling the notion of a universal understanding, which explained the absence of a single "focus for teaching, learning and assessment" (Hughes & Barrie, 2010, p. 238). Jones (2010) showed how the culture of the discipline influences understanding of or generic attributes and concluded that they were highly context-dependent and shaped by discipline.

Although communication skills have consistently emerged as the most important ES, deficiencies in written and oral skills have been lamented (GCA, 2015; CBI, 2013; Archer & Davison, 2008). Problems with integrity, teamwork, problem solving, literacy, numeracy, critical analysis skills, planning, organising and self-management have also been revealed (Hinchliffe & Jolly 2014). Furthermore, generic ES seem more useful than job-specific skills for coping with rapidly changing and complex work environments such as in the health field (Liang, Short & Brown, 2006). They found skills in planning, evaluation and decision-making have endured, but new skill requirements have emerged, namely leadership, managing and leading change, mentoring others, financial management and personal qualities. Skill sets that preserve employability in rapidly changing, now often global, fields (Kennan et al., 2009) are particularly important since they include both skills to secure a job and progress in the employing organisation, which have previously been found to be not exactly the same skill sets (Semeijn et al., 2006). This was confirmed by Chipulu, Neoh, Ojiako & Williams (2012), who found industry put more weight on generic skills eg communication, team management, leadership, stakeholder management, budget management, time management, commercial awareness and teamwork, than discipline specific skills and knowledge/experience.

While industry generally appears satisfied with discipline-specific skills, GCA (2014) reported that generic skills are under-developed. To ascertain requirements, typically the views of employers or students are sought (Jackson, 2011; Nilsson, 2010). A few studies have also surveyed views of recent graduates and academics (Oliver, Whelan, Hunt & Hammer, 2011; Gedye, Fender & Chalkey, 2004; Crebert, Bates, Bell, Patrick & Cragnolini, 2004). Other sources of information include professional

colleges which publish capability lists and exert a strong influence on teaching content for many professions (eg ACHSM, 2014). Analysing essential skills as given in vacancy advertisements is another source (Varje, Turtianen & Vaananen, 2013). However, skills to gain a job have been found different to those required once a job is secured (Semeijn, Veldon, Heijke & Vlueten, 2006).

There is limited research exploring context specific ES requirements in the health arena (Messum, Wilkes & Jackson, 2011). Messum et al., (2011) found that the most frequently advertised essential requirements for HSM vacancies were interpersonal skills, experience, tertiary qualifications, knowledge of the healthcare system, teamwork, conceptual and analytical skills, computer skills, financial skills and leadership. Liang et al., (2013) identified six core competencies for senior management as operations, administration and resource management; knowledge of healthcare environment and the organisation; interpersonal, communication qualities and relationship management which have been widely identified in previous studies but leading and managing change and evidence-informed decision making have not been as clearly recognised previously. However, the skills for new graduates, at lower levels in health organisations were different (Messum et al., 2015) and according to their supervisors included being flexible and open-minded, written and verbal communication skills, self-awareness, collaborative and planning skills rather than technical or discipline-specific skills. Only two common items were revealed for the top ten essential skills advertised (Messum et al., 2011) compared with the top ten ES required by senior health managers: interpersonal skills and teamwork. Specifically ES gaps in recent graduates that they supervised were reported for teamwork, written skills, collaboration, negotiation, computing and software skills (specifically use of Excel), strategic thinking, ability to scan the environment and self-awareness. This study also found that health managers wanted new graduates with good self-management skills who required minimal supervision, and were self-starters with a good work ethic. Furthermore, the most important ES for which skill gaps were identified were all generic rather than discipline specific. However, given the paucity of research into skill needs for HSM the aim was to identify those job specific skills required in the field as well as generic skills and measure the level of skill gaps comparing self-rated and supervisor ratings.

It has been argued that recent graduates are well placed to identify skills important in the real world, based on insight from current employment experience (Ainsworth & Motley, 1995). Graduate perceptions of their own skill levels have been studied, (Oliver et al., 2011; Wickramasinghe & Perera, 2010; Gedye et al., 2004; Crebert et al., 2004). In a survey of 36 Australian universities shortly after course completion (GCA 2013) most full-time employed bachelor degree graduates felt that they possessed high levels of skill for learning, teamwork, problem solving and communication. However, only 58.9% rated skill levels highly for information technology skills and 57.7% for initiative/enterprise. Three years later, ES were reported as much improved, especially self-management, initiative/enterprise, planning and organising, skills they identified as more effectively developed on the job rather than at university. If WIL is intended by universities to meet the demands for work-ready graduates (Patrick, Peach, Pocknee, Webb, Fletcher & Pretto, 2008), identification of discipline specific ES requirements is a necessary first step. Findings can be used in curriculum renewal and also raise student awareness about skills required on the job. Also accuracy of self-assessment of ES developed through WIL can be improved (Mackaway, Winchester-Seato & Rowe, 2012). The value in comparing their perceptions with senior managers is that it can add weight to recommendations for curriculum renewal. Findings can also be useful to clarify expectations of work integrated learning (WIL) experiences. Failure of newly appointed graduates to recognise the importance of particular ES as perceived by their supervising managers may be useful feedback for employers as well as higher education institutions (HEIs).

RESEARCH AIMS AND INTENT

The broad aim of this paper was to illicit views of recent graduates and senior managers about skills needed to work in HSM. More specifically the research questions asked:
- Is there a difference in perceptions of skills most important for HSM, whether job specific or generic, for senior managers and recent graduates?
- Is there a difference in ratings of skill levels by supervising senior managers and recent graduates' self-ratings?

This research was undertaken with ethics approval (number H9344, 9 July 2013), from the University of Western Sydney for PhD studies.

METHOD

Survey instrument

The survey included four Likert scales for interpersonal and communication skills, self-management skills, critical analysis skills and job specific skills. Individual ES items were gleaned from the literature and also from our study of 100 job advertisements for HSM positions in two major NSW newspapers, (Messum et al., 2011). Items were then sorted into themes verified by pilot testing with three local health managers. Respondents rated items for importance and skill level on a five-point scale ranging from no skills ie requiring training and development rated zero to excellent rated four. Further details can be seen in previous publications (Messum et al., 2015; Messum et al., 2016). The same Likert scales were used by both senior managers and recent graduates. Each item was rated in turn for importance then skill level to promote understanding that comparisons were being made.

SURVEY SAMPLE

Convenience samples of senior HSM managers defined as Chief Executive Service or Senior Executive Service level employees or their equivalent, who supervised graduates, also recent graduates from the last three years were obtained from placement data held for a large metropolitan university, NSW Australia. Both groups were emailed surveys over a three month period in 2013. For senior managers, a response rate of 95% was obtained (n=38), with equal numbers of males and females. Two (5%) recently appointed senior managers declined to participate in the study, stating that they had too little experience in the health sector, having worked outside the health arena to date. The sample included CEOs, general managers or directors of health districts, organisations or services. Half worked in the public sector, one third in not-for-profit (NFP) or non-government organisations (NGOs), four in the private sector and two in aged care institutions. The mean number of years working in health was over 19 years but this dropped to eight years in the current organisation. About half the respondents had been employed in health for over 20 years. This was similar for male and female respondents. Although seven had only worked in their current position for up to a year all had worked in the health field for much longer. Furthermore, all confirmed that they had supervised new graduates in the last three years.

Of the 50 HSM graduates emailed, 42 responded, a response rate of 84%, of whom two thirds were female. Twenty had completed an undergraduate degree from one New South Wales metropolitan university, 20 from a variety of universities across the state and two from overseas. Nearly half had worked in their current position only a year, eight less than a year, another eight up to two years, and five for over three years. Only four held a permanent position, and the majority (88%) worked fulltime. Over one third were currently engaged in part-time post-graduate study, in a ratio of two females to one male. Their HSM jobs were varied: seven worked as project officers, six as quality managers, four in general management roles, the balance as personal assistants to senior staff. Three quarters (32) worked for state government, three for local government, six worked for not for profit organisations and one only in the private sector. Salary level was compared with the median new Australian graduate annual salary of $52000 at that time, (GCA, 2015). Almost half the sample (45%) earned in the range of $45-54999, 31% $55-64999, 19% over $65000 and only, worked part-time earned under $45000.

DATA COLLECTION AND ANALYSIS

A Cronbach's alpha coefficient of 0.89 was obtained for the total 44 items as a check for internal consistency. The reliability of sub-scales was also examined. All sub-scales except one called experience and knowledge of health with achieved a satisfactory Cronbach's alpha over 0.7, (ranging from 0.82 to 0 .9), suggesting good internal consistency, ie they were measuring the same underlying construct according to Pallant, 2013. The four experience/knowledge items were combined with job specific skills items which improved internal consistency of this sub-scale to 0.87. The experience/knowledge sub-scale was originally included because it contained selection criteria found

frequently in our advertisement analysis study (Messum et al., 2011) and was ranked fifth in importance by GCA (2013). This revised survey was used with recent graduates and internal consistency improved with a Cronbach's alpha coefficient of 0.93. This time all sub-scales achieved a satisfactory Cronbach's alpha over 0 .7, (ranging from 0.82 upwards), confirming that they were measuring the same underlying construct. Other analysis included paired samples *t*-tests for comparison of senior managers' and recent graduates' views of importance and skills ratings with p set at 0.05, two tailed test for an exploratory study.

RESULTS

Mean scores for importance ratings from senior managers and recent graduates for the four sub-scales are presented in Table 1. Overall perceptions about what ES were important in HSM were similar with no statistically significant differences in mean scores for 34 (77%) items. Of all 44 items the top ten most important ES for senior health managers were in rank order, integrity and ethical conduct, interpersonal skills, teamwork, flexibility and open mindedness, written communication skills, collaboration, self-awareness, priority setting, planning and life-long learning. For recent graduates they were verbal communications skills, teamwork, integrity and ethical conduct, priority setting, time management, experience in management, ability to work independently, organisational skills, written communications and networking. Findings for each sub-scale will now be presented in turn.
Mean scores for importance ratings of IPC items were significantly different for only networking and leadership, both of which were more important to graduates than managers. For self-management items, time management, organisational skills, working independently and experience in management were significantly more important to recent graduates than managers, but managers rated self-awareness, flexibility and open mindedness more highly. Strong agreement on the importance of integrity and ethical conduct was found, the item which achieved the highest importance rating of any item in the survey for both groups. There were no statistically significant differences in mean scores for importance of critical thinking skills. Furthermore, managers and recent graduates exhibited almost identical rank ordering with priority setting, planning skills and independent thinking the top three, all rated as important to very important.

For ratings of importance of job-specific skills for the two groups, mean score differences were statistically significant for computing and software skills, project and risk management, quality and performance management, which recent graduates rated more important than managers and for budget/financial management skills which managers rated more important. Both groups of respondents agreed that computer and software skills were the most important ES in this scale. However, senior managers rated budget/financial management and change management as the next most important ES compared with project and quality management for graduates.

Table 1: Comparison of managers and recent graduates rating of importance of ES

ES	Importance	
	Managers	Graduates
IPC skills		
Interpersonal skills	3.78	3.60
Teamwork	3.75	3.76
Written communication	3.68	3.70
Verbal communication	3.67	3.86
Collaborative skills	3.67	3.45
Networking skills	3.00	3.61**
Negotiation skills	3.08	3.14
Cultural awareness	3.03	3.09
Leadership	2.64	3.24**
Self-management skills		
Integrity & ethical conduct	3.94	3.81
Flexible and open minded	3.72	3.63
Self-awareness	3.56	3.41

Life-long learning	3.47	3.54
Organisational skills	3.42	3.71**
Calm under pressure	3.42	3.49
Time management	3.37	3.78**
Ability work independently	3.36	3.73**
Experience in management	2.31	2.76**
Tertiary qualifications	3.25	3.22
Career planning skills	2.83	2.93
Critical thinking skills		
Priority setting	3.53	3.74
Planning skills	3.47	3.58
Independent thinking	3.42	3.43
Ability to analyse environ	3.39	3.43
Strategic thinking	3.33	3.52
Conceptual skills	3.17	3.20
Creativity and innovation	3.17	3.24
Research skills	3.14	3.20
Job specific skills		
Computer & software skills	3.33	3.59*
Change management	3.29	2.94
Budget/financial management	3.19	2.81*
Administration skills	3.14	3.33
Project management	3.11	3.55***
Legislation, standards, policy	3.00	3.15
Operational management	2.87	3.12
Risk management	2.87	3.32**
Quality management	2.84	3.38**
Experience in health field	2.84	3.00
Performance management	2.79	3.33**
HRM	2.71	2.85
Advocacy skills	2.71	2.93
Knowledge of local population	2.39	2.63
Accreditation skills	2.37	2.59

* Indicates significant difference at p<0.05, ** at p<0.01 & *** at p<0.011 between
mean scores for managers and recent graduates and recent graduates.

Table 2 compares skill ratings observed by supervising health managers with recent graduates' self-ratings on the same items. On all skill ratings for IPC items, graduates' mean scores were significantly higher than managers, except for verbal communication skills, on which they agreed. Skill gaps, as defined by a mean score of 2.5 or lower as observed by senior managers, were apparent for written communication, teamwork, collaboration, negotiation, cultural awareness and leadership. However, this was not the view of recent graduates: none of their mean scores in this scale achieved less than 3.2.

