INFLUENCING THE UNDERGRADUATE BUILT ENVIRONMENT CURRICULA THROUGH STAKEHOLDER UNDERSTANDINGS OF BUILT ENVIRONMENT EMPLOYABILITY SKILLS

A PROJECT SUBMITTED TO MIDDLESEX UNIVERSITY IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR A

DOCTOR OF PROFESSIONAL STUDIES

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FEBRUARY 2016

ABSTRACT

The aim of this project is to uncover new insights and understanding of Higher Education (HE) built environment employability skills. To assimilate the project findings within a built environment employability skills compass model developed as a key output of this project and promulgate the findings to enrich current thinking between stakeholders and apply this new knowledge within university pedagogy and across a wider community. In particular, reporting the opinions and interpretations of stakeholders surrounding their understanding of employability skills for a built environment undergraduate. Conduct research and literature review on the subject of employability skills. Disseminate findings within industry and academia at regional, national and transnational levels.

The project uses a qualitative dual methodology was adopted; Firstly a phenomenological methodology encapsulating the rich expressive and emotional language. Secondly spirit of action research methodology facilitating numerous access and departure points within the project investigations. Using preliminary research located within various levels and modes of discreet inquiries, incorporating early reconnaissance field work investigations and group forum interventions. At the heart of the project investigation a series of thirty semi-structured interviews undertaken during 2011-2015 with key stakeholders.

Contributions are gathered from a range of key stakeholders; academics, employers, policymakers/politicians, professional bodies, career advisors and graduates predominately but not exclusively within the West Midlands conurbation, with the results identified a disparity and gap in knowledge and understanding surrounding built environment employability skills. In particular, the research located and disseminated novel insights and shared agreements behind how HE curricula can be better informed and how shared ownership can contribute to the design of curricula. Pockets of shared understanding were revealed and an inner core of rich employability skills that external stakeholders believe set individuals apart from others were discovered.

The findings have encouraged rich exchanges and increased levels of engagement between academics, practitioners and stakeholders; removing the fear behind

ownership and shared responsibility of built environment curricula design. A key output of the project was the creation and development of a built environment employability skills compass tool and the findings situated within the compass have assisted with the modification and enrichment of HE teaching within architecture and the built environment curricula and have provided meaningful impact, evidenced by feedback received from employers who have commented on the increased levels of employability skills that graduates of (2013-15) posses as they leave the University of Wolverhampton into the world of work.

ACKNOWLEDGEMENT

I would like to extend a personal thank you to all my colleagues, associates, business associates and friends who have supported me through my project with specific acknowledgement of the contributions that Matthew Conner, Jim Knight, Glynis Cousin, Mike Fullen, Syed Ahmed, members of the University of Wolverhampton Office of Vice-Chancellor and Yuan Jervis have made in supporting me through the entire Doctorate of professional studies journey.

In particular a special ‘thank you’ to all 250 participants, interviewees, and stakeholders who agreed to contribute to this project and provided the rich interpretations that I have contextualised within my built environment employability skills compass; your support and enthusiasm to engage was extremely humbling and the friendships and partnerships that I have forged are a clear demonstration of the power of how academic research can cross various. This acknowledges the contribution CITC conference organisers afforded me in presenting bi-annual updates at conference and hosting focus group discreet inquiries.

In particular my sincere appreciation is extended to all my supervisors, Kate, Mehmet, Glynis and Trevor all of whom provided detailed and constructive feedback in a timely manner and supported me through my entire Doctoral professional studies journey. In particular Trevor’s face-to-face discussions which provided rich exchanges surrounding the totality of my project investigation.

Finally the acknowledgement of my dearest wife Glynis and children, Jessica, Victoria, Jon-Paul, and close family Catherine and Haydn, who supported me through the lighter and darker days of my studies. Without their patience, belief and tireless encouragement I would have never completed this important chapter in my life.

For Jessica and Deborah

Acknowledgement of interviewed stakeholder participants

Stakeholder group	Date
Academic 1	July 2011; July 2012; June 2013
Academic 2	July 2012.
Academic 3	February 2013.
Academic 4	June 2013.
Academic 5	June 2013, October 2014, October 2015.
Academic 6	September 2013; November 2014.
Academic 7	December 2013.
Academic 8	June 2014.
Academic 9	September 2014; June 2015
Academic 10	December 2014; May 2015
Academic 11	June 2015.
Careers advisor 1	October 2011.
Career advisor 2	October 2012.
Career advisor 3	May 2015.
Employer 1	May 2011; August 2014; June 2015.

Employer 2	October 2011; June 2012; December 2014; May 2015.
Employer 3	July 2011; June 2015
Employer 4	February 2012; February 2013; March 2013; November 2014
Employer 5	April 2012, May 2013.
Employer 6	June 2012; November 2014; May 2015.
Employer 7	June 2012; June 2013; June 2014; June 2015.
Employer 8	October 2012.
Employer 9	March 2013.
Employer 10	November 2013.
Employer 11	February 2014.
Employer 13	February 2014.
Employer 14	April 2014.
Employer 15	June 2014.
Employer 16	August 2014
Employer 17	September 2014.
Employer 18	September 2014.

Employer 19	November 2014; March 2015.
Employer 20	January 2015.
Employer 21	March 2015.
Employer 22	June 2015.
Graduate 1	July 2011.
Graduate 2	May 20012.
Graduate 3	May, 2012.
Graduate 4	December 2012; June 2015.
Graduate 5	March 2013; August 2015.
Graduate 6	June 2013.
Graduate 7	June 2015
Policy maker/politician 1	May 2013.
Policy maker 2	June 2013.
Policy maker/ Politician 3	September 2014; February 2015.
Professional body	May 2011.
Professional body 2	October 2014.
Professional body 3	June 2012, December 2014, August 2015.
Professional body 4	July 2015.

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ABBREVIATIONS

ABE – Architecture and Built Environment

AGR – The Association of Graduate Recruiters

AGCAS – Association of Graduate Careers Advisor Service

BIS – Department for Business, Innovation & Skills

CBI – Confederation of British Industry

CIAT – Chartered Institute of Architectural Technologists

CIHE – Council for Industry and Higher Education

CIOB – The Chartered Institute of Building

CITB – Construction Industry Training Board

CITC – Construction in the Twentieth Century

CPD – Continual Professional Development

CVCP – Committee of Vice-Chancellors and Principals

DLHE – Destination of leavers from Higher Education

DProf – Doctorate of Professional Studies

ESECT – Enhancing Student Employability Co-Ordination Team

FSE – Faculty of Science and Engineering

HE – Higher Education

HEI – Higher Education Institution

HEFCE – Higher Education Funding Council for England

ICWCI – Institute of Clerk of Works and Construction Inspectorate

IOM3 – Institute of Materials, Minerals and Mining

OVC – Office of Vice-Chancellor

MSc – Master of Science

NCIHE – The National Committee of Inquiry into Higher Education

QAA – Quality Assurance Agency for Higher Education

QSI – The Quantity Surveyors International

RAE – Research Assessment Exercise

RIBA – Royal Institute of British Architects

RICS **–** Royal Institution of Chartered Surveyors

RAENG – Royal Academy of Engineering

SRG – Sustainable practises Research Group

TUC – Trades Union Congress

UKCES – UK Commission for Employment and Skills

UoW – University of Wolverhampton

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CHAPTER 1- INTRODUCTION

1.1 Introduction

This introductory chapter identifies the context and reviews the aims and objectives of this project that form the structure of this project, within the framework of built environment employability skills. Specifically, how this investigation into Higher Education (HE) built environment undergraduate employability skills, provided rich knowledge and fresh understanding that will assist graduates to address an acknowledged sector skills shortage across various trajectory levels of the built environment sector.

These includes a review of my industrial and academic background and highlight the preliminary research leading up to my Doctorate of professional studies project, which led me to identify the disparity in knowledge between stakeholders as to what constitutes relevant built environment employability skills. This chapter also identifies how my project is intrinsically linked to enriching built environment undergraduate curricula within the University of Wolverhampton. Specifically how through a process of structured and planned dissemination, the project impact is extended and promulgates these project findings across a wider academic and associated stakeholder community.

1.2 Context of this project

The problem I have long observed is a disparity and agreement between built environment stakeholders of what constitutes employability skills for sector practitioners and more specifically built environment graduates. Specifically what employers interpret as relevant built environment employability skills that will enhance undergraduate opportunities to become more eminently employable; so other stakeholders and the academic community can evaluate, interpret and embed those skills into Higher Education pedagogy and enrich undergraduate curricula.

The main focus of this Doctorate of professional studies project therefore investigates interpretations of built environment employability skills (2011-15), using high profiled participants in a series of semi-structured interviews to generate

insights, fresh understanding and opinions of a targeted set of stakeholders, namely employers, academics, graduates, policy-makers/politicians, career advisors and professional bodies to locate where knowledge surrounding built environment employability skills is situated and identifying:-

- *Who are the key stakeholders associated with employability?*
- *What is the current understanding of employability skills across the built environment community and sector?*
- *What are stakeholders' opinions surrounding what constitutes relevant employability skills for a graduate and more specifically a built environment graduate?*
- *Does the existing teaching at the University of Wolverhampton incorporate sufficient built environment employability skills?*
- *Can any findings of this project be incorporated into built environment pedagogy at the University of Wolverhampton?*
- *How to measure the efficiency of the new curricula which incorporates project findings to record its impact?*
- *What are the most efficient mechanisms for dissemination of findings from this project?*

Whilst acknowledging my pre-Doctorate of professional studies research during 2009-10 that suggests enriching built environment undergraduates with the relevant employability skills increases built environment graduates life-chances. Academic 10 articulates how:

> *"Employability and the employability skills agenda has become one of the most talked about subjects across UK universities during 2013-15, and employer Higher Education Institution (HEI) collaboration is a key ingredient in addressing this challenge"*. (Personal interview, Academic 10, 2014)

This is further supported by the Which? Survey Report (2015) that identified that most students are influenced by data associated with employability key performance indicators when making their selection of a particular university or course. This project therefore includes the University of Wolverhampton response to this challenge and throughout this project locates areas of best practise or disparity

where more can be done to improve HE built environment teaching or enrich the design of pedagogy through adoption of richer informed findings.

1.3 The Built environment

The built environment has traditionally been associated with the construction, industry, infrastructure and the discipline of civil engineering and “is now well-established as a recognised field of study by the international academic community” (Chynoweth, 2009, p.1).

Having undertaken a detailed literature review the defined scope, site and shape of the built environment used within this project, includes the professional interdisciplinary technical, professional skills sets, aligned with what (Chynoweth, 2009, p.1) refers to as the “theoretical coherent, interdisciplinary common epistemological axiomatic”. This acknowledges disciplines across the built environment in: Quantity surveying, building surveying, construction management, planning, building regulations surveying, facilities management and disciplines that call upon the use of multi-disciplinary technical professional and ethical skills and at times use of practical vocational knowledge that are vital to transform clients’ brief, drawings and contract documentation to define scope, size and shape of built environment projects.

This supports all UK Universities interpretation of built environment teaching and coherently represents built environment curricula taught across the sector. This report acknowledges the vital role that operational construction trades such as carpentry, bricklaying, plastering, electrician and associated manual operational disciplines play within the sector, but recognising these more traditional operational construction trades require a different set of employability skills.

1.4 My personal background

As an academic located in the University of Wolverhampton, I hold the position of Principal Lecturer for Employability within the Faculty of Science and Engineering. I feel extremely proud of the contribution I continue to make to this role, taking great

pride in assisting graduates as they make their transition from Higher Education into the world of work.

As a former Polytechnic that achieved university status in 1992, I am also proud to have studied and graduated from Wolverhampton with a first class honours degree in 1998 and am proud to be part of an employability team that in the 2014 Destination of leavers from higher education (DLHE) survey confirmed what Academic 10 articulated in an interview *"The number of students from the University of Wolverhampton obtaining jobs or going onto further study following graduation is at a record high of 95%" (personal interview, Academic 10, 2015).*

Prior to my academic career, I held various prominent hierarchical positions in organisations across public and private sectors and have historically supported colleagues, graduates and fellow professionals to reach their career goals through discreet inquiries which are intrinsically linked to employability. In 2002 I developed a pilot mentoring scheme for graduate interns within the City of Birmingham Architects Department. This incorporated a series of employability activities and competency declarations by employers to ensure they were actively engaged in work-based learning. Since 1980, I have worked with or engaged with over 1600 employers and hold a vast network of local, national, and international contacts inside and outside of academia.

In 2013 I was honoured to be selected as the first academic to take up the position of West Midland's Chairman of the Royal Institution of Chartered Surveyors (RICS) a professional body which supports my quest to identify built environment employability skills, and whilst this position was time intensive whilst undertaking my Doctoral studies, it conversely provided access to a rich set of participants who have contributed to this project. During my three year term of office I have been encouraged by the breadth of support offered by the RICS and other associated professional bodies. In particular encouragement directly received from stakeholders surrounding this project investigation and the impact my subsequent project findings may have on better informing the sector.

Since commencing my academic career, I have immersed myself within higher education, learning and teaching and I have continuously designed pedagogy using a contextualisation of various academic models including the Biggs (2003) model

for HE constructive alignment. Whilst recognising and acknowledging the parameters and requirements surrounding competencies imposed by professional bodies, the Royal Institution of Chartered Surveyors (RICS), Royal Institute of British Architects (RIBA), Chartered Institute of Architectural Technologists (CIAT), Chartered Institute of building (CIOB) and Quantity Surveying International (QSi); who collectively provide accreditation for architecture and built environment (ABE) courses.

As I travelled my rite of passage from a fledgling academic, towards a more accomplished academic, I moved my inquiry to question; whether the pedagogy I was designing, appropriately aligned with wider stakeholder expectations. Specifically surrounding stakeholders' interpretations of what they perceived as important and relevant graduate built environment employability skills. Questioning whether I had sufficiently prepared ABE students for their transition from Higher Education into the world of work. This provided the catalyst, rationale and professional motivation for this Doctorate in professional studies project investigation.

1.5 Pedagogy and its association in the built environment

Pedagogy by definition is the 'art or science of teaching' and encompasses what is constantly referred to in the Research Assessment Exercise (RAE, 2008) in terms of processes, experiences, context, outcomes and relationships of teaching and learning in higher education.

Importantly for this project, the interpretation of pedagogy uses the essential dialogue between learning and teaching and requires a holistic approach to embrace, encourage and define how teaching and the art of teaching can be designed to create a learning environment that encourages close interaction with learners.

Importantly for the built environment this may create environments for problem solving, self-directed learning and vocational experiences that can predominately only be reached through real-life scenarios, real-life projects, or placement

experiences that are underpinned by well-articulated and well designed teaching. For example I have used the direct access to employers and external stakeholders to inform and enrich University of Wolverhampton pedagogy and designed curriculum in collaboration with external stakeholders. Through the use of expert lecturers to re-create learning environments students can immerse themselves in rich learning experiences; safe in the knowledge that the skills potentially gained during these activities are employer enriched and relevant for their transition into the world of work.

With the recent advancement of digital technology across the built environment it is imperative that the project outcomes are appropriately disseminated to assist the academic community to use the built environment employability skills compass to not only embrace traditional pedagogy but move to adopt innovative blended learning to rethink pedagogy for a digital age.

In particular, where the use of Building information modelling (BIM) software can demonstrate the need to embrace modern IT software packages, but ensure students fully understand the lack of interoperability of real life planning software and digital BIM models. According to the majority of employers interviewed these are priceless learning experiences for up-skilling the current workforce and future-proofing future generations of built environment practitioners. So the findings from this project will encourage stronger alignment with real-life authenticity and real-life experiences this ensures the pedagogy developed across the built environment is better informed by this project and enriched through more coherent stakeholder understanding.

1.6 Research investigation

This Doctorate of Professional studies project (Dprof) investigated the views and opinions of a set of targeted external and internal stakeholders associated with built environment employability, adopting a dual methodology; thematic and intrinsic interpretations to locate better informed understanding and rich interpretative findings. The project additionally investigated whether HE curricula design and teaching incorporates sufficient learning and teaching relating to built environment employability skills and whether the pedagogy appropriately encourage, enriches

and develops built environment graduates as they make their transition into the world of work and whether literature associated with employability skills is appropriately disseminated to relevant stakeholders.

The correlation of the project research findings therefore looked to justify how collated data and interpretations located throughout this project may inform existing academic practises at the University of Wolverhampton and provided some level of acceptance, agreement, coherence between stakeholders surrounding what may constitute relevant employability skills for a built environment undergraduate student.

1.7 Research strategy

The research strategy adopted for this project incorporated multiple modes of investigation. Including a series of 30 semi-structured interviews with six sets of participants; employers, academics, policymakers/politicians, graduates and professional bodies, visits to employers, attendance and participation at the Construction in the Twenty First Century (CITC) international conferences and facilitation of seven supporting phases of discreet inquiries. These inquiries included personal interviews, group fora, and interventions all endorsed by subject specific literature critiques of books, journals, articles, web-searches and high profile personal interviews. With an intention to locate clarification, richer and deeper understandings, and review whether the challenges relating to disparity in knowledge and understanding lay in the appropriateness of Reporting, coherence of good practises or misinterpretation of understanding.

Throughout this project and with agreement of participants, I have removed titles (Lord, Sir, Professor, Dr., etc.) from citations and references to specific interviews as a way of providing confidentiality of participants. This was discussed with participants in 2011 and was accepted by participants as not being disrespectful in any way.

1.7.1 Project Aims

The key aims of my Doctorate of professional studies are:

1. *Explore the history and literature around employability with a further focus on employability skills directly associated with the built environment.*
2. *Generate insight and fresh understanding behind what constitutes and may be viewed as relevant employability skills for an HE graduate of the built environment.*
3. *Investigate how to better develop, inform and embed employability skills pedagogy into built environment curricula at the University of Wolverhampton.*
4. *Disseminate the findings of this project to stakeholders across HE and built environment practitioner community.*

My exploration therefore centred on how the project findings could locate fresh insights and invite deep learning. Such that the learning for the graduate of the built environment recognises context sensitivity, the ability to reflect on practise and the ability to secure sufficient employability skills to assist them to become more eminently employable.

The first objective explored the literature and history surrounding employability skills and looked to identify who are the main contributors to research within the field of employability and employability skills.

Specifically exploring influential Reports, policy documents, white papers, journals and conference papers to investigate the history behind employability skills and evaluate views, opinions and interpretation on employability skills that may be contextualised or directly be associated with employability skills within the built environment sector.

The second objective required investigation of current understanding of employability skills across the built environment sector.

This included an exploration of the perceptions by a targeted selection of stakeholders (academics, policy-makers, graduates, career advisors, employers and politicians). In particular, using the adoption of my selected dual methodology I was able to reach inner depth of interpretations; *"if you want to hold a deeper understanding of and influence over a problem you need to experience it to change it"* Hampton (2015). This understanding comes from an interpretation of both my formal data and my observations of the change I have implemented whilst undertaking this project. In particular this involves a reflective stance surrounding my own investments in this project research.

> *The third objective was to investigate all layers of the University of Wolverhampton pedagogy to investigate how I might further embed employability skills across the built environment curricula.*

This project explored whether HE built environment curricula delivered at the University of Wolverhampton is appropriately designed with sufficient content associated to the findings of this project. In particular this project used discreet interventions as part of the spirit of action research methodology to review, pilot and triangulate early findings surrounding improved curricula design or adopted blended learning activities to provide 'constructive alignment' Biggs and Tang (2011, p.1). Consequentially, informing and improving academic practises associated within the wider academic community of built environment teaching.

> *The fourth objective was to investigate and triangulate the dissemination of findings through multiple platforms of the academic community, the built environment and industry and commerce.*

This included evidence of how through hosting, attending and presenting findings from this project at various interim stages at meetings, conferences, colloquia and with interaction with an on-line academic community, effective dissemination was achieved. Recognising that at the conclusion of this project, the findings will be presented to the Vice-Chancellor at the University of Wolverhampton, as well as diffusing my findings to various levels of academic, industry and commerce

communities; as part of my academic interactions with professional bodies, professional networks and the wider academic UK and global community at international conferences.

> *The final objective involved the exploration of how my own existing knowledge, research, practise and experience as a teacher and industry practitioner within the built environment might add value or influence this project.*

I have long observed that whilst working within industry, and since joining the academic community at the University of Wolverhampton, how students leaving higher education may not always be work ready as they move from academia into the world of work. Using access to a network of contacts I was able to investigate if this understanding was correct and whether my knowledge, research and practise including personal observations were shared across associated stakeholders and communities.

1.9 Key questions to underpin the aims and objectives

The key questions were the mechanism for framing the inquiry of my project and created the platform for gathering fresh understanding of knowledge, awareness, and levels of research and effectiveness of existing methodologies used to disseminate Reports.

> *What history, current thinking, research and literature surrounding the subject of employability skills specifically relating to the discipline of the built environment?*
>
> *What is the current understanding of employability skills across the built environment community and sector?*
>
> *Who are the key stakeholders associated with employability?*
>
> *What are stakeholders' opinions on what constitutes relevant employability skills for a graduate and more specifically a built environment graduate?*
>
> *Does the existing teaching at the University of Wolverhampton incorporate sufficient built environment employability skills?*

Can any findings of this project be embedded into the curricula at the University of Wolverhampton?

How do I measure the efficiency of the new curricula?

What mechanisms are most effective for dissemination of the findings of this project?

1.10 Outline of methodologies and modes of inquiries

The dual methodologies selected for this project investigation included a combination of a phenomenological methodology and what I have termed 'spirit of action research' methodology. Other methodologies were considered but they all failed to capture the rich emotional connectivity and language that was exchanged with stakeholders during interventions and interviews. Specifically how the spirit of action research methodology provided a distinct variation from the traditional action research model methodology of act-plan-do-review and provided various access and egress points between the plan-do-review stages to triangulate and direct my investigations to confirm richer meaning from inquiries.

Specifically how a phenomenological methodology encapsulated, encouraged and enriched participants to engage in deeper, richer, meaningful and more transparent dialogue, providing various levels of encounters, interpretations and recollections; encouraging *"multiple ways of seeing and hearing, multiple ways of making sense of the social world, and multiple standpoints",* (Greene, 2007, p.20). Whilst the adoption of a complementary spirit of action research methodology adopts the suggested ethos of McNiff (2013, p.66) 'generative transformational evolutionary model'; which suggests breaking away from the purist action research methodology by identifying various departure points within cycles of investigation before implementing change.

The spirit of action research methodology afforded various access and egress points for managing and leading on discreet inquiries with stakeholders. This enabled various levels of reflection on practise to take place, whilst supporting modes of change to my investigation or facilitating piloting or triangulation of partially located findings in the real world or within university built environment curricula. Therefore,

within the project, I make the claim that these methodologies are collectively rich in context and appropriately robust for this investigation.

Underpinning my dual methodologies are various modes of qualitative interventions, activities and investigations, that I have termed ‘discreet inquiries’ with the aim to investigate and use various modes of activities to collate richer findings. Acknowledging that at the heart of my investigation is a series of high profiled semi-structured interviews, individual interviews, group fora, debates and discussions. Recognising and acknowledging that my past experiences and close collaboration with external stakeholders have impacted and occasionally influenced the genre of which I contextualised my findings. Accepting that as an inside researcher to this project, I have occasionally called upon auto ethnographic statements to underpin my research; recording depiction of experiences located within various strands of interpretation.

Throughout this project I have recording reflexive and reflective moments or personal thoughts that at the time captured and recorded the tone or personal experience relating to a situation or encounter. During discussions with Academic 1 (2011; 2012) she suggested that *“If you collate notes, comments and a brief record of an encounter it can assist you and prompt you to remember a specific comment, interpretation or remarks”.*

1.11 Macro-meso-micro levels of investigation

The philosophy behind the macro-meso-micro level of investigation has historically been contextualised in various ways and within diverse subjects and disciplines. In particular Jephcott (2014) used these levels in the educational context to identify how the roles of micro-level stakeholders (education providers) and the macro-level (government policy-makers) are sometimes influenced by meso-level (associated sector stakeholders). In particular, *“their ongoing mediating roles in educational policy processes situated, as they are, between policy-makers and central government, on the one hand (the macro level), and teachers and schools, on the other hand (the micro level)”* (Jephcott, 2004, pp. 547-564).

Whilst the Sustainable Practises Research Group (SRG, 2015); used the macro, meso and micro levels in an economic context to emphasise a hierarchical

framework of multi-level analysis. In this project I have adopted the macro, meso and micro levels of interpretation in the context of the employability landscape; acknowledging HEIs as the micro-level stakeholders, regional and sector levels as meso-level stakeholders and national or transnational level policy-makers as macro-level stakeholders.

Specifically how the micro level of this investigation relates to the universities vision, mission and strategy; whereas the meso levels are concerned with national sector level demand, supply and strategic collaborative partnerships and finally the macro level addresses the global social, political and economic developments associated with employment and employability skills within the built environment.

This project research therefore aligns with the view of Jephcott (2014) of interpretative research, that suggests various macro-meso-level interventions and policies have tangible impacts on micro-level propagations. Whilst the suggestion those macro-meso level policies have meaningful impacts on micro-level engagements was also supported by project participants, i.e. (personal interviews, Policy maker/ Politician 3, 2014; Employer 14, 2013; and Academic 6, 2014; Blaxter et al (2006). Whilst some participants maintained their resistance to macro-level interjections and suggested that universities should focus less on employability skills and more on traditional research activities.

Whilst most of project participants supported the comments of the Wilson Review (2012) *'A review of business-university collaboration'* suggesting that business-university collaboration will enrich HEI curricula and enhance employment chances for UK graduates. Policy maker/ Politician 3 (2014) supported this earlier claim and during the interview suggested that *"students who simulate and develop employability skills are most likely to experience a richer education".* Supporting the claims that suitably qualified graduates can contribute to the growth and position of a nation in a global economy*. "In short, the talent of our graduate population and current workforce is an intrinsic part of securing growth and global prosperity"* (personal interview, Policy maker/ Politician 3, 2014).

Since the early 1990s the attention has moved towards full (HEI) and UK Government policy-makers who took an intrinsic interest in the power and influence

of eminently employed graduates. This laid the foundations, for employability skills embedded within HEI curricula.

As pre-1992 vocational Polytechnics, transferred to post-1992 HEI University status the context moved towards the notion of “employability skills”. Publications such as the Dearing Report (The National Committee of Inquiry into Higher Education (NCIHE), 1997) and the academic investigations of Steven and Fallows (1998) moved the mode of inquiry to investigate the question of embedding employability skills within HEI pedagogy, so the new digital literate generation of graduates are competitive on a global stage. In 2015 this ideology remains, and whilst resistance still exists from certain HEIs; macro-level ‘think tanks’ continue to support the idea of HEIs embracing employability skills as a core activity alongside HEIs traditional post 1992 focus on research.

1.12 Closing chapter remarks

These investigations into built environment employability skills are timely, relevant and provide rich findings surrounding the views, opinions and interpretations of a selection of stakeholders.

The impact of this Doctorate of professional studies project research has already provided powerful, informed and life-changing impact for built environment graduates at the University of Wolverhampton and, moving forward, will provide an opportunity for rich exchanges. In particular, how using the built environment employability skills compass tool developed from a culmination of this project research will aid understanding across various macro-meso and micro level stakeholders and induce propagation.

This Doctorate of professional studies (2015/16), therefore, looks to present investigation findings; delivered at a time when globally we are still witnessing skills shortages across the built environment and stakeholders are accepting that the next generation of graduates need to be better prepared for the world of work. I therefore make the claim that my project research is timely, meaningful and relevant for coherently translating tacit interpretation of current understanding, and analysis interpretation of built environment employability skills.

1.13 Structure of project

Chapter 1 Introduction and context to this project research looking into the rationale behind this investigation into what constitutes relevant built environment employability skills for an HE built environment undergraduate. Introducing my personal background and how at various levels of macro, meso and micro participants provided a rich collation of stakeholders associated with the built environment. Additionally, how my selection of a dual methodology and various modes of discreet inquiry located findings that can be used to enrich HE built environment curricula. Concluding how the culminations of findings lead to the creation a built environment employability skills compass tool which will enrich the dissemination of the project findings to a wider academic and stakeholder audience.

Chapter 2 Terms of reference, aims and objectives and a literature review of past and current thinking surrounding employability and employability skills. Specifically how this literature review shaped and influenced my research investigations. Whilst outlining the framework of a dual methodology to best represent the emotional intelligence of my investigative findings. In particular, how this shaped the genre of the investigations and contextualised the style and mode of inquiry and interaction with targeted participants.

Chapter 3 Critically reviews the selection of the dual methodology and how this enabled a richer investigation and collective adoption of various modes of discreet inquiry methods to appropriately cover the range and complexity of my investigation. With my insider position I could address the issues of ethics, participant confidentiality and how through constant reflection on practise with participants I could triangulate and validate my interpretations.

Chapter 4 (Project activity) This chapter considers the investigative research activities that were used to locate project investigate data, including the review of the nine phases of discreet inquiries. In particular, how at the heart of my investigation I located rich stakeholder interpretations through a process of 30 semi-structured interviews and how through incorporation of various modes of discreet inquiries I could locate a deeper meaning and understanding of stakeholder interpretations. Additionally the chapter reviews the challenges and restrictions I encountered whilst collecting these data and how through the use of Nvivo version

9 computer software package (QSR International, 2010) the data and findings could coherently and inclusively represent participant interpretations and show how thematic findings linked directly back to my project investigation questions, aims and objectives.

Chapter 5 (Project Findings) This chapter critiques how I contextualised the vast amounts of data into a meaningful set of thematic interpretations and how I have located themes surrounding shared understanding between stakeholders. This chapter highlights how thematic findings led to the discovery and confirmation surrounding my earlier belief of disparity across the sector, but provided the catalyst for development of a built environment employability skills compass tool which has been subsequently applauded by participants as a true and genuine interpretation of their views and opinions.

Chapter 6 (Project Impact) This chapter reviews the tangible and non-tangible impact of this project. In particular the impact on the University of Wolverhampton, its internal academic community in designing enriched built environment curricula and how through a wider dissemination process a recognition of possible impact at meso and macro levels of the sector. Importantly the contribution the study has made in influencing my own professional development and enhancing life-chances for built environment graduates across the region.

Chapter 7 (Conclusions and recommendations) This chapter addresses the terms of reference and objectives of the project and how the findings have already impacted on the participant stakeholders who engaged with this project. In particular how this project has made a contribution towards enhancing the University of Wolverhampton employability and enterprise status and position compared with other universities.

The main finding of this project is the creation of the built environment employability skills compass tool which provides focus, visibility and a tool for stakeholders to evaluate the relevance of built environment employability skills in a language that is inclusive and accessible for all. Additionally, this compass will be used as part of my dissemination strategy to deliver academic papers on built environment employability skills and will be used as a catalyst for an academic book critiquing HE built environment employability skills. The project also provides the rationale for

a 2016 Black Country LEP bid submission to create a Built Environment Employability Skills centre of excellence (BEES). The centre will provide a national centre of excellence for construction and built environment next generation of sector professional and include a ladder of opportunity for life-long learning.

Chapter 8 (Reflective and reflexive account) This chapter provides a commentary on the my Professional Doctorate studies journey and provides a reflective and reflexive account of numerous encountered and experiences. Specifically the wider aspiration, motivations and implications of this project that supports this project is to be a starting point for wider academic engagement and rich academic exchanges across a wider stakeholder community.

CHAPTER 2 - LITERATURE REVIEW

2.1 Introduction

This chapter incorporates a review of relevant literature associated with my investigations and reviews a range of published material (1990-2015) that have influenced policy and direction relating to employability skills. Specifically how the literature review provides thematic discussions and findings that have shaped the context of my project investigations; making sense of what is currently happening.

The literature search utilised a four step process and commenced with the framing of the research question to evaluate the context and meaning behind employability skills and more specifically built environment employability skills. This incorporated pre-research questionnaires and interviews with a targeted set of stakeholders. Secondly, a desk top study focussing on the seminal and historical literature associated with employability and built environment employability skills was undertaken to identify the underlying and fundamental themes followed by further searches to analyse the development and evolution of the subject. Thirdly managing the integration and contextualisation of the findings and locating relevance. Finally in writing the iteratively literature review the process was iterative and enabled a refinement and rethink of the relevance of located literature.

This chapter further discusses how I have addressed conflicting issues raised by literature; the gaps I have identified surrounding built environment employability skills and how the literature helped shape my investigation and supported me to develop a framework of access points for my discreet inquiries, whilst locating a genre within my investigation which led to an adoption of a phenomenology and spirit of action research methodology.

2.2 Employability skills within a global economy

The global economy continues to present significant challenges to the employment status of built environment graduates and through pre-consultation with employers supported by research evidenced in this project it is clear that the skills gap relating to built environment practitioners is widening. Policy maker/ Politician 3 (2014)

during an interview commented how *"the response to this challenge and delivering sustainable growth must be powered by the skills and entrepreneurship of people who hold the relevant employability skills to meet this global challenge".* Professional body 3 supported Policy maker/ Politician 3 by stating;

> *"If the sector, (construction and the built environment) are to play their part in meeting this global skills shortage, we must ensure graduates hold the relevant employability skills to meet sector demands and better prepare graduates for the challenges the sector faces as we approach 2020; I would suggest universities have a pivotal role in this challenge". (Personal interview, professional body 3, 2015).*

The Higher Education Funding Council for England contributed to the debate by stating:

> *"Embedding employability into the core of higher education will continue to be a key priority of Government, universities, colleges and employers. This will bring significant private and public benefit, demonstrating higher education's broader role in contributing to economic growth as well as its vital role in social and cultural development". (HEFCE, 2011, p.4).*

The UK Commission for employment and skills (UKCES, 2014, P.10) supported the HEFCE claims by stating *"Economic growth and economic recovery may be constrained by skill shortages as the labour market responds to employer requirements".*

From a policy-makers perspective the National Foundation for Educational Research commented (2015, p.1) *"Businesses and educational institutions together, have an important role to play in addressing skills gaps and equipping young people with the employability skills they need to make a successful transition into work".* This was further commented on by national employer Employer 18 (June 2015) who stated in a personal interview *"With the ever increasing demand for graduates who hold the relevant skills for quantity surveying and building surveying, it is imperative that we can work with HEI's to develop curricula to address this challenge".*

With the UK ranked fourth in the world for business and university collaboration; (Global Competitiveness Index 2014-15), this project investigated why there still remains a disparity in understanding surrounding what these skills are and why employers are increasingly questioning the validity of the skills sets that graduates hold as they transfer from university into the world of work.