Mean scores for self-management item skill levels were not significantly different for tertiary qualifications, being calm under pressure, also integrity and ethical conduct, suggesting similar views of recent graduates and supervising managers. Recent graduate's self-ratings were significantly higher than that of supervising managers for all other items. Skill gaps appeared with mean scores from managers below 2.5 for career planning skills and experience in management and close to 2.5 for ability to work independently, life-long learning and self-awareness. Recent graduates however, did not appear to appreciate their skill gaps, with only experience in management self-rating below 2.5.

On all critical thinking items, recent graduates rated their skills significantly higher than managers, except for research skills where they agreed. However, skill gaps existed for priority setting, independent thinking, planning skills, ability to analyse the environment, conceptual thinking, strategic thinking, creativity and innovation with mean scores rated lower than 2.5 by supervising managers. Recent graduates rated all items in this sub-scale over 2.5.

Table 2 also shows that for nearly all items, recent graduates' self-ratings for job specific skills were significantly higher than the rating given by managers except computer and software skills, change management, operational management, knowledge of the local population and accreditation skills on which ratings were similar. However, all job specific skill items were rated less than 2.5 by managers, except administration and computer and software skills, suggesting many skill gaps.

Table 2: Comparison of managers and recent graduates rating of skill levels

ES	Skill ratings	
	Managers Observed	Graduates Self-rating
IPC skills		
Interpersonal skills	2.75	3.21**
Teamwork	2.67	2.98***
Written communication	2.69	3.21**
Verbal communication	2.81	3.14
Collaborative skills	2.44	2.95**
Networking skills	2.14	2.62**
Negotiation skills	1.86	2.55***
Cultural awareness	2.01	2.90***
Leadership	1.75	2.64***
Self-management skills		
Integrity & ethical conduct	3.14	3.49
Flexible and open minded	2.83	3.37***
Self-awareness	2.53	3.07***
Life-long learning	2.58	3.20**
Organisational skills	2.78	3.15*
Calm under pressure	2.67	2.79
Time management	2.72	3.41**
Ability work independently	2.58	3.45***
Experience in management	1.61	2.32***
Tertiary qualifications	3.00	3.29
Career planning skills	2.14	2.73***
Critical thinking skills		
Priority setting	2.56	3.19***
Planning skills	2.42	2.98***
Independent thinking	2.44	2.86***
Ability to analyse environ	2.13	2.91***
Strategic thinking	2.18	2.88***
Conceptual skills	2.31	2.70**
Creativity and innovation	2.28	2.80**
Research skills	2.69	3.00
Job specific skills		
Computer & software skills	3.11	3.12
Change management	1.87	2.31
Budget/financial management	1.82	2.36**
Administration skills	2.66	3.17**
Project management	2.21	2.79**
Legislation, standards, policy	2.06	2.51**
Operational management	1.95	2.31
Risk management	1.94	2.61***
Quality management	2.00	2.71***
Experience in health field	1.97	2.44**
Performance management	1.89	2.54**
HRM	1.68	2.31***
Advocacy skills	1.83	2.49**
Knowledge of local population	1.64	2.27

Accreditation skills   1.84   2.02

* Indicates significant difference at p<0.05, ** at p<0.01 & *** at p<0.011 between
  mean scores for managers and recent graduates and recent graduates.

DISCUSSION

There are three main themes for the findings from this ES research: importance ratings, skill levels and skills gaps, which will be discussed in turn.

IMPORTANCE RATINGS
Overall there was strong agreement between supervising managers and recent graduates over what ES were important in HSM, with no difference in rating for three quarters of the items. For senior health managers the most important ES were all generic skills (integrity and ethical conduct, interpersonal skills, teamwork, flexibility and open mindedness, written communication skills, collaboration, self-awareness, priority setting, planning and life-long learning). For recent graduates the top ten ES were slightly different (verbal communications skills, teamwork, integrity and ethical conduct, priority setting, time management, experience in management, ability to work independently, organisational skills, written communications and networking) but also all generic except for the experience item which is specific to the field of HSM. The difference seemed to be that recent graduates focused on communication skills and self-management, consistent with GCA (2013), which they found best developed on the job. On the other hand, managers focused on different communication skills, emotional intelligence and the bigger picture. Communication, teamwork and interpersonal skills are top ranking ES in GCA (2015) but they found integrity was only mentioned by less than 4% of managers. Clearly this is more important in health, and recent graduates agree. Perhaps this is not unexpected given the potential vulnerability of health clients. Teamwork is also not unexpected given the nature of multi-disciplinary work in health. The importance of communication skills and teamwork echoes our previous findings (Messum et al., 2011).

Statistically significant differences emerged for networking and leadership which were more important to recent graduates than managers. Networking skills have been found instrumental in securing ongoing employment and career advancement (Kuijpers, Schyns & Scheerens, 2006; Gibson & Hardy, 2014; Sowon, 2013). This may also apply to leadership skills, but recent graduates understanding of the term "leadership" was not explored in our study. Only four recent graduates held permanent positions and they may have felt that showing initiative was an example of leadership skills important to help secure ongoing employment. Understanding of the term leadership by both stakeholder groups requires clarification. Time management, organisational skills, working independently and experience in management were also significantly more important to recent graduates than managers, which may also reflect interest in demonstrating they are useful employees that require minimal supervision.

For all critical thinking items no significant difference emerged and rank order of importance was also similar. Priority setting, planning skills and independent thinking were the top three, which in retrospect could be seen as self-management skills. With a large enough sample to permit factor analysis, this could be confirmed in future studies. Importance ratings of job specific skills were typically less important ES for senior managers than generic items, but they agreed on importance of computer and software skills. Where ratings were statistically significant items reflected the work recent graduates were actually doing eg project and quality management, which recent graduates rated more important than managers. Budget/financial management skills were rated more important by senior managers, consistent with our previous findings in the advertisement analysis (Messum et al., 2011) and Chipulu (2012).

SKILL LEVELS

For ratings of importance of job-specific skills, both groups agreed that computer and software skills were the most important ES in this scale. This finding is consistent with requirements of the *Australian Employability Skills Framework* (2012). However, whether this ES should be considered generic or specific to HSM can be debated, given the many health specific software programs in use. For

managers, change management and budget/financial management skills came next, also not unexpected given ongoing change in the NSW health care system, as previously identified by Liang et al., (2006). For recent graduates the next most important ES were project management and quality management. However, this finding may reflect sampling bias, in that 13 of the recent graduates worked in these areas, which may have affected their views as to their importance. Mean score differences were statistically significant for computing and software skills, project and risk management, quality and performance management, which recent graduates rated more important than managers and for budget/financial management skills which managers rated more important. The high score for performance management from recent graduates is difficult to interpret but recent graduates may have taken this to reflect their individual performance rating rather than health care system performance. Again clarification of what commonly used terms actually mean to different stakeholders is required.

There was agreement between the two groups about skill levels only for 10/44 items: verbal communication skills, integrity and ethical conduct, being calm under pressure, tertiary qualifications, research skills, computer and software skills, change management, operational management, knowledge of the local population and accreditation skills. Managers observed skill ratings were significantly lower than recent graduate's self-ratings for all the remaining 34 items. The trend for recent graduates to over-rate their skill levels is consistent with previous research (Oliver et al., 2011).

SKILL GAPS
Skill gaps meaning manager ratings at 2.5 or less, were not revealed for written and verbal communications, contrary to previous findings (GCA, 2015; CBI, 2013; Archer & Davison, 2008), nor for teamwork and integrity contrary to Hinchliffe and Jolly (2014). However, gaps were revealed for items in the critical analysis sub-scale namely priority setting, planning skills, ability to analyse the environment, conceptual thinking, creativity and innovation, strategic thinking and independent thinking, consistent with Hinchliffe and Jolly (2014). There were also significant skill gaps for collaboration, networking, cultural awareness, leadership, ability to work independently, self-awareness, career planning and life-long learning, with mean scores under or only marginally above 2.5. These are important findings not previously known for HSM and could be useful feedback for HE curriculum development. Furthermore, recent graduates did not appear to appreciate their skill gaps, with self-ratings much higher than senior managers' observations, suggesting strategies need to be developed to improve self-awareness. The skill gap for the experience in management item may be explained by recency of employment, and could be used in argument for longer student placements and internships.

Nearly all job specific items were rated less than 2.5 by managers, except administration and computer/software skills, suggesting many skill gaps. Accomplishment of younger graduates in technology has previously been recognised (Bandaranaike & Willison, 2015). However, large scale Australian studies (Precision Consulting, 2007; GCA, 2014) have suggested employers are well satisfied with discipline or job specific skills, but this does not appear to be the case in HSM. Findings highlight skills that could be addressed by both universities and WIL to improve graduate work readiness.

CONCLUSION

While this study is limited by the convenience samples used, he results show strong agreement of recent graduates and senior managers working in HSM about important ES needed on the job, most of which are generic. The extent of the importance of integrity an ethical conduct was unexpected from the literature. New findings about job specific skills were also revealed. This is useful feedback for academics and students to identify HSM context dependent skills and experience for emphasis while on placement. There is value in researching context specific ES, especially using the views of recent graduate as well as their supervising managers. However, recent graduates did not appear to recognise many of the skill gaps identified by their managers. Larger replication studies are needed to improve external reliability, clarify understanding of ES including commonly used terms such as communications skills, leadership and performance management and to monitor changes in ES

required over time. Ways of raising awareness of required ES including discipline specific skills prior to WIL, by practising reflection skills, during placement by linking theory and learning experiences through authentic assessment and post placement through debriefing (Harvey et al., 2016), must be improved. Not only is close collaboration of university academics and employers essential in this approach but also active involvement of students for example if placement supervisors assessed students ES, and jointly identified areas for further development. Furthermore, this study shows that recent graduates are well able to identify important ES on the job, such that pairing them with students on placement may also be useful.

REFERENCES

ACEN. (2014). *Statement of intent: Work integrated learning – strengthening university and business partners*. Retrieved from http://acen.edu.au/wp-content/uploads/2013/03/WIL-statement-ofintent.pdf

ACHSM. (2015). Health Management Internship Program (NSW). *Emerging Manager Competency Framework*. N. Ryde, ACHSM.

Ainsworth, M., & Motley, C. (1995.) The value of management education: Views of graduates on the benefits of doing a MBA. *Higher Education, 30*(2), 175-187. doi: 10.1007/BF01384095

Archer, W., & Davison, J. (2008). *Graduate employability: What do employers need and want*? The Council for Industry and Higher Education: http:/www.cihe-uk.com

Bandaranaike, S., & Willison, J. (2015). Building capacity for work-readiness: Bridging the cognitive and affective domains. *Asia-Pacific Journal of Cooperative Education, Special Issue, 16*(3), 223-233. Available: http://www.apjce.org/files/APJCE_16_3_223_233.pdf

CBI. (2013). *Changing the Pace*. Available: http://www.cbi.org.uk/media/2119176/education_and_skills_survey_2013.pdf

Commission for Employment and Skills. (2013). *National Employers Survey 2013: UK Results*. Available: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/327492/evidence-report-81-ukces-employer-skills-survey-13-full-report-final.pdf

Crebert, G., Bates, M., Bell, B., Patrick, C., & Cragnolini, V. (2004). Developing generic skills at university, during work placements and in employment: Graduates' perceptions. *Higher Education Research and Development, 23*(2), 147-64. doi: 10.1080/0729436042000206636

Dearing Committee. (1997). *Higher education in the learning society*: *Report of the national committee of inquiry into higher education*. The Stationery Office, London.

Department of Education, Employment and Workplace Relations. (2012). *Stage 1. Final report employability skills framework*. Canberra: Ithaca group. Available: http://hdl.voced.edu.au/10707/219478.

Department of Education, Science and Training. (2002). *Employability skills for the future.* A report by the Australian Chamber of Commerce and Industry and the Business Council of Australia for DEST. Canberra: DEST. Available: http://hdl.voced.edu.au/10707/62282.