2.3 Employability within Higher Education

Universities have historically incorporated transferable skills and associated employability skills within their teaching. Boud and Soloman (2003) expanded the notion that situated learning and learning gained in the workplace is not only contrived in the classroom, but is aligned and extends as transferable learning process across university teaching into the workplace. However, the impact of this transferability specifically associated within built environment employability skills has rarely been quantitatively assessed or qualitatively investigated.

Findings located within investigative literature review, identify and recognise a shift in thinking (1990-2005), suggesting that UK universities are beginning to accept and listen to academic research surrounding ideas of work-based and situated learning (Boud and Soloman, 2003, 2007) that adopt, accept and embed a richer translation of transferable employability skills across their curricula. However, within the built environment the pace is slow and the richness of working with partners to promote intellectual capital is still crystallising and seldom clarifies expectations of specialist built environment employers, manufacturers and other built environment associated stakeholders in delivering enriched curricula.

I would advocate that the range of published material reviewed during this investigation confirms a disparity and suggest built environment students are rarely considered or signposted to literature surrounding built environment employability skills, with the noted exception of pockets of best practise within industrial placements. Recognising and identifying how both academics and associated stakeholders such as employers, can benefit from such findings and how if academics embrace project learning, or translate findings into their teaching this can become richer and provides more visible interpretation of built environment employability skills within their pedagogy.

This view was enhanced by the 2012 Research Council publication which confirmed *"The pressure for higher education to address graduate employability skills has been longstanding; since the 1990s, key Reports issued by employers' associations, government bodies and higher education organisations, have urged universities to make more explicit efforts to develop the 'key', 'core', 'transferable' and 'generic' skills required for high-level employment [graduate-level employment] in the 'knowledge intensive industries'* (Council for Industry and Higher Education, 1996).

This project research therefore used the literature review to shape the context of my project investigations; used disagreements within the literature to form my own interpretations and use the literature to develop my mode of questioning that would later locate rich interpretations from targeted stakeholders. Importantly the Browne Report (2010) located literature, such as the Wilson Report (2012) that identified successful research strategies for undertaking research in collaboration with employers and other associated stakeholders.

This research framework provided the perfect tried and tested research strategy for this project looking to locate findings to address the disparity surrounding built environment employability skills. This lead to the creation of a built environment employability skills compass tool that can be used by stakeholders to better articulate and embed employability skills into HE curriculum and provide a richer collection of what stakeholders articulated as key built environment employability skills.

2.4 Interpretation of employability skills

There has been numerous academic, industry and commerce interpretations surrounding the meaning of employability skills, but the most commonly used by industry and academic practitioners within this investigation relates to the higher education academy (2006, p. 8) which suggests employability skills are; *"a set of achievements – skills, understanding and personal attributes – that can make graduates more likely to gain employment and be successful in their chosen occupation, which benefits themselves, the workforce, the community and the economy".* This is still recognised and accepted as the most appropriate definition and all academics who quoted their interpretation made reference to this definition.

Historically the term ‘employability’ can be traced back to the early 1920s when surveys were produced to account for the numbers who were employed or unemployed (The Daily Telegraph Reporting on 28 June 1927, p.1) stated that schemes would be established to address employability and generally look towards *“improving the general employability of young unskilled men”.* This is not the earliest reference to employability, and new historic terms have come to light on a frequent basis as I have completed this project.

Other past recollections have been captured within a publication entitled “Reflections on Change 1967-2007” (Butler and Dane, 2007) commissioned by the Association of Graduate Careers Advisory Services (AGCAS) website http://www.agcas.org.uk. This recognises that the recorded submissions are predominately recollections. However Becker (1975) and other stakeholders outside of academia recognised the connection between increased participation in higher education and the contribution it made towards the nation’s knowledge attainment, growth and prosperity. This is a generally accepted concept across most publications and the realisation of the importance of shared contributions between higher education and employers would later form the framework of Department for Business Innovation & Skills (BIS) in their (2011) paper ‘Supporting graduate employability HEI practise in other countries’ June (2011); Tomlinson (2012), Graduate Employability ‘a review of conceptual and empirical themes’ and the Wilson Report ‘A review of business-university collaboration’ (2014). These concepts were later repeated in the University Alliance publication: Mind the Gap: Engaging employers to secure the future of STEM in higher education (2015, p.17) who stated “*successive UK governments from 1997 onwards have recognised that greater employer engagement with universities can support their economic growth, global competitiveness and regional development agendas*” (University Alliance, 2015, p.17).

In searching to clarify this issue, I therefore spoke with employers who in a personal interview suggested that “*part of the problem was access to Reports relating to employability skills and in many cases the use of academic language which masked the challenge in ‘straight talking language*” (personal interview, Employer 5, 2013). From the University of Wolverhampton’s perspective in 2012 we placed ‘Employability and enterprise at the heart of our mission’ (Oakes, 2012, p.1)

The history behind employability and graduate employability came to light during the release of the Robbins Report commissioned by the Education Committee (1963) suddenly became a recognised part of government policies. The Robbins Report was a valuable piece of work and is still accepted as a starting point that fuelled further debate as to why UK citizens should look to capture appropriate skills towards increasing national wealth.

The Confederation of British Industry (CBI) built on this new wave of thinking and produced a Report entitled 'Towards a Skills Revolution' (1989). This sparked discussions surrounding who should take responsibility for the promotion of skills. Specifically, it challenged whether employers were in a position to demand that employees be compiled to demonstrate a set of core skills and key values.

The Report identified relevant skills, such as integrity, effective communication, application of numeracy, applications of technology and awareness and understanding of the demands of the world of work as vital for the modern employee. Dearing (NCIHE, 1997), extended the debate surrounding what are the appropriate skills that UK employees should hold and extended the discussion to say that if students were forced to pay for their university education they may be more focused on achieving appropriate results. The Dearing Report looked to specifically investigate the current position of higher education in the UK and was later viewed by policy-makers and politicians as one of the most visionary Reports of its time.

Dearing took in findings of 240 meetings and views and opinions of 380 public submissions. Some 14 months later, the 2,000 pages of the first major Report were published. There were 93 recommendations in all, many of which are still applicable today as they were then, but the most controversial issue was his proposal to make students pay for their university education.

It certainly had the same impact and created the same shockwaves throughout universities that recent changes to student fees have caused. Whether a free market philosophy will find its own level of acceptance or whether evidence points towards a U-turn of policy only time will tell. What is more relevant to my research was the importance the Dearing Report (NCIHE, 1997) on graduate employment. Importantly, Dearing made specific reference to employability and identified a set of

essential key skills that Higher Education establishments should be embedding into their curricula.

Price Waterhouse Coopers (1998, p.4) supported this methodology of embedding skills within HE curricula and published a Report stating how these essential skills identified in various other Reports may be viewed as "*graduate employability skills"*. This was perhaps an influential mind-set change and recognition that lecturers and University curricula should be responsible for shaping graduate prospects of achieving appropriate levels of skills.

Mason (1998,1999, p.1) extended the debate further and stated "*from the perspective of employers, employability often refers to work readiness, that is, possession of the skills, knowledge, attitudes and commercial understanding that will enable new graduates to make productive contributions to organisational objectives soon after commencing employment*" (Mason, Williams and Cranmer 2009, p.1).

In 2002 HEFCE commissioned a Report (ESECT, 2006) through the enhancing student Employability Co-ordination team which considered the enhancement of student employability. This provided the joined up thinking and provided the template for the growing employability landscape. It contextualised the values and meaning behind the Dearing's Report (NCIHE, 1997) and provided comment and a response on behalf of the higher education sector.

One of the proceeding reports that built upon Dearing's findings also identified that employability is a national and global requirement for prosperity was the Leitch review, 'Prosperity for all in a global economy – world class skills'. Launched in 2006, the review was concerned with both strategic and operational measurers for "making the UK a world leader in skills" (Leitch 2006, p.137) through increased attainment. Importantly it was the first Report since late 1990s to highlight the importance of partnership working and the value behind collaborative stakeholder's participation. "*Building on the success of recent initiatives to build more demand- led systems, meeting the new challenges the UK faces through common action"* (Leitch 2006, p.138).

The Report was extremely powerful and importantly recognised the need for collaborative, shared responsibility between employers and higher education providers in crystallising what employability skills are relevant and important to a particular sector. This acceptance of shared responsibility very much aligns with the gap I have identified within this project and demonstrates the importance of more coherent understanding surrounding the plethora of views surrounding employability skills.

The Leitch Report supported the idea that employers were bought-in to the idea that they could and would make a contribution if invited. Having tested this suggestion during this project and during my earlier investigations, I would categorical state that the vast majority of my participants support these claims and still support the findings of the Leitch Review.

Leitch proposed a fresh set of recommendations to raise awareness and aspiration among adults across society. "*Raising aspiration and awareness of the importance and benefits of learning, particular amongst those that have missed out in the past*" advocating a "*skills health check"* (Leitch 2006, p.140).

> *"The ability of firms to succeed in the face of growing international competition depends increasingly on the skilled labour force they can draw from. Skilled workers are better able to adapt to new technologies and market opportunities. Higher levels of skills drive innovation facilitate investment and improve leadership and management. For innovation to be effectively implemented, businesses must be able to draw on a flexible, skilled workforce" (Leitch, 2006, p.8).*

Bringing the literature critique back towards employability skills within the sector, in 2008 a Report was undertaken by the Royal Academy of Engineering (RAEng, 2010) entitled 'Engineering graduates for industry'. Commissioned by the then Department for Innovation; (now BIS), their recommendations highlighted comments made by Sainsbury (2010) in his earlier review. The Report and study looked to identify how and who should be responsible for increasing the numbers of employable engineering graduates. Again reinforcing early literature, inviting employers to play a more active role by engaging with Universities and identifying

exactly what are the type of graduates they are looking for and what are the relevant employability skills.

The Report, whilst biased towards pure engineers and not built environment graduates, placed a value of employability skills as the highest priority and highlighted how Britain's future economic success depended on a national strategy of qualified graduates. It especially highlighted the importance of science, technology, engineering and mathematics skills (STEM). Under a section identified as 'The new economy' the Report recognised "*there is a growing agreement among policy-makers, economic strategists and commentators that the UK's future prosperity will depend on the creation of a more diverse economic base*" (RAEng, 2010, p i).

The UK Commission appears to agree with this statement within the Royal Academy Report, but felt that although learning providers made valuable contributions towards developing graduates with appropriate employability skills, they also highlighted that publicly-funded trainers and HE should do more to help learners apply this knowledge gained in the workplace more effectively. This Report specifically looked to raise the status of employability skills and improve practise. However, what the Report failed to strongly emphasise was the valuable contribution employers can make.

In 2009 a national employer skills survey (UKCES, 2010) Commission for Employment and Skills) found that "*some employers are frustrated that individuals, including some university leavers, do not demonstrate many of the generic skills that employers are looking for and 19% of organisations reported a skills gap*" (UKCES, 2010, p.7). This was perhaps a detrimental and thought provoking statement as it looked to place the challenge of employability with HE providers. It is also interesting to read how the impact of this Report sparked a response from both academics and policy-makers.

Roberts, during a personal interview (2012), agreed and described how he believed that successive education policies were directly aimed predominately towards meeting educational targets, and too often squeezed out preparation for the workplace and another set of skills- how to think creatively, how to collaborate, how to empathise (emotional intelligence). Conflicting argument and debate is

continually reviewed throughout my literature reviews, with support to make employability a core part of university learning and teaching the accepted norm. I personally believe this does not detract from the research and education outputs from a university but compliments aims, objectives and purpose behind higher education.

In balancing this argument several reports issued by employers' associations and HE organisations urged universities to make more explicit efforts to develop the 'key', 'core', 'transferable' and/or 'generic' skills needed in many types of high-level employment, recognises that HEIs have historically attempted to incorporate transferable employability skills into curricula. However I would suggest this has not been highly visible to students, academics, employers and associated stakeholders and employability skills that may be specifically related to the built environment have been categorised in a wider STEM agenda. This may have prohibited rich interpretation of the employability skills linked to the built environment.

The Confederation of British Industry (CBI,1989; 2011) called for increased provision of '*employability skills'*, highlighting that in their opinion employability was a '*shared responsibility*' across all stakeholders, but identified that education providers are still very much focused on qualification targets more so than preparation of graduates for the workplace.

Perhaps a more balanced view was reported in the Guardian Newspaper by Littlemore. This clarified the discussion through a quotation by Forthgill (2011, pp.1-3). "*Some universities are embedding employability skills throughout their courses. We want to challenge other universities to do more*".

In their Report "Employability and Skills in the UK: Redefining the Debate"; prepared for the London Chamber of Commerce and Industry Commercial Education Trust, the Work Foundation identify how:

> *"The debate about employability and skills has been long standing. The cultural divide between education and employment, and the lack of demand for higher skills (the "low skills equilibrium") are critical barriers. After many years there has been no revolution and we are still discussing the lack of "employability skills", with education providers remaining focused on*

qualifications targets rather than preparation for the workforce" (The Work Foundation, 2010, pp. 3-4).

The Report again raised the previous arguments surrounding the levels of infiltration and impact employability skills should hold within FE and HE, but again highlights that this argument is still present below the surface. Interestingly, within my semi-structured interviews, most participants followed the lead that university education should embed or as a minimum point graduate learning towards the world of work and 90% suggested without employer engagement the genre of curricula would be restrictive in application.

In 2012 Scarlett Xiao produced a paper entitled '*Capturing work experience and enhancing employability for engineering students'*. The Report highlighted and paid recognition to the good work taking place in UK universities. The paper specifically identified that HE academics have been championing employability skills for many years. By using real life industry projects and competitions such as blended learning they are extensively enhancing pedagogy. "Activities can enhance their employability" (Xiao, 2012, p.1), but again there was the acceptance and recognition that more could and should be done by HE and the wider community. Again reinforcing messages and findings I have received from my investigations.

A further well-informed white paper was delivered in the 2012 Report by Professor Wilson. His research was undertaken over a six months period, with the collaboration of various stakeholders and the Report was entitled (A Review of Business-University Collaboration). This in-depth Report of the strengths and weaknesses of business and university collaboration was a very influential and thought provoking piece of work. Although more mature participants consistently made reference to the influence of the 1997 Dearing Report which identified a set of key skills which were 'relevant throughout life, not simply in employment' (NCIHE,1997, pp. 133-134). Dearing defined these skills as communication, numeracy, IT and learning how to learn at a higher level and recommended that provision of such skills should become a central aim for higher education.

If knowledge continues to be viewed as power, that creates a culture of inquiry, innovation and enterprise, then the central realisation is that university – business collaboration is a platform for the generation of such knowledge. This strategic view

is echoed three times within the review, and identifies that all stakeholders hold a pivotal role in delivering this challenge. This was potentially the first time that HE was recognised for what many academics believe was its original purpose and recognised that each university is not aligned to a ‘production line’ which develops a product time after time which is consistently the same.

The Report also recognised that each individual university will host its own bespoke “highly diverse domain”, (Wilson, 2012, p.1). This supports the claim I heard at various points and at various levels during discussions in political circles which suggests that universities may decrease in number and this may crystallise the birth of regional universities that specialise in particular subjects.

The Report recognises the uniqueness of each individual university and suggests that each university will focus on a specific discipline or science. The Report went on to say that this should not be seen as a barrier, but as strength, and perhaps a catalyst for promotion of knowledge transfer. A university, similar to a business, should be sufficiently flexible to allow divergence and expansion into new subject areas, and not be fearful of entering new marketplaces.

It is also interesting that the Report recognises existing weaknesses in the present system and within current ways of collaborating. The Report strongly advocates that a single voice, represented by a single body, with representation from all associated stakeholders may be better placed to evaluate and provide a central governance authority.

As (Wilson, 2012, p.1) suggested:

> *“This supports a further finding from this project that a single centralised system, body or faculty would have greater impact on the dissemination of information and research relating to employability skills. This was evidenced during the early days of engagement with stakeholders when it became apparent that each party was unaware of amendments and the publication of new Reports relating to employability skills”.*

2.4.1 Political context

From a wider political context; increased attention surrounding employability skills in HE coincided with the 1998 introduction of £1000 a year University tuition fees across the United Kingdom. In 2004 attention was magnified further with an increase of student fees to £3000, but as the debates and discussion at political level increased and Reports like the Browne Review (2010) and the CBI Report (2012) captured the attention of a wider audience, it became clear that the prospect of increased ownership surrounding who should ready graduates with appropriate employability to meet global demand was shifting more towards HE providers.

With the increased collation of statistical data; e.g. (Destination of Leavers from Higher Education DLHE) and the introduction of £9000 a year fee structure it was clear that more independent 'free market' solutions to the way universities secured their funding had arrived. Suddenly Universities were showcasing employability levels as their unique selling point and the media, parents and prospective students increased their attention surrounding the likelihood and prospects of securing employment post their transfer from higher education.

Reports such as the Wilson Review (2012) continued to highlight the need for increased employability skills that nurtures graduates with global competitiveness and all Reports make referral to the important role that higher education plays in developing work ready or eminently employable graduates. What changed during 2011-2015 was the renewed acceptance that this responsibility should be shared with employers. In a paper entitled 'Employability Skills Initiatives in Higher Education: What effects do they have on graduate labour market outcomes' Mason et al (2009) suggested that a clearer understanding of what makes a graduate "work ready" for a global marketplace requires more than just a gesture or slight amendment to curricula; it requires a shared contribution and shared commitment.

Commissioned by the UK Government, the subsequent Report highlighted the importance that all three key stakeholders; universities, businesses and government have in *"generating the wealth that is necessary for a healthy and prosperous society",* (Wilson 2012, pp. 3-17). This higher level of recognition of the real value of a well educated and vocationally trained workforce is similar to the strategic philosophy adopted by emerging nations of Brazil, Russia, India and China, who

recognised the value of language skills, global knowledge and the importance of teaching employability skills that include global competitiveness.

From data gathered within my project; stakeholders accepted that graduates and employability skills are directly correlated to economic growth or recovery, but few elaborated past feedback as to how this challenge should be addressed. Evidence collated during the academic year 2012-13 show a continuing increase in the overall exchange of knowledge between UK HEIs and the public, private and third sectors is continuing to increase, (HEFCE Higher Education-Business and community interaction survey 2014). This suggests that the two sectors are at least increasing collaborative interchange of ideas.

I have personally witnessed in 2015 the continuation of a national skills shortage of built environment graduates and received comments from employers that they should be devoting more time to engagement and collaboration with universities. Specifically, employers identify a pipeline shortage of graduates 'next generation talent' who hold the relevant employability skills to fill the gaps in their organisation.

2.4.2 Macro-Meso-Micro level context

In the context of this project, I have adopted the idea of macro-meso-micro level mechanisms to highlight the differing levels stakeholders. This incorporates the wider adoption of influences and policies surrounding employability skills in universities (micro level). Recognising change in current thinking that reflects the dominance of sector and regional level stakeholders (meso level) whilst locating the fact that national policy-makers (macro level) hold influential impact surrounding employability skills and how macro-level international politics and global economic influences encountered during the last five years (2011-2016) have seen changes in the requirements for built environment employability skills. Suggesting, what Goodson (1994) referred to as the number of levels, reflecting the narrative between the interconnectedness of associated stakeholders. The adoption of macro-meso-micro level reference was highlighted in a personal interview with Academic 11 (2015) and later influenced by research undertaken by Jephcote and Davies (2004) within a context of educational providers and the interoperability with government policies, that are articulated in the journal of Education Policy as; an ongoing mediating role between the micro level stakeholders the schools and teachers, in this project (universities and lecturers) and the macro level (Government policy-

makers) that impact and influence “educational policy processes situated, as they are, between policy-makers and central government” (Jephcote and Davies, 2004, p. 547).

Suggesting the micro-level platform directly relates to the design of pedagogy, development of curricula within the University of Wolverhampton teaching and sharing best practice across a wider academic community. At the macro-level national policy-makers can impact and influence various levels of engagement and implementation. Supporting the Jephcote and Davies 2004 paper that develops the idea of meso-level of subject associations, local education authorities and curricula projects is a compromise between the teachers, classrooms and subjects at the micro level and national policy at the macro level.

2.4.3 Macro level

For the purposes of this project the reference to the macro level refers to the transnational economic factors and national influences that have shaped and impacted on UK government policy-making. Acknowledging the research findings located in the literature review and referenced in the (Dearing NCIHE) the Dearing Report (1997); the 2006 Leitch Report; the Wilson Review (2012); Browne Review (2010); and the BIS review (2011). Additionally acknowledging how these reviews have also influenced meso and micro stakeholders over the last 15 years. Specifically acknowledging within this project, the notion that UK Universities and HE providers should better engage with business-university collaborations and varied pedagogy including situated learning and adoption of policies surrounding the context of employability skills within academic curricula design as a methodology for enriching university teaching.

2.4.4 Meso level

Recording an acceptance by regional level stakeholders and sector representatives such as the CITB and professional bodies such as RICS, CIOB, QSI that within this research there has been a lack of engagement in employability skills Reports and lack of investment in employing the next generation of graduates during the 2008-2013 recession. Explicitly recognising the findings of the (BIB, 2015) Dowling review of “business-university research collaborations which identified the need for meso-level stakeholders to become more actively engaged with universities highlighted in

the (BIS, 2013) Witty “review of universities growth” that encourages meso-stakeholders Local Enterprise Partnerships (LEPs) to promote more vocational initiatives, such as higher apprenticeship and Trailblazer programmes.

Recording that one of the notable (micro-level) outputs from this project was the development of a built environment foundation degree, as recommended within the (BIS 2015) Dowling Review.

2.4.5 Micro level context

The micro level context for this project relates to universities and specifically the position of the University of Wolverhampton. With the intention of locating rich intelligence that will further impact on built environment curricula design and provide project findings that will support the university in increasing its richness in delivering stakeholder relevant employability skills teaching.

As part of a meso-level discreet inquiry I used my position of RICS West Midlands Chair to host a senior partner’s event (04-03-15) to seek director’s views on the universities current crop of built environment graduates and their interpretation surrounding built environment employability skills. Again the message was the same; Employer 18 (2015) in a personal interview stated *“We need work ready graduates immediately”.* Employer 1 (2015) in an interview reiterated this to state,

> *“We need quantity surveyors, building surveyors and construction manager assistants who are ready to face the commercial challenges of the workplace and are willing to graft. In respect of the employability skills, we need students that hold the softer skills, students who are comfortable around clients and hold solid communication skills; we can teach them the rest”.*

These discussions provided further evidence in using my adopted spirit of action research methodology to use these findings to adjust my work based learning (WBL) curricula and then triangulate these findings back to literature by Boud and Soloman (2001,p.3) interpretations of WBL employability. That is using macro-meso level policy and research recommendations to influence micro level curricula delivery. The findings were extremely positive, judged by feedback from students and levels of engagement by the students and employers who helped design the curricula were vastly increased. *“The programme followed, derives from the needs of the*

workplace and of the learner rather than being controlled or framed by the disciplinary or professional curricula; work is the curricula" (Boud and Soloman 2001, p.3).

As the Vice-Chancellor of the University of Wolverhampton makes an investment of £63m on a new global Centre of Excellence for the School of Architecture and Built Environment, it is clear that he supports growth across the built environment sector. What this project aims to provide is knowledge and fresh understanding that will enhance and enrich the built environment curricula, we will ultimately deliver at the Springfield Centre of Excellence and embed more define understanding surrounding built environment employability skills within our pedagogy.

2.5 Influences and boundaries from literature that have shaped this investigation

Throughout this literature review, I have continued to locate evidence, themes and gaps in knowledge that have confirmed and triangulated my suggestion that there is a disparity in understanding behind what constitutes built environment employability skills. In particular, where outside of pockets of best practise, there is a disagreement behind whether there should be a shared responsibility in assisting graduates to become eminently employable.

Some employers and policy-makers cited that they felt interference with curricula design was unwelcomed and unwarranted. However, this was tested in semi-structured interviews and all academics confirmed their support from external stakeholders in developing built environment curricula.

In respect to the early project claim, that built environment skills are rarely articulated in employability skills research and publications, my findings confirm this to be true, with most literature making reference to the built environment as a STEM subject. This was particularly concerning as feedback from career advisors and policy-makers suggested that they were unaware of the built environment disciplines of building and quantity surveyors.

By adopting the concepts and research located within my literature review I was able to contextualise and triangulate earlier findings surrounding the impact of my

teaching to launch a range of new modules. Without the adoption of pre-prescribed modules, I would have been unable to introduce discreet inquiries with graduates and employers and secure detailed findings to underpin my investigations. This was vital in providing context to my research and assisted in confirming disparities that would later form the subject of my Doctorate of professional studies investigation.

Another emerging set of themes that strongly influenced my investigation was a shared set of thematic data between stakeholders surrounding the requirement for richer collaborative employer engagement with UK universities. This extended well past curricula design and involved evidence that knowledge partnership and knowledge transfer can all add hidden value in supporting graduates to become more aligned with work place practises.

From the early themes located in the Dearing Review (1997), (NCIHE, 1997), the Lambert Review (HM Treasury, 2003) and the more recent 'Mind the Gap: Engaging employers to secure the future of STEM in higher education' (UA 2015) a common theme advocated that this wider collaborative engagement provided evidential case studies relating to success stories surrounding built environment graduates.

It was therefore extremely important to test these theories and pose questions within my semi-structured interviews with stakeholders surrounding their own interpretations of what graduate success looked liked. Without exception all stakeholders could recite at least three case studies of success. And all alluded to the wider interaction between student, industry and employers as the driver behind this success.

A further issue raised during early investigations was the matter of access to research, Reports and publications. At the beginning of this investigation, I was unaware that this posed an issue, but later included this point as a question in interviews. Strikingly only a minor number of external stakeholders had seen, read or heard of the employability skills literature or reviews that I was using to inform my investigation. Therefore, supporting claims by all employer participants that suggested employability Reports were *"written by academics for academics"* Employer 16 (2014) I have included within my impact findings various mechanism that I will use to better disseminate my project findings. This includes attending in-company seminars, conferences, employer fora, targeted world conferences, the

future production of a built environment employability skills book and the submission of a Black Country LEP bid submission to create the Built Environment Employability Skills centre of excellence (BEES). Finally as part of a continuing propagation exercise during I will bring all my participants together for an event at the House of Lords during 2016 to disseminate project findings and encourage stakeholder use of my built environment employability skills compass tool.

2.6 Impact

This project is already having a tangible impact on my profession, both in terms of teaching and the way I engage with employers. Additionally, the findings impact to a large extent my own organisation. In particular measured against:

Diary note

My own deeper knowledge and understanding of employability skills, specifically related to skills for graduates within the built environment;

The knowledge I have captured to create the Faculty of Science and Engineering employability sub-strategy developed during my Doctorate of professional studies project;

The impact of sharing the findings of this project across the academic community to increase the efficiency of blending employability skills into built environment curricula;

The positive feedback I have received from employers; implying that University built environment students graduating 2012/14 appear to hold relevant employability skills and appear to be more eminently employable. Clancy (2015) commented during a personal interview "The recent set of students I have taken on from the University of Wolverhampton have all been appropriately fit for purpose with the relevant skill set for my organisation".

This correlation may not be wholly a causative result of my project findings, as it maybe that the cohorts during 2012-15 were already appropriately skilled with the relevant employability skills that matched with employer's expectations.

Indeed my contributions to their higher education may well have been just a supportive addition. What is evident is that there is a deeper and shared understanding, enlightenment and clarification surrounding what constitutes eminently employable students. However, I also recognise that my research, project findings and recommendations will consistently require a process of continuous

reflection. Post 2015/16, I will continue to evaluate, refine and adjust my built environment curricula to incorporate any new revelations.

Further measures of impact of my research maybe the DLHE results. During 2012-14 The University of Wolverhampton has witnessed a rise in its employability figure from 86% to 95%. I do not make the claim that this Doctorate of professional studies project is the main contributor to this increased figure, but I suggest that with the increased engagement with employers, the adoption, translation and the development of new module curricula, contributions and increased visibility of the employability agenda, my work has certainly made a reasonable contribution.

This is not a claim to challenge the existing mechanisms and strategies of my own University, far from it as we have increased our employability levels for graduates from 85% up to 94%, but more a recognition that all contributions towards continuous improvement and a deeper, broader appreciation of employability hold a valuable impact towards the internal governance and the larger social need to increase awareness of employability across the entire University.

Across the UK, employers are canvassing for appropriately educated graduates to fill the skills gap. What I believe is different this time around is an acceptance by HE providers and employers that employability may well require a shared responsibility towards tackling the problem. A clearer and more defined understanding of what constitutes relevant employability skills across the built environment and property and land sector will certainly contribute and aid this collaboration.

CHAPTER 3 - METHODOLOGY

This chapter describes, justifies and provides a rationale behind my selection of combined phenomenological and spirit of action research methodologies for this project. Specifically how I created a nine phase data collection framework of discreet inquiries that underpins the methodologies and collates my discreet modes of inquiry across the entire investigation. Providing a rich succinct context and broader set of inquiries towards meeting the research aims and objectives of this project: recognising how the subjective and interpretive nature of the investigation included at the heart of this investigation a series of in-depth qualitative semi-structured interviews with targeted macro-meso-micro-level stakeholders and various modes of discreet inquiries to locate thematic interpretations surrounding built environment employability skills.

Acknowledging at times what I have referred to as 'richness of interpretation' I experienced during my interactions with certain stakeholders; what (Trainor and Graue 2013, p.32) recognised that *"it is not the richness of the data that is of the highest value, but the richness of the relationship".* Describing how through continuous interaction with stakeholders I was in a fortunate position that allowed me to validate my interpretations.

The latter section of the chapter identifies the position I hold as an insider to this project and the challenges I have faced within this research relating to bias, accessibility and addresses matters relating to research ethics, confidentiality and the series of barriers encountered during this project investigation.

3.1 Combined Methodologies

At the heart of any piece of coherent research lies a well thought out research methodology. (Cohen *et al* 2000, p.73) suggested this is governed by the notion of being fit for purpose *'by considering a situation to be studied and your own opinion of life'.*

By its nature, the subject of this investigation surrounding built environment employability skills will always remain subjective and open to interpretation. *"Employability defines the knowledge, skills, attitudes and behaviours required by individuals to seek, obtain and sustain employment at all levels in the labour market"* (Gravells, 2010, p.11). However within this subjective nature of this investigation I was searching for a methodology to locate the emotional intelligence of employability relationships whilst providing access to consistently triangulate located themes.

The reasoning and rationale behind my selection to adopt a combined methodologies investigation (phenomenological and spirit of action research) was to locate and elucidate findings from various sources, using various methods (interviews, group fora, symposia, semi-structured interviews) to underpin and interpret the findings. In particular I felt a single methodology approach would prevent a crossing of boundaries and leave me outside of the deeper investigative space. When referring to mixed methodologies (Greene, 2007, p.20), suggested

> *"these forms of inquiry provides a different way of looking at the social world….it actively invites us to participate in dialogue about multiple ways of seeing and hearing, multiple ways of making sense of the social world, and multiple standpoints on what is important and to be valued and cherished"*

3.1.1 Phenomenological methodology

According to Smith, (2013, p.1)

> *"Phenomenology is the study of structures of consciousness as experienced from the first-person point of view. The central structure of an experience is its intentionality, its being directed toward something, as it is an experience of or about some object. An experience is directed toward an object by virtue of its content or meaning (which represents the object) together with appropriate enabling conditions".*

Historically phenomenological research evolved through protest of the positivist paradigm. The principles postulated that researchers could study reality. They assumed objectivity measured knowledge and remained independent of human interaction. The naturalist paradigm, which I have personally encountered within this

project, presumed that reality is not fixed, but based on individual and subjective realities. As an example (Employer 3, 2015) during a personal interview highlighted how *"participants constantly made reference to individual experiences and recited graduates who held 'suitability', 'trusting' and 'likeability' qualities that from a employers perspective would enhance a graduates opportunity to form a bond".*

I acknowledge that phenomenological methodologies are traditionally associated with other sectors of research outside of the built environment; however by using this methodology this initiated and developed the opportunity to locate an 'inner third space' of rich exchanges interaction between interviewer and interviewee. With the adoption of a phenomenology methodology I therefore located perceptions, imagination, thought, emotion, desire, volition, and action that encapsulates built environment employability experiences and the non-passive experiences; vision or hearing, personal human, experience that my semi-structured interviews were crystallising. Contextualising what (Spinelli, 2007, p.131) identified as *"the inquiry of recollections, interpretations, and explanations and as applied to a psychological inquiry, deals with the attempt to understand more adequately the human condition as it manifests itself in lived, concrete, experience",* whilst securing the wider context of personal interaction emotion intelligence, and rich emotional connectivity.

Hochschild (1983) summarised this emotional connection and argued the existence and importance of an emotional bond with any human interaction. Trainor and Graue, (2013, p.70) articulated this further by stating *"part of the richness is due to the idea that certain aspects of context exist and others have been created through every interaction".*

3.1.2 Alternative methodology

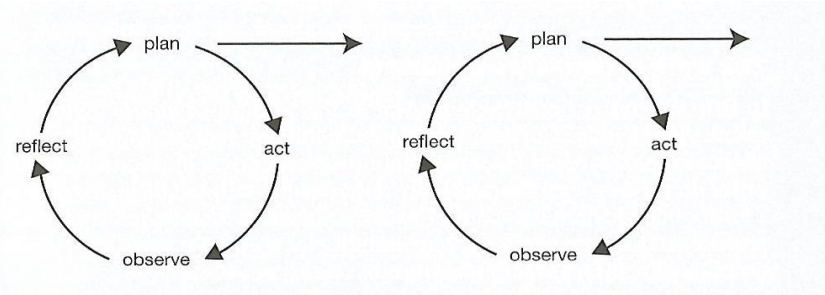
Two alternative methodologies were considered; Action research and Interpretative Phenomenological Analysis (IPA). Action research because of its reflective cycle analysis; what Cousin, (2009, p.149) described as providing an opportunity for research and development to be combined with reflective inquiry, for groups of academics (and others) to investigate issues together through a *"solution-centred approach" and for the work to be conducted "within every day, natural contexts"* (Cousin, 2009, p.150). However the process of full multiple cycles of reflection would be too restrictive and would prevent responsive interactions with discreet inquiries at various access and egress points along my investigation.

An alternative interpretative phenomenological analysis IPA methodology was also considered as this offers insight into how a given person, in a given context, makes sense of a given phenomenon. However, I considered that (IPA) was too associated with experiences surrounding a major life event, or the development of an important relationship. Whilst I accepted the relevance and uniqueness of its *combination* of psychological, interpretative, and idiographic components, I felt this was too deep and centred too much on the deeper experiences of one major event, rather than the rich wider diverse nature of a phenomenological methodology that was located in within my employability skills inquiries and within my exchanges with stakeholders.

3.2 Spirit of Action research

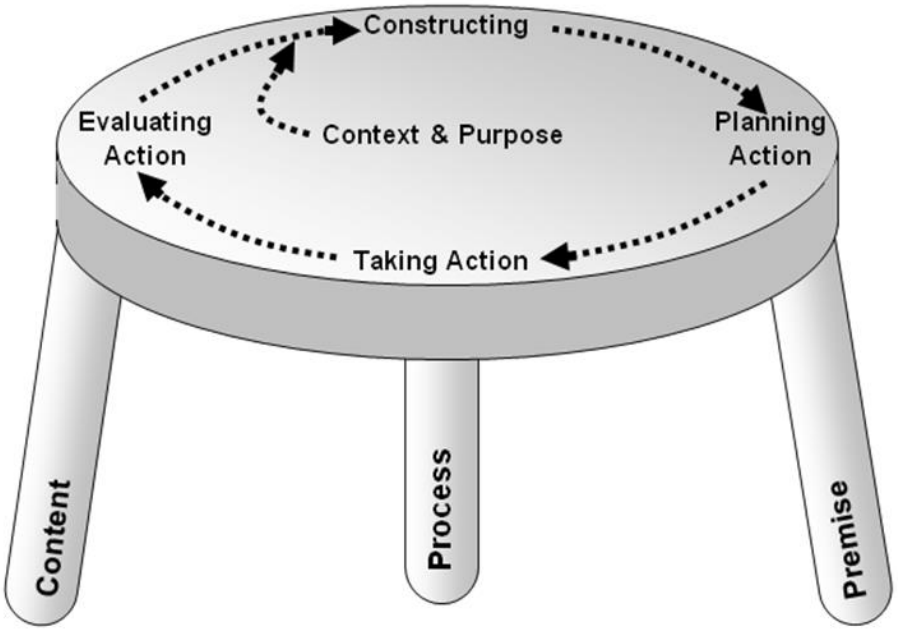
As I progressed through my project and began to locate new knowledge, truths and fresh understanding within my selected phenomenological methodology, it became apparent that I needed a methodology that could be sufficiently fluid to locate record, compliment and triangulate my discoveries so I could distil learning into my built environment curricula and investigate ways to improve my own practises. Traditional action research models, such as McNiff, J. (2013) subscribe to capturing knowledge through a full sequential activity surrounding planning, acting, observing and then reflecting

Figure 1 - Sequences of action-reflection cycles (source: McNiff 2013, p.57)



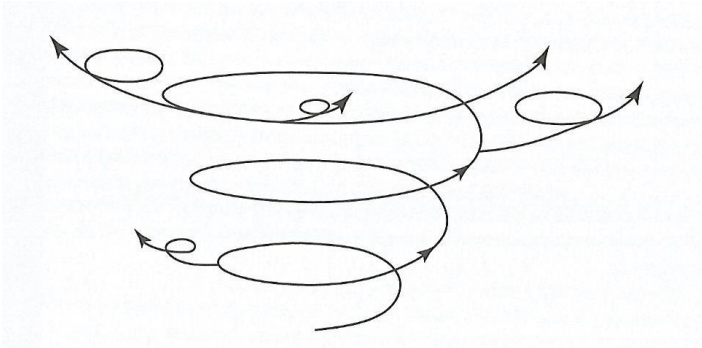
Alternatively, Coughlan and Brannick Meta-cycle (figure 2), expanded upon this concept and adopted a process of constructing, planning, taking action and *"evaluating in relation to achievement of the projects aims"* (Coughlan and Brannick, 2014, p.12). In principle suggesting that the researcher completes the entire cyclical loop.

Figure 2 - Meta-cycle of action research, (adapted from Coughlan and Brannick, 2014, p.13)



Throughout the project I adopted the strategy of constantly revisiting stakeholders to validate my interpretation of their quotations and identified that a traditional purist action research model was too restrictive. I therefore reviewed McNiff's, (2013, p.66) generative transformational evolutionary process model (Figure 3) and developed a variation of this methodology that I have termed "spirit of action research". This recognises various access and egress points for evaluation and modes of reflection during- post practise that will support a contextualisation of findings and allow further transformational adjustments to be constantly made to the semi-structured interview questions or face-to-face individual questions posed to participants.

Figure 3 - Generative transformational evolutionary process model: source (McNiff 2013, p.66)



The spirit of action research methodology accepts the traditional research mechanisms associated with purist action research models, but allows the researcher to depart from the traditional action research cyclical model where a full cycle of evaluation occurs and use a spirit of action research model that suggests various access, entry or exit points of investigation. What Mc Niff, (2013, p.67), refers to in her generative transformational evolutionary process model as the *"spontaneous, self recreating system of inquiry".*

The adoption of spirit of action research methodology would not exclude all the constituents of traditional action research methodology and importantly it would not preclude occasions within this research where I may complete a full cyclical action research rotation. However it would allow various access points to confirm or deny interpretations located within my investigation. Expressly using this methodology to triangulate findings, secure confirmation through various re-engagement events with participants that my interpretations were sound, correct and trustworthy. Importantly the spirit of action research methodology provided an early opportunity to pilot, test and trial freshly located knowledge and newly located interpretations and this complimentary methodology located early findings that improved and developed my own practise.

By adopting a 'spirit of action research' methodology I was locating an opportunity to create various levels of interjection with qualitative participations, reaching *"cognitive devices which we use to structure and produce our knowledge of the world"* (Jenkins 1992, p.56, cited by McNiff (2013).

3.2.1 Research strategic framework

To remain strategically focused and systematic in my modes of inquiry I felt it appropriate to utilise a systematic research strategy for this project investigation. Whilst accepting that research can be subjective, complex and challenging, in contrast, this framework would form a coherent road map of phased modes of inquiry I therefore used a contextualisation Blaxter et al (2010) interpretation of a systematic mode of inquiry. This suitably translates three hierarchical research areas; research families, research approaches and research techniques.

3.2.2 Research families – research approaches – research techniques

Research families evaluate the question of qualitative and quantitative investigation and alignment with primary investigation and secondary fieldwork investigative studies. This diagnostic evaluation supported me in recognizing the subjective qualitative nature of my investigation and how a phenomenological and spirit of action research methodology would collectively represent the framework of my investigation. It was also a mechanism for early fieldwork research such as informal interviews, direct observation and a set of collective discussions supported by face to-face discussion with regional employers and academics, underpinned by deskwork reviews of literature surrounding employability skills that would shape and influence my investigations.

These precursor investigations confirmed at an early stage the gaps in knowledge and the levels of appetite from associated stakeholders willing to contribute to the project investigation.

3.3 Research approaches

Blaxter et al, (2011, p.67), *"Identified four basic approaches to, or designs for, research in the social sciences: action research, case studies, experiments and surveys".* After careful evaluation I felt it was appropriate to use a blend of these 'research approaches' including, group forum discreet inquiries, symposia and at the heart of my investigation a series of thirty semi-structured surveys. However the strategy would not be trustworthy unless I encapsulated the approaches with an overarching methodology. For this project a phenomenological and spirit of action research methodology which would act as the main structural framework for

capturing the emotional and rich interpretative messages and articulate the subjective nature of my project findings.

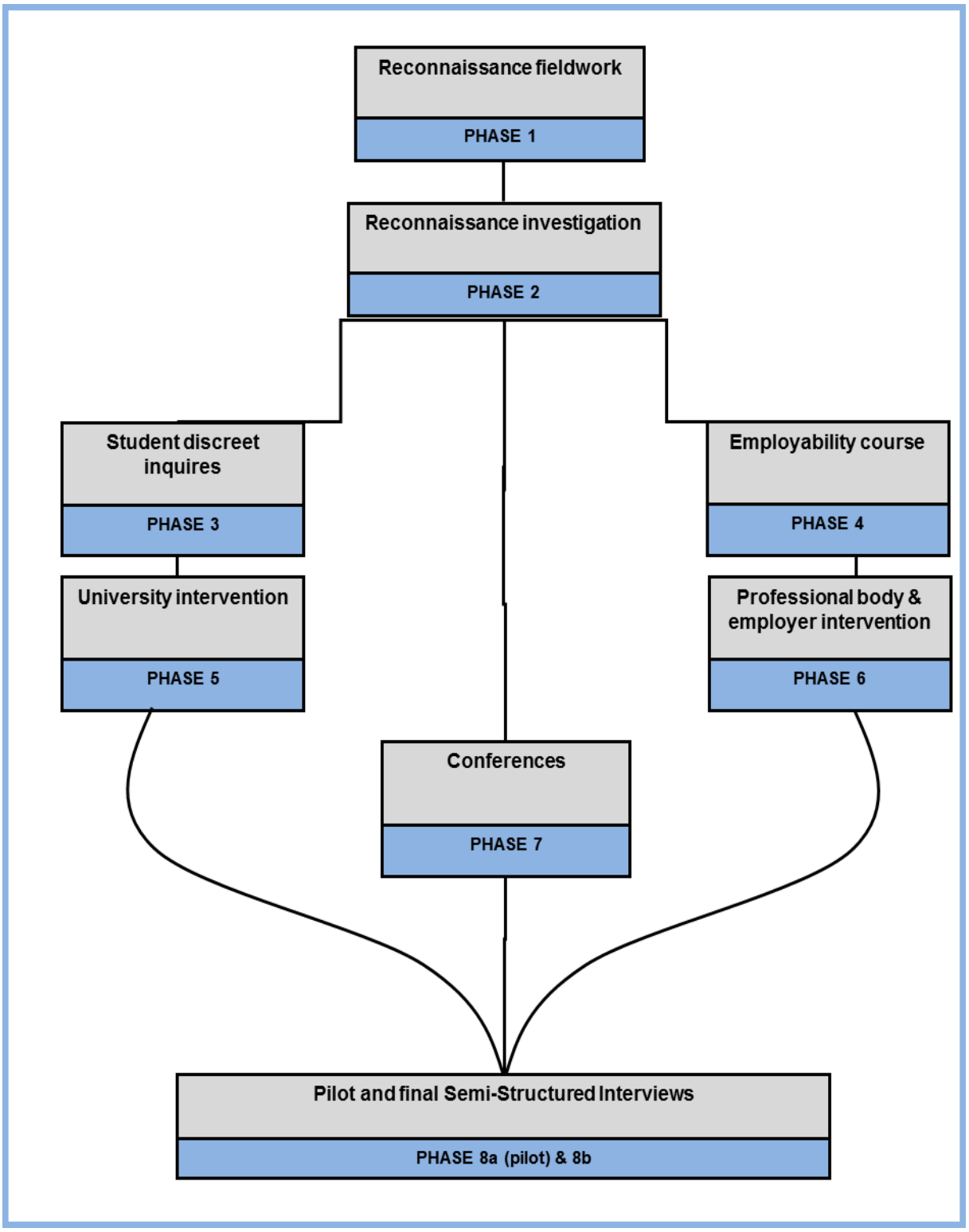
3.4 Research Techniques

(Blaxter et al, 2011, p.67), identified four basic social science research techniques: the study of documents, interviews, observations or questionnaires. By adopting a blend of these techniques under the guise of discreet inquiries, I was able to locate a mass of rich data. This would later cause an unforeseen challenge surrounding what to include and exclude from the main project submission. Kincheloe, (2004, p.64) reinforced the strength of a multi-faceted strategy by stating the importance of using *"numerous tools to complete a task".*

By using a nine phase discreet inquiries investigation (figure 4) I could use interviews, personal conversations, group forum, symposia and a targeted series of semi-structured interviews to locate an appropriate breadth and depth of study. I recognize, and accept the notion of Blaxter et al (2011) who suggested that not all techniques and research families are interoperable, but for this project specific investigation I was attempting to use a blend of various interventions and to secure the correct richness of data collection. Including various levels of discreet inquiries undertaken 2011-2016 with all stakeholders targeted to take part in this project research investigation.

The research specifically included nine phases of discreet inquiries, phase 1-2, reconnaissance fieldwork interviews and investigations; phase 3, In-class student discreet inquiry; phase 4 graduate Employability and Enterprise course interventions; phase 5, university intervention, interviews with academics; phase 6, professional body and employer intervention (CPD day); phase 7, international conference attendance, phase 8a, pilot semi-structured interviews and phase 8b, semi-structured interviews. Refer to figure 4.

Figure 4 - Discreet inquiries investigation framework



3.4.1 Qualitative research

Creswell, (1998, p.15) suggested; *"Qualitative research is an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analysis words, Reports detailed views of information, and conducts the study of natural setting".* Cousin, (2006, p.31) further endorses the value of qualitative investigation by stating. *"The appeal of qualitative analysis enables the researcher to get at complex layers of meaning from research text or visual data; Interpret human behaviour and experience beyond their surface appearances, provide vivid, illuminative and substantive evidence of such behaviour and experiences; build theory inductively from qualitative data sources".*

With the nature of this project investigating and searching to locate subjective and thematic understanding of individual stakeholders interpretations, it was apparent from an early point that the adoption of qualitative research was strategically and academically a correct ingredient for sourcing the rich data I was searching to locate.

3.5 Data analysis process

Corbin and Straus (2008) suggested qualitative data analysis is both art and science and the process demands a balance between the art and the science. It relies on creative use of procedures to solve analytic problems and the ability to construct a coherent and explanatory story from the data, remaining flexible with the use of procedures and thinking outside the box. Qualitative data analysis is also a science because, it systematically develops concepts in terms of their properties and dimensions and at the same time validates interpretations by comparing them against incoming data (Glaser and Straus, 1967, cited in Corbin and Straus, 2008, p.48).

The qualitative process begins with descriptive analysis (description) which draws from field notes and early reconnaissance investigative terminology to ensure the researcher stays close to the interpretative data, (Wolcott, 1994). Providing a platform to contextualise the mass data complicated findings and information to

become more understandable by reducing their component parts (Wolcott, 1994). The second means of dealing with qualitative data is to expand and extend beyond a purely descriptive account with an analysis that proceeds in a careful, systematic way to identify key factors (essential features) and the interrelationships among them. The third means of data analysis as argued by Wolcott (1994), may spring from either the first or the second process with a purpose is *'to make sense of what goes on, to reach out for understanding or explanation beyond the limits of what can be explained with the degree of certainty usually associated with analysis'* (interpretation) (Wolcott, 1994, pp.10-11). The process of interpretation sets forth the multiple meanings of an event, object experience or test (Denzin, 1998, cited in Corbin and Straus, 2008).

The process followed for this project considered various modes of capturing qualitative data and interpretations and Atlas Ti and Nvivo software were viewed as the most appropriate. After a more in-depth analysis and contextualisation of the findings it was found that NVivo software qualitative data secured the most appropriate method of recording shared agreements and observation of stakeholder's interpretations. A full descriptive review of NVivo software is described in Chapter 4 and AlYahmady, et al. (2013).

3.5.1 Fieldwork and Deskwork

As a chartered surveyor, I would traditionally associate field study as a desk top study exercise, with the collation of historic data from archives, local authorities and past investigations so that at the point of survey, the surveyor is well armed and prepared for providing best practise advice.

From a research perspective this project is extremely similar, and the literature review, archive research and historic data collated in the early stages of this project investigation provided rich background knowledge, opinions, individual interpretation and examples of life-time personal experience to support my investigation.

The deep richness of these early stage feasibility fieldwork (phase 1) discreet inquiries was invaluable and I will always be indebted for the contributions of employers and academics, as this provided comprehension and understanding surrounding the validity of my study.

By undertaking a series of phase 1, face-to-face discussions and group forum style discreet inquiries with stakeholders, I was able to test at an early stage the demand and outline value and robustness of undertaking this research project.

I continued to believe that I had located a potential gap in knowledge surrounding understanding of built environment employability skills, but armed with the knowledge gained through these early investigations of fieldwork discreet inquiries and knowledge gained during desktop investigation; I was now in a strong position to adopt a richer semi-structured investigation and discuss the project research in a more focused methodology. "Fieldwork refers to the process of going out to collect research data. Such data may be described as original or empirical, and cannot be accessed without the researcher engaging in some kind of expedition" (Blaxter et al, 2006, p.64).

3.5.2 Sampling

The sampling strategy adopted for this project is one best associated to a mix of probability and non-probability. Using traditional probability sampling *"where the choice of participants is by a "mechanical" procedure involving lists of random numbers or the equivalent"* (Doherty,1994,p.1), located during early reconnaissance investigations to review, refine and evaluate the wider set of stakeholders associated with employability. Using non-probability sampling as a mechanism for targeting an appropriate representative set of participants. *"Methods invoking some element of judgement"* (Doherty,1994, p.1) and *participants willing to participate in discreet inquiries* located within pre-investigation research in order to locate a more non probabilistic targeted selection of stakeholders.

Specifically this non-probability purposive sampling included representation from quota sampling from professional bodies that contribute to academic curricula, business contacts and academic and employer volunteers' which enhanced dimensional sampling and provided a rich depth and breadth of participants.

The non-probability sampling arrived from stratified sampling, where I selected employers at different levels within their organisational hierarchy, cluster sampling as part of group forum activities and conference attendees and bespoke sampling which was representative of an iterative interjection of opportunistic events.

The key strengths of the multi-sampling technique are its flexibility, adaptability, relevance and impact. To provide currency of the information, I have continued to engage with all participant stakeholders throughout 2011-2015 and am delighted that 95% of my participants felt they were ideally positioned, willing and supportive in contributing to my project. This forged a stronger bond with participants, provided an opportunity to triangulate and confirm findings and maintained my relationship with the emerging ideas of a need for fresh understanding surrounding BE employability skills.

Alternative sampling methodologies were considered and a quantitative set of questionnaires were piloted. However this failed to collate in-depth understanding and I personally believed the nature of this investigation required a deeper, richer and stronger connectivity with my participants. In particular the depth of interrogate and extract detail I wanted to incorporate within my project. In many ways seeking out what (Cousin, 2009, p.73) refers to as the 'third space', "where interviewer and interviewee work together", locating new experiences and rich exchanges.

This 'third space' is where I personally believe 'the interaction, experiences and rich stories crystallise' and why I felt a series of semi-structured interviews and one-to-one discussions was appropriate for this project research.

To maximise impact specifically within the built environment sector, I included contributions from participants from various universities and external practises, however I acknowledge that essentially I have remained focused and bound to participants that hold a common connection to the built environment. I do not believe this has been restricted or influenced the breadth of inquiry, but recognised the sampling techniques I have adopted and the opportunistic potential interaction with a wider community that would benefit most from this study. It was also recorded at interview that most participants stated this sector specific research was 'well overdue'.

Employer 2 commented

> *"For too long built environment graduates have been forgotten and we need to ensure that the sector which provides 9% of the UK's GDP is provided with graduates who are ready for the world of work". (interview, Employer 2, 2015)*

Accepting that any shifting process can be held accountable, the rationale for selecting participants was to locate contributions from stakeholders, who by their association were intrinsically linked to employability and specifically held a connection to the built environment. This included contributions from stakeholders located:

> *Regional and national employers, taken from the conurbation of the West Midlands, Staffordshire, Shropshire and London;*
>
> *Regional and national career advisors, located in Wolverhampton, Staffordshire and the North East of England;*
>
> *Regional, national and global (built environment) academics, selected from Wolverhampton, Leeds, Manchester, London, with contributions from the Middle East and Asia;*
>
> *Regional and national policy-makers which incorporated politicians and Lords from across the UK;*
>
> *Regional built environment students and graduates, selected from past University of Wolverhampton graduates, current students and graduates from Birmingham, Aston and Manchester.*

3.6 Focus groups, symposia and Interviews

Throughout my project, I have attended 10 focus groups, three symposia; attended 8 conferences and undertaken 18 discreet inquiries to help interrogate, identify and suuport my project investigations,. Gray stated "*Focus groups are ideal ways of exploring people's beliefs and perceptions about products, services and concepts and are used in a wide variety of context*" (Gray, 2014, p. 495). Additionally, as the facilitator of group fora and symposia, I could direct, and ensure contributions from all participants and look to spark reactions and recollections of events and experiences. Identifying what Gray articulates as "*a cascade effect where the utterances of one participant trigger ideas in others*", in particular, adopting discreet inquiries to locate rich interpretations whilst avoiding interference, bias or influence on my participants (Gray, 2014, p.495).

As an inside researcher, I acknowledge my privileged and fortunate position of having constant access to the majority of my participants and stakeholders, with the exception of the high profile Westminster policy-makers/politicians. As Principal Lecturer, I was also in a position to trial, refine and facilitate various modes of discreet investigations.

3.6.1 Semi-structured interviews

At the heart of my project research are a series of semi-structured interviews. Other types of interview techniques were considered, but structured interviews used during early discreet inquiries felt too restrictive. In contrast, unstructured interviews when used during the middle stages of my investigation were too open to interpretation. One interview conducted through an unstructured format went on for 90 minutes and lost structure and focus.

(Cousins, 2009, p.71) stated "*semi-structured interviews allow researchers to develop in-depth accounts of experiences and perceptions with individuals. By collecting and transcribing interview talk, the researcher can produce rich empirical data about the lives and perceptive of individuals*".

Importantly by selecting semi-structured interviews along with individual interviews with my participants, I could tease out and drill down to the exact nature of their replies. Importantly all participants held a shared interest towards what Policy maker/ Politician 3 (2015) described in personal conversation of "ensuring university graduates are eminently employable and well positioned and well prepared for the world of work". Collectively the findings located within the nine phases of discreet inquiries provided the context and sub-themes used within the built environment employability skills compass model (see Figure 3.5).

3.6.2 Targeted participants

The process of undertaking interviews was conducted predominately through personal invitations, but most participants' volunteered post their attendance and participation in focus group events. However, to reach higher hierarchical level targeted participants it was necessary to nurture past relationships and use a communication strategy to reach politicians, policy-makers and career advisors. This recognised that whilst I had a structured schedule, some interviews would be challenging to reach, were located in bespoke offices or inaccessible because of

diary commitments. In some instances, I was faced with numerous barriers to reach my targeted audience.

Generally, I allowed all participants to select the time and venue for their interview, or gave them the option to relocate to an alternative venue. This recognised the likelihood that they will be more comfortable with their own selected surroundings and more open and transparent with their discussion and allowed flexibility around personal diary commitments. In respect of workshops and group fora these predominately took place at pre-scheduled events prescribed by professional bodies and conference halls, lecture theatres provided the venues for conferences across the world.

Five participants were strategically selected for phase 1 feasibility investigations and at latter discussions this was broadened out to incorporate representation from each group of associated stakeholders. All were independently interviewed, and as it later transpired some of the participants would later contribute to other discreet project inquiries. This assisted me in triangulating their original comments and interpretations and provided an opportunity to share the contents of their original interview; to validate my recordings. Not all participants allowed their work to be published and some felt prior knowledge of the questions would have allowed a richer engagement. I agree with this critique, but suggest the richness is sometimes evolved during first reaction interactions.

All semi-structured interviews and bespoke discussions were conducted in a professional manner befitting of a professional practitioner and larger semi-structured interviews were conducted via a Dictaphone voice recorder. The only exception to this is where, because of accessibility issues, some interviews with policy-makers and employers were undertaken via Skype.

3.7 Collation of data

Located within this project is an expansive and diverse data set that at times was challenging to condense and required contextualising in a robust, methodical and logical way. Simple methods of contextualising such as listing were insufficiently academically robust to identify the detail located within the findings. Additionally, these methods would have failed to have captured the overall interpretations

associated with the aims and objectives of this project and would have failed to summarise the rich exchanges that had taken place within this research. This study utilised "*NVivo qualitative software, which codes and groups data, to support qualitative and mixed methods research in order to organise, analyse and find insights within the data, while facilitating questioning of data in a more efficient way*" (QSR International, 2010). This enabled the appropriate contextualisation of the expansive data and the interpretations of nine phases of discreet inquiries. NVivo facilitated meaningful visual representations that enhanced employer and industry to better understand the multifaceted relationships within the data. This richer interpretation and contextualisation later provided the catalyst for development of the built environment employability skills compass model. This model will be at the heart of my project findings dissemination across a wider academic and industry and commerce community.

3.8 Dissemination

Having discovered evidence during this investigation that consistently suggests dissemination of research associated with employability skills is not reaching the key stakeholders, it would have been remis not to have disseminated my own project findings. Blaxter *et al*., (2001, p .267) claimed that "*dissemination is process by which you communicate your research Report or project, its findings and recommendations, to other interested parties*". What I have long observed during this project is that the process of dissemination is not appropriately recognised or valued and I have continually located evidence that dissemination as an intrinsic process.

It has been extremely disappointing to find that excellent pieces of research remain within the confines of offices and academic bookshelves and not in general circulation where stakeholders would (if willing) benefit from these research findings. A perfect example being the lack of knowledge of employability skills publications that participant recorded during my interviews and discreet inquiries during 2012-2015. Few were aware of the reports and expressed knowledge of where to access such publications. I am advocating through 'observational inquiry' the need to use dissemination as a key part of any project.

The inner richness I believe my dissemination strategy will provide is a closer more informed connectivity between academia and industry and commerce, in search of mechanisms for improving language translation of academic messages to a wider audience; accepting that it is still incumbent on stakeholders, to digest evaluate and implement research findings before they become truly meaningful.

I have not awaited my final conclusions before implementing changes and have disseminated progress updates at conferences over the last five years. Rewardingly over the duration of the project, I have witnessed a general consensus of support acknowledging I have occasionally encountered scepticism from some colleagues that suggested "*we already do this so what's different and why change*" (personal interview, Academic 5, 2014). Additional comments from university academics suggest "*If we have 95% employability rate across the University why do we need to change anything*" (personal interview, Academic 1, 2015). I still believe the richer informed findings will hold value to macro, meso and micro audiences.

Overall under the leadership of the Vice-Chancellor, and Deputy Vice-Chancellor I feel there is evidence of a mind-shift to accept change for the good of the organisation, if my project research findings add to this movement then I will accept this micro project output as credible.

My project dissemination strategy will include:-

3.8.1 Internal dissemination

- *Built Environment Faculty of Science and Engineering research forum- held bi-monthly during term time;*
- *Architecture and Built Environment School team meetings – held four times a year;*
- *Career and employment advice centres – Events held six times a year;*
- *Employability team lead fora – held bi-monthly to share best practises across the principal lecturers for employability and enterprise across the University;*
- *Open day presentations – held six times a year, this will provide access to new and potential students, parents and employers.*

Figure 5: Dissemination harvest: internal Stakeholders

Figure 5 models various strands and themes located within this research that I will disseminate internally within the University of Wolverhampton and across a wider academic community. From the internal perspective, I hope the research is not seen as intrusive, but a positive step towards forging new understandings, new partnerships and collaborative sharing of opinions and views across a wider academic community.

3.8.2 External dissemination

The mode of dissemination will require a longer process lead-in time and attendance by stakeholders at the following events:

- *The House of Lords held to disseminate best practises, findings and research outputs to all my participants and their peers. This compliments an earlier event, where participants from an international project research forum provided a European perspective of global employability skills- Scheduled for spring 2016.*

- *Employer/ Industrial fora: held four times a year to share the what, where and why of industry changes. In particular the dissemination will include over 25 participants who have contributed to my research;*

- *Academic conferences – The conferences I have selected include: The 2016/17 international conference, "Construction in the 21st Century" (CITC) and the Smart, Sustainable and Healthy Cities 2016 Conference. This will complete the series of dissemination I have undertaken throughout my project and provide the conclusions of my research;*

- *Professional body conferences: Royal Institution of Chartered Surveyors (RICS), Quantity Surveying international (QSi), Royal Academy of Engineers (RAEng) and Chartered Institute of Builders (CIOB), Construction Industry Training Board (CITB); held at various times throughout the year;*

- *Symposia and bespoke seminars/focus group fora – held at various times throughout the year;*

- *On-line employer and employability fora- this will include contributions of what constitutes 'rich employability skills' for a graduate of the built environment.*

Figure 6 - Dissemination harvest: External Stakeholders.

The model (figure 6) represents various strands and themes located within this research that I will disseminate across an external stakeholder's dissemination process and follows a call from participants who felt the findings were timely, relevant and may better inform their own practises, or those of their organisation. This will of course, depend on access, and continued willingness to engage, and coherent appreciation of what the findings revealed.

The findings provided a valuable snap-shot of current thinking. Importantly, a key part of my external dissemination process will be a series of one-to-one post-project interviews, as a commitment I made when I undertook the series of my semi-structured interviews. Providing an opportunity to confirm or deny the relevance of my investigation findings an as a method of keeping my findings current and accepting that circumstances or interpretations may have changed over the last five years. And through the flexibility in design of the built environment employability skills compass model, this can be adjusted to make interpretation and dissemination current and relevant. Figure 7 represents various strands and themes located within this research that I will disseminate across a wider academic and business community.

Figure 7- Interpretative findings to enhance academic practise

The model recognises areas located within the findings that will assist academics in contextualising the findings and embed findings within their curricula, development or teachings. This process of dissemination was never intended to be exclusive and where pockets of best practise or new opportunities were encountered, I have not hesitated to diffuse, share or translate my project findings along this project journey.

3.8.3 Positionality: My role within the research

Throughout my practitioner career I have made various adjustments to my learning journey and certainly as I further progress my academic career I will look to enhance my practise and if successful, continue to transfer my academic knowledge from a "*liminal state*" to a "*mastery of understanding*" (Meyer and Land, 2006, p. 22).

I believe this investigation recognises that research is only one of several ways of knowing and my understanding of my epistemological position refers to my theory of knowledge. It refers to the claims I make for knowledge that I hope to generate from this research. I am, within this project, working broadly within a phenomenological intrerpretivist framework. I believe my position will limit my claim to having generated possible insights and fresh understanding but in many ways generated elements of "*truths*".

I accept that I hold a prominent and influential position as an insider to this research and I have adopted an intrerpretivist approach to the analysis of the findings generated in my project. Recognising what (Felce, 2013, p.101) states "*In the*

paradigm of interpretivism there is no single solution or truth". During an interview, Academic 1 suggested:

> *"The debate has shifted from minimising subjectivity to thinking more about how to bring oneself into the research process through the notion of reflexivity and in the light of fresh understandings about language. These notions are informed by an acknowledgement that our knowledge of the world is mediated and interpreted from a particular stance and an available language and we should own up to this in explicit ways"* .(interview, Academic 1, 2013)

In bringing together this project research I accept I have occasionally varied my position and at times moved to '*actor-observer'* as I was aware of my personal beliefs and interpretation of thematic data gathered during the semi-structured interviews. However I believe I hold an investigative validity in as much as I accept I will indeed *'interpret data from a particular stance'*. (Cousin, 2011, p. 9).

What is important from my own position is the objective of completing the research in a language that is coherent to all my participants. I have raised this point because of the feedback I continually receive from employers, industry and commerce. Nearly all participants felt the reports relating to employability were written in an un-accessible way that prevented wider access and understanding of the messages located in reports. (Employer 1, 2014) in a personal interview said "*I encountered Reports that are clearly written with academic or political bias and we as employers have not been considered. Yet if you read the report we are one of the main stakeholders the report is aimed towards*". This project therefore attempts to use the built environment employability skills model to better articulate the sub themes and findings from this project, with the aim to be truly coherent for all participants and associated stakeholders.

It is not my intention to challenge the existing mechanisms and strategies of my own employer, the University of Wolverhampton, who in 2015 provide a 95% graduate employability rate, but this investigation will enable me to locate further continuous improvement and richer, deeper, broader knowledge and understanding underpinned by possible 'truths'.

3.9 Credibility

The question of credibility to my project is extremely well articulated by O'Leary, (2014, p. 49) "*If the goal of conducting research is to produce new knowledge, knowledge that others will come to trust and rely on then the production of this knowledge needs to be credible. It must have the power to elicit belief*".

I accepted at an early point within my investigations that I would encounter hidden agendas and accept I have encountered various differentials and occasional rhetoric in an attempt to locate truths. I certainly concur with O'Leary that I can never fully guarantee neutrality in my participants' responses. Recognising my own part in the interviews attempt to knowingly and unknowingly prevent bias in what I hear and record verbatim.

The claims I make within this research lead me to believe I have certainly approached this project with disciplined rigour and as a practitioner inside and outside of my university position, I have always abided by ethical codes of conduct and behaviour and as a university lecturer who embraces widening participation I fully subscribe to what O'Leary (2014, p.51) refers to as *"sensitivity to race, class and gender".*

In an attempt to manage the subjective nature of my project investigation, I have where possible incorporated modes of triangulation to test my findings, provided participants and respondents with the opportunity to validate their interview responses and at the close of any interview provided an opportunity for participants to add any further comments they felt were not discussed. I therefore feel sufficiently positioned within my research to believe my findings are far as possible, trustworthy and provide a contribution to the authenticity of what has been recorded throughout my project.