European Commission. (2011). *Commission staff working paper on the development of benchmarks on education and training for employability and on learning mobility*. SEC, 670 Final. Brussels: European Commission. Available: http://site.ebrary.com.ezproxy.uws.edu.au/lib/sydney/reader.action?docID=10900557&ppg=10

Ferns, S., & Lilly, L. (2015). Driving institutional engagement in WIL: Enhancing graduate employability. *Journal of Teaching and Learning for Graduate Employability, 6*(1), 116–133. Available: ojs.deakin.edu.au › Home › Archives › Vol 6, No 1 (2015)

GCA. (2013). *The report of the graduate outlook survey: Employers' perspectives on graduate recruitment, 2013*. Available: http://www.graduatecareers.com.au/wpcontent/uploads/2014/03/Graduate_Outlook_2013.pdf

GCA. (2015). *Where grads go*. Available: http://www.graduatec

Gedye, S., Fender, E., & Chalkey, B. (2004). Students' undergraduate expectations and postgraduate experiences of the value of a degree. *Journal Geography in Higher Ed*ucation, *28*(3), 381-96. doi: 10.1080/0309826042000286956

Gibson, C., Hardy, J. H., & Buckley, M. R. (2014). Understanding the role of networking in organisations. Career *Development Journal, 19*(2), 146-161. doi: 10.1108CD1-09-2013-0111

Graduate Careers Australia. (2015). *Graduate Outlook 2014*. Melbourne, Victoria. Available: www.graduatecareers.com.au/.../2015/06/Graduate_Outlook_2014.pdf

Harvey, M., Coulson, D., & McMaugh, A. (2016). Towards a theory of the ecology of reflection: Reflective practice for experiential learning in higher education, *Journal of University Teaching & Learning Practice, 13*(2), 1-4. Available: http://ro.uow.edu.au/jutlp/vol13/iss2/2

Hinchliffe, G. W., & Jolly, A. (2014). Graduate identity and employability. 2014, *British Education Research Journal, 37*(4), 363-84. doi: 10.1080/01411926.2010.482200

Jackson, D. (2011). Student perceptions of the importance of employability skills provision in business undergraduate programs. *Journal of Education for Business, 88*(5), 271-79. doi: 10.1080/08832323.2012.679728

Kuijpers, M. A. C. T., Schyns, B., & Scheerens, J. (2006). Career competencies for career success. *Career Development Quarterly, 55*, 168-178. doi: 10.1002/j.2161-0045.2006.tb00011.x

Liang, Z., Short, S. D., & Brown, C. R. (2006). Senior health managers in the new era: Changing roles and competencies in the 1990s and the early 21st century. *Journal Health Administration Education*, Summer, 81-301. Available: www.academia.edu/7963870/Competencies_required_by_senior_health

Mackaway, J., Winchester-Seato, T., & Rowe, A. (2012). How do I measure up? Supporting student self- assessment in skills and graduate attributes. *Proceedings of the ACEN National Conference*, Melbourne/Geelong, 2012. Available: http://acen.edu.au/2012conference/wp-content/uploads/2012/11/78_How-do-I-measure-up.pdf

Messum, D., Wilkes, L., & Jackson, D. (2011). Employability skills: Essential requirements in health manager vacancy advertisements, *APJHM, 6*, 22-28. Available: http://hdl.handle.net/10453/18648

Messum, D., Wilkes, L., & Jackson, D. (2015). What employability skills are required of new health managers? *APJHM, 10*(1), 28-35. Available: http://search.informit.com.au/documentSummary;dn=056294336586753;res=IELHEA> ISSN: 1833-3818.

Messum, D., Wilkes, L., Jackson, D. & Peters, K. (2016). Employability skills in health services management: Perceptions of recent graduates. *APJHM,* 11(1), 25-32. Available: http://achsm.org.au/Public/Resources/Journal/Archives/Volume_11_Issue_1_2016.aspx

Nilsson, S. (2010). Enhancing individual employability: The perspectives of engineering graduates. *Education + Training, 52*(6/7), 540-551. doi: 10.1108004009111101068487

Oliver, B., Whelan, B., Hunt, L., & Hammer, S. (2011). Accounting graduates and the capabilities that count: Perceptions of graduates, employers and accounting academics in four Australian universities. *Journal Teaching and Learning for Graduate Employability*, 2(1), 2-21. Available: http://jtlge.curtin.edu.au/index.php/jtlge/article/view/25/13

Pallant, J. F. (2013). *SPSS survival manual: A step by step guide to data analysis using SPSS for Windows*. 5th Ed. Sydney: Allen and Unwin.

Patrick, C., Peach, D., Pocknee, C., Webb, F., Fletcher, M., & Pretto, G. (2008). *The WIL (work integrated learning) report: A national scoping study (Final Report).* Queensland University of Technology, Brisbane, Qld., Australia. Retrieved from http://eprints.qut.edu.au/44065/

Precision Consulting. (2007). *Graduate employability skills*. Melbourne: Business, Industry and Higher Education Collaboration Council. Available: http://aces.shu.ac.uk/employability/resources/GraduateEmployabilitySkillsFINALREPORT1.pdf

Rear, D. (2013). Converging work skills? Job advertisements and generic skills in Japanese and Anglo-Saxon contexts. *Asian Business and Management, 12*(2), 173 -196. doi:10.1057/abm.2012.41

Ridoutt, L., Selby Smith, C., Hummel, K., & Cheang, C. (2005). *What value do Australian employers give to qualifications?* Adelaide: National Centre for Vocational Education Research (NCVER) Available: http://www.ncver.edu.au/publications/1553

Semeijn, J., Veldon, R., Heijke, H., Vlueten, C., & Boshuizen, A. (2006). Competence indicators in academic education and early labour market success of graduates in health sciences. *Journal Education and Work, 19*(4), 383-413**.** doi: 10.1080/13639080600867158

Sowon, K. (2013). Networking enablers, constraints and dynamics: A qualitative analysis, *Career Development International, 18*(2), 120-138. doi: http://dx.doi.org/10.1108/CDI-04-2012-0051

Tempone, I., Kavanagh, M., Segal, N., Hancock, P., Howieson, B., & Kent. K. (2012). Desirable generic attributes for accounting graduates into the twenty-first century: The views of employers. *Accounting Research Journal*, *25*(1):41-45. doi 10.1108/10309611211244519

Tymon, A. (2011). The student perspective on employability. *Studies in Higher Education*, *36*(6), 841-56. doi: 10.1080/03075079.2011.604408

Universities Australia. (2014). *National WIL Strategy*. Retrieved from http://cdn1.acen.edu.au/wp-content/

Varje, P., Turtianen, A., & Vaananen, J. (2013). Psychological management: Changing qualities of the ideal manager in Finland 1949-2009. *Journal of Management History, 19*(1), 33-54. doi: http://dx.doi.org/10.1108/17511341311286187

Weinstein, G. (2014). Work-ready graduates. *Training Journal*, June, 58-61. Available: http://search.proquest.com.ezproxy.uws.edu.au/docview/1539322029?accountid=36155&rfr_id=info%3Axri%2Fsid%3Aprimo

Wickramasinghe, V., & Perera, L. (2010). Graduates', university lecturers' and employers' perceptions towards employability. *Education+Training, 52*(3), 236-244. doi: 10.1108/00400911011037355

CHAPTER 9

9. THE ISPP MODEL OF EMPLOYABILITY SKILLS FOR HEALTH SERVICES MANAGEMENT
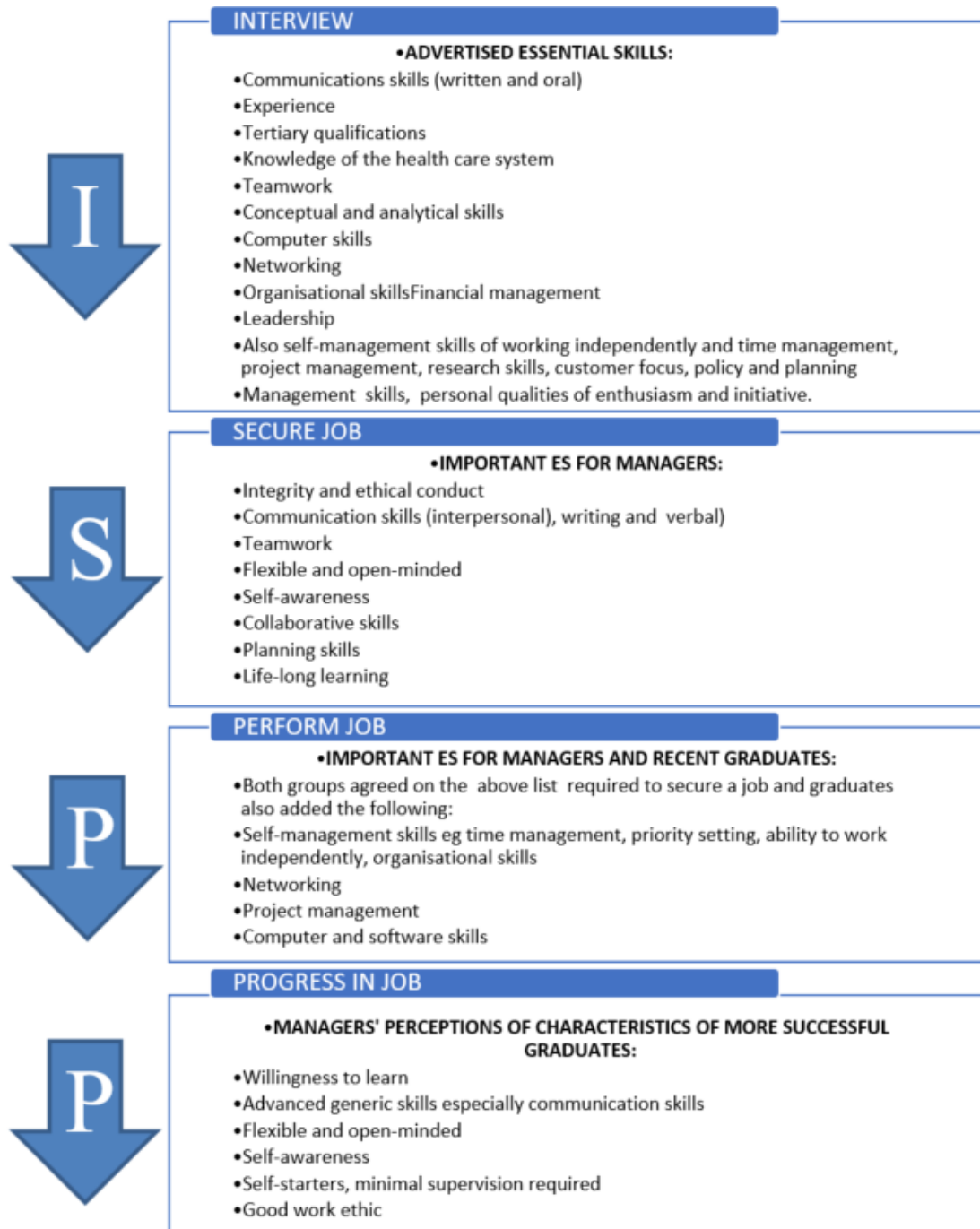
9.1. Introduction

This chapter describes the first model of ES throughout a career in HSM. The model brings together the published findings about ES from this thesis as presented in Chapters 5 to 8, specifically the findings from content analysis of advertised job vacancies in HSM, the perceptions of senior health managers, and recent graduates working in HSM, with comparison of their perceptions. The model is called ISPP, an acronym for **I**nterview short listing, **S**ecuring a job, **P**erforming the job and **P**rogressing in the job. This model summarises the unique contributions that this thesis makes to the field of ES for HSM. Implications of the study, strengths and limitations of the research and recommendations for future research are provided, finishing with some concluding thoughts.

9.2. The Model

The model reflects findings as reported in Chapters 5-8, showing important ES for each stage of the employment process. Consistent with the inclusive definition of ES from DEST (2002) adopted in this thesis, the model shows ES required for securing employment through to skills for ongoing success on the job. Overlap of ES requirements at different stages would be expected, given on the job opportunities for further skill development (Reio & Sutton, 2006). The proposed model commences with listing ES required to win an interview for a HSM position. An interview means that the applicant has been short listed for a job because they meet advertised requirements for the position. The most important ES (Messum, Wilkes & Jackson, 2011) are unique to HSM and the context of the health industry. These include the importance of health care system experience and knowledge, teamwork and financial management, although communication skills are the most important ES as known for other professions. This current research found that a degree is not enough to gain an interview, but remains a threshold requirement, confirming previous and subsequent findings (Tomlinson, 2008; Tomlinson, 2012; Nilsson,

2010; Bennett et al., 2015; GCA, 2016a). Other generic skills listed as important in this publication (eg teamwork, conceptual skills, self-management, project management, networking and computer skills) have been found important for many professions (Ridoutt et al., 2005; Litchfield et al., 2008; Saunders & Zuzel, 2010; Careers New Zealand, 2017; GCA ,2016a; Times Higher Education, 2016).

Figure 2: The ISPP Model of Employability Skills for Health Services Management

INTERVIEW

•ADVERTISED ESSENTIAL SKILLS:
- Communications skills (written and oral)
- Experience
- Tertiary qualifications
- Knowledge of the health care system
- Teamwork
- Conceptual and analytical skills
- Computer skills
- Networking
- Organisational skillsFinancial management
- Leadership
- Also self-management skills of working independently and time management, project management, research skills, customer focus, policy and planning
- Management skills, personal qualities of enthusiasm and initiative.

SECURE JOB

•IMPORTANT ES FOR MANAGERS:
- Integrity and ethical conduct
- Communication skills (interpersonal), writing and verbal)
- Teamwork
- Flexible and open-minded
- Self-awareness
- Collaborative skills
- Planning skills
- Life-long learning

PERFORM JOB

•IMPORTANT ES FOR MANAGERS AND RECENT GRADUATES:
- Both groups agreed on the above list required to secure a job and graduates also added the following:
- Self-management skills eg time management, priority setting, ability to work independently, organisational skills
- Networking
- Project management
- Computer and software skills

PROGRESS IN JOB

•MANAGERS' PERCEPTIONS OF CHARACTERISTICS OF MORE SUCCESSFUL GRADUATES:
- Willingness to learn
- Advanced generic skills especially communication skills
- Flexible and open-minded
- Self-awareness
- Self-starters, minimal supervision required
- Good work ethic

When interviewing, it is assumed that the values of senior health managers that underlie decision making for selection of successful applicants, reflect ES important on the job. At this stage of securing the job, all the important ES are generic and communication skills paramount. As revealed by Messum, Wilkes and Jackson (2015, as presented in Chapter 6), there are skills unique to HSM in terms of importance: integrity and ethical conduct, teamwork and skills relating to interpersonal interactions for example flexibility and open-mindedness, self-awareness and collaborative skills. In addition, planning skills are important, reflecting applicants approach to the process of work.

These same ES are important for job performance, with strong agreement of senior health managers and recent graduates, as noted in Messum, Wilkes, Peters and Jackson (in press). The only ES not rated so highly important by graduates compared with senior managers was collaborative skills. However, recent graduates included as important some self-management skills and ES that helped them cope with everyday work such as networking, strategic thinking, project management, computing and software skills (Messum, Wilkes, Jackson & Peters, 2016). The list for ES for job performance used in the ISPP model includes ES listed by both groups.

The ES for last stage of progressing in the job was revealed when senior managers listed ES characteristic of the more successful graduates they supervised (Messum et al., 2015). In addition to skills required to perform on the job, senior managers reported willingness to learn as a differentiating characteristic, which included seeking help, being able to follow advice, listening, receiving feedback, keeping abreast of broader issues and being open to opportunities. Advanced generic skills were displayed, especially communication skills, being flexible, adaptable and open-minded, analytical and problem solving skills, being professional, polite and reliable. The more successful graduates were self-starters with good work ethics, self-management skills and required minimal supervision.

9.3.   Implications of the Model

The ISPP model shows that a degree is not enough to secure employment in HSM. Discipline specific knowledge or technical skills may be implicit in a degree qualification, but generic skills are more important through all stages of the employment process in HSM. In particular, communication skills are very important

in HSM. Even when applying for a job, graduates need to be aware that their writing skills in a job application are often the first impression a recruiter gets of them and are thus a very important part of the selection process (Graham, Hampton & Willett, 2010), as are verbal communication skills at a job interview. On the job, IPC as well as verbal and written communication skills are important and the more successful graduates display advanced communication skills. For HSM at least, the generic ES that preserve employability appear to be communication skills, teamwork, being flexible and open-minded, self-awareness and planning skills, because they have been found important at all stages of the employment process, and appear to have endured over time (Liang et al., 2013). Planning skills may also be in this list and they too seem to have endured over time.

The importance of other ES varies by stage of the employment process. To secure employment in HSM, work experience and knowledge of the health care system are critical.

Lists of graduate attributes provide insufficient information for students, academics and graduates because they omit such context related job requirements. It has been argued that jobs are often open to many disciplines (GCA, 2016a; Rospigliosi, Greener, Burner & Sheehan, 2013) suggesting that knowledge per se is not important to employers, but this is not the case for HSM. Work experience in the health industry is required to secure a job, and skill requirements are different to those required in other management positions. This finding is consistent with the SHAPE (2008) capability dimension for HSM of possessing a deep contextual understanding of health systems (Briggs, 2008; Briggs, Smyth & Anderson, 2012). The implication of this finding is that graduates without experience and knowledge of the health industry would be disadvantaged when applying for HSM positions. It also means that students should be taught about the health care system, to improve their understanding of how it works, and their studies must include practical placements. An underlying assumption is that close engagement of the health industry and HEIs, is required for example for work placements, authentic assessments and development of teaching materials. Then ES can be built upon in the workplace. HEI and employers have a role in life-long learning: employers to create the ongoing opportunities for skill development, and HEI to teach the needed set of skills.

The recruitment requirement of being able to demonstrate understanding of and experience in the health field, confirms the role of student placements or WIL in HSM courses. It can also be used to motivate students to take up placements and actively engage with the world of work, a problem identified by Rhea et al., (2007). The incentive is that placements ease transition into work (Crebert et al., 2004; Cramner, 2006; GCA, 2016b). However, since the quality of placements may vary (Moreau & Leathwood, 2006b), debriefing and reflection on work experience must be used carefully in assessments to promote learning. Students also need to be proactive on placements and seek out experiences, ask questions that can improve their understanding of the health system and articulate ES gained that will be useful when applying for jobs. Additionally, expansion of placement opportunities could be mutually beneficial and further improve already high rates of employment from student internships (GCA, 2016a). The importance of engagement of HEI and employers is implicit in much of this discussion.

Since data were collected for this study, the Global Consortium for Healthcare Management Professionalization (2015) has been established, comprising professional HSM organisations from 13 countries plus eight international bodies. This consortium has agreed a master list of five competency domains, one of which is understanding of the healthcare system and the environment in which healthcare managers and providers function. The other domains include communication and relationship management, professional and social responsibility which includes integrity and ethical conduct, business skills and leadership. The latter may not be expected of recent graduates, but context specific computer/ IT skills, networking, financial management and collaborative skills which were unique findings in this thesis, are recognised by the Global Consortium. This thesis supports their argument for a separately identifiable profession of HSM.

The ES senior managers observed as being held by recent graduates as measured by high ratings included integrity and ethical conduct, computing and software skills, and tertiary qualifications. These are the skills for which graduates may be considered work-ready (Messum, Wilkes, Peters & Jackson, in press). The list is not a long one, and suggests that HEIs are not delivering work ready graduates to the level expected for HSM. Many recent graduates surveyed for this thesis (Messum, Wilkes, Jackson & Peters, 2016) were undertaking postgraduate courses to improve

their skills. The finding that recent graduates over-rated their own skill levels was not unexpected (Saunders & Zuzel, 2010; Oliver et al., 2011). However, it does mean that as students they need to be exposed to the process of self-rating and provided reality checks through feedback to improve their skills. On the job, employers can attempt the same process through performance appraisals providing immediate feedback on their ratings to improve reliability.

Skill gaps mean that competency is poorly rated. To help prioritise skill gaps, ES which senior managers rated as important with significant skills gaps follow: IPC, teamwork, writing and verbal skills, collaboration, self-awareness, life-long learning, being calm under pressure, planning skills, independent thinking and ability to analyse the environment. These are important findings not previously known for HSM and provide useful feedback for higher education curriculum development. These findings suggest that generic skills important to employers are not being well developed in HEIs. This resonates with previous research that identified deficiencies in analytical and planning skills (Lockhart & Backman, 2009; Tymon, 2011; Hinchliffe & Jolly, 2014; UKCES, 2016) as well as leadership and financial management for HSM (Lockhart & Backman, 2009). Nearly all job specific items were rated as poor by senior managers (Messum, Wilkes & Jackson, 2015), covering topics readily addressed in HEI and by ongoing professional development on the job.

9.4.   Strengths of this Study

This thesis contributes to knowledge by demonstrating the value of a seldom used methodology of content analysis of advertisements. Regular use of this methodology would be useful for ongoing curriculum renewal, careers services and course marketing. Such analysis must be specific to HSM. In addition, seeking the perceptions of recent graduates appears to be a legitimate source of information on important skills requirements, but their self-rating of skill levels needs to be improved.

New findings form this thesis relate to development of a model for ES in HSM. Rather than a generic framework for graduates, it has been demonstrated that a model specific to HSM is required. One of the main criticisms of research in the field of ES, is that there is no underlying theoretical basis (Smith, Ferns & Russell, 2014; Sumanasiri, Yajid & Khatibi, 2015). The models that exist typically attempt to

explain employability in terms labour market theory or human capital theory (*Employability Skills Framework*, 2012). Professional associations have accepted items for inclusion in capability lists that rely on opinions of experts and /or perceptions of importance of practitioners, without much empirical evidence (Martins & Isouard, 2015). Others lists of skills have excluded components of employability eg personal skills, or have ignored context (*Employability Skills Framework,* 2012). The Global Consortium for Healthcare Management Professionalization (2015) based their five dimensions on job analysis surveys of typical HSM tasks regardless of work setting or years of work experience.

This thesis is of value for leading to the development of a model showing ES required at different stages of the employment process, based on empirical evidence. A staged model more clearly exposes the role of various stakeholders. For example, HEI can include ES in curriculum prior to placement activities, assess their development with supervising HSM on placement and at debriefing after placement to provide feedback to facilitate opportunities for further development (Nilsson, 2010). There is a role here too for ACHSM and SHAPE as the peak bodies for the profession of HSM in Australia, to advocate for government policy to help ensure appropriate curriculum content, availability of practical placements and engagement of HEI and employers.

9.5.   Limitations of this Study

This study only relates to entry level HSM. Sample sizes were small and convenience sampling using a placement data base from one NSW university, may have caused bias in selection of respondents, so the generality of findings is limited. This research remains exploratory and there is a need for replication, with larger numbers and follow-up confirmatory research. Findings about ES required to progress in employment are based on one open-ended question only.

9.6.   Future Research

Replication studies with larger samples of health services managers at entry, middle and senior management levels may provide information to evaluate the ISPP model presented in this chapter. Stakeholder perceptions of ES may vary. For example, understanding of the term leadership was explored with senior managers only, and

found varied. What leadership means to recent graduates may be different. Definition of other ES requires further exploration such as collaborative skills as a newly identified ES, requires attention. Questions to be asked include whether priority setting is a planning skill or workload management strategy, or a self-management skill. What performance management means to recent graduates and their supervising managers may be different. Communication is a broad and complex concept and its components for example IPC, presentations, negotiation skills, and collaborative skills not just written and verbal skills, should be further explored. It may vary by profession or context and over time. Cluster analysis of ES with larger study numbers may assist in teasing out these concepts. The issue of what ES preserve employability and/or promote ongoing employment success is open for further investigation. Advanced ES need further investigation for example personal traits such as flexibility, and creativity. The ISPP model presented in this chapter, could be tested with other context specific professions, to identify staged ES and see what skills are required for other professions.

9.7.   Concluding Thoughts

This thesis presents a significant contribution by helping to define professional knowledge required for working in HSM in terms of important ES through a triangulated study design of advertised job requirements, senior managers' and recent graduates' perceptions. The thesis successfully addressed the research questions to define the skill requirements on public record as advertised in job vacancies for HSM; it found strong agreement in perceptions of skills most important for HSM for senior health managers and recent graduates; and found differences in self-rating of skill levels by recent graduates compared with supervising managers' observations.

The main ES identified as important are generic rather than discipline specific, and confirm the importance of communication skills and work experience. Views of the two groups are different to ES as advertised as essential skills in job vacancies, and in some way, assist in explaining difficulties of employers in finding enough graduates suitable for employment. Findings can be used for curriculum renewal, careers advising, and employer professional development. They can be applied to current HEI programs to evaluate if courses are providing the skills needed in the

field of HSM. The ACHSM has long argued that skills required for HSM are different to general management skills, which this research confirms. ES add value to a degree but work needs to add value to working life through ongoing skill development because skill gaps may have implications for functioning of the health care system. Lastly, ES requirements were found to vary by stage of employment, which may help explain conflicting results in the literature for ES.

REFERENCES

ACHSM. (2015). Health Management Internship Program (NSW) *Emerging Manager Competency Framework*. N. Ryde: ACHSM.

Ainsworth, M., & Motley, C. (1995). The value of management education: Views of graduates on the benefits of doing a MBA. *Higher Education*, *30*(2), 175-187. doi: 10.1007/BF01384095

Allen Consulting Group. (2004). NCVER *Development of a strategy to support the universal recognition and recording of employability skills.* Report to the Department of Education and Training. DEST, Canberra.

American College of Healthcare Executives. (ACHE). (2015). *Leadership competencies for Healthcare Service Executives.* Available: https://www.ache.org/newclub/resource/Leadership_Competencies_Healthcare_Services_Managers.pdf

Andrews, G., & Russell, M. (2012). Employability skills development: Strategy, evaluation and impact. *Higher Education, Skills and Work-based Learning*, *2*(1), 33-44.

Archer, W. & Davidson, J. (2008) *Graduate employability: What do employers think and want?* London: The Council for Industry and Higher Education (CIHE).

Arnold, J., Harrington, J., & Hart, N. (1999). Students perceptions of competence development in undergraduate business related degrees, *Studies in Higher Education*, *24*(1), 43-52.

Beisma, R. G., Pavlova, M., Vaatstra, R., van Merode, G. G., Czabanowska, K., Smith, T., & Groot, W. (2008). Generic versus specific competencies of entry-level public health graduates: Employers' perceptions in Poland, the UK, and the Netherlands. *Advances in Health Sciences Education, 13*, 325-343.

Bennett, D. (2016). *Enacting strategies for graduate employability: How universities can best support students to develop generic skills: Final Report 2016*. Sydney: Office for Learning and Teaching Department of Education and Training. Available: http://melbourne-cshe.unimelb.edu.au/__data/assets/pdf_file/0011/1874774/SP13-3258_Curtin_Bennett_Graduate-Employability_Final-Report_Part-A_20163.pdf

Bennett, D., Richardson, D. S., & MacKinnon, P. (2015). *Enacting strategies for graduate employability: How universities can best support students to develop generic skills.* Technical Report April. Sydney: Office for Teaching and Learning

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 and Training*, *54*(4), 457-475.

Blasko, Z. (2002) Access to what? Analysis of Factors Determining Graduate Employability: A Report to the HEFCE. Centre for Higher Education Research and Information (CHERI), Bristol.

Brennan, J., & Shaw, T. (2003). *Access to what? Final report*. CHERI, Open University, London.

Bridgestock, R. (2009). The graduate attributes we've overlooked: Enhancing graduate employability through career management skills. *Higher Education Research and Development, 28*(1), 31-44.

Briggs, D. S. (2008). SHAPE Declaration on the organisation and management of health services: A call for informed public debate. *Asia Pacific Journal of Health Management, 3*(2), 10-13.

Briggs, D. S., Smyth, A. Z., & Anderson, J. A. (2012). In search of capable health managers: What is distinctive about health management and why does it matter? *Asia Pacific Journal of Health Management, 7(2)*, 71-78.

Brown, P., & Hesketh, A. (2004). *The mismanagement of talent*. Oxford: OUP.

Calhoun, J. G., Spencer, H. C., & Buekens, P. (2011). Competencies for global health graduate education. *Infectious Diseases Clinics of North America*, *25*(3), 575-592.