3.10 Ethical issues

"*Research ethics are the standards of professional conduct that researchers are expected to maintain in their dealings with colleagues, research participants, sponsors and funders, and the wider community*" (Thomas and Hodges, 2010, p.83).

Throughout my project I have strictly adhered to and abided by the University of Middlesex Research Ethics Form guidance and with the exception where participants confirmed in writing their willingness to be named in this project, I can confirm that the confidentiality and anonymity of all participants of this research project was guaranteed. This included all processes during collection, analysis, dissemination, and subsequent storage, and disposal of information, in accordance with the Data Protection Act (1998).

All transcripts have been transcribed verbatim and retained on a triple password controlled USB and laptop. On completion of the research, transcript material will be destroyed in a confidential manner. Ethical concerns considered during this project research were confidentiality, disclosure, authenticity, truthfulness and my position as a colleague and insider to the project.

3.10.1 Restrictions and boundaries

The main restrictions and boundaries to any piece of research would traditionally involve factors such as time issues, availability of participants and accessibility to contributors to the research. "*All research studies have a finite scope and are restricted by uncontrollable limiting factors*", (Roberts, 2004, p146).

I feel extremely fortunate that through my position within the project, I was granted access to most participants and fortunate that after careful adoption of a communication strategy, I was able to reach higher level participants. Whilst diaries and availability meant I was required to travel the length and breadth of the UK, by introducing group fora and symposia, I was able to reach captive audiences. I will be forever appreciative to my participants for their availability and patience to capture, re-capture and collate rich secondary and primary data. This continuous availability was a 'perfect storm' for a triangulation exercise and provided confidence throughout my project that my recordings were correct and trustworthy.

The matter of trustworthiness is reviewed by Cousin, when reflecting that "*one of the important moves for generating trustworthy accounts is to embed degrees of researcher reflexivity into the research. Broadly this means paying attention to where you are coming from (researcher positionality) and how this might influence the conduct and Reporting of your research*" (Cousin, 2009, p.18). This is further

enforced in the research programme resource handbook published by the University of Middlesex.

3.10.2 Ethical considerations in data analysis

I accept my ethical position at the heart of my research project and I can confirm that throughout my project I have acted fairly, consistently and professionally to include the views and contributions of a cross section of contributions from all stakeholders and provide a trustworthy cross-section of views and opinions. I accept I hold an influential position as an insider to my project and it would be unavoidable to suggest that my own personal views relating to the subject topic have been fully excluded from this project and it would be remiss to state that I have explicated my biases during interview questioning, sometimes consciously and sometime unconsciously.

What I believe balances this equation is the adoption of the new employability skills that I have learnt during my time in academia; where I have learnt to become more of a reflective and reflexive practitioner. This open-mindedness to literature, participant's views within my interviews and differing perspectives will ensure that the fresh knowledge and understanding surrounding relevant employability skills for a built environment graduate will not be stifled by my own views and opinions. This builds upon my comments relating to credibility and recognises what Bassey, (1999, p.43) articulates "*people perceive and so construe the world in different ways which are often similar but not necessarily the same*".

All participants were made aware of the purpose of my research and prior to the commencement of any recorded conversations, I would inform the participants of the nature of my inquiry and provide them with the opportunity to cease or stop the interview at any time.

In respect of conversations, interviews, quotes and secondary data collected within research, they were always intended to be used as a triangulation exercise and reconfirmation of facts. All participants with the exception of one policy-maker and one politician have signed to declare their name, but nearly all participants agreed that I can use the information collected and, if requested, all participants will verify their contributions.

I recognise that I hold a privileged position as Head of Employability within my Faculty at my University and it was important not to over influence or encourage bias in the way when I presented questions or topics of conversations. In all cases I recognised that I need to be transparent in relation to our University's commercial position related to KIS data and specific information relating to employability figures. With this in mind I felt it was appropriate and imperative that prior to commencement of my research I sought permission from my Deputy Vice-Chancellor and asked him to be part of my survey so he could witness my unbiased dialogue, first-hand. I can confirm that permission was granted.

In respect of the question of ethics surrounding interaction with my internal colleagues, this required a deferent sensitivity as I recognised and encountered at an early reconnaissance stage of my interaction, nervousness in the collation of data. Unfortunately, my project research and interviews coincided with a change of staff structure within the University and colleagues were extremely nervous to share any views or opinions, where it was feared the information would be used for alternative purposes. I needed to be aware that "merely describing someone's role in an organisation might immediately identify an individual" (Gray, 2004, p. 389).

Whereas interaction with participants and fellow academics from other regional Universities was a different challenge and required sensitivity more related to IP rights. I accepted at an early stage that internal questioning may cause alarm and accept what Coghlan and Brannick (2010, p.127) suggest surrounding the dynamics of such inquiry. "*Any form of research in any organisation has its political dynamics. Political forces can undermine research endeavours and block planned change. Gaining access, using data, disseminating and publishing Reports are intensely political acts.*"

It was, therefore, imperative that in any interaction, discussion or debate I could guarantee anonymity and respectfully ensure confidentiality of information discussed. I have avoided mentioning colleague's positions within my project and always used reference to a numerical reference which is coded and only known by myself. I must therefore thank my colleagues who assisted and in my project and I respect those who declined the offer to participate in interviews. Predominately most participants are willing to be named in my final submission and those who did not agree have been recorded as anon, which is essential for qualitative methodologies.

This recognises their contributions were valid, but acknowledges their wish to remain anonymous.

3.10.3 Generation gap

During this investigation, I have been minded of the generation gap and the possible boundaries this may present. The breadth of participants that have contributed to this project has stretched across all generations to include views and opinions from all generations. During my exchanges with younger participants it was noted at an early stage that they viewed employment of three years as a lengthy engagement. For older generation participants, their expectation was a longer term expectation. The mature generation predominately felt the grasp and growth of employability skills came from a commitment and experiences gained through working with a single employer.

Interestingly perceptions of the "*younger generation*" by some mature participants were dismissive. Graduate 1 (2011) in a personal interview suggested "*work shy and did not recognise what a hard day's work looks like*". Evidencing examples of poor time keeping, bad attitudes and inappropriate actions and behaviour as to why they felt the younger generation were not work ready.

In an attempt to provide a balanced view, I have used a mix of responses from all generations to compliment and supplement the findings. I suggest that whilst some of the language used was different in context between generations, the thematic findings surrounding employability skills are still a fairly robust constant and consistent across generations, which the exception of IT skills which I would claim is a time factor that will see the next generation of built environment graduates move the boundaries again during 2015-2025.

3.11 Chapter Conclusions

The restrictions behind any research require the researcher to acknowledge and accept the boundaries, limitations and barriers that they will encounter. The acknowledgement I confirm within this project is the acceptance that the limitations of my research are predominantly contained to matters relating to the built environment and not extended to engineering, science and technology, subjects

traditionally associated with STEM. The data collated were from stakeholders (participants) who engage specifically with the Built Environment.

As a caveat to this, I declare that I have used discussions and data from the pre-2015 UK government officials, national policy-makers, professional bodies, graduates and other universities. The participants within this project research have been appropriately and on occasions randomly selected as a consistent, fair and robust sample of participants. However, this statement recognises that the research may also be restricted by the number of political participants willing to engage in the process.

Over 250 participants have taken part in this research project during the last five years and whilst I still make the claim that this project investigation will not provide a panacea of what constitutes employability skills for a graduate of the built environment; I believe the currency of findings from this investigation are timely, relevant, professional, trustworthy and in places provide truth and shared thematic understanding behind shared interpretations. Without the processes of reconnaissance fieldwork, planning, acting, observing and reflection and the options to engage and re-engage at various points within my investigation process, I could not have reached my findings, conclusions and recommendations.

I have learnt that I would probably locate different answers if this investigation process was undertaken in 2016 due to the constant change of demands that employers expressed during the five years of this investigation. On commencement on my project reconnaissance in 2012 employers were focused on the strict need for technical knowledge and the ability of networking skills and client interface skills. In 2015 this has changed towards more of a softer skills requirement allied to greater depth of IT skills as the sector moves towards the adoption of 3D printing, Building Information Modelling (BIM) and Nano technologies. I therefore acknowledge that my research findings and interpretations received by stakeholders relating to built environment skills are relevant for 2011-2015 and I will indeed need to use this project as a platform for future investigations.

CHAPTER 4 - PROJECT ACTIVITY

4.1 Introduction

The aim of this chapter is to consider my research activities and present the body of data and findings collated within this project through a process of project specific discreet inquiries and interviews to provide fresh knowledge. This included the systematic and at times, chronological phased gathering of data to locate various associated stakeholder interpretations and findings from bespoke interviews, discussions within various group fora, attendances at international conferences and at the heart of this investigation a series of 30 semi-structured interviews undertaken during 2011-15. The investigations and close interaction with participants supported the dual phenomenological and spirit of action research methodologies in locating the inner-depth 'richness of investigation findings'. Whilst intermittently locating a deep emotional interrogative dialogue with participants, what (Cousin, 2009, p.73) referred to as the "*third space exchanges' where interviewer and interviewee work together, to develop understandings*".

4.1.1 Richness of engagement and data

The term 'rich data' describes the concept that qualitative data and subsequent representation in text should reveal the intricacies and the richness of what is being studied (Domingos, 2007, Schultze and Avital, 2011). However, it is not always possible to comprehend all dimensions of a phenomenon; the qualitative researcher seeks to understand what is being investigated as deeply as possible. Hence in carrying out this project research, I was able to locate richness of interpretations at various levels of organisations. This complimented and supported the selection of a phenomenological methodology that further encouraged and recorded the richness of exchanges in various modes of dialogue located in my research investigations and confirmed or denied how recent and previous resaerh aligned with current 2011-2015 interpretations of what constitutes rich built environment employability skills.

There were nine phases of discreet inquiries undertaken as part of this project and the complex nature and magnitude of my investigations meant that it was inevitable that throughout the project there was a requirement to contextualise sub-themes and categorise certain duplicated inquiries, so that direct correlation could be made

between the themes, sub-themes aims and objectives associated with this investigation.

Originally the findings and data were to be analysed using Atlas Ti software. However, as the findings were concluded and reflected upon it became apparent that NVivo qualitative data analysis software would provide a better solution. This not only identified clear imagery interpretation of my findings that is better synthesized and aligned to data normally presented to employers but through the adoption and use of NVivo 9, coding processes it provided a mechanism to better articulate the rich phenomenological methodological phrases and rich emotional language that was exchanged whilst undertaking the semi-structured interviews.

The final graphical representations were shown to one at least one representative from each stakeholder group and all participants agreed that the coding process was appropriate, coherent and echoed participant responses. The coding process also qualifies the relationships and themes surrounding my investigations.

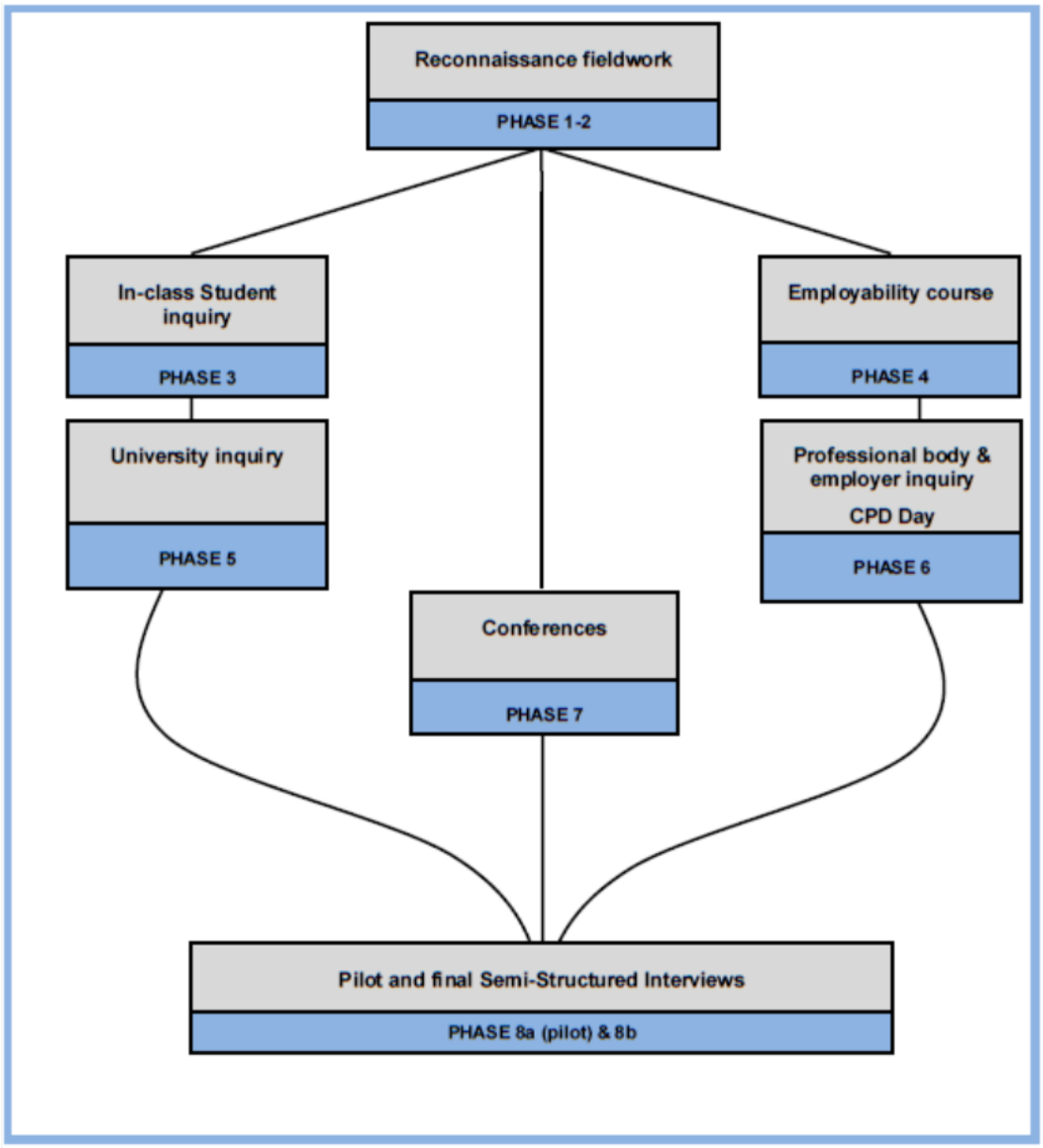
4.2 Participants

Over 250 participants have taken part or contributed to this project investigation and whilst I gracefully accept that a proportion of ‘gatekeepers’ have prevented further access to additional hierarchical participants, this has not prevented the inclusion of very high profiled participants across all three macro, meso and micro levels. This includes representation from policy-makers/politicians, employers, professional bodies, career advisors, academics and graduates. The nine phases of discreet inquiries were: Phase 1-2, Two early phases of feasibility reconnaissance fieldwork; Phase 3 - In-class student group forum; Phase 4- Delivery and inquiries associated with a Faculty graduate employability course; Phase 5 - A university intervention relating to the university employability award; Phase 6 - Professional body conference and employer intervention at a CPD seminar; Phase 7 - Attendance at international conferences 2011-2015 and Phase 8a (Pilot) – 8b (Final) series of 30 semi-structured interviews.

At various times the activities overlapped and as each discreet activity was concluded a process of reflection lead to a further enhancement and development of the questioning and enrichment of the interviews exchanges. The investigations

confirmed the alignment with the aims and objectives of this project. Recognising that the ever changing sector environment and economic influences on policy changes associated with the landscape of higher education and organisational structure changes within the University of Wolverhampton would at various times hold influence surrounding access and egress to my participants.

Figure 8 - Discreet inquiries investigation framework



This discreet inquiry framework model identifies the process and order that the nine phases of investigations were undertaken, and included early reconnaissance fieldwork, group forum and individual interviews through to phase 8b final set of 30

semi-structured interviews. With such a mass of data, the headings from each section have been transposed to the start of each section of the inquiry within the descriptive text to aid the reader in locating their position.

4.2.1 Evaluation and Reporting of findings and interpretations

The Reporting mechanism adopted for this project includes a generalised overview of the nine levels of discreet inquiries within Chapter 4 and then supported by NVivo software analysis a full account of findings, interpretations, themes and relationship to themes and sub-themes is located within Chapter 5. This includes an evaluation of direct links to aims, objectives, literature and at the heart of my research the 30 semi-structured interviews.

This investigation has secured a body of recollections and an inventory of specific findings. However, from early interactions with participants, it became transparent that the subjectivity and fluid nature of the investigation into employability skills would precipitate variations of findings if the project was duplicated post 2016. This project provides a well-founded representative 'snap shot' of investigative interpretation of findings during 2011-2015 and within my interpretative stance I was in search of thematic, perceptions, experiences and recollections. Cousin (2009, p. 35) articulated this as "*complex layers of human meaning through interpretive moves"*. This recognises the subjective nature of each intervention and how this may alter or amended as my investigations increased to a wider audience, where opinions, interpretations and understanding may change.

Using my phased discreet inquiries to remove layers of interpretation, in search of fresh understanding to reduce the gap in knowledge and understanding surrounding what a range of targeted stakeholders interpret as built environment employability skills, what McNiff (2013, p. 67) refers to as a "*spontaneous, self-recreating system of inquiry".*

4.2.2 Reflective diary notes

The use of my own reflective observational diary notes was adopted as a mechanism for recording my thoughts at a particular point throughout my Doctorate of professional studies journey as suggested during an interview with Academic 1 (2011). This enabled me to recall poignant comments, thoughts and recollections. Having engaged with over 250 participants and undertaken over nine phases of

discreet inquiries, it was a perfect aide to record my thoughts and recollections as my investigative journey progressed. However, the overall final reflexive and reflections accounts were fully contextualised in my reflexive account, (Chapter 8).

Diary note

Throughout my project I have made numerous discoveries surrounding "pockets of best practise", taking place within my own university let alone other regional and national Universities.

4.2.3 Data Condensation

One of the key challenges faced within this project was the need to undertake a reduction in data that would provide meaningful interpretation of the collated qualitative data. This required a process of re-analysis an acceptance that I should discard certain sections of duplicated findings and what Miles and Huberman (1994) refers to as organising large segments of data into manageable forms.

Originally I had attempted to contextualise large volumes of data gathered during the discreet inquiries and recorded particular phrases. However *'it becomes difficult to retrieve the words that are most meaningful, to assemble the chunks of words that go together, and to reduce the bulk into readily analysable units'*. (Miles and Huberman, 1984, p.56). Data reduction is essential due to the large amounts of data that are amassed during the qualitative data collection process leading to data overload, Corbin and Strauss (2008). In locating an appropriate solution to this challenge it was therefore appropriate to use Nvivo IT software package (version 9). This provided a data coding around the themes of the semi-structured interviews and through analysis located thematic interpretations of interview transcripts.

4.3 Coding

Coding is described as an abbreviation or symbol applied to a segment of words, sentence or paragraph of transcribed field notes, in order to classify the words (Miles and Huberman, 1994, p.56). Whilst Corbin and Strauss, (2008, p.1) recognise

coding as *"the process of developing and concepts from the data".* Codes are retrieval and organising devices that allow the analyst to spot quickly, pull out and cluster all the segments relating to the particular hypoproject, concept or theme, whilst ensuring that the analysis of data, focused on the themes or areas that mattered most to the research and also helped in filtering the data.

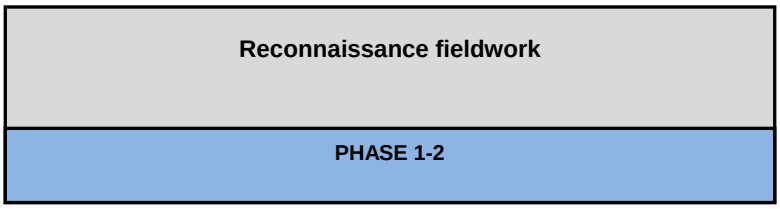
Due to the selectiveness of case study research, where a selection is made from the huge volumes of data on what is relevant to the research, the conceptual framework made this process less tedious by ensuring data reduction or selection was done smoothly. Analysis and coding for this research proceeded with descriptive codes, analytical codes and explanatory codes. These codes were used for description, analysis and explanation of data to ensure the data transformation process (analysis) followed a systematic sequence.

During the coding of the field nodes, documentary evidence and interview transcripts, it became necessary to create new codes at various points create (in-vivo codes) to pre-existing codes to prevent the analysis process missing other trends within the data that was not located in the initial codes. In most cases, the codes created from the conceptual framework served as parent nodes with new codes serving as child nodes (Nvivo software terminology). The parent nodes referred to major themes or sections of coding, child nodes usually referred to key factors or interrelationships or sub-themes.

Ryan (2009) explained the value of NVivo in that it provides data rich output for researchers, she classified its reliability by facilitating the management process of the various sources of information and creating clear thematic ideas to link and create comparisons. (Corbin and Strauss 1998) generated the term *micro-analysis* to explain the coding process, as it consists of close and detailed examination of the inputted data.

The coding procedure derived of two steps, the first being *open* coding which comprised of examination being made into the properties of the data Corbin and Strauss (1998). The second known as *axial* coding utilised the properties located in the data and constructed categories on this basis enabling clear links (Corbin and Strauss 1998). The data was then collated and presented into frameworks and

visual aids in order to clearly represent the interview documents that were inputted, thus enabling for data rich comparisons to be made.



4.4 Phase 1-2: Reconnaissance fieldwork

Early reconnaissance inquiries were commenced during the spring of 2011, and built upon pre-Doctorate face-to-face structured and non-structured exchanges with stakeholders to locate if there was a relevance to this investigation and a gap in knowledge associated with built environment employability skills.

This served as a robust sampling methodology to locate suitable participants and a starting point for identifying levels of knowledge surrounding understanding of built environment employability skills. *"Reconnaissance should involve analysis, as well as fact-finding and should constantly recur in the spiral of activities, rather than occur only at the beginning"* (McNiff ,2013, p.60).

From these early engagements, it was noticeable that there was a willingness and eagerness from a large proportion of participants to fully engage and contribute to my project investigations.

> *"for far too long the land and property sector have been overlooked and this is the first time I have been asked to contribute into ABE research, commendable"* (personal interview, Employer 3, 2012).

4.4.1 Phase 1-2: Reconnaissance fieldwork - Context

Throughout these early feasibility stage investigations, I had included contributions from participants at varying levels of organisational hierarchy and importantly included contributions to discussions from employers, industry and commerce.

Recognising at an early stage the closeness of the built environment and academic community, it was therefore appropriate to remove specific names where possible

in an attempt to provide anonymity to participants. After consultation with numerous stakeholders I took the decision to remove honorary titles (Right Honourable, Sir, Lord, Professor, Dr. etc.). All stakeholders were appreciative and supportive of my decision and were fully supportive of this action.

All participants are identified by use of their initials or name where prior agreement was secured and all have signed to confirm that they understand the nature of the investigation. The exception is where participants were comfortable in using their surnames for direct quotations.

Phase-one and two investigations were undertaken by adopting a non-probability sampling technique for locating a small group of participants. This included at least one representative from four of the six identified stakeholder groups. In particular I was keen to identify the perceived definition of employability skills, built environment employability skills and to gauge whether participants believed that universities are sufficiently engaged with employers. Specifically I included contributions from national and regional small medium sized enterprises (SME's) located within the West Midlands as they have been extremely engaged in placing University of Wolverhampton students into the workplace. Academics were located within the Architecture and Built Environment Department in the University of Wolverhampton and Birmingham City University. The objectives of this phase of discreet inquiries therefore investigated and explored:

Who were the stakeholders associated with employability?

What were these stakeholders understanding surrounding the term employability skills?

Do you feel UK Universities are sufficiently engaged with employers?

What are the key employability skills a graduate of the Built Environment should hold?

4.4.2 Individual interviews

Individual interviews were undertaken across six set of stakeholders, academics, policy-makers, politicians, employers, graduates and career advisors. In total, 15 participants were interviewed and the findings were originally recorded through written text, but later moved to a different mode of recording by capturing interpretations via digital voice recording.

4.4.3 Focus group activities

A focus group is a form of qualitative research in which a group of people, in this case assembled stakeholders, are asked about their perceptions, opinions, beliefs, and attitudes towards employability skills and later built environment employability skills. According to Cousin, (2009, p.51) *"focus group research is based on the principle that rich data can be elicited from group interactivity",* where the researcher can compare and hare ideas and discussions surrounding a particular topic. Importantly for this project this focus group research allowed the collation of convergent or common views and experiences.

4.4.4 Phase 1-2: Reconnaissance fieldwork - Analysis

These early reconnaissance investigations were intended to address various elements of my research questions and address the aims relating, in the first instance, who are the key stakeholder associated with employability? What did these stakeholders understand by terminology and understanding surrounding built environment employability skills? What did they believe constitutes built environment employability skills?

The group forum was held at the University of Wolverhampton Science Park and 15 attendees took part. This was later supported by a range of follow on individual interviews with participants and collectively provided "convergent, common views" (Cousin, 2009, p.53).

The rationale aims and objectives of the group forum investigation were explicitly and comprehensively explained to the stakeholders prior to the start of the group forum. I personally spoke to the entire audience prior to the commencement of the focus group activity. However, three academic colleagues in attendance declined to make a contribution to the activity. This event is clearly examined within my ethics

section and this has not influenced, or changed my relationship with those individuals.

4.4.5 Phase 1-2: Reconnaissance fieldwork - Evaluation and conclusion

I felt the strategy adopted for this intervention was appropriate and this served as the ideal starting point for early collation of interpretations, common held views, experiences and findings. In particular this was the ideal platform for developing my own interview techniques in teasing out insights and perspectives.

Rewardingly participants felt the research into employability skills was long overdue and in their opinion, meaningful and provided a suitable mechanism to better understand and promote this under-represented sector. All participants concurred that the project would indeed contribute towards better understanding of employability skills and most participants said they would be willing to provide a more precise and detailed contribution to my project. However I was surprised that not one single participant could recite a Report, publication or paper relating to employability skills, only a reference to RICS or CIOB Reports semi-relating to employability. I had not anticipated this finding, but I will include this in further discussions and investigations as the breadth of literature I have discovered relating to generic employability skills would indeed add to the debate.

Prior to this phase 1 intervention I made the following personal project diary note:

Diary note

From a personal position I was searching to gather reassurance that I have located a gap in knowledge and understanding behind;

What do I want to know?

Who knows what in respect of employability skills?

What are the gaps in understanding (if any) that exist in this area of research?

Who are the correct set of participants to target, discuss and interview as part of project?

Was my research valid, timely and did it hold currency?

Throughout my early encounters with participants, I was impressed by the varied level of knowledge, understanding and recollections that some participants recollected, but disappointed by the lack of knowledge shown by others.

Diary note

Further questions raised post this first intervention

Did my project hold value and if so for whom?

Will my project have any impact and how will this be measured?

What will research with a wider community tell me?

Will my own professional practise be enhanced in anyway by undertaking this project?

NOTE: This was not an exhaustive list of questions, but this early phase 1-2 interventions encouraged my own self-reflection on practise.

The group forum and interviews were relevant and provided early confirmation that stakeholders associated within the built environment were in agreement on certain areas; the need for more knowledge and understanding of the subject; but unclear how and where this knowledge is located. What became transparent from these early exchanges was the generic understanding and the fluctuation of knowledge surrounding the variations of understanding surrounding built employability skills.

Noticeably at this stage of the project I was working within a framework of a single action research methodology and was only intending to use two discreet inquiries supported by a single set of semi-structured interviews. I had certainly not discovered the emotional stories, recollections and connectivity that participants recalled in later interviews or their emotional interactions with graduate built environment employability where the phenomenological methodology surfaced.

The use of group forum style discreet inquiries were therefore well received and supported by literature provided a mechanism that Cousin, (2009, p.62) referred to as a way of:

1. Shaping the research focus
2. Informing the data gathering and the analysis
3. Supporting researcher reflexivity and theorising

4.4.6 Generalised overview of responses to phase 1-2 discreet inquiries

At the conclusion of reconnaissance investigations, I came away with a new set of inquiries and questions. What I had captured from my second discreet inquiries was a wider sense of conflicting opinions and a sense that I was moving towards a subject area that indeed required deeper investigation.

Q1. What is currently happening in the area I intend to investigate?

Q2. Will my findings answer the aims and objectives of the project?

Q3. Avoiding bias?

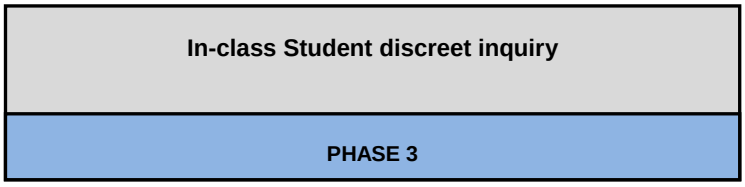
Q4. How wide will I expand my project investigation?

Q5. Do I have sufficient resources to undertake my project?

Post phase 1-2 discreet inquiries I reflected on the findings to explore one of the key aims of this project and critique literature relating to employability skills with a further focus on employability skills directly associated with the built environment. Additionally, at this time it became increasing noticeable that employability skills and its adoption within UK universities was headline news and the employability as a headline story; predominately surrounding STEM subjects (Science, Technology, Engineering and Mathematics). Interestingly when interviewing policy-makers and organisations such as HEFCE, they highlighted how they do not accept that the built environment falls directly under STEM, with the exception of civil engineering, where they believe the contribution of maths makes the subject eligible. Whilst believe otherwise, I feel this is a major contributory factor to the lack of engagement and

recognition that the built environment receives from a macro - micro audience and perhaps part of the rationale for the gap in knowledge that I believe I have located.

Importantly my observations that some built environment graduates leaving regional universities were perhaps ill equipped to enter the world of work was in-part validated. I refer to regional universities because employers were feeding back information through my networking fora and concurred that this was not a localised challenge, or indeed restricted to the UK. This is not undermining the abilities of existing UoW graduates to secure employment or suggesting that they did not hold the knowledge, abilities or in many cases relevant employability skills, but having held face-to face discussions in their workplace, I could not help to notice their lack of awareness of the wider application of employability skills. A full summary, evaluation, conclusions and interpretations of the discreet inquiries are in Chapter 5.



4.5 Phase 3: In-class student activity - Context

The phase 3 discreet inquiry involved a search for interpretative knowledge, understanding and appreciation of employability skills with level 6 built environment undergraduate students within a classroom environment. The module selected for the investigation was 6CN005 Construction management with both part-time and importantly full-time students. The mode of the investigation would included real life scenario ‘underpinning activities’ such as the empirical activities that encourage experiencing, understanding and judging to compliment, support, reinforce and create a sense of knowing before further concrete judgements or actions are implemented.

To test my theory I moved my line of inquiry to include three of the specific built environment employability skills employers, policy-makers and professional bodies had previously identified in phase 1 and 2 discreet inquiries; Problem solving,

communication skills and working independently. The in-class intervention took place during May 2012 and the activity focused on drilling down to witnessing first hand, if the views and assumptions made by participant stakeholders were generally shared. I accept participant observation can be commonly found in other forms of research and I accept there may have been a slight crossing over of boundaries in regards to a traditional investigative activity, but I felt it was appropriate to witness my student's behaviour and reactions in a semi-controlled environment.

Following the philosophy and proposed use of Stringer (2014), controlled observational activity, I explained the rationale behind this activity to my students and gave them the option to 'opt out' and undertake an independent piece of work if they did not wish to take part in the activity. I also confirmed that the work was not part of their formal assessment and their learning outcomes had not been compromised by this intervention.

4.5.1 Phase 3: In-class student activity - Analysis

I commenced the investigation by posing the following four questions relating to their own individual awareness of employability skills. I had invited (SA, a director from a regional housing association) to contribute to and facilitate the intervention to help the students recognise the validity of the exercise. Eighteen students were present and 16 students contributed to the discussions and submitted a response. To provide confidentiality, students were identified by their seating position A1- A6 first two front rows, B1- B6 third and fourth rows, C1-C6 fifth row (responses were given verbally and re-interpreted by repeating their answer so no misunderstanding was recorded).

- Q1 How would you describe the meaning of the term employability skills?
- Q2 Would you say you have been encouraged to develop your employability skills in any of your lectures since you began your studies at university?
- Q3 If you answered yes to question 2, what skills have you developed. What lecture/s did you encountered examples of employability skills and can you provide an example?
- Q4 What do you feel are the most important employability skills for a graduate of the built environment?

Phase 3: In-class student activity – Evaluation and conclusion

I would suggest that this phase 3 intervention was a useful exercise in collating data and afforded me an opportunity to share the context and wider application of my research with my student's in-class. I felt the presence of the employer added value to the intervention, but clearly made the students nervous during the early stages of the intervention. I feel this intervention aided my investigations and I gained useful perspectives and fresh understanding of how graduates view employability skills, perhaps demonstrating the power of employer engagement and again partially justifying why this project is important for University of Wolverhampton graduates. The activity assisted in locating whether built environment employability skills were as visible in the curriculum to students as academics believed.

The activity was an early exploratory part of my research and engaged students in vibrant dialogue. With the contributions and attendance of an external employer the students were more open with their dialogue and the findings reinforced my earlier assumptions and believed that there is a lack of visibility to students surrounding built environment employability skills embedded within current university teaching. This is not to dismiss their presence in the design of curricula, but echo the lack of visibility to undergraduates. This linked directly to the HEFCE (2012) Report that suggested that students rarely make the connection to the importance of employability skills until near completion of studies.