Calhoun, J. G., Vincent, E. T., Baker, G. R., Butler, P. W., Sinoris, M. E., & Chen, S. L. (2004). Competency identification and modelling in healthcare leadership. *Journal of Health Administration Education, 21*(4), 419-440.

Cantrell, M. (2011). Demystifying the research process: Understanding a descriptive comparative research design. *Paediatric Nursing, 37*(4), 188-9.

Careers New Zealand. (2017). *Skills employers are looking for*. Available: https://www.careers.govt.nz/plan-your-career/not-sure-what-to-do/skills-employers-are-looking-for/

Confederation of British Industry (Great Britain). (CBI). (2008). *Taking stock: CBI education and skills survey*. London. Accessed at: http://www.cbi.org.uk/business-issues/education-and-skills/education-and-skills-survey/

Confederation of British Industry (Great Britain). (CBI). (2016). *The Right Combination: CBI/Pearson Education and Skills Survey 2016*. Available: http://www.cbi.org.uk/cbi-prod/assets/File/pdf/cbi-education-and-skills-survey2016.pdf

Conlon, G., & Chevalier, A. (2002). *Rates of return to qualifications: A summary of recent evidence*. Council for Industry and HE, London.

Connor, H., Tyers, C., Davies, S., Tackey, V. D., & Mahood, T. (2004). Why the difference? A closer look at HE minority ethnic students and graduates.

Research Report 552. DfES, Bristol Institute for Employment Studies, University of Bristol.

Cotton, K. (1993). *Developing employability skills*. School improvement research series (Rep. No. 91002001, pp. 1-27). Retrieved from http://www. nwrel. org/scpd/sirs/8

Cramer, E. M., & Tenzek, K. (2012). The chaplain profession from the employer perspective: An analysis of hospice chaplain job advertisements. *Journal of Health Care Chaplaincy*, *18*(3–4), 133–150.

Cramner, S. (2006). Enhancing graduate employability: Best intentions and mixed outcomes. *Studies in Higher Education, 31*(2), 169-84.

Crebert, G., Bates, M., Bell, B., Patrick, C., & Cragnolini, V. (2004). Developing generic skills at university, during work placements and in employment: Graduates' perceptions. *Higher Education Research and Development*, *23*(2), 147-64. doi: 10.1080/0729436042000206636

Creswell, J. N. (2014). *Research design: Quantitative, qualitative and mixed methods*. (4th ed.). Los Angeles: Sage Publications.

Dacre Pool, L., & Sewell, P. (2007). The key to employability: Developing a practical model of graduate employability. *Education & Training, 49*(4), 277-289.

Dawkins, J. S. (1987). *Higher education: A policy discussion paper.* AGPS, Canberra.

Dawkins, J. S. (1988). *Higher education: A policy statement*. AGPS, Canberra.

Dearing, R. (1997). *Higher education in the learning society*, Report of the National Committee of Inquiry into Higher Education, The Stationery Office, London.

DEET/OECD. (1993). *The transition from elite to mass higher education*. Conference proceedings 15-18 June. AGPS, Canberra.

Denzin, N. K. (2006). *Sociological methods: A source book*. New Brunswick, N.J.: Transaction Publisher.

Department of Education, Science and Training (DEST). (2002). *Employability skills for the future. A report by the Australian Chamber of Commerce and Industry and the Business Council of Australia for DEST.* Canberra: DEST. Available: http://hdl.voced.edu.au/10707/62282

DETYA. (1998). *Learning for life: Review of higher education financing and policy.* Higher Education Financing and Policy Review Committee known as the West Review. Canberra.

Durrani, N., & Tariq, N. N. (2012). The role of numeracy skills in graduate employability. *Education+ Training*, *54*(5), 419-434.

Eyre, E. (2011) Employability skills do not create equity. *Training Journal*, May, 33.

Fallows, S. J., & Steven, C. (Eds). (2000). *Integrating key skills in higher education*: *Employability, transferable skills, and learning for life*. London: Kogan Page.

Ferns, S. (2012). *Graduate employability: Teaching staff, employer and graduate perceptions.* Proceedings ACEN National Conference, Melbourne / Geelong.

Finn, B. (1991). *Young people's participation in post-compulsory education and training.* Canberra, AGPS

Fitzgerald, R. (1994). Cited in Rosenman, L. (1996:29) *The Broadening of University Education: An Analysis of Entry Restructuring and Curriculum Change Options. Canberra*: DEST. Available*:* http://www.dest.gov.au/archive/highered/eippubs/eip9612.htm on 26 October 2009.

Fleming, J., Martin, A.J., Hughes, H., & Zinn, C. (2009). Maximising work integrated learning experiences through identifying graduate competencies for employability. *Asia-Pacific Journal of Co-operative Education*, *10*(3), 189-201.

France, A. (2010), Management accounting practices reflected in job advertisements. *Journal of Business Ideas and Trends, 8*(2), 41-57.

Gedye, S., Fender, E., & Chalkey, B. (2004). Students' undergraduate expectations and postgraduate experiences of the value of a degree. *Journal Geography in Higher Education, 28*(3), 381-96. doi: 10.1080/0309826042000286956

Gillard, J. (2009) Speech Australian Financial Review - Higher Education Conference **-** 9 March 2009. Available: https://ministers.employment.gov.au/gillard/australian-financial-review-higher-education-conference-9-march-2009

Global Consortium for Healthcare Management Professionalization. (2015). *Leadership Competencies for Healthcare Services Managers.* Available: https://www.ache.org/newclub/resource/Leadership_Competencies_Healthcare_Services_Managers.pdf

Gracia, L. (2009) Employability and higher education: Contextualising female students' workplace experience to enhance understanding of employability development. *Journal of Education and Work*, *22*(4), 301-318.

Graduate Careers Australia (GCA). (2012). *Graduate Outlook 2011: The Report of the Graduate Outlook Survey.* Available: http://www.graduatecareers.com.au/wp-content/uploads/2012/02/GOS11_Report_FINAL.pdf

Graduate Careers Australia (GCA). (2013). *The Report of the Graduate Outlook Survey: Employers' Perspectives on Graduate Recruitment, 2013*. Available: http://www.graduatecareers.com.au/wpcontent/uploads/2014/03/Graduate_Outlook_2013.pdf

Graduate Careers Australia (GCA). (2015). *Graduate Outlook Survey 2014: Employers' perspectives on graduate recruitment.* Available: http://www.graduatecareers.com.au/wp-content/uploads/2015/06/Graduate_Outlook_2014.pdf

Graduate Careers Australia (GCA). (2016a). *Graduate Destinations 2015.* Available: http://www.graduatecareers.com.au/wp-content/uploads/2016/07/Graduate-Destinations-Report-2015-FINAL1.pdf

Graduate Careers Australia. (GCA). (2016b). *Graduate Outlook 2015: The Report of the Graduate Outlook Survey.* Available: http://www.graduatecareers.com.au/wp-content/uploads/2016/07/Graduate-Outlook-Report-2015-FINAL1.pdf

Graham, A., Hampton, M. & Willett, C. (2010). What not to write: An intervention in written communication skills for accounting. *International Journal of Management Education, 8*(2):1-8.

Green, F., & Zhu, Y. (2010). Overqualifications, job satisfaction and increasing dispersion in the returns to graduate education. *Oxford Economic Papers*, *62*(4), 740-63.

Hall, C. (2014). *Learning Development Outlook: Strong Learning Organization, Strong Leadership.* Conference Board of Canada. Available: http://www.conferenceboard.ca/e-library/abstract.aspx?did=5734

Harper, R. (2012) The collection and analysis of job advertisements: A review of research methodology. *Library and Information Research, 36*(112), 29-54.

Harvey, L. (2001) Defining and measuring employability. *Quality in Higher Education*, *7*(2), 97-109.

Harvey, N., & Shahjahan, M. (2013). *Employability of Bachelor of Arts graduates (Final report).* Sydney: Office for Learning and Teaching. Retrieved from http://www.olt.gov.au/system/files/resources/CG9_1156_Harvey_Report_2013_1.pdf

Heimler, R., Rosenberg, S., & Morote E. (2012). Predicting career advancement with structural equation modelling. *Education + Training*, *54*(2), 85-94.

Hillage, J., & Pollard, E. (1998). *Employability: Developing a framework for policy analysis.* DfEE Research Report RR85. London.

Hinchliffe, G. (2008). Towards rethinking graduate employability. *Paper presented at the British Educational Research Association Annual Conference.* Heriot-Ward University, Edinburgh.

Hinchliffe, G. W., & Jolly, A. (2010). Graduate identity and employability. *British Educational Research Journal, 7*(4), 563-84. doi:10.1080/01411926.2010.482200

Hinchliffe, G. W., & Jolly, A. (2014). Graduate identity and employability. 2014, *British Education Research Journal, 37*(4), 363-84. doi: 10.1080/01411926.2010.482200

Hirst, A. (2002). *Links between volunteering and employability*. Research Report RR309. DfES, London.

Holmes, L. (2013). Competing perspectives on graduate employability: Possession, position or process? *Studies in Higher Education*, *38*(4), 538-54.

Ithaca Group. (2012). *Employability skills framework Stage 1 Final Report.* Canberra: Department of Education, Employment and Workplace Relations (DEEWR). Available: http://hdl.voced.edu.au/10707/219478.

Jackson, D. (2009a). An international profile of industry-relevant competencies and skill gaps in modern graduates. *International Journal of Management Education*, *8*(3) 29-58.

Jackson, D. (2009b). Profiling industry-relevant management competencies: The need for a fresh approach. *International Journal of Management Education, 8*(1), 85-98.

Jackson, D., & Chapman, E. (2012). Non-technical skill gaps in the Australian business graduates. *Education & Training, 54*(2/3), 95-113.

Johnston, B. (2003). The shape of research in the field of higher education and graduate employment: Some issues. *Studies in Higher Education*, *28*(4): 413-26.

Keep, E., & Mayhew, K. (2004). The economic and distributional implications of current policies on higher education. *Oxford Review of Economic Policy*, *29*(2): 298-314.

Kennan, M. A., Cecez-Kecmanovic, D., Willard, P., & Wilson, C. S. (2009). IS knowledge and skills sought by employers: Content analysis of Australian IS early career online job advertisements. *Australasian Journal of Information Systems, 15*(2), 169-190.

Kennan, M. A., Willard, P., & Wilson C. S. (2006). What do they want? A study of changing employer expectations of information professionals, *Australian Academic and Research Libraries, 37*(1), 17-37.

Koppi, T., & Naghdy, H. (2009). *Managing educational change in the ICT discipline at the tertiary education level*. Sydney, Australia Learning and Teaching Council.

Kuokkanen, A., Varje, P., & Vaananen, A. (2013). Transformation of the Finnish employee ideal in job advertisements from 1944-2009. *Acta Sociologica, 56*(3), 213-226.

Lambert, S. (2003). *Lambert review of business-university collaboration*, London, HM Stationary Office.

Layer, G. (2003) *Widening participation and employability*. Available: http://www.Itsn.ac.uk/application.asp?app=resources.asp&processes=full_recor ds&section=generic&id=330 10 October 2009.

Leitch, S. (2006) *Prosperity for all in the Global Economy- World Class Skills*. Final report of the Leitch Review of Skills. London: HMSO/HM Treasury. Available: http://www.delni.gov.uk/leitch_finalreport051206[1]-2.pdf

Liang. Z., & Howard, P. F. (2010). Competencies required by senior health executives in NSW, 1990 -1999. *Australian Health Review*, *34*, 52-8. doi:10.1071/ AH09571

Liang, Z., Leggat, S. G., Howard, P. F., & Koh, L. (2013). What makes a hospital manager competent at the middle and senior levels? *Australian Health Review*, *37*(5) 566-73.

Liang, Z., Short, S.D. & Brown, C.R. (2006) Senior health managers in the new era: Changing roles and competencies in the 1990s and the early 21st century. *Journal of Health Administration Education*, Summer: 281-301.

Lim, Y-M., Lee, T.H., Yap, C.S., & Ling, C.C. (2016). Employability skills, personal qualities and early employment problems of entry level auditors: perspectives from employers, lecturers, auditors and students. *Journal of Education for Business, 91*(4), 185-92.

Litchfield, A., Nettleton, S., & Taylor, T. (2008). *Integrating work-ready learning into the university curriculum contextualised by profession.* Paper presented at the WACE ACEN Work Integrated Learning (WIL): Transforming Futures Conference in Sydney, October.

Lockhart, W., & Backman, A. (2009). Health care management competencies: Identifying the gaps. *Healthcare Management Forum*, Summer, 30-37.

Mansour, B. E., & Dean, J. C. (2016). Employability skills as perceived by employers and university faculty in the fields of human resource development for entry level graduates. *Journal of Human Resources and Sustainability Skills*, *4*, 38-49.

Martins, J. M., & Isouard, G. (2014). Health services managers in Australia: Progression and evolution. *Asia Pacific Journal of Health Management, 9*(2), 35-52.

Martins, J., & Isouard, G. (2015). An evidence based framework: Competencies and skills for managers in Australian health services. *Asia Pacific Journal of Health Management, 10*(2), 8-23.

Mason, G., Williams, G., & Cranmer, S. (2009). Employability skills initiatives in higher education: What effects do they have on graduate labour market outcomes? *Education Economics, 17*(1): 1-30.

Massey, B. L. (2010). What job advertisements tell us about demand for multi-platform reporters of legacy news outlets. *Journalism and Mass Communication Educator, 65*(2), 142-155.

Mayer, E. (1992). *Key competencies: Report of the committee to advise the Australian Education Council and Ministers of Vocational Education, Employment and Training on employment-related key competencies for post compulsory education and training*. Australian Education Council and Ministers of Vocational Education, Employment and Training, Canberra.

Messum, D., Wilkes, L., & Jackson, D. (2011). Employability skills: Essential requirements in health manager vacancy advertisements. *Asia Pacific Journal of Health Management, 6*: 22-28.

Messum, D., Wilkes, L., & Jackson, D. (2015). What employability skills are required of new health managers? *Asia Pacific Journal of Health Management*, *10*, 28-35.

Messum, D., Wilkes, L., Peters, K., & Jackson, D. (2016). Content analysis of vacancy advertisements for employability skills: Challenges and opportunities for informing curriculum development. *Journal of Teaching and Learning for Graduate Employability*, *6*(1), 72-86. DOI: http://dx.doi.org/10.21153/jtlge2016vol7no1art582

Messum, D., Wilkes, L., Jackson, D., & Peters, K. (2016). Employability skills in health services management: Perceptions of recent graduates**.** *Asia Pacific Journal of Health Management*, *11*(1), 25-34.

Messum, D., Wilkes, L., Peters, K., & Jackson, D. Senior managers' and recent graduates' perceptions of employability skills for health services management. *Asia-Pacific Journal of Cooperative Education* (in press).

Mourshed, M., Patel, J., & Suder, K. (2014). *Education to employment. Getting Europe's youth into work*. Available: http://mckinsyecompany.com/features/education

Moreau, M. P., & Leathwood, C. (2006a) Balancing paid work and studies: Working (class) students in higher education. *Studies in Higher Education*, *31*(1), 23-42.

Moreau, M. P., & Leathwood, C. (2006b). Graduates' employment and the discourse of employability: A critical analysis. *Journal of Education and Work, 19*(4), 305-324.

National Health and Medical Research Council. (NHMRC). (2007). *National statement on ethical conduct in human research*. Canberra, Australian Government. Available: https://www.nhmrc.gov.au/guidelines-publications/e72

National Health and Medical Research Council. (NHMRC). (2014). *Australian code for the responsible conduct of research*. Canberra, Australian Government. Available: https://www.nhmrc.gov.au/guidelines-publications/r39

NHS. (2016). *Critical appraisal skills programme (CASP), making sense of evidence: Qualitative checklist.* NHS, Available: http://www.casp-uk.net/checklists

Nilsson, S. (2010). Enhancing individual employability: The perspectives of engineering graduates. *Education + Training*, *52*(6/7), 540-551. doi: 10.110800400911101068487

O'Leary, S. (2016). Graduates' experiences of, and attitudes towards, the inclusion of employability-related support in undergraduate degree programmes: Trends and variations by subject discipline and gender. *Journal of Education and Work, 30*(1), 84-105. doi: 10.1080/13639080.2015.1122181

Oliver, B., Whelan, B., Hunt, L., & Hammer, S. (2011). Accounting graduates and the capabilities that count: Perceptions of graduates, employers and accounting academics in four Australian universities. *Journal Teaching and Learning for Graduate Employability*, *2*(1), 2-21. Available: http://jtlge.curtin.edu.au/index.php/jtlge/article/view/25/13

Omar, N. K., Manaf, A. A., Mohd, R. H., Kassim, A. C., & Aziz, K. (2012). Graduates' employability skills based on current job demand through electronic advertising. *Asian Social Science, 8*(9), 103-110.

Pallant, J. F. (2013). *SPSS survival manual: A step by step guide to data analysis using SPSS for Windows*. (5th ed.). Sydney: Allen and Unwin.

Power, S., & Whitty, O. (2006). *Graduating and graduations within the middle class: the legacy of elite higher education*. Cardiff: Cardiff University, School Social Science Working Paper, 118.

Powney, C., & Lowden, K. (2000). *Young people's life-skills and work*. Accessed at: http://www.scre.ac.uk/pdf/spotlight/spotlight78.pdf on 10 October 2009.

Precision Consultancy. (2007). *Graduate Employability Skills.* Report Prepared for the Business, Industry and Higher Education Collaboration Council, Australia. Available: http://aces.shu.ac.uk/employability/resources/GraduateEmployabilitySkillsFINALREPORT1.pdf

Quinn, M., & Rochford, D. (2013). What management accountants do. A*ccountancy Ireland, 45*(1), 58-60.

Ramsden, P. (2003). *Learning to teach in higher education.* (2nd ed.). London, Routledge Falmer.

Reio, T. G., & Sutton, F. C. (2006). Employer assessment of work-related competencies and workplace adaptation. *Human Resource Development Quarterly*, *17*(3), 305–324.

Ridoutt, L., Selby Smith, C., Hummel, K., & Cheang, C. (2005). *What value do Australian employers give to qualifications?* Adelaide: National Centre for

Vocational Education Research (NCVER) Available:
http://www.ncver.edu.au/publications/1553

Ringo, T., & MacDonald, R. (2008). *Unlocking the DNA of the adaptable workforce: The global human capital study 2008*. Armonk, NY, IBM Global Business Services.

Ritchie, D. J., & Yen, M. L. (2013). Health services management development: What formal knowledge should support the skills and experience required? *Australian Health Review, 37*(2), 189-193.

Rosenberg, S., Heimler, R., & Morote, E-S. (2012). Basic employability skills: A triangular design approach. *Education and Training, 54*(1), 7-20.

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.

Sarkara, M., Overtona, T., Thompson, I., & Raynerb, G. (2016). Graduate employability: Views of recent science graduates and employers. *International Journal of Innovation in Science and Mathematics Education, 24*(3), 31-48.

Saunders, V., & Zuzel, K. (2010). Evaluating employability skills: Employer and student perceptions. Available:
www.bioscience.heacademy.ac.uk/journal/vol15/beej-15-2.pdf

Scott, G., Chang, E., & Grebennikov, L. (2010). Using successful graduates to improve the quality of undergraduate nursing programs. *Journal of Teaching and Learning for Graduate Employability, 1*(1), 26.44. Available:
https://ojs.deakin.edu.au/index.php/jtlge/article/view/547/541

Scott, G., & Yates, K. W. (2002). Using successful graduates to improve the quality of undergraduate engineering programs. *European Journal of Engineering Education, 27*(4), 363-378.

Scurry, T., & Blenkinsopp, J. (2011). Under   -employment an a review of the literature. *Personnel Review*, *40*(1), 643-59.

Semeijn, J., van der Velden, R., Heijke, H., van der Vleuten, C., & Boshuizen, P. A. (2006). Competence indicators in academic education and early labour market success of graduates in health sciences. *Journal of Education and Work*, *190*, 383-413. doi: 10.1080/13639080600867158

Siedlecki, S. (2013). Comparative research design: A guide for clinical nurse specialists. *Clinical Nurse Specialist*, *27*(2) 63-66.

Smetherham, C. (2003) *The employability of first class graduates.* Paper presented at the British Educational Research Association Annual Conference, Heriot-Watt University, Edinburgh.

Smith, C., Ferns, S., & Russell, L. (2014). *Conceptualising and measuring employability-lessons from the National OLT Project. Gold Coast.* Australian Collaborative Education Network Ltd, PP. 1-10.

Stebbins, R. A. (2001). *Exploratory research in the social sciences.* London: Sage Publications.

Stefl, M. E. (2008). Common competencies for all healthcare managers: The healthcare leadership alliance model. *Journal Healthcare Management*, *53*(6), 360-73.

Struwig, F. W., & Stead, G. B. (2013). *Planning designing and reporting research.* (2nd ed.). Capetown: Pearson.

Sumanasiri, E. G. T., Yajid, M. S. A., & Khatibi, A. (2015). Review of literature on graduate employability. *Journal of Studies in Education*, *5*(3), 75-88.

Teichler, U. (1998). Higher Education and the world of work: Changing conditions and challenges. *Paper for the UNESCO World Conference on HE, Paris.*

Times Higher Education. (2016) *The 2016 Global University Employability Survey and Ranking.* Available: https://www.timeshighereducation.com/features/global-university-employability-ranking-2016

Todd, P., & Preston, A. (2012). Gender pay equity in Australia: Where are we now and where are we heading? *Australian Bulletin of Labour*, *38*(3), 251-67.

Tomlinson, M. (2008). The degree is not enough: Students perceptions of the role of higher education credentials for graduate work and employability. *British Journal of Sociology of Education, 29*(1), 49-61.

Tomlinson, M. (2012) Graduate employability: A review of conceptual and empirical themes. *Higher Education Policy, 25*, 407-31.

Tymon, A. (2011). The student perspective on employability. *Studies in Higher Education, 36*(6), 841-56. doi: 10.1080/03075079.2011.604408

UK Commission for Employment and Skills. (UKCES). (2016). *Evaluation of the UK futures Programme: Conclusions and Guidance. Evidence Report 101.* Available https://www.gov.uk/government/publications/evaluation-of-uk-futures-programme-conclusions-and-guidance

Van der Rhea, B., Verma, R., Plaschka, G. R., & Kickul, J. R. (2007). Technology readiness, learning goals, and eLearning: Searching for synergy. *Decision Sciences Journal of Innovative Education, 5*(1) 127-149.

Varje, P., Turtianen, A., & Vaananen, J. (2013). Psychological management: Changing qualities of the ideal manager in Finland 1949-2009. *Journal of Management History, 19*(1), 33-54. doi:http://dx.doi.org/10.1108/17511341311286187

Walter, J., & Radcliffe, D. (2007). The competence dilemma in engineering education: Moving beyond simple graduate attribute mapping. *Australasian Journal of Engineering Education, 13*(1), 41-45.

Wickramasinghe, V., & Perera, L. (2010). Graduates', university lecturers' and employers' perceptions towards employability skills. *Education+Training*, *52*(3), 226-244. doi: 10.1108/00400911011037355

Wilton, N. (2011). Do employability skills really matter in the UK graduate labour market? The case of business and management graduates. *Work, Employment and Society, 25*(1), 85-100**.**

Yorke, M. (2006). *Pedagogy for employability. Learning and Employability Series I.* The Higher Education Academy, York.

Yorke, M., & Knight, P. T. (2006). *Embedding employability into the curriculum. Learning and Employability Series I.* The Higher Education Academy, York. Available: https://www.heacademy.ac.uk/resource/embedding-employability-curriculum

Appendix A

MANUSCRIPT ACCEPTANCE AND REVIEWER COMMENTS

Thursday, March 09, 2017

Diana Messum

Manuscript **APJCE M538 Special Edition, ACEN**
Senior managers' and recent graduates' perceptions of employability skills for health services management.

Acceptance
☒ Accept for *Special Edition*
☐ Accept for *APJCE* general publication run
☐ Not accepted
☐ Not relevant to this Journal

With
☐ No changes required
☒ Minor revision
☐ Major revision
☐ Major revision, need to resubmit for review

Comparison to Proceedings Document
☐ No corresponding proceedings document
☐ Completely different
☒ Acceptable overlap, no changes required
☐ Too much overlap, need to make changes
☐ identical, must make changes

Editors' general comments

Dear Diana,

Thank you for the submission of your manuscript for consideration for the APJCE special issue.

The reviewers and editors have reviewed your manuscript and consider that it should be included in the special issue (congratulations).

The manuscript does require some minor revision – please consult the reviewers' reports attached to the email. The main area to focus the amendments should be around the data presentation.

The deadline for the submission of the final manuscript is Friday, 29th of April.

Please let us know if you have any questions.

Yours sincerely,

Dr Anna Rowe, *Guest Editor*, (anna.rowe@mq.edu.au)
Dr Karsten Zegwaard, *Editor-in-Chief*, (karsten.zegwaard@waikato.ac.nz)
Asia-Pacific Journal of Cooperative Education

Asia-Pacific Journal of Cooperative Education

Manuscript Review Form

Manuscript Title	APJCE M538
	Senior managers' and recent graduates' perceptions of employability skills for health services management
Special Issue	*ACEN 2016 special issue*

Reviewer A

Recommendation

(Double click on the grey box below to open a dialogue box, then change the Default Value from 'not checked' to 'checked')

(Check one box only)

- ☐ Accept, no revision required
- ☒ Accept, with minor revision
- ☐ Accept, with major revision
- ☐ Resubmission and review after major revision
- ☐ Reject
- ☐ Return without review
- ☐ Not relevant to this Journal
- ☐ Other

	Yes	No	NA
Does the manuscript title suit the manuscript content?	X		
For research manuscripts, is there a statement confirming the research has ethical approval?	X		

General comments and recommendations

An interesting and relevant manuscript which makes a highly valuable contribution to the WIL literature. Recommendations made relate mostly to the presentation (i.e. headings, tables, typos, referencing).

Relevance to Co-op/WIL and significance of contribution to the literature

The manuscript is of high relevance to WIL and provides a unique contribution to the literature. It will be of particular interest to practitioners and researchers in health sciences fields.

Use of literature (e.g., use of recent and relevant literature throughout manuscript; well informed literature background; use of relevant literature to inform discussion)

The literature review is well informed. A strong case is made for the research, with arguments supported by relevant scholarship. The structure emerges logically from issues addressed, and arguments are clearly articulated. The Introduction is somewhat text heavy and might benefit from the insertion of sub-headings to more explicitly signpost the different areas/topics covered. Aims of the research are clearly stated.