4.5.2 Generalised overview of responses to phase 3 discreet inquiry

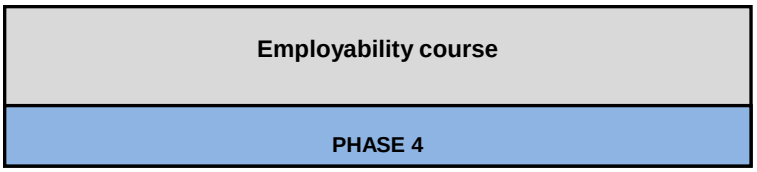
The majority of students held some awareness of employability skills, but most had never considered any association with specific built environment employability skills. In particular the specialism associated with their specific discipline. All students identified that employability skill is a common phrase and terminology constantly mentioned in numerous classes and students expressed to the employer that the need for strong communication skills was drilled into them at every opportunity by university lecturers.

Most students identified that assignments and assessments related to real life activities were of most benefit and engagement with external stakeholder's added value to this HE learning experience. Most students also recalled how through

continuous practise from Level 3-6 studies, their own presentation skills had improved.

In respect of what students viewed as built environment employability skills, most had not made a connection but recognised that in most cases project decision making and the development of strong interpersonal skills were new skills they had all developed.

If more time was afforded, I would have liked to have extended this activity to include increased contributions across a wider set of courses and across a wider portfolio of students. However the activity was sandwiched between what Academic 1 (2012) described in the interview as *'stuffed curriculum'* and I would have compromised other module learning outcomes. This restricted further investigations until later in the year. A full summary, evaluation, conclusions and interpretations of the discreet inquiries are located within Chapter 5.



4.6 Phase 4: Employability course - Context

The rationale and thinking behind a course for graduates who had departed the University was conceived during a 'think tank' style in-house discussion searching for better ways we can keep in touch with our Alumni. However I soon recognised the potential opportunity to develop a course to assist graduates who have not found employment post graduation. This would also fulfil the promise we made as a School (ABE) to support graduates post their studies.

The timing of the delivery of the course was sympathetic to graduates to allow them to secure employment and the offer was promoted as an aid to support pathways into employment. I had not immediately proposed to use this course as part of my doctorate of professional studies, but in speaking directly to graduates, I was curious to understand:

What were the challenges they had encountered locating employment, and investigate if we the University of Wolverhampton could have done more in supporting them transfer from HE into the world of work?

I recognised I would need to be sympathetic and gentle in the way I secured any information, but what I failed to understand at this early stage was the extent of gentleness I would need to adopt in my location of findings.

Diary note

Throughout my project I have made numerous discoveries surrounding "pockets of best practise", taking place within my own university let alone other regional and national Universities. It is imperative that I recognise this in my strategic thinking and consider ways of ensuring these ideas are more coherently dispersed, transparent and shared across a wider audience. I have previously attended an internal conference 'rich exchanges' and this type of intervention may be a perfect mode for dissemination

All graduates had been contacted, but only 10% of contacted graduates attended; it was difficult to qualify who was employed, who had progressed onto further academic studies and who had just failed to respond. All attendees held their own set of circumstances why they had not (at this point in time) joined the world of work and part of the course outcomes was to offer support and locate solutions.

Diary note

My starting point for the design of the course was to speak with current graduates to see what assisted them in joining the world of work and re-consider what support graduates may need in respect of built environment employability skills. I will also seek support from a host of colleagues within the workplace and placement team to help me deliver the course.

I feel the course will enhance the "life chances of our graduates" (Layer, 2012) and I will investigate why critics feel I should not be the architect for the project?

At the time I was extremely disappointed that colleagues did not recognise the value of this course and perhaps this was a further demonstrated when in June 2012, I delivered a presentation to colleagues along with other eminent colleagues within

the University at an internal conference entitled “Rich Exchanges”. The Conference activity will be discussed in later chapters, as this was a useful contribution to the University sub-strategy for employability and enterprise. However this was in reaction to the apathy and used as a mechanism for sharing the importance of employability skills to our students. The apathy that existed towards the employability agenda was most prevalent in 2012.

4.6.1 Phase 4: Employability course - Analysis

The course was delivered every Friday at the University over the winter of 2012/13 as part of a six week pilot and most subject areas were covered within the six, one-day discreet inquiries. However recognising the fact we were unaware of the challenges graduates had faced in securing employment, I built in time for one-to-one discussions and debates to locate fresh knowledge and understanding.

The graduates were notified four weeks in advance and the course commenced in December 2012. By prior agreement with participant graduates I agreed to not directly use quotations in my main body of text, but they were happy to be referenced through alpha-numerical references so that I could use my observations within my appendices.

The course incorporated a shared contribution from various members of staff to sensitise the intervention acting in a ethically and morally correct status, whilst capturing true stories and rich findings. In hindsight, I could have expanded my collation of findings, but in an attempt to balance fairness, I felt the project was predominately about supporting graduates to locate employment opportunities. Recognising that their deeper understanding of built environment employability skills may well enhance their prospects and be part of the solution.

Methodology for collection of data

Various activities were undertaken throughout the course and whilst I secured individual private conversations surrounding employability skills which informed my project research, I predominately used a mixed methodology of group forum style discussions, private comments and a series of observations to locate fresh knowledge and understanding.

- Their knowledge surrounding support mechanism for seeking employment was limited;
- Their awareness surrounding employability skills was restricted

4.6.2 Phase 4: Employability course – Evaluation and conclusion

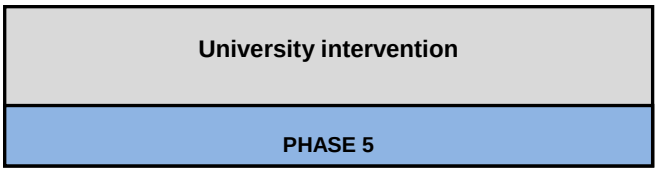
The graduate employability course was a successful intervention, judged against the success rates of participating students. All these students are now in full-time employment or have started their own business. The course was extended across all Faculties and in 2015 the course will be delivered to all University graduates. The structure and nature of the investigation was well received and all participants who responded on the feedback forms suggested that their deeper and enriched appreciation of the importance of built environment employability skills had made a valuable contribution to their increased confidence in seeking employment.

All students who completed the course felt the process was rewarding and most suggested through their feedback evaluation forms, an increased knowledge of employability skills which may ultimately assist them to become more eminently employable. Nearly all of the participants completed the course and two students secured employment during the course and having reviewed their classification of degree most students achieved 2:1 or below. For the majority of participants the course had provide renewed confidence and self-belief in their own abilities and the majority of participants felt the structure, style and delivery of the course was appropriate as a one-day a week attendance policy.

4.6.3 Generalised overview of responses to phase 4 discreet inquiry

Most participants had not recognised the true value of holding both hard and soft employability skills and most had failed to appreciate how confidence and perceptions were explicitly important in forming first impressions. Most of students recognised through role play their strengths and weaknesses but in looking to generate fresh knowledge and understanding of who knows what surrounding built environment employability skills most participants were lacked the ability to articulate their importance. Specifically students had never made a connection surrounding how and what employers may view as important built environment

employability skills, or considered how you might better prepare of reflect on why a particular job interview had been unsuccessful/ successful. A full summary, evaluation, conclusions and interpretations of the discreet inquiries are located within Chapter 5.



4.7 Phase 5: University intervention - Context

In 2012, I was invited along with other colleagues to forward contributions and comments on various initiatives relating to employability and enterprise raised by the Office of the Vice-Chancellor (OVC). I instantly recognised the connection with my doctoral project research and felt that using my early findings from this project might provide a relevant contribution to the strategy. Prior to commencing this project I had held detailed discussions with the Deputy Vice-Chancellor who was leading on the initiative and highlighted how my project findings may contribute or impact on University strategic goals relating to employability. At this early mid-point of my project I was also able to locate other aspects and impact. Specifically the potential connectivity with:

The Employability and Enterprise sub-strategy that was nearing the close of consultation period, issued in 2012.

Micro level: The impact my research may/would have on the Faculty in winning over hearts and minds of colleagues and academics to better engage with employability strategies.

Meso-level: The contributions I was making towards delivering strategic messages surrounding employability, to a wider internal and external academic community.

Micro-level: The impact in repositioning the Faculty and Universities standing in the DLHE and the Key Information sets (KIS Data).

Micro-level: The wider impact of securing my new position as Principal lecturer/Head of Employability within FSE, so I could work as a change agent to increase the breadth of impact to a wider audience.

Meso-level: The impact of engagement with quality stakeholders, so they could better appreciate the depth of work taking place within the University of Wolverhampton.

Macro-level: The impact, which is immeasurable surrounding, increased reputation in securing future projects and enhancement of the University's standing in a wider global marketplace.

This investigation further reinforced a validation surrounding the possible impact of my Doctorate of professional studies research within a macro, meso and micro level environment and reinforced the confidence expressed within the OVC that this doctorate of professional studies project would indeed hold credibility inside and outside of my University.

Undertaking certain type of research within your own organisation involves both inside and external facing interpretations. Coghlan and Brannick (2014, p.121) make reference to this by stating "*to being a full member of your organisation, and wanting to remain a member within their desired career path when the research is complete*" In particular Adler and Adler, (1987) (cited in Coghlan and Brannick, 2014) articulated that the insider researcher "should not neglect their internal knowledge or expertise".

4.7.1 Phase 5: University intervention - Analysis

The refinement of the employability and enterprise sub-strategy for the Faculty of Science and Engineering (FSE) would include knowledge and findings discovered during earlier discreet inquiries and provided a prime example of how spirit of action research methodology informed and supported this project in locating tangible outputs that have informed my practise.

What this intervention would also confirm or dismiss was my position within FSE as a 'change agent', to encourage staff and a wider community within the University to be more actively involved and engage with the Employability sub-strategy. Accepting this interface would also enhance my own professional practise.

I was certainly familiar with implementing change and cultural change across organisations where I had personally experienced resistance to change, as I had completed a similar 'change agent' exercise as part of my real life organisational MSc project investigations. The difference this time was that the organisation was

Higher Education, the size of the organisation was larger and my colleagues, as academics, work within the confines of a different culture.

There was never a suggestion that the existing employability and enterprise sub-strategy I had made contributions towards was not effective, or efficient, in fact quite the reverse, but having spoken with the Deputy Vice-Chancellor there was more work to be undertaken to convince a wider audience that the strategy was an important component of the University's survival.

The strategy was well structured and promoted the following vision: "*To improve the employment levels of our graduates (undergraduate and postgraduate) such that we will be placed in the top half of all universities in the region by 2017 as defined by the DLHE survey and other appropriate metrics*".

University of Wolverhampton Mission

"We will raise the levels of employment and self-employment amongst our graduates, contribute to our graduates assessments by implementing a University-wide initiative involving all students and all staff engaged with students we will ensure that we produce eminently employable graduates skills to navigate proactively the world of work and self manage the career building process, recognising the importance of lifelong career management and career building skills. We will work collaboratively with our students union to ensure that students engage and take full advantage of the support offered to them" (Employability and Enterprise sub-strategy, 2012, p. 2).

This is supported and underpinned by a set of nine goals that identified how the strategy should be operationalised. The strategy was made available and accessible to staff during spring 2012, with the aspiration that staff would appreciate and contribute to its delivery. Underpinning the strategy was the need to not only meet targets and provide information to the DLHE survey and the KIS data.

4.7.2 Phase 5: University Intervention – Evaluation and conclusion

The findings incorporated within this review would not be as rich as other discreet inquiries located in this research. Discreet inquiries can be used for various initiatives and activities, but for the purposes of this inquiry to locate understanding and beliefs to assist me in refining further discreet inquiries and delivering messages without bias.

What I collected from the individual interactions from the less productive group discussions was knowledge associated with change and evidence surrounding how change is a constant, but very much resisted. The activity was appropriate because it located various academic views and importantly raised the question of academics surrounding how employability skills could be better incorporated in their curricula design. Importantly, this intervention further highlighted how the employability and enterprise strategy could only ever be successful if it received contributions with all internal stakeholders within the University of Wolverhampton. I have continued with this staff intervention throughout the entire length of my project, but have not included any findings or interpretations within this project past this particular intervention.

Within the term of this project, I feel staff emotions were muddled by the level and nature of various changes in staff structure and I will use the safer contextualisation of conclusions and interpretation section to avoid bringing too much emotional content into the findings. What I took away from this experience and engagement with staff is the constant need to be entirely sensitive around any introduction of policy change.

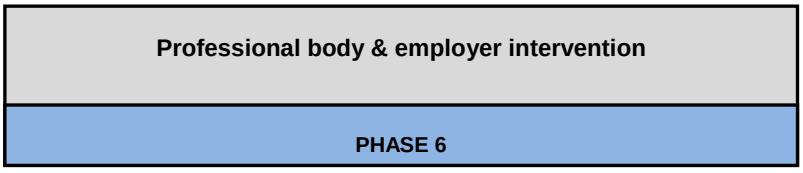
4.7.3 Generalised overview of responses to phase 5 discreet inquiry

Most staff were nervous about exchanging opinions and were concerned that I the information gathered would be forwarded on to the OVC. This matter of trust, respect and sensitivity is discussed in Chapter 3. Therefore, the common themes identified within this inquiry were: Consultation - A need for structure - Change agent.

Consultation: Most staff felt excluded from any consultation process and a contribution towards the development of the employability and enterprise strategy; "*we have not been strategically engaged with employers for the last three years and if I draw a comparison with previous years I wonder how this internal strategy will connect with industry and promote outward facing thinking*" (personal interview, Academic 5, 2013). Whether this was tainted by previous experiences is unclear, but staff felt they would be more engaged if they were given an opportunity.

A need for structure: Most participants believed as academics we must always look to improve and perhaps a strategy is a relevant methodology for focusing minds. Importantly, academics provided their own interpretations of what they believed to be important built environment employability skills, all of which are incorporated within the built environment employability skills compass.

Change agent: Rewardingly, over 50% of respondents were appreciative that they were at least involved in this project research and felt my own communication skills were essential if I was going to grow my own profile to become an employability skills change agent. "*Paul is an extremely positive, proactive and caring individual and I feel most of our Department will support and contribute to his research. He is the perfect change agent to introduce richer engagement with external stakeholders that will enhance our curricula*" (Personal interview, Graduate 4, 2013). A full summary, evaluation, conclusions and interpretations of the discreet inquiries are located within Chapter 5.



4.8 Phase 6: Professional body and employer inquiry - Context

At this point in my investigations, I was keen to collect greater breadth of interpretation from external participants and increase the quantity of contributions from employers and professional bodies who were key contributors to the investigation. The intervention took place in Birmingham during the RICS Annual Continually Professional Development (CPD) day on Wednesday 17th April 2013. As Chair of the regional RICS board I delivered opening remarks, and whilst chairing two break-out sessions, I gathered views and opinions from various stakeholders on my session entitled 'employability and enterprise award: Filling the skills gap'.

I recognised that it was event was an all-day event and whilst most attendees would be familiar with filling out questionnaires, I felt it would be more appropriate to use a workshop style Q&A session forum to secure further project findings. The

attendees included all levels of stakeholders and participants (predominantly employers) and I was confident on attendance numbers. To ensure attendees felt they had gained valuable CPD I gave a five minute presentation on the employability and enterprise award and included macro and meso level discussions surrounding changes to our sector and a potential global skills gap.

4.8.1 Phase 6: Professional body and employer inquiry - Analysis

Professional body CPD days are an ideal opportunity for professional body members, to meet part of their annual commitment to undertake 20 hours CPD, generally receive updates on changes in legislation and industry regulations and importantly hold debates and discussions on the topics that impact on our industry. The events are hosted across all 12 UK regions and whilst a fee is payable, the events are traditionally well attended.

The break-out sessions included a range of specialist built environment topics such as land, property and finance, but can include generic topics such as education, political influences, and RICS policies; which on this occasion related to employability skills.

Each session is restricted to 20-30 minutes, and discussion time is included at the close of every event. I felt the event was a perfect platform to gain further insight into the views of employers (including employers of past University of Wolverhampton) graduates and the sessions would possibly tease out further rich interpretations.

The intervention was extremely positive, proactive and personally rewarding. There was certainly a rich depth of informative findings surrounding the employer's feedback and, perhaps for the second time within the project, a realisation that employer's are unsure of what their expectations are surrounding employability skills.

Observation
Perhaps the assumption that employers know exactly what they want from graduates is under question?

And perhaps their knowledge and understanding surrounding built environment employability skills may be challenged?

4.8.2 Phase 6: professional body and employer inquiry – Evaluation and conclusion

The workshop style discussion was professionally managed and I believe stakeholders were honest in their views and responses. Not all participants made a contribution, however, when later questioned they agreed with the expressed comments. This matter is highlighted by Cousin (2009, p. 55-56) through intrapersonal and the recognition that identifies "*social sensitivity and ascendant tendencies*". Stewart (1990, cited in Cousin 2009) quoted in Cousin suggested "*those with a social sensitivity disposition tend to be responsive and attentive listeners. In contrast, those with ascendant tendencies tend to assume a more assertive and dominant role in groups*". This was later confirmed in personal interviews with my alumni, who were in the audience who felt nervous in the presence of peers to contribute. I also took the opportunity to extend my conversations during the lunch-time break to seek clarification and increase the number of contributions.

The activity was a perfect opportunity to review, compare and contrast earlier findings from employer centred inquiries and seek any relationships or correlation. As the event was well attended there was a captive audience and importantly because the nature of the topic was advertised well in advance, it suggested that employers that attended my presentation and group intervention were genuinely interested or engaged with built environment graduate employability.

Importantly, the platform provided the ideal mechanism to further evaluate areas of my research that were difficult or troublesome, as well as to test the correlation with the literature I had reviewed surrounding employability skills and the level of knowledge that this specific set of stakeholders (employers/graduates) held on the topic. In the Leitch Report, 'Prosperity For all in a Global Economy – World Class Skills', launched in 2006, the review suggested that employers understood the need to contribute to the debate at regional, national and international levels and they specifically recognised the strategic and operational measurers for *"making the UK a world leader in skills"* (Leitch, 2006, p.137) through increased attainment. The

findings within this inquiry identified that employers are still dealing with the localised micro-level challenges and with a pending skills shortage in 2013-14, their attention is focused on local recruitment of graduates who hold relevant technical skills only.

4.8.3 Generalised overview of responses to phase 6 discreet inquiry

The activity was predominately well received by the attendees, although some participants felt "*the discussion was too intensive and focused on my own research, not on the generalised challenges that the sector faces*" (personal interview Academic 4, 2013). Other post evaluation feedback forms reported that the presentation I gave and the debate that followed was "interesting and thought provoking" (personal interview, Academic 5, 2013). Employer 4 expanded to state "*provided further argument to the need to recognise how our sector within the built environment should be better promoted and researched. I had never really considered the importance of built environment specialist employability skills, but of course yes we have them*" (personal interview, Employer 4, 2013).

The general consensus of opinions did align and recognise what the Wilson Review (2012) highlighted surrounding the lack of engagement by employers and more recently the University Alliance (2015, p.18) 'Mind The Gap' Report that emphasised that "*progress in achieving deeper collaboration between employers and universities in educational provision has been slow*". However, most employers agreed with Academic 3, expressed during a personal interview "there was more work to be undertaken by academics to visit employer's graduates in the workplace to close this gap and increase collaboration" (personal interview, Academic 3, 2013).

More detailed comments, themes and sub-themes are located in Chapter 5, but overall the mechanism of using a professional body CPD event to elicit interpretations was a resounding success and one I would recommend to other researchers. A full summary, evaluation, conclusions and interpretations of the discreet inquiries are located in Chapter 5.

International Conferences
PHASE 7

4.9 Phase 7: International Conference Group Forum - Context

Over the duration of this project, I have attended over six conferences located across the world to investigate the wider macro-level of employability skills on a global stage and have been extremely fortunate to be offered the opportunity to inform and update practitioners of the progress of my project. The objective of attending conferences would support my claim that built environment employability skills is not solely a UK challenge and as part of the attempt to provide conference attendees with an update on my progress in 2011, I held a meeting with the International Conferences 'Construction in the 21st Century' (CITC-6-7and 8) conference organiser, Syed A.

Syed, A, kindly agreed to afford me sufficient time at the last three conferences to update delegates on my doctorate of professional studies project investigations and I could use the 20 minute session to undertake questioning in a group forum context to seek macro-level views and interpretations at the following 'Construction in the 21st Century' (CITC-6-7and 8) 2011-2013-2015 conferences.

In securing funding to attend these conferences, I have submitted and/or have delivered academic papers on behalf of colleagues or myself. The presentations were not always directly linked to my project, but with the agreement of conference organisers was that they would afforded me an extra timeslot outside of my presentation time to present updates on my doctorate of professional studies project .

Conferences attendance where I have secured opportunities to undertake group forum style activities or present an update on my research findings are as follows:

Six International Conference on Construction in the 21st Century (CITC-VI) "Construction Challenges in the New Decade" 5-7 July, 2011, Kuala Lumpur, Malaysia

Output: Delivery of academic paper: Can water efficiency methods influence construction technology and ensure potable water sustainability? Corbett, P. & Hickman, J.

Professional Project output: With permission of Ahmed,S. (Conference organizer): Introduction to my Doctorate of professional studies to the (CITC-VI) conference delegates

Quantity surveying international conference (QSi) Conference, 7 November 2012, University of Wolverhampton, Telford, UK

Output: Delivery of presentation: The benefits of professional body membership. Hampton, P.

Professional Project output: With permission of QSi President- Steve Newcombe (QSi Global President): Group forum intervention and Interviews with employers, professional body members and manufacturers.

Seventh International Conference (CITC-VII)

"Challenges in innovation, integration and Collaboration in Construction & Engineering 19-21 December, 2013, Bangkok, Thailand.

Output: Submission of academic paper Reducing Co_2 emissions through the Code for Sustainable Homes – The Challenge for Housing Associations in the UK, Deen, N & Hampton, P.

Professional Project output: With permission of Dr Syed (Conference organizer): Doctorate of professional studies update to the conference delegates.

Third University of Wolverhampton "Rich exchanges" conference, 20 June, 20, 2013, University of Wolverhampton, Wolverhampton, West Midlands

Output: Delivery of presentation: **Curricula Design**: **Building Enterprise & Employability into the Curricula** Embedding & Signposting. Hampton, P & Felce, A.

Professional Project output: Interviews with attendees, academic colleagues.

Smart, Sustainable and Healthy Cities, First International Conference of The CIB Middle East and North Africa Research Network (CIB-MENA 2014), Abu Dhabi University, UAE, **14-16 December 2014**

Output: Delivery of academic paper: Can all construction projects with a value of less than £1 million be procured using E-Tendering methods? Corbett, P. & Hickman, J.

Professional Project output: With permission of Dr Syed (Conference organizer): Doctorate of professional studies update to the conference delegates.

Eighth International Conference on Construction in the 21st Century (CITC-8)

Output: *Delivery of academic paper:* Are adopting 'modern methods' of construction a suitable and efficient way of delivering client budgets? Corbett, P.

Professional Project output: With permission of Dr Syed (Conference organizer): Doctorate of professional studies update to the conference delegates.

As part of the project dissemination strategy I have agreed to contextualise my research findings and deliver a key-note speech and produce a chapter in a book for the 2017 9th Conference 'Construction in the 21st Century' conference in Abu Dhabi.

4.9.1 Phase 7: International Conference Group Forum – Analysis

This phase of the investigations explored and located a wider and richer understanding of macro-level interpretation of built environment employability skills. Additionally, how a transnational audience (predominately academics) felt a clearer identification of what constituted built environment employability skills and how they enhanced opportunities for built environment university graduates to become more eminently employable.

Focus group: 5-7 *July 5-7 2011, Kuala Lumpur, Malaysia*: This included academics from three continents and in total three professors, five lecturers and four research-active academics. Following a 10 minute presentation, I used the opportunity to secure interpretations associated with what they viewed as the key built environment employability skills and provide evidence of their positive experiences with built environment graduates and, specifically, what set them apart from other graduates.

19-21 December Bangkok, Thailand (CITC-VII): This included contributions from two professors, six lecturers and three research-active graduates. Following presentations of academic papers, I was afforded an opportunity to undertake a group forum discussion to locate further interpretations associated with what they viewed as the key built environment employability skills and provide evidence of their positive experiences with built environment graduates and specifically what set them apart from other graduates. Additionally, I was keen to investigate academic views surrounding if the participants felt built environment graduates working on international projects might need an even more bespoke set of skills?

27-30 May 2015, Thessalonki, Greece: This included contributions from a single professor and 12 international lecturers. Following presentations of construction management academic papers, I was afforded an opportunity to undertake a group forum discussion to locate further interpretations associated with what they viewed as the key built environment employability skills, Additionally, at this Conference I was able to investigate how interpretations and findings collated at previous conferences could be embedded into HE curricula and whether international academics could recite examples of best practices that had been successfully adopted outside of the UK.

4.9.2 Phase 7: International Conference Group Forum Evaluation and conclusion

Most participants were supportive in making contributions to my research and all participants echoed the need for more research to be undertaken in this area. Two academics said they had encountered similar types of studies before, but both felt that the development of the built environment employability skills model was a phenomenal way of translating the findings across a wider set of stakeholders.

All three group fora were undertaken in a safe conference setting and again all participants were given the opportunity to withdraw statements or their contributions at all times. The main judgements made and common expressive themes were shared with the 2013 participants who were present at the 2015 conference and the added value these contributions made to my project research was directly expressed to each individual participant. The importance of contributions from transnational academics provide higher level macro-level understanding of how built environment employability skills are perceived within various countries but also provided reassurances that common themes identified in BIS reviews (2011a, b, 2013, 2015) relating to the power of a well educated STEM sector were confirmed, and "*how a nation's knowledge and education systems specifically relating to STEM enterprise and entrepreneurial ways to future proofing graduate skills is perceived and acknowledged and held in high acclaim by international partners*" (personal interview, Policy maker/ Politician 3, 2014).

4.9.3 Phase 7: International Conference Group Forum Conclusion

Predominately the findings received from participants at the last three international conferences echoed the views of academics at UK professional body conferences, but I was unable to confirm or deny the same contributions from employers, as they were not present at the CITC conferences. Having spoken face to face with conference organisers at the 2015 conference in Greece, I presented a business case and vision to showcase the final outputs of my research and research undertaken by fellow global practitioners to showcase the importance of employability in 2020 and beyond. I am delighted to report that I have secured the (CITC-10) conference, which will be held at the University of Wolverhampton and London in 2017. I will certainly use this opportunity to disseminate my findings to a global audience and I hope the conference will assist University of Wolverhampton colleagues to better appreciate the wider application and importance of employability skills. In the interim I will be looking to produce a full academic paper and journal on the conclusions on my doctoral professional study's findings in 2016/17.

4.9.4 Generalised overview of responses to phase 5 discreet inquiry

Interpretations surrounding the following themes located the following responses:

Theme 1: Key built environment employability skills identified in personal interviews with stakeholders:

> *"baseline technical skills are critical to success, especially in early years, but for long term career success, students must also develop and refine communication skills, teamworking skills, leadership skills, soft skills related to interpersonal skills and also the ability to recognise and work within the restraints of industry and corporate politics" (personal interview, Career Advisor 3, 2015).*

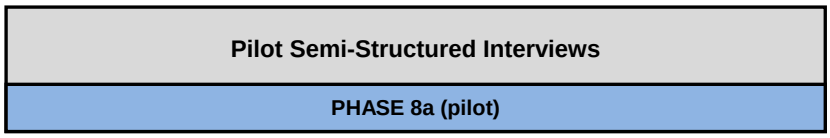
> *"As a quantity surveyor, I think technical skills are important, measurement, procurement, cost planning, health and safety knowledge, but also an increasing awareness of BIM. I agree that soft skills are important and communication skills in a commercial environment are vital" (personal interview, Employer 1, 2015).*

Theme 2: Engagement with successful built environment graduates. Career Advisor 3 suggested

> *"The successful graduates hold a good appreciation of technical skills, and work well in a team environment on team projects, project based learning reflecting "real world problems and coordinating opportunities for interaction with industry through internships, guest speakers from industry". "I guess I can recall three built environment students who fully embraced these opportunities and went on to become successful" (personal interview, Career Advisor 1, 2011).*

Careers Advisor 3 responded by saying:

> *"Yes, I have come into contact with numerous students who went on to secure high profiled positions within national organisations. One of their key skills was confidence, but how you would teach this is difficult, also I forgot negotiation skills they are very important for an Aussie QS but these were key fundamental skills that the students demonstrated in-class and in industry. I know because I recently met up with two of them"* (personal interview, careers advisor 3, 2015).



4.10 Phase 8a: (pilot): Semi-structured Interviews - Context

With the subjective nature of this project, it would have been futile to have not used a qualitative investigation to tease out and locate interpretative recollections of my participants. Having reviewed various modes of investigation, I made the decision to use semi-structured interviews as my qualitative discreet inquiries. This allowed me to interrogate and secure personal in-depth accounts of experiences, gain access to recollections, beliefs and interpretations and would this would provide a perfect interoperability to my phenomenological methodology.

Diary note

Interestingly most literature, reports and research-based investigation into employability skills have all adopted a similar mode of inquiry. Perhaps further reassurance that this was the correct and most appropriate mode of inquiry.

Through the project investigations, I have conducted numerous individual interviews and it would have been remiss not to have used interviews as part of my empirical data collection tools. Whilst I accept I could had used structured, semi-structured and unstructured modes of inquiry, I selected semi-structured interviews as my main qualitative tool I felt this mode was the only way of reaching the deeper richer emotional connectivity with my participants and was a platform for reaching the deeper and richer "*third space*" (Cousin, 2012) of my phenomenological investigation.

As previously mentioned in Chapter 3, other types of interview techniques were considered, but structured interviews used during early reconnaissance felt too restrictive whilst in contrast, unstructured interviews when used during the later stages of my investigation are too open to interpretation. One interview conducted through an unstructured format went on for 90 minutes. This was incomprehensive at its conclusion and I felt this mode of inquiry left the interviewer feeling there is a lack of structure or coherent focus.

The question of power

When undertaking the semi-structured interviews (the heart of my investigation), I was extremely mindful of the matter of power, so ensured that any perceived power imbalance was quickly eliminated which prevented a two way interface from materialising. I was looking to avoid any violation of inner space, but at the same time, I was keen to drill down into a shared positionality and environment where the participant feels appropriately supported to share and exchange dialogue, whilst knowing that trust, integrity and confidentiality would not be breached.

Having exchanged ideas with professors from various universities, it was clear that they adopted various strategies when interviewing participants and all Professors highlighted the fact that even the seasoned professional interviewer will be prone to error. "*The interactive and relational components are explicated here in an effort to*

enable the interviewer to understand an interviewee beyond merely an information-gathering context, in a manner that invites an encounter of the interviewer's feeling, values and concerns" (Chirban, 1996, p.127). Most interviews, I would suggest this was achieved, however, I accept that in some cases the interviewee was not sufficiently comfortable or willing 'to let go' in order to reach a point within the interview where they felt sufficiently at ease. For instance, the ethical dilemma may arise when interviewee and interviewer reach a point in the exchange of dialogue where either or both participants question and look to justify the depth of answer or depth of drilling down within the investigation questioning to locate rich findings.

4.10.1 Phase 8a: (pilot): Semi-structured Interviews - analysis

The aim of this pilot study was to refine lessons learnt from earlier discreet inquiries (phase 1 and 2), where I posed questions and trialled certain questions to see how well participants responded. The study commenced during 2011/12 and was conducted at employer's premises, at the University of Wolverhampton with graduates and at a politician's surgery. Only five participants took part in the pilot and as it latter transpired all five agreed to take part in the final set of interviews. All participants were contacted by personal telephone conversation and all invitations were accepted.

4.10.2 Phase 8a: (pilot): Semi-structured Interviews - evaluation

This investigation was extremely informative and helped me shape the early structure of what would become my final phase semi-structured investigations. It was important that I developed my own interview skills and avoided influencing or directing answers, as a small number of times during the forum pilot I found myself filling in gaps when individuals paused. I e-mailed five employers and five academics following the group forum pilot to make final adjustments to my initial first draft questionnaire.

The employers and academic felt as a first draft "the questions were appropriately probing and provided capacity for the interviewee to express their own comments, views and opinions" (personal interview, Employer 2, 2011). The interviews "*provided a sensible pattern and line of questioning and synergy to the project of what are the relevant and appropriate employability skills for a graduate of the Built Environment*" (personal interview, Career Advisor 2, 2012).

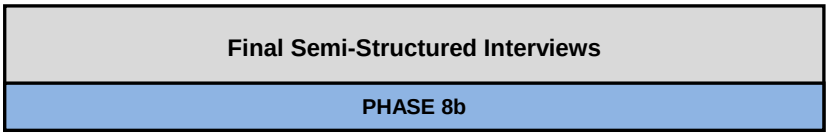
The pilot process was extremely informative. I soon recognised that when delivering questions at interview you hold a very powerful position. Even body language or pausing when you ask a question can have a huge impact and influence on the participant. The pilot scheme was the ideal mechanism for trialling specific question and canvassing specific interpretations. Conclusions and interpretations of the discreet inquiries are located within Chapter 5.

Reflections

"The first two interview questions were not ideal and I was interrupted twice. The participants were nervous about undertaking the process and I have learnt to be humble in this situation and not create a hierarchical structure. The latter interviews were better, but certainly require refinement. I failed to instigate probing questions. Rubin, Rubin (2005) provides excellent examples of a fuller discussion such as "that's very interesting can you tell me more"?

4.10.3 Phase 8a: (pilot): Semi-structured Interviews - conclusion

The pilot studies confirmed that the initial interview questions were appropriately robust and effective as a catalyst to locate rich interpretations. Importantly, they confirmed that the stakeholders were the correct non-probabilistic set of targeted stakeholders who were directly connected to the built environment and built environment employability skills. Additionally, the pilot highlighted barriers and matters relating to ethical issues that could be addressed during the final set of semi-structured interviews and purposefully enhanced my own interview skills that would crystallise how, without the adoption of a phenomenological methodology, I would not have correctly understood, interoperated or located the rich experiences and findings positioned in the interviews.



4.11 Phase 8b: Final Semi-structured interviews - context

The purpose of undertaking a two phase semi-structured interview investigation, was to firstly to use this initial questioning as a test bed as part of what Academic 8, (2014) stated in a personal discussion, "*search, seek and locate mission*" and secondly to locate relevance in the collation of findings. My position as a "*social scientific prospector*" (Gubrium and Holstein, 1997, p. 116) ensured the questions provide a platform for in-depth interrogation and held meaning and structure. "*Meaning is not merely elicited by apt questioning nor simply transported through respondent replies; it is actively and communicatively assembled in the interview encounter*" (Gubrium and Holstein, 1997, p.14). As it transpired, I learnt from the pilot phase of the semi-structured interviews that the methodology I had adopted during my focus groups interventions where I had taken notes and details as conversations was not sufficiently robust to capture their responses.

The decision was made during my final phase of semi-structured interviews, to use a digital recording device and type up verbatim (with the permission of participants) to accurately record participant responses. For 30 interviews this would be extremely time consuming, but as was previously remarked upon it would also provide the heart and richness of my project investigations.

4.11.1 Phase 8b: Final Semi-structured interviews - analysis

The final non-probabilistic sample size of semi-structured interview participants was 30 and interviews were conducted during 2012-15. Fifty percent of participants from each sector were invited to view their transcript to ensure the recordings and transcripts were a correct interpretation of our shared interview and comments outside the interviews were only used with participant's permission.

Six participants were initially approached from each sector, but only five from each set of stakeholders would be invited to take part in the interviews. This would not exclude other candidates that were approached, but I was attempting to reach a

robust cross-section of participants in various hierarchical positions within organisations. For example, the academics I interviewed deliver level 4-7 built environment curricula; some were pure academics without industry experience; some were Professors or from the Office of the Vice-Chancellor from two regional universities.

The excluded candidates were all invited to provide statements and contributions to the set of interviews or take part in a one to one discussion, but they did not participate in the full semi-structured interview process. Throughout the investigations, I have continually made reference to various stakeholders. The rationale for their inclusion within the final set of semi-structured interviews was:

Policy-makers / Politicians: I felt both parties were at the heart of policy change, and very often their rationale for their implementation of change would be based on Reports and literature received from advice groups, academic Reports and steering committees. They are certainly powerful and influential stakeholders and having previously interviewed participants, I suggest they can shape the direction of the employability landscape and agenda. For example, a change in policy to remove HEFCE funding for Universities within England has been one of the most influential and discussed topics across the sector and a powerful influence on UK University strategies surrounding employability.

The inclusion of regional and national politicians' was pivotal, as again they are an influential force in directing funding and implementing policies. Most are in touch with their community through surgeries. For the purposes of my investigation, I have also been fortunate that I have been able to include participants from the House of Lords.

Originally I had divided policy-makers and politicians into two groups. During this second phase of my investigations (post-pilot), I made the assumption that politicians should remain independent; however, as I moved through my investigative journey, I changed my thinking to include policy-makers and politicians as one selected group of stakeholders.

Employers: The inclusion of employers within the built environment was central to my investigation. At first I approached both regional and national companies.

However after early scoping, I felt it would be more appropriate to have a 75 -25% spilt in favour of local employers within West Midlands. Over 90 employers contributed to the research either through comment, statements or through industrial panels; but only five were invited to take part in my final semi-structured interviews. This number could have been higher, but it would have been too biased towards one stakeholder group. What surprised me was the disappointment that some expressed in not being invited to take part in the final interviews.

Professional bodies: The rationale behind the use of professional bodies in the study was based on their insistence to use evidence of professional competence as part of a pathway to chartered membership. Competencies are a very good measure of employability skills and most institutes /institutions include professional judgement as one of their key competency skills. 7 global bodies were approached to take part and four professional bodies RICS, QSi, RAEng and CIOB agreed to take part in my project. Some 75% of respondents was from national boards or regional groups.

Students/Graduates: The participants were taken from graduates located in 3 regional universities and/or students who have completed my construction management and work-based learning module. I was careful not to select students who were still studying my modules as I felt they may have felt pressured to give answers. Graduate contributions are again from regional and national universities.

Career Advisors: Career advisors have made valuable contributions to my work, but most preferred to contribute through comment and discussion, as opposed to formal interviews. However, as my investigations progressed, I was able to secure interviews with both internal and external participants.

Academics: As an insider-lecturer and within to my project research, I was able to access over 45 academics within the built environment sector. To provide a wider perspective, lecturers from various national universities participated. I selected participants at different levels of their careers, especially those who had access to employers and placement graduates, as I felt they were already connected to external stakeholders and this would give a richer collation of their understanding and findings.

4.11.2 Phase 8b: Sensitivity

From an internal stakeholders perspective I was aware of the need to be ultra-sensitive when interviewing colleagues and fellow academics. This included verbal confirmation associated to a guarantee of anonymity and an assurance that I would share the contents of my findings. As I moved into 2012, individuals were extremely nervous of sharing particular views, or passing comment on anything that might influence their position during the pending staff interviews. Fortunately, I was able to reassure participants that there were no hidden agendas behind my work and I was able to cement a shared trust.

4.11.3 Phase 8b: Final Semi-structured interviews – conclusion

In a search for thematic data, I originally selected qualitative evaluation software Atlas Ti. This would assist in identifying, analysing and reporting patterns (themes) within data, as this provided a catalyst for transferral of data into future HE Built Environment curricula. Rubin and Rubin (2005, p. 226) claimed "*analysis is exciting because you discover themes and concepts embedded throughout your interviews*". However when I approached the final write up and analysis I felt the interaction with the software was not expansive in context of presenting final interpretations and findings. I have, therefore, adopted NVivo (version 9) software and used the qualitative coding style interpretative mechanism for collating and interpreting my findings. This was a more time consuming process, as I held no prior knowledge of NVivo coding but ultimately presents the findings in a format that aligns with the genre of early summative findings and provided a consistency to my project submission.

This afforded the opportunity to:

- Notice concepts.
- Collect examples of those concepts.

- Analysing these concepts in order to find the commonalities or themes.

This approach also provided a platform for discovery of common perceptions, interpretations and relationships associated with interpretations and generate patterns surrounding terminology surrounding my investigation of what constitutes built environment employability skills and provided a more manageable tabulated format for presenting my results.

Braun and Clarke (2006) reported that thematic analysis offers an accessible and theoretically flexible approach to analysing qualitative data. However, researchers should always be mindful of what may be recognised as emerging themes that can be misinterpreted to mean that themes could potentially reside in the data or alternatively collated from our own thought. Therefore, thematic analysis requires skills of personal reflection from the researcher to ensure their personal judgement is not influential or distorted by a personal interpretation of the findings. The final version interview framework consisted of 10 specific questions and according to various stakeholders "*encouraged in-depth probing to tease out rich responses*" (personal interview, academic 10, 2013).

The interviews were conducted in a fully inclusive manner and the format was sufficiently subjective and flexible to allow changes, pauses, and moments of longer reflection, while participants considered their answers. For example, questions 5-8 were occasionally expanded upon to ensure that I had correctly identified any differentials and located precise answers, rich exchanges, stories, interpretations and phenomenological genre experiences. If I conducted the interviews again I would consider making further refinements to my questions to be more precise, as at times some participants moved away from the actual theme of the questioning but having spoken to other researchers this reflection is common.

As I progressed through the final selection of interviews I began to identify and recognise what Cousin (2009, p. 83) had identified as the '*third space'* and at times the interview became extremely deep and emotional. Undoubtedly, the more interviews I undertook, the stronger my interviewing skills became. That is not undermining the creditability of early interviews or suggesting they were less important, but the richness of dialogue became less onerous and stakeholders

interviewed post the recession appeared more responsive, relaxed, proactive and encouraged about the future position for graduates.

Recognising that time, policy, political, economic and sector changes can strongly impact on the impact of a sector, it was therefore extremely incumbent that I continued to collate data and continue with interviews all the way through to the summer before the date of this project submission. I accept this held elements of risk, but I was proven correct as in spring 2015 circumstances have changed again and employers are responding and reacting differently to the recently identified skills gap. As with other discreet investigations, a full evaluation, conclusions and interpretations of the interviews are located within Chapter 5.

4.12 Chapter conclusion

At the commencement of this project stage of research investigation, I was searching to locate fresh understanding and locate themes, or indeed making sense of what was happening. Acknowledging this section of my research formed the heart of my doctorate project, it was crucial that I followed a well thought out; professional and credible structure and my recordings would be robust, credible and held up to scrutiny by peers and fellow academics. However, by using tried and tested NVivo software to interpret the located findings and adopting a structured 'project management style' formula to undertake my series of phase investigations, I believe the mechanisms adopted are appropriately robust.

Reflection note

As with any project plan I had built in tolerances and apart from the occasion critical incident in accessing two particular participants, all ran extremely smoothly.

These series of investigations provided a catalyst and appropriate mechanism for peeling away the layers of my inquiries and investigations in an attempt to piece together the rich threads of understanding and responses that credibly informed my project.

Undertaking the role of '*actor-director'* to make sense of what Coghlan and Brannick (2014) described as;

> *"The critical process with respect to articulating your sense-making is making your tacit knowledge explicit. This involves not only providing an analysis of what you think is going on in the story, but also of how you are making sense of it as the story unfolds. In other words, sense-making is not only a retrospective process, but is a collaborative process that is concurrent with the story, and in terms of the action research cycle, actually shapes the story" (Coghlan and Brannick, 2014, p.17).*

This '*actor-director'* role was uttermost in my mind when I made the tough decision to write up nine phases of my investigations, whilst accepting that I needed to exclude some elements of *('scenes, out takes or cast members'*) to ensure the final write up was appropriately a fair representation and balanced in its perception of findings.

At the conclusion of my research discreet inquiries, I found the diary notes invaluable and felt this was within itself rich interpretation. This research would or could not ever, translate into a panacea surrounding employability skills, as the subject is too fluid and open to interpretation. What I believe is captured is a currency of interpretations (2012-15) and timely views, opinions, and grounded experiences through interaction with selected stakeholders.

The process of discreet inquiries and investigations located an intrinsically rich set of findings and interpretations that provide a 'snap-shot' of the current beliefs 2011-2015 as viewed by 30 stakeholders who are associated with employability and/or BE employability skills. The reassurances are the truths I have gathered and the passion and emotional connectivity that stakeholders have re-encountered during these inquiries. Collectively the activities and discreet inquiries provide a richer picture associated with BE employability skills and collectively they have created a tapestry of knowledge and understanding that has enriched my project research.

CHAPTER 5 - DISCUSSION OF FINDINGS

5.1 Introduction

The purpose of Chapter 5 is to undertake a richer in-depth evaluation and translation of the interpretations and findings located within the 9 phases of discreet inquiry investigations whilst providing a platform to contextualise thematic interpretations surrounding a body of research undertaken 2011-2015. Including how these inquiries were underpinned and encapsulated by rich emotional connectivity between stakeholders within their interpretation and interrogation of phenomenological experiences recorded by participants. The aim was to identify shared thematic interpretations, any consensus of opinions and to locate robust fresh knowledge, understanding and 'truths', as well as identifying where aims and objectives have shaped and influenced proceeding questioning and where the stakeholder's interpretations provided synergies or disparity with the reports, reviews, and early published literature identified in Chapter 2.

By its nature, the interpretive findings I have gathered are subjective but have identified current perceptions, experiences and recollections provided by 250 participants during 2012-2015.

> *"Qualitative data are characterised by its subjectivity, richness, and comprehensive text-based information. Analysing qualitative data is often a muddled, vague and time-consuming process. Qualitative data analysis is the pursuing of the relationship between categories and themes of data seeking to increase the understanding of the phenomenon"* (Al Yahmadi and Al Abri, 2013, p.1)

5.1.1 NVivo software

Having piloted less robust methods of listing and tabulating findings and having dismissed Atlas TI software as a less robust qualitative IT system and on a comparitative analysis of approach 1 and 2 it was found that Nvivo provided more powerful qualitative descriptions of interview responses. I selected an alternative mode of recording discreet inquiries and selected Nvivo (version 9) qualitative software. This provided a robust and secure method for contextualising the expansive set of data located within my research and provided direct correlation of

triangulated thematic sources. Although as a standalone software analysis tool, it still required further expansion of discussions to locate where the rich emotional language was contained within participants verbal responses.

Using NVivo coding software to contextualise and correlate the interpretations of the findings that identified the relationships between the participants who contributed to this project. This included a targeted set of six stakeholder group (30 participants) located within the semi-structured interviews. This methodology is supported by what Bazeley, (2007, pp.6-15) identified as “the five important tasks in which NVivo eases the analysis process surrounding analysis of qualitative data”. This includes:

- Managing data: by organising assorted data documents. That includes interview transcripts, surveys, notes and published documents.
- Managing ideas: in order to understand the conceptual and theoretical issues generated in the course of the study;
- Query data: by posing several questions of the data and utilising the software in answering these queries. “Results of queries are saved to allow further interrogation and so querying or searching becomes part of an ongoing enquiry process” (Bazeley, 2007, p.8);
- Modelling visually: by creating graphs to demonstrate the relationships between the conceptual and theoretical data.
- Reporting: by utilising the data collected and the result found to formulate transcript Reports about the study conducted.

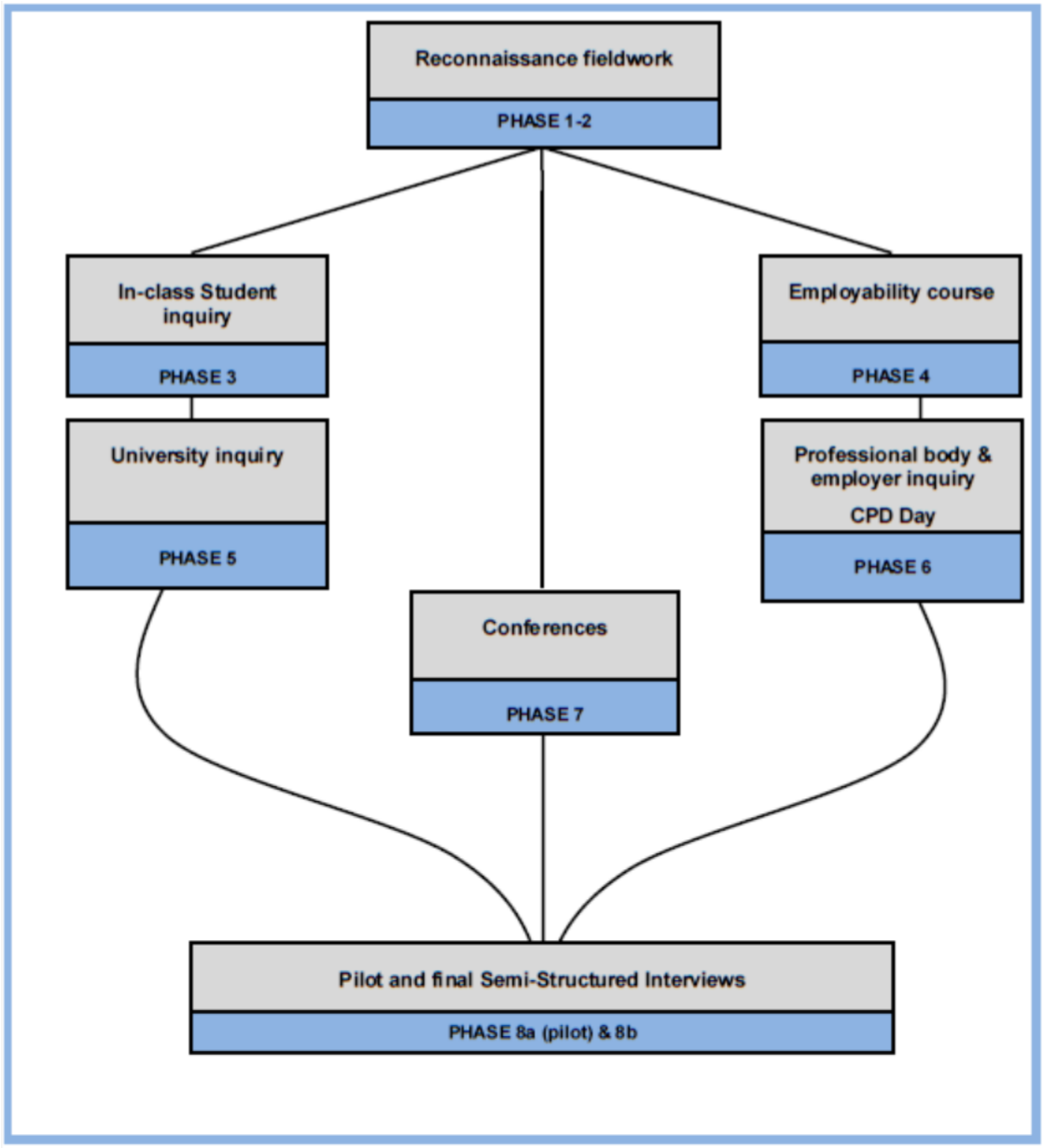
The discussions within all nine phases of discreet inquiries were therefore shaped by four constructs that provide interpretation and inferences:

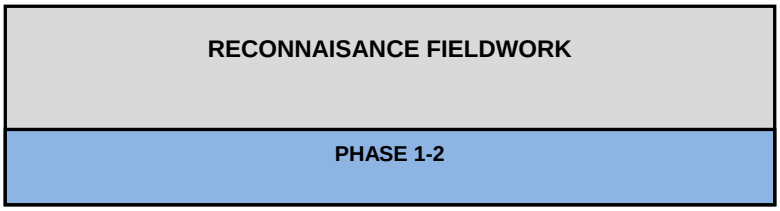
1. Inference and deductions from stakeholders’ responses.
2. Correlation of findings with the project aims and objectives,
3. Alignment of the findings to earlier phases of inquiries and the literature reviewed within this project.
4. Summary, conclusions and reflections on the inquiry findings.

For clarity and consistency, I have included illustrative tables for the first seven interventions. This assisted with contextualising the findings of the investigations and included the research investigation framework that was developed and discussed in Chapter 4. Specifically as it provided various phases of discreet inquiries that whilst complex and robust in size and content, ensured that my selected non-problematic targeted inquiries, participants and stakeholders were a meaningful representative

sample of inquiries and responses.

Figure 9 - Research investigation framework model





5.2 Phase 1-2: Inference and deductions from stakeholders responses

Question 1 - What do you understand about the term employability skills?
Question 2 - Do you feel universities are sufficiently engaged with employers?
Question 3 – Should employers assist and contribute to the design of curricula?
Question 4 – What five key employability skills do you think a graduate of the built environment should hold?

The interaction and interpretations located within these phase 1-2 interventions were extremely productive, responsive and interpretative as an investigative process, but also raised areas of ethical considerations I had not previously anticipated. These issues relating to ethical concerns were quickly addressed and resolved and all future phases of discreet inquiries were recorded on an audio tape-recorder. In particular through the later adoption of NVivo coding I specifically use the framework and illustration to show participants where they had commented and the correlation with other participants. Phase 1 and 2 recordings therefore identified the following interpretations:

> "I have never been asked questions surrounding built environment employability skills before, I guess we take this for granted or just believe all subject skills are generic. It is only when you were asking more probing questions that I realised that we do indeed require specific skills. For example technical skills, negotiation skills, drawing and taking off skills and the ability to work with my staff to prepare bills of quantities within a specified deadline. Really made me think should I have thought about this before?"(Personal interview, Employer 1, 2011).

Most stakeholders had not made a distinguishing difference between built environment employability skills and generic employability skills. Most recognised the specific characteristics of the sector and most were fully appreciative of the specialist nature of specific disciplines such as a building surveyor, quantity surveyor, civil engineer and construction management. When challenged further most stakeholders said they believed core skills such as communication skills and problem solving were essential key skills for all graduates, but only career advisors and regional SME's felt these skills were unique and learnt whilst working in the workplace. However SME's also felt that these skills could be gained within a university experience. Interestingly most stakeholders felt technical skills were important and all stakeholders recognised the value of holding strong associated networking skills.

> *"We find it difficult to recruit new employees with the skills, qualifications and knowledge required to act as fee-earners immediately upon starting. However, we are prepared to invest in new starters without the experience and knowledge but with relevant raw aptitude and enthusiasm. In our experience, we tend to retain such individuals for longer due to the degree of loyalty created during the training and development process". (personal personal interview,* Employer 6, 2012).

Except for career advisors, everyone felt that attitude to work was important and a positive personal attitude during the interview was imperative in forming a strong first impression. Most stakeholders touched on the matter of functionality and when pressed to further articulate meaning, it was suggested by most of participants that this related to the ability to be flexible:

> *"We are willing to accept that students will not know everything about their specific subject and discipline, but their university experience should have taught them the ability to recognise that employers will want them to take on specific tasks, understand deadlines and be able to work with fellow team members in a proactive manner" (personal interview, Employer 2,* 2012).

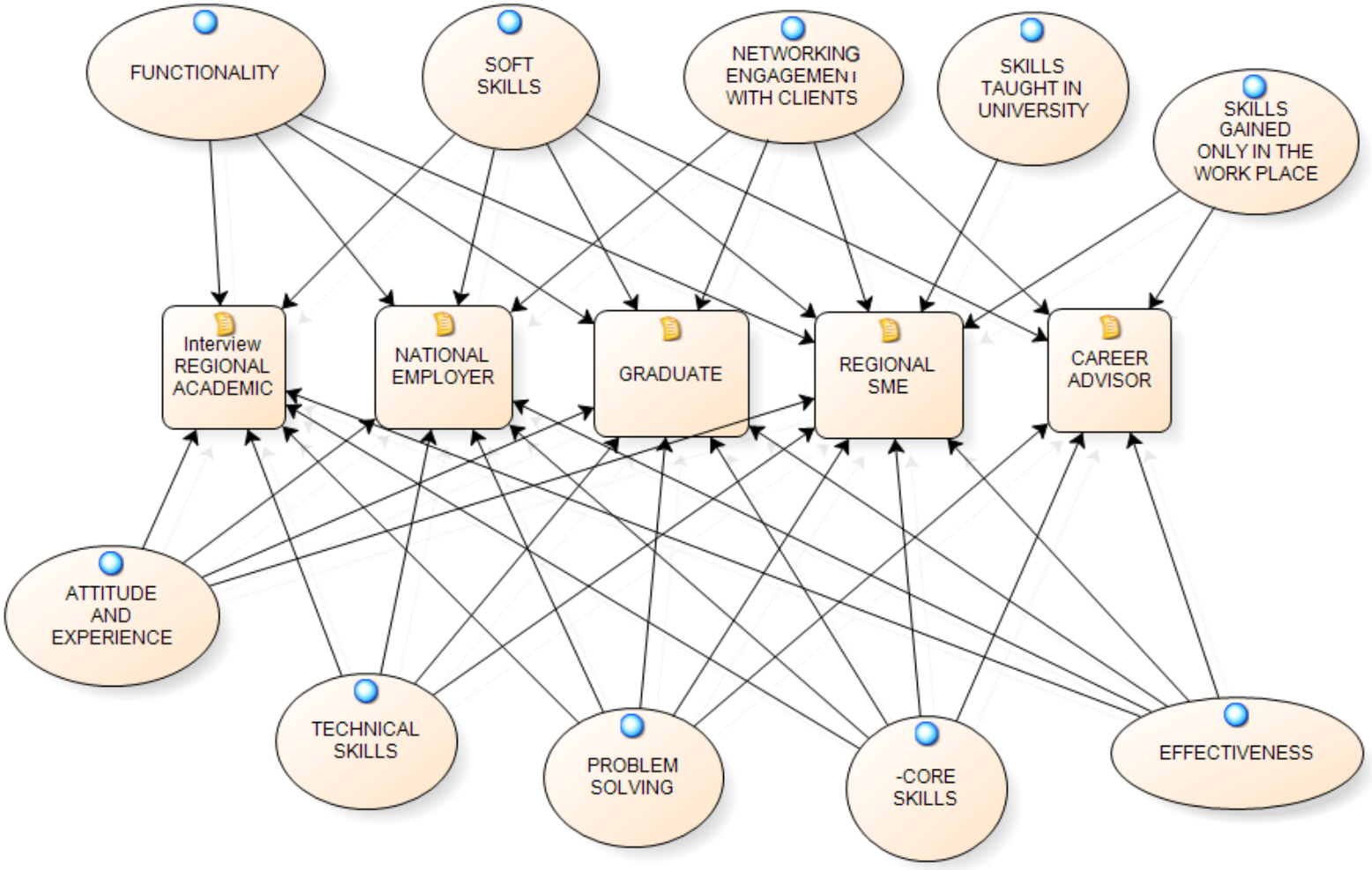
This was further endorsed by other employers and other stakeholders who highlighted the importance of softer employability skills:

> *"In my opinion it is every graduate's responsibility to recognise the expectations of the workplace and help their colleagues by using their abilities to meet targets and help build a reputation. It's important they quickly become an assets in the workplace and if they to be accepted as a workplace colleague and for quantity surveyors I think that is really important; so what I guess I am saying is that their attitude is just as important as knowing the job" (personal interview, Employer 7, 2012)*

Table 1: Phase 1-2: Reconnaissance fieldwork inquiry analysis

Phase 1-2 Intervention NVivo model Figure 9	Broad Themes Associated With (project aims & objectives)	Sub-theme (NVivo coded categorised responses)
Association with Research Aims	- To uncover new insights and understanding of Higher Education (HE) employability skills for a built environment undergraduate.	- Functionality - soft skills - networking - engagement with clients - skills taught in university - attitude and experience - skills gained in the workplace
Association with Research Objectives	- To investigate current understanding of employability skills across the BE sector	- innovative-young enthusiastic - technical skills - problem solving - core skills - effectiveness

Figure 10 - Phase 1-2: Reconnaissance inquiry associated responses



5.2.1 Phase 1-2: Analysis of findings relating to project aims and objectives

The aims of this inquiry related to how this inquiry might generate insights and fresh understanding concerning what constitutes relevant employability skills for an HE built environment graduate. The investigations raised the issue of first principal languages and the skills that a targeted range of stakeholders felt were important. Softer skills were more prominently mentioned than harder technical skills. Unfortunately as these were early phases of the project research it was difficult to substantiate the value behind these responses but at least it generated findings related to the objective of locating a more defined understanding across the built environment surrounding HE built environment employability skills.

5.2.2 Phase 1-2: Analysis of findings relating to literature or discreet inquiries

Interpretations of findings located within this early reconnaissance fieldwork investigations suggest that regional SME's who took part in this inquiry were more focused on outputs from graduates and *"deliverable output than training the next generation of graduates"* (personal interview, Employer 6 2012). This aligns with comments by various organisations that represent employers within the built environment sector such as CITB (2014), ACAS (2012) and CBI (2007 and the 'invest in employability' 2009) Report. However the other employers were a little more supportive and aware of the suggested need for a collaborative contribution from employers highlighted by BIS 'students at the heart of the system Report' (2012) and Wilson 'review of University-Business Collaboration Report (2011). This suggested that employers could and should be more accountable in making a contribution in assisting universities and HE providers to educate graduates by providing mentoring support.

5.2.3 Phase 1-2: Summary and reflections

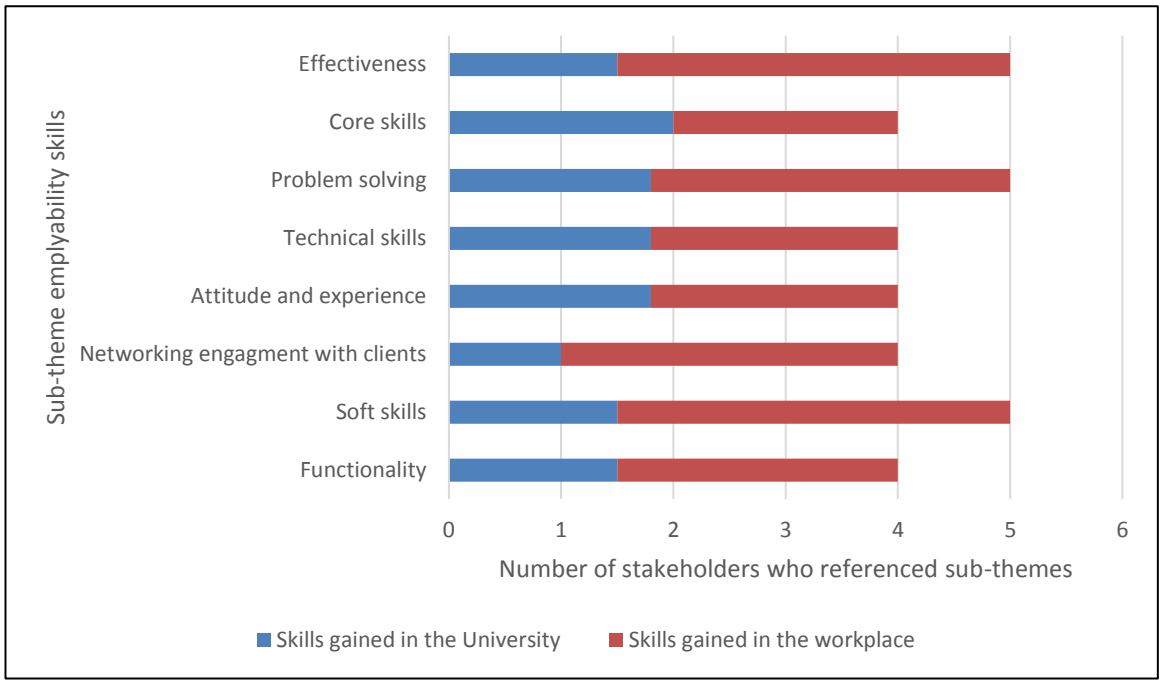
This primary aim of phase 1 and 2 fieldwork inquiries was to locate early understanding and stakeholders interpretations searching to contextualise and locate any thematic relationships across these early phases of the investigation. The inquiries and fieldwork interactions were productive activities and highlighted

matters raised by Cousin,(2007,pp.55-56) surrounding the need for a coherent understanding relating to interpersonal, intrapersonal and environmental matters and as witnessed in pre-doctorate investigations a section of participants were more vocal and willing to speak with more authority than other group forum members.

In particular, returning from these discussions with professional bodies, the Royal Institution of Chartered Surveyors (RICS) the Chartered Institute of Building (CIOB) and the Royal Academy of Engineering (RAEng) at their London offices, I was enlightened that this mode of inquiry resonated across all macro-meso-micro levels of stakeholders and this phase 1-2 fieldwork was seen as valid by these world renowned professional bodies. In a personal interview it was commented on that my research *"Was long overdue and will help clarify the important skill sets that employers are requesting and demanding". (personal nterview, Professional body/ Policy maker 1, 2011)*

Senior level policy-makers also articulated the need for further enlightenment in regards to what employers, government officials and members of the House of commons believe are the relevant skills for economic recovery in the UK.

Figure 11 - Phase 1-2: Sub-themes of employability skills



This early investigative process also highlighted how stakeholders believe that the majority of skills are not learnt by a graduate until they become actively employed in the workplace.

> "I think we would collectively say that most of the skills we have discussed this morning are important skills, but skills that I feel can only be developed in the workplace. I think its important for universities to teach a cross-section of subject material and its important you teach them key technical knowledge, but really it's not until they experience the tussle and bustle of a real workplace do they develop key workplace employability skills". (Personal interview, Employer 4, 2012).

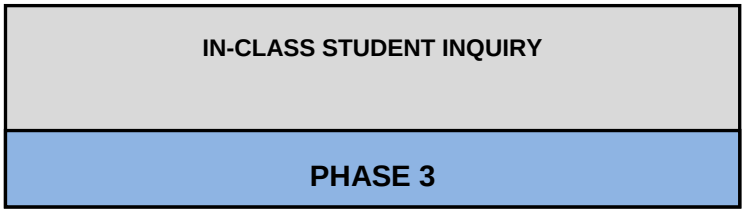
These appeared to resonate with most employers, but some felt that "Employer 4 had done the university a disservice". (Personal interview, Employer 2, 2012). These disagreements in responses was where I developed the 'spirit of action' based methodology as this provided the opportunity to test these early stakeholder interpretations of gaps in university teaching without completing the traditional action research methodology of plan-do-reflect- act which would have delayed the validation of specific views against other stakeholders. Phase 1-2 inquiries also provided the catalyst of themes and employability skills language that would later manifest itself into the Built environment employability skills compass. These early phase inquiries and responses also identified:

- Where to go next within my investigation?

- Identified the importance and need to include various modes of investigation to help locate a richer set of interpretations.
- Assisted in clarification surrounding my target audience.

- Provided early indications behind whether my research was valid, timely and held currency.

- Where impact and value may be located and for whom and whether my own professional practises will be enhanced by this research.



5.3 Phase 3: Inference and deductions from stakeholders responses

Question 1 – How would you describe the meaning of the term employability skills?

Question 2 – Would you say you have been encouraged to develop your employability skills in any of your lectures since you began your university studies?

Question 3 – If you answered yes to question 2, what skills have you developed? What lecture/s have you encountered them? And can you give an example?

Question 4 – Do you feel employability skills are important to a built environment student? What are the key skills that are extremely important for a career within the built environment?

The interaction and interpretations located within this phase 3 inquiry developed fresh understanding surrounding current University of Wolverhampton final year built environment students and provided their interpretations of what was understood by students surrounding they may view as relevant built environment employability skills. With the presence of a regional employer, this also provided me the opportunity to observe how students would react against questioning from an external employer.

Nearly all students recognised that employability skills were relevant to their success, but at times struggled to articulate further than reciting presentation skills and why they felt they were important:

> *"We know employability skills are important and I think they helped me get my first job. I used the careers fair to change my CV and Paul is always teaching us the importance of presentation skills and attitude. I know as a building surveyor I have lots to learn but that's what I do at work. I cannot*

think of other employability skills but I know I work well in a team so I guess that might be classed as a skill?" (personal interview, graduate 1, 2012).