Methodology and findings/results (if research paper) (e.g., is the appropriate methods design used, methodology discussed, and methods clearly explained. Where applicable, findings are shown with appropriate statistics)

The research design is appropriate for the aims of the study and is well described/explained. The overview of the survey sample is comprehensive, however is quite text heavy. As a suggestion, the authors may want to consider summarizing some of this detail in a table. A comparison table of the top 10 important ES for both groups (as described in lines 214-219) would also assist the reader to visualize the similarities/differences between each group's perceptions.

Use of figures and tables (e.g., are the figures and table necessary, are they properly laid out and referred to within the text, are figures of suitable quality)

All tables are necessary and referenced in text, although colour needs to be removed from the column headings.

Discussion, conclusions, implications (e.g., does the findings support the claims in the discussions and conclusions. Is relevant literature brought back into the discussion. Are the theoretical and/or practical implications made clear)

The structure of the Discussion is logical and relevant literature is cited to support claims made. There is some repetition in lines 286-290 (i.e. recalling the top 10 ES), and its suggested instead that the author/s identify key similarities/differences.

Limitations of the sampling method used are mentioned, although this needs to be emphasized and explained more.

Implications for practice and future research are well covered in the Conclusion.

Abstract (e.g., the manuscript abstract provides a suitable overview of the work)

The abstract provides a suitable overview of the work and its implications, however could be strengthened with some additional details, e.g. number of participants surveyed (including how many were in each group), development of the survey tool (i.e. informed by the literature and review of job adverts). The statement 'agreement of the two stakeholder groups lends weight to the findings' (lines 12-13) isn't clear and needs to be revisited. Similarly, it would be useful to provide a disclaimer for the first sentence (line 5), i.e. why is identification of skill requirements a necessary first step in WIL?

Grammar, formatting, and organization (e.g., is the manuscript coherently written, use appropriate terminologies, laid out in a coherent and logical fashion, using formal and technical writing style)

Provide any textual corrections you deem necessary by referring to the manuscript line number

The manuscript is well written, and uses appropriate technical language.

However, there are quite a few typos, e.g.
Line 8 insert 'were' so it reads '…a placement data base of a NSW university, and were emailed a questionnaire.'
Line 28 remove full stop after enterprise
Line 156 remove comma after newspapers
Line 192 remove comma after only
Line 205 remove comma after 0.7

Referencing does not follow APA conventions, particularly the formatting of in-text cations.

Asia-Pacific Journal of Cooperative Education

Manuscript Review Form

Manuscript	APJCE M538
Title	*Senior managers' and recent graduates' perceptions of employability skills for health services management*
Special Issue	*ACEN 2016 special issue*

Reviewer B

Recommendation

(Double click on the grey box below to open a dialogue box, then change the Default Value from 'not checked' to 'checked')

(Check one box only)

☐ Accept, no revision required   ☐ Reject
☒ Accept, with minor revision   ☐ Return without review
☐ Accept, with major revision   ☐ Not relevant to this Journal
☐ Resubmission and review after major revision   ☐ Other

	Yes	No	NA
Does the manuscript title suit the manuscript content?	x		
For research manuscripts, is there a statement confirming the research has ethical approval?	x		

General comments and recommendations

Interesting paper, well written, tidy, enjoyable, and pertinent.

My concern is that Employability (albeit very important) is a well fleshed out area. The opening justification in line 24 suggests that it is undeveloped, but the supporting reference is 10 years old. I think Employability is still worth the focus (and will be for some time), but either reword that line to reflect the citation is dated or amend the claim with a mre recent source (and I think you will find the claim will be 'very topical, well-explored but more work needed'.

Relevance to Co-op/WIL and significance of contribution to the literature

Very

Use of literature (e.g., use of recent and relevant literature throughout manuscript; well informed literature background; use of relevant literature to inform discussion)

Very good....but the noticeable gap is that Employability/Skill/Competencies literature from APJCE is missing – there is a valuable collection of literature that needs to be considered.

Methodology and findings/results (if research paper) (e.g., is the appropriate methods design used, methodology discussed, and methods clearly explained. Where applicable, findings are shown with appropriate statistics)

Good.

Perhaps I missed it, but where from did the list of skills used in the research come from? How was it derived?

Use of figures and tables (e.g., are the figures and table necessary, are they properly laid out and referred to within the text, are figures of suitable quality)

OK. There may be difficulties getting the tables onto one page.

The captions need to be more informative…they need to stand along – as it reads not they are rather simple and open to misinterpretation (e.g., Table 1….is it a rating of important **by** Managers and Graduates or a rating of importance **of** Managers and Graduates.)

Discussion, conclusions, implications (e.g., does the findings support the claims in the discussions and conclusions. Is relevant literature brought back into the discussion. Are the theoretical and/or practical implications made clear)

Good.

Abstract (e.g., the manuscript abstract provides a suitable overview of the work)

Good.

Grammar, formatting, and organization (e.g., is the manuscript coherently written, use appropriate terminologies, laid out in a coherent and logical fashion, using formal and technical writing style)

Provide any textual corrections you deem necessary by referring to the manuscript line number

Citations in the text do not follow APA rules – they need to be in alphabetical order of first author, and they need use of commas, etc. please follow the guidelines

Appendix B

PAPER PRESENTED AT THE AUSTRALIAN COLLABORATIVE EDUCATION NETWORK (ACEN) NATIONAL CONFERENCE, SEPTEMBER, 28-30, SYDNEY AUSTRALIA

The 2016 ACEN Conference Best Paper Award

Full refereed papers were considered and needed to be either empirical studies or theoretical reviews. These papers provided a detailed description of appropriate literature, methodologies and analytical methods, demonstrating a thorough and rigorous analysis of current issues in work integrated learning, leading to well-argued conclusions.

All papers underwent a double-blind peer review process and an additional review process for best paper using the following criteria:

☐ Alignment with a conference sub-theme

☐ Originality of the research

☐ Quality/rigour (e.g. research method and/or literature review)

☐ Contribution to the scholarship of cooperative education and WIL

☐ Overall innovation and creativity

The winner of the best paper was:

Senior managers' and recent graduates' perceptions of employability skills for health services management

Diana Messum, Lesley Wilkes, Kath Peters, Western Sydney University and Debra Jackson, Oxford Brookes University.

Available: http://acen.edu.au/wp-content/uploads/2016/10/ACEN-2016-Proceedings.pdf

acen

Australian Collaborative Education Network Limited

2016

Best Paper Award

awarded to

Diana Messum, Lesley Wilkes,

Kath Peters & Debra Jackson

For their paper entitled

"Senior managers' and recent graduates' perceptions of
employability skills for health services management"

Dr Anna Rowe
Program Chair

Dr Marina Harvey
Program Chair

Presented at the ACEN 2016 National Conference, Sydney
29-30 September 2016

Appendix C

SURVEY QUESTIONNAIRES

HEALTH MANAGERS PERCEPTIONS OF GRADUATE EMPLOYABILITY

SKILLS 2011

Please note that completion of this survey implies consent to use the data as detailed in the Information Sheet provided.

1. ☐ Male   ☐ Female

2. In what sector of health are you currently working please? Read list:

☐ Not for profit ☐ Private sector ☐ Public sector ☐ NGO ☐ Division of

GP ☐ Other please describe:

3. How many years have you worked in this organisation? ☐☐

4. How many years have you worked in the health industry? ☐☐

5. What is your position in this organisation?

6. How many new graduates did your organisation employ approximately in the last year?

7. What tertiary qualifications background do they typically have?

8. What skills are often found lacking?

9. How does your organisation assess the work readiness skills of graduates?

☐ Portfolios ☐ Interview ☐ Written application and CV ☐ Work experience

☐ Academic results ☐ Other, please describe:

GRADUATE COMPETENCIES

Now I am going to ask you to rate of a range of competencies identified in the literature with respect to new graduates i.e. who have **within the last three years.** IMPORTANCE of the competency and the EXTENT to which you believe new graduates possess these competencies or require training and development will be rated. **The scale for importance ranges from 0 for not important to 4 for very important:**

Not important	Somewhat important	Moderately important	Important	Very important
0	1	2	3	4

The scale for skill level ranges from 0 for no skills to 4 for excellent skills:

No skills i.e. requires training & development	Few skills	Moderate skills	Good skills	Excellent skills
0	1	2	3	4

10. INTERPERSONAL AND COMM. SKILLS	Importance	Skill level
Leadership		
Teamwork		
Verbal communication		
Written communication		
Interpersonal skills		
Collaborative skills		
Negotiation skills		
Cultural awareness		
Networking skills		
Overall rating of inter-personal and comm. skills		

11. **Comments:** Please use this opportunity to comment on your ratings and/or add any competencies that you believe are not expressed here relating to interpersonal and communication skills.

12. What does the term leadership mean to you?

13. KNOWLEDGE AND UNDERSTANDING OF HEALTH FIELD	Importance	Skill level
Experience in the health field		
Knowledge of local population		
Knowledge of legislation, standards and policy		
Discipline or job specific knowledge		
Overall rating of knowledge of the health field		

14. Comments: Please use this opportunity to comment on your ratings and/or add any competencies that you believe are not expressed here relating to knowledge and understanding of the health field.

15. SELF MANAGEMENT	Importance	Skill level
Experience in management		
Tertiary qualifications		
Time management		
Ability to work independently		
Organisational skills		
Integrity and ethical conduct		
Life-long learning		
Flexible and open minded		
Calm under pressure		
Career planning skills		
Self aware		
Experience in management		
Overall rating of self management		

16. Comments: Please use this opportunity to comment on your ratings and/or add any competencies that you believe are not expressed here relating to self management.

17. JOB SPECIFIC SKILLS	Importance	Skill level
Operational management		
Administration skills		
Computer and software skills		
Quality management skills		
Risk management skills		
Performance management		
Budget/financial management		
Project management skills		
HRM		
Advocacy skills		
Accreditation skills		
Change management skills		
Overall rating of job specific skills		

18. Comments: Please use this opportunity to comment on your ratings and/or add any competencies that you believe are not expressed here relating to job specific skills. What is the difference between admin skills and operational skills?

19. CRITICAL THINKING SKILLS	Importance	Skill level
Ability to analyse environment		
Planning skills		
Priority setting		
Creativity and innovation		
Independent thinking		
Research skills		
Strategic thinking		

Conceptual skills		
Overall rating of critical thinking skills		

20. Comments: Please use this opportunity to comment on your ratings and/or add any competencies that you believe are not expressed here relating to critical thinking skills.

21. Please identify the three most important characteristics that differentiate the more successful graduates.

22. What professional competency development opportunities are available to new graduates at your organisation?

23. Please identify any potential role(s) for UWS in this area.

24. Please outline the key trends and changes that are facing your professional area/industry over the next 3-5 years.

25. Department of Education, Science and Training survey lists a number of commonly used selection criteria for managers in general. Please rank in order of importance from 1 as the highest rank to 10 for the least important item:

☐ Leadership skills

☐ Team work skills

☐ Interpersonal and communication skills (written and oral)

☐ Academic qualifications

☐ Emotional intelligence (self-awareness, strength of character, confidence,

motivation)

☐ Cultural alignment/values fit

☐ Work experience

☐ Passion/knowledge of industry/drive/commitment/attitude

☐ Critical reasoning and analytical skills/problem solving/lateral thinking/ technical skills

☐ Activities eg intra and extra-curricula

26. What sort of links does your organisation currently have with UWS?

☐ Nil ☐ Student placements ☐ Course advice ☐ Lecturing ☐ Research

☐ Other, please describe

27. What would your organisation be interested in developing with UWS?

THANK YOU VERY MUCH FOR YOUR TIME IN COMPLETING THIS.

University of Western Sydney

Bringing knowledge to life

PERCEPTIONS OF GRADUATE EMPLOYABILITY SKILLS

- Please note that completion of this survey implies consent to use the data as detailed in the Information Sheet provided.
- The survey consists of a set of statements for you to rate and also open ended questions.

1. Are you: ☐ Male ☐ Female

2. Current employer: ☐ Commonwealth govt ☐ State govt ☐ Local govt ☐

Private sector ☐ Not-for-profit /NGO ☐ Division of General Practice ☐Other please describe:

2. Income category:

☐Up to $24,999 ☐$25,000- $34,999 ☐$35,000-$44,999 ☐$45,000-$54,999

☐$55,000-$64,999 ☐$65,000-$74,999 ☐More than this

3. How many years have you worked in this organisation? ☐☐

4. Are you working:

☐ Full time ☐ Part time ☐ Permanent ☐ On contract ☐

Casual/temporary ☐Studying PT ☐ Studying FT ☐ Other..................

5. What is your position in this organisation?

6. What are the main tasks or duties in the position?

7. What skills do you find most useful in this position?

8. How well did your undergraduate degree prepare you for this position?

Very poorly	Poorly	Unsure	Well	Very well

NAME OF DEGREE:…………………………………

9. What were the best aspects of your degree course?

10. What aspects of your course needed to be improved?

11. What skill gaps do you think you had when you started this job?

12. What work were you looking for when you completed your degree?

13. How did you find this job?

☐ University careers service ☐ Careers fair or information session

☐ Other university source eg lecturers. ☐ Advertisement in newspaper or other print media

☐ Advertisement on the Internet ☐ Family or friends ☐ Approached employer directly

☐ Employment agency ☐ Work contacts or networks

☐ Other...........................

14. How does your place of work assess the work readiness skills of graduates? Please tick any relevant items.

☐ Portfolios ☐ Interview ☐ Written application and CV ☐ Work experience

☐ Academic results ☐ Other, please describe:

GRADUATE COMPETENCIES

In this section, there are two columns for rating the items listed. In the **left** column please rate the **importance** of each competency **for new graduates i.e. defined as graduating within the last three years.** In the **right** column please rate the extent to which you believe you possess these skills or require training and development.

The scale for importance ranges from 0 for not important to 4 for very important:

Not important	Somewhat important	Moderately important	Important	Very important
0	1	2	3	4

The scale for skill level ranges from 0 for no skills to 4 for excellent skills:

No skills i.e. requires training & development	Few skills	Moderate skills	Good skills	Excellent skills
0	1	2	3	4

For each item rank 0-4 in the importance column and then the skill level column.

10. INTERPERSONAL AND COMMUNICATION SKILLS	Importance	Skill level possessed
Leadership		
Teamwork		
Verbal communication		
Written communication		
Interpersonal skills		
Collaborative skills		
Negotiation skills		
Cultural awareness		
Networking skills		
Overall rating of inter-personal and communication skills 0-4		

11. **Comments:** Please use this opportunity to comment on your ratings and/or add any competencies that you believe are not expressed here relating to interpersonal and communication skills.

12. KNOWLEDGE AND UNDERSTANDING OF HEALTH FIELD	Importance	Skill level possessed
Experience in the health field		
Knowledge of local population		
Knowledge of legislation, standards and policy		
Discipline or job specific knowledge		
Overall rating of knowledge of the health field 0-4		

13. Comments: Please use this opportunity to comment on your ratings and/or add any competencies that you believe are not expressed here relating to knowledge and understanding of the health field.

14. SELF- MANAGEMENT	Importance	Skill level possessed
Experience in management		
Tertiary qualifications		
Time management		
Ability to work independently		
Organisational skills		
Integrity and ethical conduct		
Life-long learning		
Flexible and open minded		
Calm under pressure		
Career planning skills		
Self-awareness		
Overall rating of self- management		

15. Comments: Please use this opportunity to comment on your ratings and/or add any competencies that you believe are not expressed here relating to self-management.

16. JOB SPECIFIC SKILLS	Importance	Skill level possessed
Operational management		
Administration skills		
Computer and software skills		
Quality management skills		
Risk management skills		
Performance management		
Budget/financial management		
Project management skills		
HRM		
Advocacy skills		
Accreditation skills		
Change management skills		
Overall rating of job specific skills		

17. Comments: Please use this opportunity to comment on your ratings and/or add any competencies that you believe are not expressed here relating to job specific skills. What is the difference between admin skills and operational skills?

18. CRITICAL THINKING SKILLS	Importance	Skill level possessed
Ability to analyse environment		
Planning skills		
Priority setting		
Creativity and innovation		
Independent thinking		
Research skills		
Strategic thinking		
Conceptual skills		
Overall rating of critical thinking skills		

19. Comments: Please use this opportunity to comment on your ratings and/or add any competencies that you believe are not expressed here relating to critical thinking skills.

20. What professional competency development opportunities are available to new graduates at your organisation?

21. Please identify any skills you wish to develop i.e. new skills or extending current skills and potential role(s) for UWS in this area.

Skills   UWS role yes/no

22. Please outline the key trends and changes that are facing your professional area/industry over the next 3-5 years.

23. Department of Education, Science and Training survey lists a number of commonly used selection criteria for managers in general. Please rank in order of importance from 1 as the highest rank to 10 for the least important item:

☐ Leadership skills

☐ Team work skills

☐ Interpersonal and communication skills (written and oral)

☐ Academic qualifications

☐ Emotional intelligence (self-awareness, strength of character, confidence, motivation)

☐ Cultural alignment/values fit

☐ Work experience

☐ Passion/knowledge of industry/drive/commitment/attitude

☐ Critical reasoning and analytical skills/problem solving/lateral thinking/ technical skills

☐ Activities eg intra and extra-curricula

24. DEMOGRAPHY:

Last year of study.............

Main language spoken at home.......................

Place of birth (town/country)........................... ATSI Yes ☐ No☐

Suburb of permanent residence when studying.....................

Study was FT ☐ PT ☐

Any disability, impairment or long term medical condition which may have affected studies? Yes ☐ No ☐

THANK YOU VERY MUCH FOR YOUR TIME IN COMPLETING THIS SURVEY. Please return to: Diana Messum, Building 24, Room 28 Campbelltown Campus, School of Science and Health, University of Western Sydney, Locked Bag 1797, Penrith NSW 2751.

Or email: l.potts@uws.edu.au

Appendix D

RECRUITMENT PACKAGES

Recruitment Script for Health Managers

You are invited to participate in a study conducted by Diana Messum, a lecturer at UWS (School of Biomedical and Health Science) completing Ph.D. studies. Supervising will be Prof. Lesley Wilkes, Campbelltown Campus, UWS, and A/Prof Liz Halcomb, UWS. The purpose of this study is to develop a profile of employability skills needed in new health management graduates. Given ongoing reforms in the health sector a current profile of skill requirements is needed. A survey has been designed so health managers can identify important competencies and required skills which will be used to inform curriculum development, and help improve graduate employment match.

The study will involve your input as to what you believe are the competencies required for effective management in your field. A standard Interview schedule has been designed with opportunities for comments, which takes about 30 minutes to complete. You will be asked to rate the importance of listed skills and current skill levels of new graduates with a view to ongoing training and development. It is anonymous and the results from all respondents will be reported as a total. The instrument can be emailed in advance so you can consider your answers.

The study aims to identifying a set of core competencies specific to health service managers. Your contribution will provide valuable feedback to the university to help improve curriculum and the skills of undergraduate students as future managers in the health care system. The findings it is hoped will also help graduates better articulate their employability skills when applying for vacancies.

If you have any enquiries, please contact Diana Messum on telephone number (02) 4620.3745 or email d.messum@uws.edu.au

Identifying employability skills for new graduate health managers

Information Sheet for Health Managers

Who is carrying out the study?

You are invited to participate in a study conducted by Diana Messum, a lecturer at UWS (School of Biomedical and Health Science) completing a Ph.D. Supervising will be Prof. Lesley Wilkes, Campbelltown Campus, UWS, and A/Prof. Liz Halcomb, UWS.

What is the study about?

The purpose of this study is to develop a profile of employability skills that current health service managers want in new health management graduates. Given ongoing reforms in the health sector a current profile of employer requirements is needed. An interview schedule has been designed so managers can identify important competencies and current skill levels to inform curriculum development, and help improve graduate employment match.

What does the study involve?

The study will involve your input as to what you believe are the competencies required for effective management in the health field. You are asked to undertake an interview rating the importance of skills and current skill levels observed in new graduate applicants with a view to training and development. It is anonymous and the results from all respondents will be reported as a total.

How much time will the study take?

Depending on the detail given in each answer, the questionnaire could take between 15 and 30 minutes to complete. There are 30 questions.

Will the study benefit me?

The study is aimed at identifying a set of core competencies specific to health service managers. Your contribution will help in improving the skills of undergraduate students who become future managers in the health care system. The findings will also help in drafting content of vacancy advertisements, and facilitate finding appropriate applicants.

Will anyone else know the results? How will the results be disseminated?

Individual survey results will be confidential and only the researchers will have access to information on participants. No identifying data will be published nor viewed by anyone other than the researchers. The survey findings will be disseminated via peer reviewed journals and conference presentations in an aggregated form.

Can I withdraw from the study?

Participation is entirely voluntary: you are not obliged to be involved and, if you do participate - you can withdraw at any time without giving any reason and without any consequences. Completion of the survey implies that you have consented to be involved in the study.

Can I tell other people about the study?

Yes, you can tell other people about the study by providing them with the project leaders contact details. They may contact the project leader to discuss their participation in the research project and obtain an information sheet.

What if I require further information?

When you have read this information, Diana will answer any questions you may have by telephone 02 4620 3745 or by email d.messum@uws.edu.au.

What if I have a complaint?

This study has been approved by the University of Western Sydney Human Research Ethics Committee. The approval number is ………………………

If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel +61 2 4736 0229 Fax +61 2 4736 0013 or email humanethics@uws.edu.au.

Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

You will be contacted by telephone to see if you agree to participate in this study. The interview will at a time most convenient to you. A copy of the interview schedule can be emailed to you prior to the interview. By completing the interview you are consenting to the use of the results for the purposes of completion of a PhD thesis.

Contact address:

Diana Messum
Head of Program: Postgraduate Health Science and Public Health
Building 24, Room 28 Campbelltown Campus School of Biomedical and
Health Sciences University of Western Sydney Locked Bag 1797 Penrith
NSW 2751
Email: d.messum@uws.edu.au
Phone: 02 4620.3745
Fax: 02 4620 3792

Recruitment Script for Health Science Graduates

You are invited to participate in a study conducted by Diana Messum, a lecturer at UWS (School of Biomedical and Health Science) completing Ph.D. studies. Supervising will be Prof. Lesley Wilkes, Campbelltown Campus, UWS, and A/Prof Liz Halcomb, UWS. The purpose of this study is to develop a profile of employability skills needed in new health graduates. Given ongoing reforms in the health sector a current profile of skill requirements is needed. A survey has been designed so graduates can identify important competencies and required skills which will be used to inform curriculum development, and help improve graduate employment match.

The study will involve your input as to what you believe are the competencies required for effective management in your field. A standard survey has been designed with opportunities for comments, which takes about 30 minutes to complete. You will be asked to rate the importance of listed skills and current skill levels of new graduates with a view to ongoing training and development. It is anonymous and the results from all respondents will be reported as a total. The instrument will be posted out to you with a reply-paid envelope or via email.

The study aims to identifying a set of core competencies specific to health service managers. Your contribution will provide valuable feedback to the university to help improve curriculum and the skills of undergraduate students as future managers in the health care system. The findings it is hoped will also help graduates better articulate their employability skills when applying for vacancies.

If you would like to participate in this research, please contact Diana Messum on telephone number (02) 4620.3745 or email d.messum@uws.edu.au

Identifying employability skills for new graduate
health managers

University of Western Sydney
Bringing knowledge to life

Information Sheet for Recent Graduates

Who is carrying out the study?

You are invited to participate in a study conducted by Diana Messum, a lecturer at UWS
(School of Biomedical and Health Science) completing Ph.D. Supervising will be Prof.
Lesley Wilkes, Campbelltown Campus, UWS, and A/Prof Liz Halcomb, UWS.

What is the study about?

The purpose of this study is to develop a profile of employability skills needed in new health
management graduates. Given ongoing reforms in the health sector a current profile of skill
requirements is needed. A survey has been designed so graduates can identify important
competencies and current skill levels to inform curriculum development, and help improve
graduate employment match.

What does the study involve?

The study will involve your input as to what you believe are the competencies required for
effective management in your field. You will be asked to complete a questionnaire rating the
importance of listed skills and current skill levels of new graduates with a view to training
and development. It is anonymous and the results from all respondents will be reported as a
total.

How much time will the study take?

The survey will take between 15 and 30 minutes to complete. It is an eight page
questionnaire with 40 questions, most of which require a tick in a box.

Will the study benefit me?

The study is aimed at identifying a set of core competencies specific to health service
managers. Your contribution will provide valuable feedback to the university to help
improve curriculum and the skills of undergraduate students as future managers in the health

care system. The findings will also help graduates articulate their employability skills when applying for vacancies.

Will anyone else know the results? How will the results be disseminated?

Individual survey results will be confidential and only the researchers will have access to information on participants. No identifying data will be published nor viewed by anyone other than the researchers. The survey findings will be published in peer reviewed journals and via conference presentations in an aggregated form.

Can I tell other people about the study?

Yes, you can tell other people about the study by providing them with the project leader's contact details. They may contact the project leader to discuss their participation in the research project and obtain an information sheet.

What if I require further information?

When you have read this information, Diana will answer any questions you may have by telephone 02 4620 3745 or by email d.messum@uws.edu.au.

What if I have a complaint?

This study has been approved by the University of Western Sydney Human Research Ethics Committee. The approval number is H9344.

If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel +61 2 4736 0229 Fax +61 2 4736 0013 or email humanethics@uws.edu.au

Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

If you agree to participate in this study please complete the attached survey. By completing the survey you are consenting to the use of the results for the purposes of completion of a PhD thesis. Please complete the survey and return to the address below.

Return address:

```
Diana Messum
Building 24, Room 28 Campbelltown Campus School of Biomedical and
Health Sciences
University of Western Sydney Locked Bag 1797 Penrith NSW 2751
```

Appendix E

ETHICS APPROVAL

UWS HUMAN RESEARCH ETHICS COMMITTEE

8 December 2011

Professor Lesley Wilkes,

School of Biomedical and Health Sciences

Dear Lesley and Diana,

I wish to formally advise you that the Human Research Ethics Committee has approved your research proposal **H9344** *"Health Science Graduate Employability Skills: Perceptions of Employers and Graduates 2011",* until 1 June 2013 with the provision of a progress report annually and a final report on completion.

Please quote the project number and title as indicated above on all correspondence related to this project.

This protocol covers the following researchers:

Lesley Wilkes, Debra Jackson, Elizabeth Halcomb, Diana Messum.

Yours sincerely

Dr Anne Abraham

Chair, UWS Human Research Ethics Committee

l.wilkes@uws.edu.au

d.messum@uws.edu.au