In particular most felt that using these skills only applied when they were seeking a job or interview. There were divided opinions behind whether employability skills were visible in their modules and all students felt the visibility and discussion surrounding employability skills was dependent on the lecturer. In respect of specific skills, there was an acceptance that exposure to workplace or placement experiences was crucial to capture the wider breadth and depth of employability skills, but a small number of students felt that these skills could be captured in lecturers. *"It would be better if more assignments were related to real life projects so that we can better appreciate the challenges we would need to consider."* (personal interview, Graduate 4, 2012).

Students also highlighted the issue of issue of visibility of employability skills. When it came to the employer speaking and sharing what he felt was his interpretation of what employers might view as crucial employability skills, students became quiet. They had failed to make the connection that as a practitioner in the built environment may be required to develop one's own unique set of employability skills.

When questioned to articulate what these unique built environment skills might be, students suggested communication skills, presentation skills, life skills and the majority thought that most built environment employability skills relating to problem solving and negotiation skills can only be gained when graduates are in the world of work.

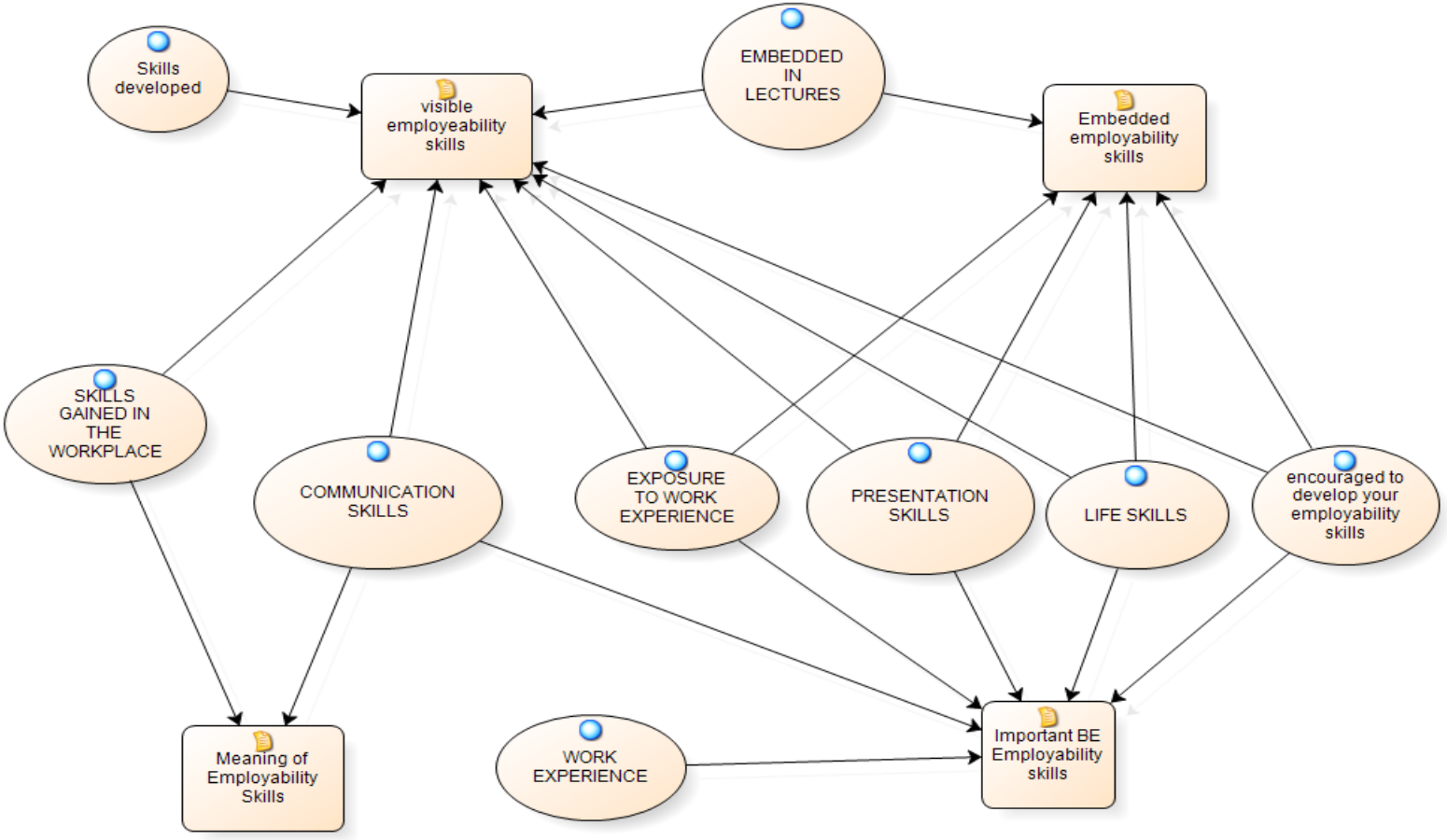
> "For me, it's when you engage with other contractors that you need to use these skills to negotiate prices". I did not realise this until I went on placement, but a lot of the skills I had learnt at Wolverhampton were used in the workplace. I remember sharing these comments back to my class mates and they all felt that we should try and use real life projects set by the employer so that we all get this experience. What Paul said last week lecturers should look to enrich our curricula by using a broader use of real life projects". (personal interview, Graduate 3, 2012).

Table 2: Phase 3 - In-class student intervention

Phase 3 Intervention NVivo model Figure 10	Broad Themes Associated with (project aims & objectives)	Sub-theme NVivo coded categorised responses
Association with Research Aims Association with Research Objectives	- To uncover new insights and understanding of Higher Education (HE) employability skills for a BE undergraduate. - Investigate how to better develop, inform and embed employability skills pedagogy into BE curricula at the UoW - To investigate current understanding of employability skills across the BE sector - To investigate all layers of UoW pedagogy to investigate how this might b translated into enriched BE curricula	- Skills developed - Visibility of skills - Communication skills - Embedded in lectures - Embedded elsewhere - Exposure to work experience - skills gained in the workplace - presentation skills - life skills - work experience - encouragement

These were the sub-theme responses received by students and the employer in this phase 3 inquiry that were used to inform the NVivo model.

Figure 12 – Phase 3: In-class intervention with built environment students



5.3.1 Phase 3: Analysis of findings relating to project aims and objectives

In searching for insights and fresh understanding behind what students recognised as relevant built environment employability skills I was vindicated in using current students as a sounding board for interpretations. On certain occasions I felt rewarded and othertimes disappointed by their responses. It was not until the employer expanded the discussion with students and better articulated what employability skills an employer might seek from a graduate that the majority of students expanded upon how we had covered various skills in-class. Recognising and accepting that technical, communication skills, presentation skills, problem solving and projects that required bespoke contributions and team working skills were indeed taught at Level 4-5 and 6. This provided further confirmation that indeed visibility and articulation of skills located in current teaching was a key issue that required addressing.

5.3.2 Phase 3: Analysis of findings relating to literature or discreet inquiries

HEA, (2011, p.8) in their 'Employability in Higher Education: What It Is - What Is Not' Report suggested that employability is probabilistic and *"there is no certainty that a procession of a range of desirable characteristics will convert employability into employment: there are too many extraneous socio-economic variables for that".* (e.g. national, regional and/or local economic health and the demand/supply ratio for the characteristics in question).

This issue was certainly raised in early phase 1-2 interventions as the sector was still recovering from the recession. However, what students' responses also raised further discord and conflicting views located in the Dearing Report (1997) where, in referencing key employability skills, he pointed to communication skills, numeracy and IT skills and the ability to learn. What the Report fails to articulate how this *"self-enhancing ability"* (HEA, 2011, p.11) may be emphasised to students so they recognise the importance of capturing a wider skills set behind hard and soft skills and to become more self-directed in their learning. This is also raised in the BIS 'Students at the Heart of the System' (2011) Report that suggest students will need

continuous support to become encouraged to learn. Whereas the later UKES (2014) and University Alliance (2015) 'Mind the Gap' Report suggested that students are beginning to recognise their part in the employability skills challenge and are becoming more commercially aware of the need to secure employability skills that *"will contribute to aligning graduate skills and expectations with the needs of employers"* (HM Treasury 2015) Report 'Fixing the foundations'. Perhaps part of the challenge for academics is to ensure these messages are understood by most students not the selective few.

5.3.3 Phase 3: Summary and reflections

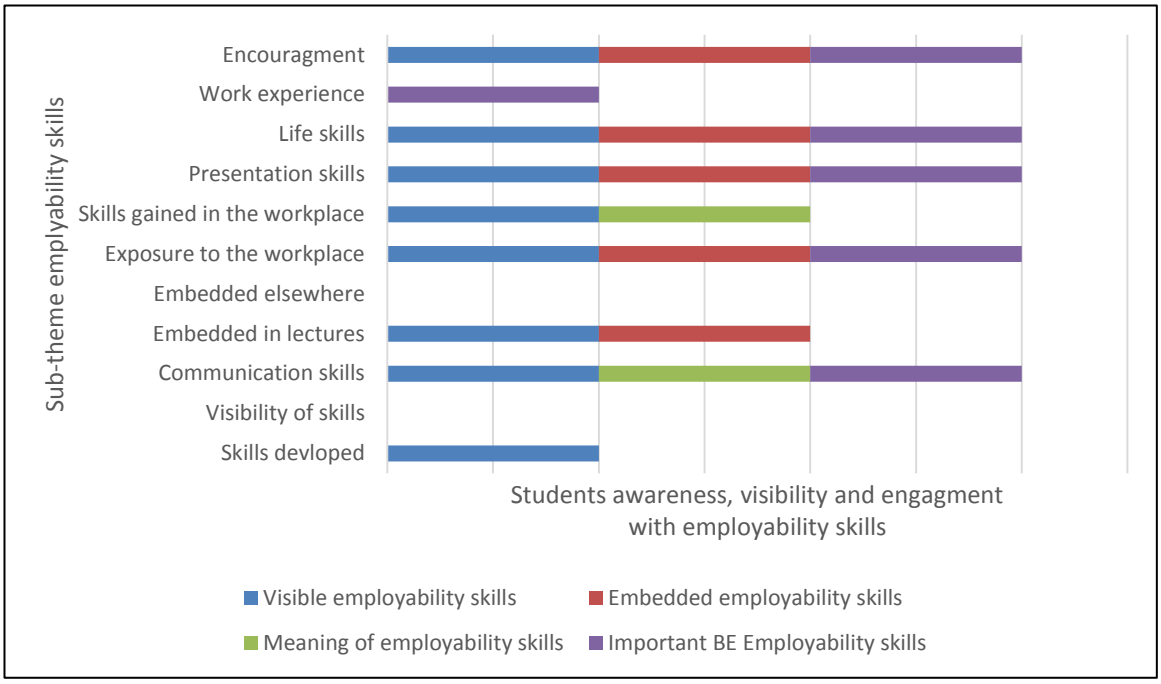
Whilst I was personally enlightened by the apathy and levels of 'student presage' (Biggs, 1996) shown by some students, at least a large proportion engaged with the activity. It was also a useful exercise for the employer to witness that not all students are engaged in-class. It also reiterated what some employers had recorded in earlier investigations (i.e. that attitude was a key driver they considered when interviewing graduates. Importantly, I had identified and recognised the importance of embedding a range of employability skills into curricula and how, without clearly directed, articulation and visibility of employability skills, intended learning outcomes might be lost by the students. Students felt and recorded that in the early part of the intervention the presence of the employer was daunting, but when he moved discussions forward this relaxed the students and more meaningful interpretations of their views were identified.

Diary note *Interestingly, the students who were most engaged were the students offered a placement position and/or work experience. SA agreed that their interpersonal skills were a key driver behind his decision to offer them a place.*

I was pleased that most students participated in the activity and I was delighted to hear responses to Question 2 demonstrating that I was breaking through barriers in respect of students recognising the importance of employability skills. In particular hearing how students had made the connection to presentation and communication skills as important employability skills. However some students still believe

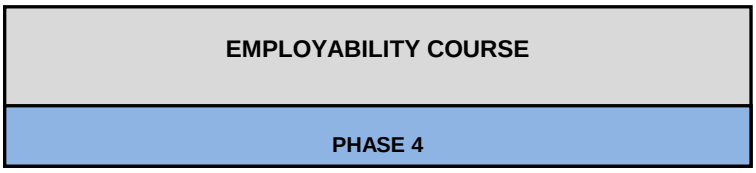
employability skills are “used solely to secure their first job” (personal personal interview, Employer 4, 2012).

Figure 13 - Phase 3: Results of in-class student inquiry



The table contained within figure 13 demonstrates the interpretation of mixed messages understood and received from students and their interpretation of where employability skills were learnt, located in their teaching or in the workplace. This demonstrated student’s clear recognition of their understanding and importance to of employability skills to them as an individual, but also how University of Wolverhampton lecturing staff have more to do to increase visibility of where these skills are located in learning outcomes and taught in-class. Importantly from my own perspective I had witnessed a richer articulation of the topic surrounding built environment employability skills.

Interestingly, following on from this intervention my students appeared more attentive in class and because the employer had helped facilitate the activity they seemed more interested in receiving his feedback. For my full-time students they felt lecturers should organise similar events, whereas the part-time students felt it may not benefit them as they already held positions in industry. I will certainly use feedback from students to better understand how I can improve my curricula to make built environment employability skills more visible to students and share these interpretations with fellow academics.



5.4 Phase 4: Inference and deductions from stakeholders responses

Question 1 - What do you feel are the key built employability skills for a built environment graduate?

Question 2 – What do you feel are the barriers that prevented you securing employment?

Question 3 – What key employability skills are you hoping to gain during this course?

The interaction and interpretations located within the phase 4 inquiries centred on interaction with graduates who had recently departed the University of Wolverhampton in May 2013 and were still in search of employment, commencing enterprise activities or relocating into additional HE studies.

As the architect who proposed the course, I had approached university career advisors, placement team members and a regional employer to be part of the delivery team and through sensitive discussion and negotiation with my own past students, I was keen to locate where any possible deficits, challenges or barriers might exist. Specifically, having given students time to reflect on possible ways academics, students themselves, employers or systems might have improved their chance to become more eminently employable.

Whilst I have used NVivo coding to record some of the graduates' responses I have also located additional tabulated interpretations in the Appendix. This encounter was an ethical issue and an extremely delicate sensitivity matter as some students did not wish their responses to be located in the main text of the project.

The key issue at the start of the student focus group intervention related to confidence. All students recited the words embarrassment and nervousness as two barriers that had hindered their progression from education into employment and

they only attended the course through third party encouragement. Whilst most recalled time keeping of key importance, only three out of the 10 participants arrived on time and most found it easier to work in teams. All graduates recognised soft communication skills as important but felt that as they had failed to undertake a placement year and that this was a major concern when it came to interview.

A few graduates discussed the importance of professionalism but few could articulate what this meant or how it might assist them in securing employment opportunities and when questioned about what literature or research they had personally undertaken into employability skills, not one graduate had read an employability skills book or reviewed a paper, journal or reviewed a Report associated with improving their employability skills.

The issue of self confidence, perceptions and interpersonal skills (also known as 'affective skills'), was raised throughout the entire course. It was clear that this was a factor surrounding matters relating to employability, but student recollections related to how they were happy in class to stand back and let other students respond to questions or take the lead during team working tasks.

> *"I believe the importance of confidence and enthusiasm is key. Anyone can have enthusiasm but it's being able to convert and translate that into a confident presentation of your ability. For example when I attended a recent interview I was keen to demonstrate I was capable of making the step up to a national contractor and that I held the appropriate skills. Whilst I was very nervous before going in to the interview I found that by undertaking personal research and being confident in the interview I felt more confident and was able to relax and showcase my skills. (Personal interview, graduate 3*, 2013)

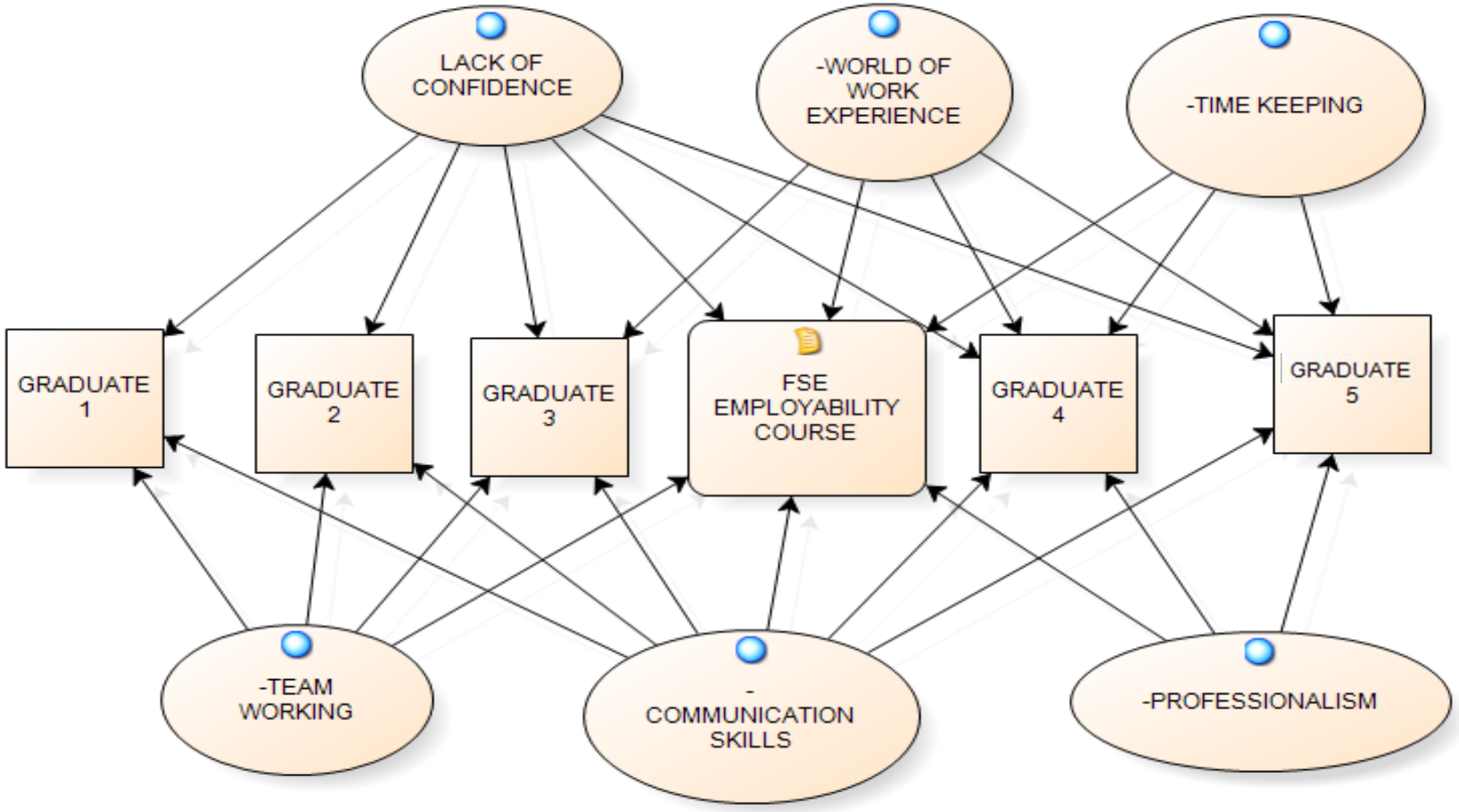
Other phrases and language used by graduates included 'fearful', 'fear of the unknown', 'extreme lack of confidence in their own ability', 'ashamed' and one graduate recalled the "embarrassment of thinking that their university studies were a waste of time and thought they would never find a job" (personal interview, Graduate 4, 2013). These phrases were not individual sound-bites but a general repeated lack of confidence in their own abilities. As it later transpired I was delighted that most graduates on the course eventually secured employment or

started their own business. I would like to believe that this course made a small contribution to their success.

Table 3: Phase 4 - FSE Graduate employability course

Phase 4 Intervention NVivo model Figure 11	Broad Themes Associated with (project aims & objectives)	Sub-theme NVivo coded categorised responses
Association with Research Aims Association with Research Objectives	- Generate new insights and understanding of Higher Education (HE) employability skills for a built environment undergraduate. - Investigate how to better develop, inform and embed employability skills pedagogy into BE curricula at UoW. - To investigate current understanding of employability skills across the BE sector - Investigate all layers of University of Wolverhampton pedagogy to enhance learning and teaching	- Lack of confidence - soft skills - time keeping - professionalism - skills taught in university - attitude and experience - skills gained in the workplace - team working - enthusiastic

Figure 14 - Phase 4: FSE Graduate Employability Course



5.4.1 Phase 4: Analysis of findings related to project aims and objectives

In the search for fresh understanding and generate better understanding surrounding how to increase the relevance and quantity of built environment employability skills that are embedded in HE curricula, the issue of confidence and traits surrounding deeper emotional connectivity had not been recognised or anticipated. This is clear evidence that the selection of a phenomenological methodology was essential, relevant, trustworthy and crucial for locating and articulating emotional richness and various layers of engagement to reach the inner heart where truths, enlightenment and deep emotional interactions of stakeholders understandings.

The recollections of defeat, failure and the lack of connectivity with employers were deep, at times hurtful and demonstrated how 'employability and employment' can be 'life changing experiences'. What crystallised from this inquiry was a realisation by graduates that

> *"Collectively, I blame myself, the university and the systems. Firstly myself as I had failed to contact the career centre, engaged with lecturers and left it all too late ; the lecturers for not helping me realise my failures and better signposting the importance of employability skills in lessons and finally the systems, sorry maybe not the systems"* (personal interview, Graduate 4, 2013).

In respect of the objectives of this exchange this provided reach understanding that would be shared with a wider academic community. In particular the need to ensure within quality teaching students' confidence should not be dismissed likely.

5.4.2 Phase 4: Analysis of findings relating to literature or discreet inquiries

From the literature review undertaken within this project the notion of confidence and lack of confidence is poorly addressed in employability skills publications. Reviews such as the (2002) 'Enhancing Student Employability'; the Leitch Report (2006) 'Prosperity For All in a Global Economy' and Wilson (2012) 'University-

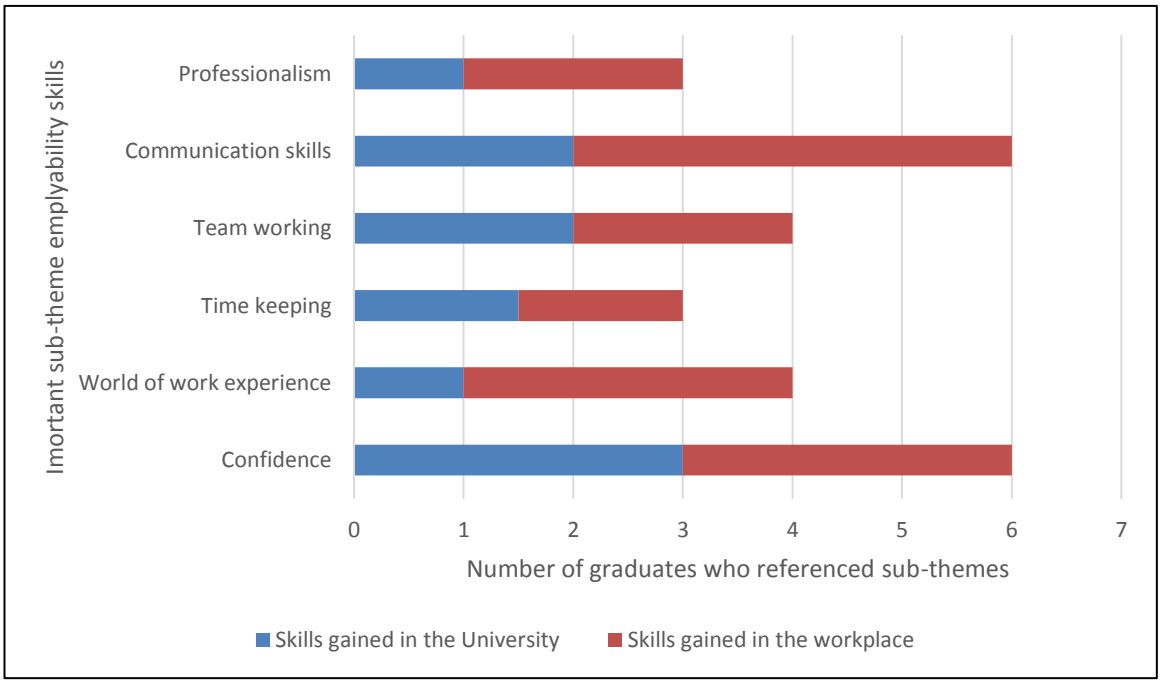
Business Collaboration' only make reference to the claim that universities should increase student mentoring and play more of an active role in pastoral care.

Whilst I believe most universities address these issues through PGCert qualifications, it is clear that this matter still remains problematic. Acknowledging this small sample size of participants may not represent a wider shared interpretation, perhaps it should be incumbent on all universities, as part of a commitment to widening participation to encourage wider adoption of richer learning and teaching techniques to boost the self-confidence of student's, through in-class activities and place greater importance on this matter.

5.4.3 Phase 4: Summary and reflections

This inquiry was emotional, thought-provoking and at times highlighted the deep emotional connections between learning and teaching. For most of the course, post the first day, there was less critical incidents and graduates through engagement with exercises like SWOT analysis and contributions made by the visiting employers soon realised that those 'life-changing opportunities' could be their opportunities. What this pilot course identified was the need to increase awareness of widening participation and ensure that academics/lecturers understand the impact of their words, actions and contributions in supporting the emotionally more sensitive side of employability and employability skills.

Figure 15 - Phase 4: Results from graduate employability course



What the table in figure 15 highlighted is an acceptance by graduates that most employability skills are gained in the workplace, but importantly the matter of how academic practitioners need to consider the impact of confidence and how this may be better embedded in their own learning and teaching practises. On reflection I feel contributions to the learning and teaching made by internal colleagues was extremely appropriate and made a strong contribution to graduates learning. However the challenge for an employer undertaking graduate interviews is how quietness and lack of engagement might be interpreted as a lack of ability? I would certainly discuss this issue with employers to ensure this does not impede the opportunities of all graduates.

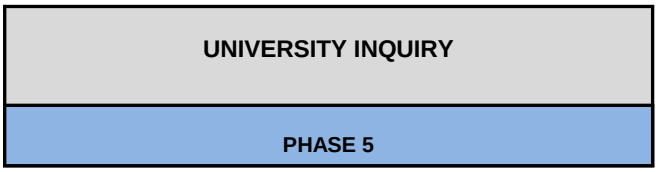
Importantly from a research perspective, my intrinsic belief surrounding the lack of engagement graduates felt they had encountered during their time at university was vindicated by another set of stakeholders. I had frequently encountered and witnessed how colleagues stating how they had encountered quiet and less engaged students, but they had not considered how this may be apportioned to their own teaching style, lecturing material, their pedagogy and whether the quiet students would benefit from a moral and confidence boost. This fully supports my research statement and confirms my observations surrounding how HEI curricula would benefit from further understanding and knowing behind what constitutes built environment employability skills and the nature, complexity and importance of embedding the full complement of employability skills into their pedagogy.

Lessons learnt

Confidence is a key attribute that requires further investigation related to how this can addressed in teaching.

Built environment employability skills must include a strong encapsulation of communication skills and interpersonal skills, based against real life circumstances and real life projects. This has been raised at all three discreet inquiries.

Academics need to offer more pastoral support and better crystallise the importance of employability skills in securing employment opportunities for students. And students need to play their role in attending lessons and engaging in lectures.



5.5 Phase 5: Inference and deductions from stakeholders responses

Question 1 - What are your views on the employability and enterprise sub-strategy?
Question 2 - Do you respond and contribute to the University of Wolverhampton strategies?
Question 3 – Do you feel employability and enterprise should be at the heart of our university?
Question 4 – Any other comments or observations?

The interaction was borne out of the need to design and develop a new Faculty (FSE) employability and enterprise strategy that aligns with the University's central organisational strategy, but provides clarity around an action plan for meeting FSE employability and enterprise targets. This involved direct engagement and consultation with internal staff and interactions with staff I personally line manage. This again raised matter of ethical issues relating to trust and fear. In particular if the inquiry corresponded with organisational changes.

Some academic and business support staff I interviewed shared reluctance to pass comment as they felt it might ethically influence employment opportunities.

> *"You must understand that this is not a personal issue or a resistance to support you with your research in fact quite the reverse. I believe we all hold an appreciation of what are employability skills but accept your recent support and guidance to better articulate my understanding has assisted the enhanced development of my curricula. it's just for far too long we have felt excluded from any consultation with policies and feel the hierarchy in most circumstances have already made their decision and the consultation process is just a tick in the box. If they really want how opinions then they should involve us at an earlier stage and include evidence of where our contributions were considered.*

> *I accept we need to enhance employability and this has historically served us well as a selling point to encourage students to join Wolverhampton. Paul it is important that you ensure that built environment employers understand what is being proposed and you feel this might be a way of sharing that message then you have my full support" (personal interview, Academic 9, 2014)*

Without emphasising or removing data I have used NVivo coding sparingly as the discreet inquiry provided a platform for raising a wider discourse expressed by staff relating to *"wider internal management issues that are failing us"* (personal interview, Academic 9, 2014). This has not excluded matters raised that were negative comments towards my creation of my Faculty strategy, but I have toned down the exact wording. Most participants interviewed felt it was strange to be given the opportunity to comment on the development of a strategy and whilst a few embraced this opportunity, most felt it was *"too little, too late. I think it's all agreed already"* (personal interview, Academic 5, 2013). Further issues raised were minimal consultation, identified issues surrounding where is the impact surrounding the strategy. Ultimately the comments were negative and undermining.

This was an enlightening engagement with academics and emphasised and reiterated that engagement with academic staff can be both informative and at times troublesome. What this intervention highlighted was the need to further develop my own employability skills as a 'change agent' to seek richer engagement with staff. Looking to encourage and negotiate with staff within the University to be more actively involved with the employability and enterprise sub-strategy.

Two years after its publication (2015) the employability and enterprise sub-strategy has been in existence for two years and academics who previously demonstrated resistance to its need, publication and concept of what some viewed as *"another layer of sub-strategies"* (personal interview, Academic 5, 2013). The strategy and the action plan sub-strategy I published for the Faculty of Science and Engineering have had a massive effect on the importance of enterprise and employability and I would suggest the architect Professor Ian Oakes was instrumental in its success to make *"employability and enterprise at the heart of our mission"* (personal personal interview, Academic 10, 2014).

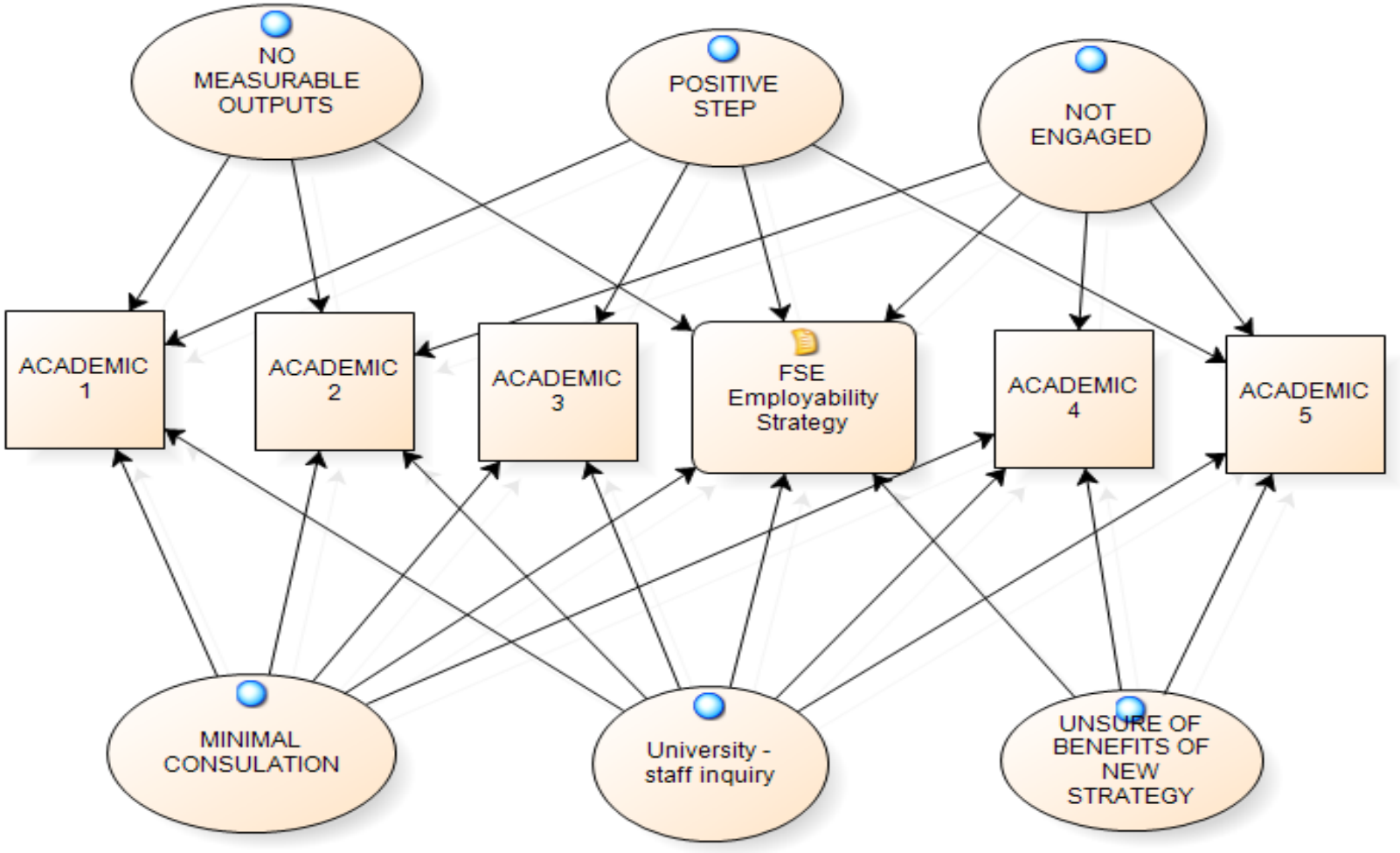
What this question and discreet inquiry demonstrated is the need to use careful timing to seek to locate interpretations and wherever possible use the opportunity to triangulate and verify previously recorded interpretations and responses.

Table 4: Phase 5 - University Inquiry - FSE Employability strategy

Phase 5 NVivo model Figure 12	Broad Themes Associated with (project aims & objectives)	Sub-theme NVivo coded categorised responses
Association with Research Aims Association with Research Objectives	- Investigate how to better develop, inform and embed employability skills pedagogy into BE curricula at UoW. - Review how mechanism used for later dissemination may be articulated. - To investigate current understanding of employability skills across the BE sector - Investigate how I might enhance my own practices.	- No measurable outputs - Unsure of benefits - Importance of consultation - Positive steps associated with employability and enterprise strategies - Lack of engagement - Challenging interventions

Sub-theme responses used to inform the NVivo model, taken from these interviews.

Figure 16 - Phase 5: University intervention with HE academics



5.5.1 Phase 5: Analysis of findings related to project aims and objectives

The aims linked to this inquiry were to generate insights and fresh understanding from academics surrounding what may constitute HE graduate built environment employability skills and secondly review if this face-to face interview style activity was appropriate for dissemination of my final findings. Unfortunately the discussions provided minimal direct discussions associated with the aims, but it did enlighten my own understanding of how to keep interviewee participants focused on the question raised and how I need to improve my own interview techniques to prevent staff using interviews as a sounding board for everything that they see wrong with universities.

In respect of the objectives some participants provided more detailed insights surrounding what works well in their teaching and how the investigation into embedding employability skills into their curricula was a positive step. In particular how examples and exchanges surrounding best practises that were shared in the interview demonstrated *"how employer engagement in setting assignment work was fruitful and rewarding"* (personal interview, Academic, 2013). This echoed a comment made in phase 1-2 inquiries by two employers, who recalled their own examples of feeling connected to HE, the lecturer and the students because they had made a valuable contribution in designing assignment briefs.

5.5.2 Phase 5: Analysis of findings relating to literature or discreet inquiries

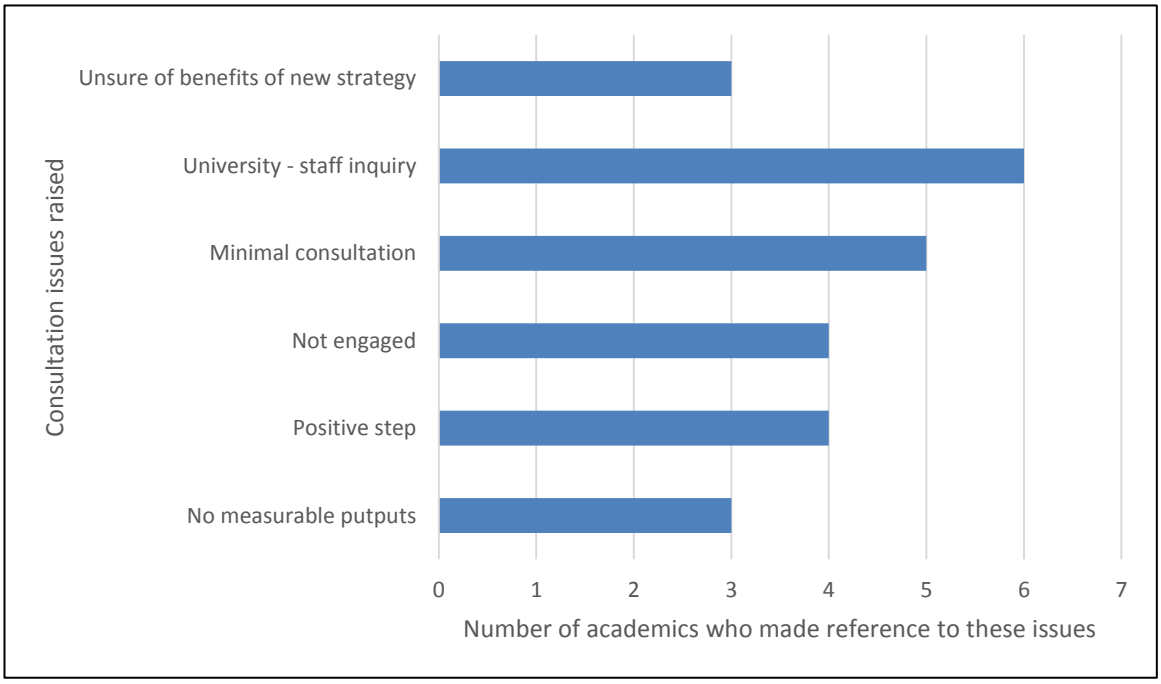
The connectivity and value of allowing employers to access and contribute to HE curricula design is a key issue raised in Dearing's (NCIHE, Report 1997) Report, (Mason et al, 2009; Xiao, 2012) However not all academics agree and some participants suggested that accessing and engaging with external stakeholders was not as easy as reviews and publications suggested. Indeed, they suggested that the emergence of Faculties specifically related to this quest is situated or developing across various UK universities. Indeed these statements are supported in the University Alliance, (2015, p.27) Report that suggests *"Only 15% of institutions Reported they had a specific institutional strategy for employer engagement in education".* But endorsing other academic comments, there was an increasing aspiration to respond to this challenge.

5.5.3 Phase 5: Summary and reflections

The mix of responses provided a balanced set of views and opinions from academics and colleagues who contributed to this investigation. I was disappointed and concerned by some responses by some members of staff. It should be recognised that staff apathy and resistance to change is not unique to Wolverhampton but surprisingly a percentage of colleagues refused to participate or answer, as they were extremely apprehensive about my request for information and opinions as they were not overly convinced as to why I was collating responses.

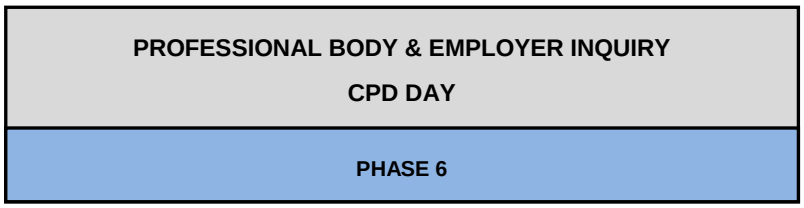
As a senior colleague to a selection of the participants, I should have recognised this apprehension and have reviewed this position in the ethics section of this project. In reviewing the positives from this intervention, it highlighted the challenges I will face in disseminating my findings to university staff, but it was imperative to publish both sides of the argument.

Figure 17 - Phase 5: HE academic views towards employability and enterprise strategy



The table within figure 17 emphasises how academics felt there was minimal engagement with policies development but conversely echoed how academics might need to become more actively engaged.

If I had removed this inquiry and section from the project, I would have excluded pieces of the jigsaw that were at times the rough edges of responses, but in other ways provided evidence of bespoke pockets of richness, hidden beliefs, and moments of serendipity and dialogue that on occasions lead to moments of discontent or conversely inspiration. Importantly for the academics I had interviewed they could or would have suggested that I had 'been liberal with the interpretation' of their responses. As it later transpired, some academics later apologised, explaining they were caught up with other challenges and felt their comments were unjustified.



5.6 Phase 6: Inference and deductions from stakeholders responses

Question 1 - What do you look for in the first set of correspondence you may receive –view from a graduate of the built environment who is looking to seek employment?

Question 2 - What do you look for when you interview a graduate of the built environment who is looking to seek employment at your organisation?

Question 3 – Having viewed and listened to my presentation on the employability and enterprise award and my personal views surrounding the need to understand what are the built environment employability skills. Can you identify three things you liked, three things you feel should remain and three things you may wish to add in or change?

The inquiry was well timed from a group forum perspective and provided an opportunity for employers to secure continual professional development (CPD). The interaction involved a presentation explaining the challenges I found within my research relating to lack of shared understanding surrounding built environment employability skills followed by a question and answer session and a group forum discussion. As the event was well attended there was a captive audience of over twenty five attendees and importantly because the nature of the topic was well advertised in advance, it would suggest that employers that attended my

presentation and group intervention were genuinely interested or engaged with built environment graduate employability. Importantly the platform provided the ideal mechanism to further evaluate areas of my research that were difficult or troublesome and provided an opportunity to triangulate early interpretations identified by other employers. The mix of audience included professional practitioners, meso and micro level employers and graduates from regional universities.

Issues raised by employers suggested at times that there was an uncertainty surrounding the articulation of the skills a graduate might be taught at university. However they were extremely positive about what successful graduates looked like.

The issue of 'likeability' was again raised and nearly all employers endorsed this as a rich employability skill, trait or attribute. Most could articulate what it meant, but only one employer felt it could be delivered in lecturers. Most employers felt the softer skills such as communication skills and enthusiasm, ability to work individually, or within a team player was popular and all felt flexibility and responsive to dealing with workplace matters was crucial.

Most graduates remained silent but in individual interviews they recalled how Wolverhampton was supportive of the employability agenda, but accepted that they had not recognised or engaged with employability and securing employment until the final six months of their studies. Interestingly all graduates believed that:

> *"Employability skills are seldom mentioned in class and lectures and I cannot remember if a lecturer has mentioned its importance. I have been interested to sit back and listen to what employers are saying and perhaps we should have had more employers in lectures as we would have probably listened to their comments with greater interest. I know university helped me get a job what I dint recognise is how the skills I have learnt at university perhaps influenced my employer." (personal interview, Employer 10, 2013).*

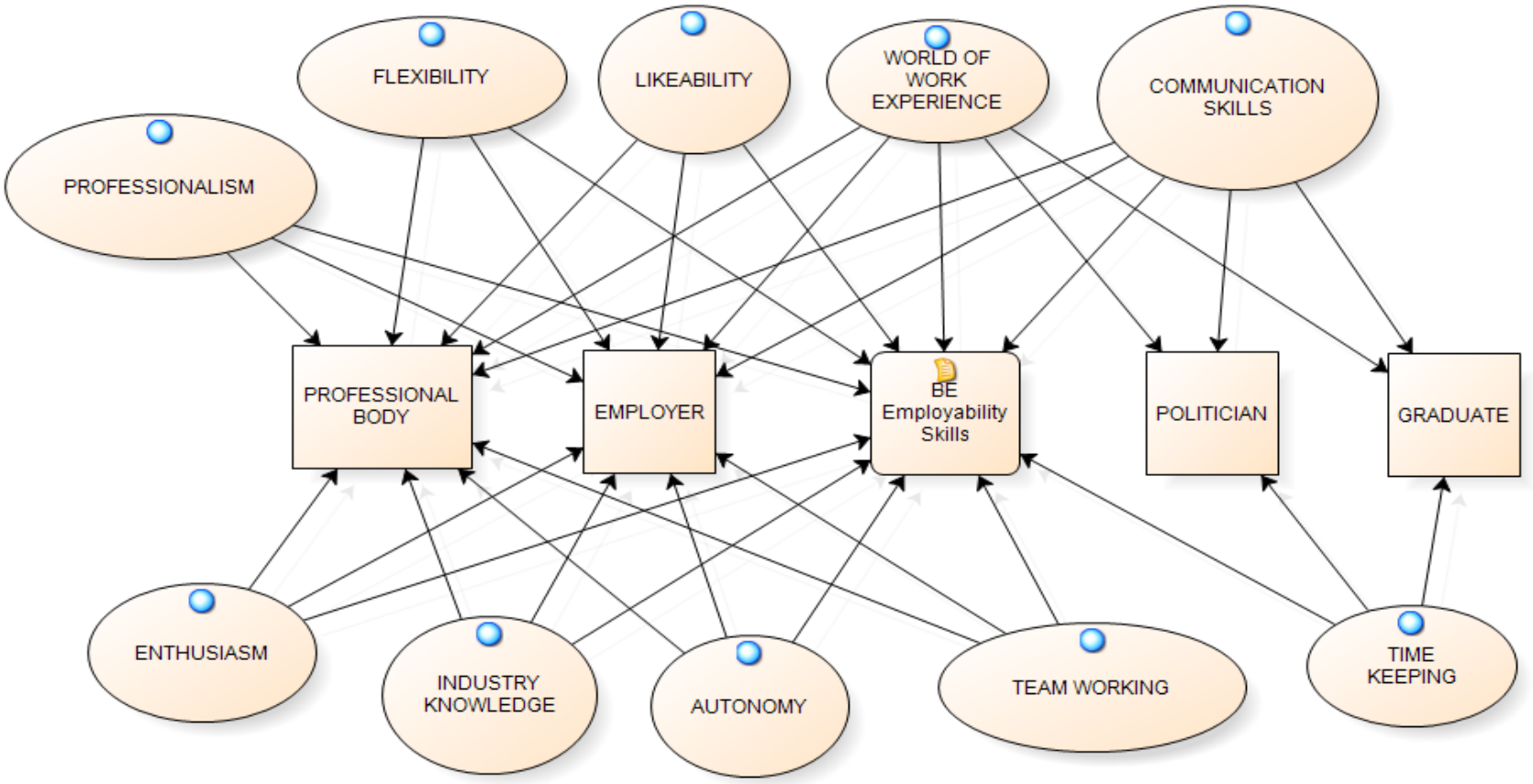
Professional body representatives in their responses (three participants) felt that employability skills are well articulated within their own competency framework and this must be adopted in HE teaching. They concurred with employer's comments

surrounding the importance of client engagement and the value of soft skills, but they all emphasised the key importance of industry, technical knowledge as key parts of reaching chartered status. *"Without the deeper understanding of how industry operates and how the technical components fit together, graduates will fail to grow into a role"* (personal interview, Employer 4, 2013).

Table 5: Phase 6- Professional body & Employer inquiry

Phase 6 intervention NVivo model Figure 13	Broad Themes Associated with (project aims & objectives)	Sub-themes NVivo coded categorised responses
Association with Research Aims Association with Research Objectives	- Generate insights and fresh understanding behind what constitutes and may be viewed as relevant employability skills for an HE graduate of the BE. - Investigate how to better develop, inform and embed employability skills pedagogy into BE curricula at UoW. - To disseminate the findings of this project to stakeholders across the HE community and BE sector. - Investigation of current understanding of employability skills across the BE sector - Investigate and triangulate the dissemination of findings through multiple platforms of the academic community and BE industry and commerce. - Exploration of how my own existing knowledge, research, practise experience as a teacher and industry practitioner within the BE might add value or influence this project investigation.	- Professionalism - timekeeping - flexibility - teamworking - enthusiasm - world of work experience - industry knowledge - communication skills - likeability * - autonomy *refers to rich employability skills, previously mentioned by three independent employers

Figure 18 - Phase 6 - Professional body & Employer inquiry – CPD Day



5.6.1 Phase 6: Analysis of findings related to project aims and objectives

The inquiry was deeply engaging, emanating and at times rich in comments, content and interpretations. The event generated fresh understanding and interpretations of employers' interpretations of what they felt constituted BE graduate employability skills, but at times demonstrated that employers may not always be confident in knowing what to expect from graduates and there were some contradictions in their statements.

Conversely all participants had encountered success and all shared examples of engagement with graduates who had shown extraordinary sets of skills and abilities. When pushed on curricula and how this success might be embedded, most felt that it was *"an opportunity to use real life projects to seek out leaders who can own a problem and direct a team to find solutions"* (personal interview, Employer 15, 2014). Other participants were unsure and remained silent.

In respect of the aims related to dissemination of project findings this forum was ideal and participants predominately responded well on the feedback forms. This annual event was a perfect platform for piloting my conference presentation that I later delivered at the Construction in the 21st Century international conferences; I can use this platform again.

With regards to alignment with the project objectives, I had located strong evidence of triangulation located within employer interpretations expressed during previous discreet inquiries and my strong connectivity with the audience, who still view me as an external practitioner assisted in achieving a more open and transparent discussion. There were some paradoxes associated with the language stakeholders used in their interpretations, but in closing the session all stakeholders felt the session had identified concerns and matters they had previously ignored.

5.6.2 Phase 6: Analysis of findings relating to literature or discreet inquiries

There is little discussion within the reviewed literature to suggest a lack of confidence is something that can affect your ability to secure employability except

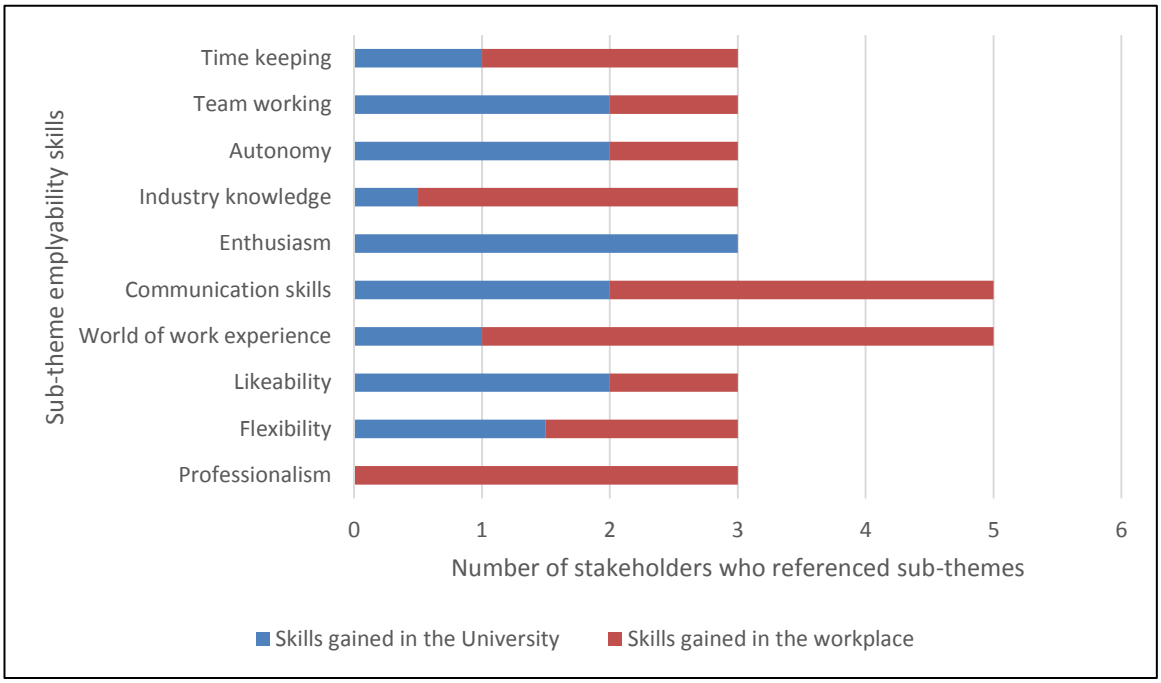
within focus groups and symposia where employers said a lack of confidence would be viewed as concerning. Indeed most Reports I reviewed articulate the need to demonstrate confidence. What was articulated in other BIS and CITB Reports (2014) Reports is the recognition that assertiveness might enhance and grow your confidence and the engagement with extra curricula activities, as well as self directed learning might enhance your understanding of a subject (in its wider application) and support you as an individual to grow your confidence. Where I could articulate and demonstrate this within the course was the way I arranged for each individual to be a team leader for a task and how through using increased levels of praise, confidence within each participant would grow.

When it came to the close of the course I asked an employer to observe interviews. Her response was supportive and she personally gave feedback to each participant. At no stage did she mention the issue of confidence and in most case supported comments and contributions in her generic feedback that all graduates demonstrated evidence of confidence. Evidence therefore that confidence can be embedded in HE teaching although it can be challenging.

5.6.3 Phase 6: Summary and reflections

I felt the intervention was a useful piece of interaction with stakeholders and allowed me to secure more valuable contributions from employers, policy-makers/politicians, past graduates and professional body members. The event also provided a useful platform to explore the background behind participant's earlier comments and to seek clarification, coherence and background understanding. Key lessons were learnt from this inquiry that will enhance my questioning within the semi-structured interviews and I have recognised that in order to unearth richer truths, I must improve my interview techniques.

Figure 19 - Phase 6: Stakeholder feedback from CPD day



The table in figure 19 reinforces earlier stakeholders understanding that predominately employability skills are learnt in the workplace and whilst enthusiasm could be the exception it was down to the individual graduate to become motivated and enthusiastic. Soft skills were again highlighted by employers as just as important in the early years of employment but employers acknowledged that technical skills were extremely relevant once the individual had established their position within their organisation.

CONFERENCES
PHASE 7

5.7 Phase 7: Inference and deductions from stakeholders responses

Question 1 - What do you feel are the key built environment employability skills? Question 2 - Do you feel universities support students to develop these skills? Question 3 – What skills do you embed into your HE curricula?

The output for this phase was discreet inquiries undertaken at three Construction in the 21st Century conferences (CITC) 2015, 2013, 2011 and more regional UK conferences during the same period. All my activities surrounded group fora using a group of conference participants and presenters, underpinned by individual interviews with occasional smaller group debates. Participants were predominately academics and I have grouped participants together into Australia, USA, Qatar, UK and academics from Turkey. This is not an exhaustive list but captured the essence of responses without the inclusion of triangulated responses which were constantly duplicated.

Responses from international academics provided a plethora of comments and provided an enrichment of macro-level considerations to the project. At various times this provided enlightenment and frequently provided triangulation with previous academic responses. A large proportion of the Australian participants mentioned the matter of *"child and adult. Don't forget some of our students are only 20 when they leave us and are not ready for work; whereas some are well prepared".* This issue is raised by Light et al (2009) and articulated during the personal interview with Academic 1 (2012) relating to designing pedagogy and in-class curricula that is meaningful to all students and recognising that some students are still in the process of making a transition from childhood to adulthood and may require more gentle steps in their development and learning. It was emphasised how some students may not be psychologically prepared for the transition into employment and how this should be duly noted, responded too and factored into career discussions?

Professionalism, commercial awareness and the need for students to secure work experience featured highly and the soft skills associated with interpersonal, communication skills and presentation skills were all mentioned at all of three CITC conferences. In 2013 and 2015 the matter of cultural understanding was raised relating to how cultural differences may impact on working environments across various nations and might require greater flexibility surrounding working hours, language and empathy.

The phrase 'rich employability skills' was raised several times and a more detailed explanation was provided. This was a key message repeated in the semi-structured interviews and is embedded in the heart of the built environment employability skills compass. Whilst all academics felt that they were at the heart of embedding

employability skills in their courses, they held mixed opinions surrounding support for curricula design by employers. All agreed that an innovative curriculum was part of the solution and all participants felt the incorporation of real-life projects into curricula enhanced student learning.

> *"I don't tell them how to complete their role or visit their workplace to see if they could do more improving their services, so why would I require their contribution? I acknowledge that we as academics should look to deliver a good quality service and part of my attendance at this conference is to share experiences with academics from around the world, but I have never seen an employer attend one of our conferences so are they really interested. For myself I think parents who pay the student fees might be more interested in our curricula and what are the skills that we teach to help students to secure employment". (personal interview, Academic 7, 2013).*

There was a split in opinion as to whether built environment employability skills are different to a non-cognate student and the debate circled around problem solving and the ability to simultaneously visualise and contextualise a mass of information all at one time.

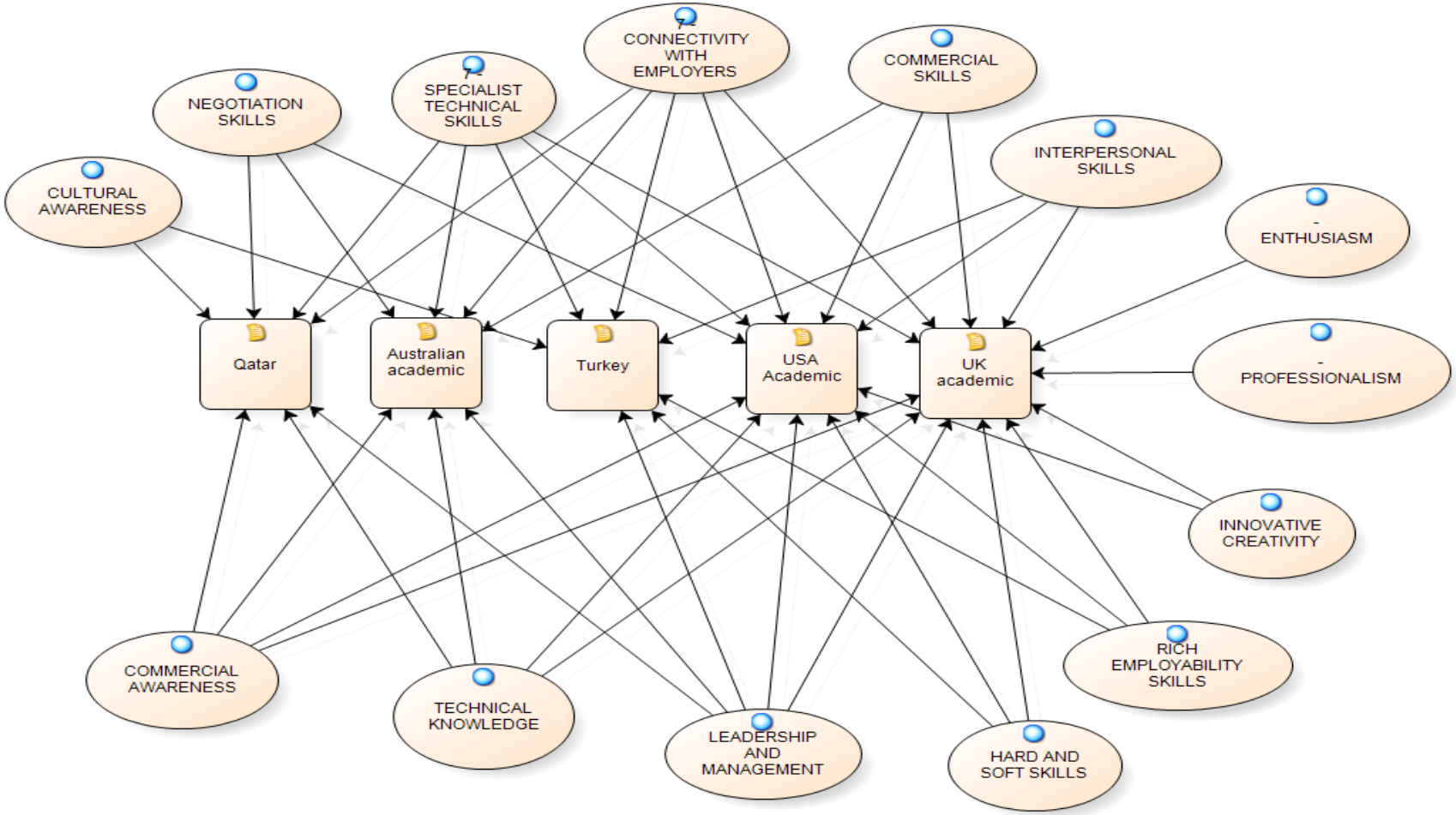
Some academics believe built environment graduates are responsive to different environments, different circumstances and environmental changes, whilst holding valuable technical knowledge that can be transferred from technical to vocational and back again within various moments of decision making. Other academics accepted this argument, but suggested that medical practitioners undertake a similar process and use a similar transferable skill set, however they recognised and accepted that reading of 2D-3D drawings are more challenging to contextualise.

Table 6: Phase 7 - Conference inquiries

Phase 7 NVivo Figure 14	Broad Themes Associated with (project aims & objectives)	**Sub-themes** NVivo coded categorised responses

Association with Research Aims Association with Research Objectives	- Generate insights and fresh understanding behind what constitutes and may be viewed as relevant employability skills for an HE graduate of the BE. - Investigate how to better develop, inform and embed employability skills pedagogy into BE curricula at UoW. - To disseminate the findings of this project to stakeholders across the HE community and BE sector. - Investigation of current understanding of employability skills across the BE sector - Investigate and triangulate the dissemination of findings through multiple platforms of the academic community, the BE and industry and commerce. - Exploration of how my own existing knowledge, research, practise experience as a teacher and industry practitioner within the BE might add value or influence this project investigation.	- Professionalism - Hard skills - Soft skills - teamworking - enthusiasm - world of work experience - industry knowledge - communication skills - technical skills - autonomy - negotiation skills - connectivity with employers - importance of innovative curricula design - commercial real life world of work knowledge - presentation skills - leadership and management skills - technical skills to the specific discipline - innovative connective with clients - cultural understanding - rich employability skills

Figure 20 - Phase 7 - Conferences



5.7.1 Phase 7: Analysis of findings related to project aims and objectives

The aims were explicitly addressed and the discussions, fora and debates over the last five years have reemphasised how the subject of built environment employability skills is a fluid and evolving subject matter. The range of inquiries located various fresh insights and because of its location and international perspective, it demonstrated that built environment employability skills are a macro-level, worldwide challenge.

The use of innovative curricula design was frequently raised and the techniques and ideas shared during the three conferences have been implemented and piloted within University of Wolverhampton learning and teaching pedagogy. This includes deeper association with real life projects and shared interventions between Hong Kong and UK students who are studying the same module. This provided rich exchanges and supported the internationalisation of my students.

Objectives relating to understanding of the sector were raised and critically discussed and argued. Ostensibly built environment employability skills were accepted as a unique set of skills and the use of conference group fora as a mechanism for dissemination was authenticated.

5.7.2 Phase 7: Analysis of findings relating to literature or discreet inquiries

The interpretations and findings located in these inquiries confirmed that the challenge of articulating what constitutes built environment employability skills is not only a UK challenge and most participants in my group fora suggested that whilst they have piloted various techniques within their teaching they were still searching for more innovative ideas to translate employability into their curricula.

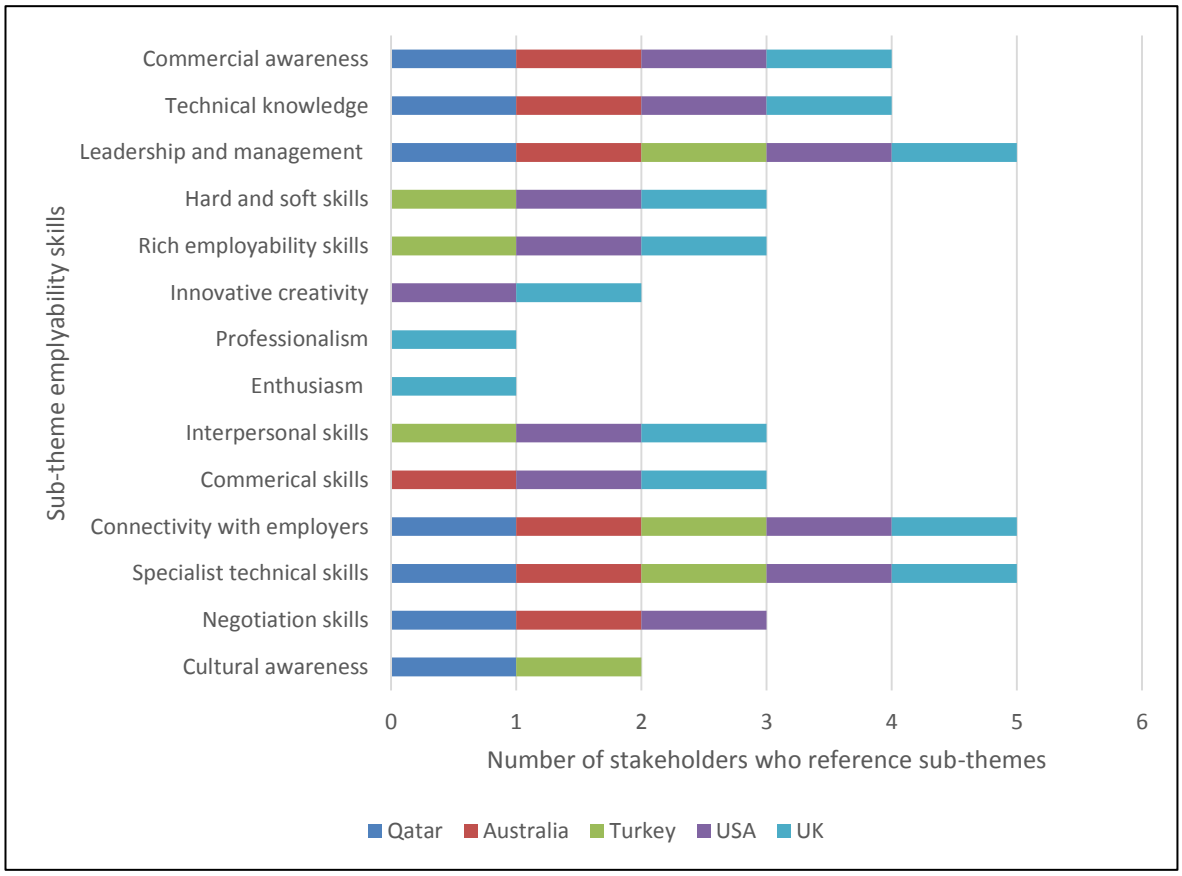
Most academics could recite a variation of employability skills text, but this appeared to be dominated by UK, USA and Australian authors. All agreed with the suggestions and literature I presented at various times (2011; 2013; 2015) that employers should be more closely connected to HEIs, but accepted the findings of the Wilson Review (2011) that academics could be more supportive in engaging

employers with their university. All academics concurred with Boud and Solamans' (2013) suggestions that site based work practise and its experiences enhanced the life employability opportunities-chances of graduates and all agreed, especially for the built environment sector this would enhance and enrich student's appreciation of the complexities associated with real-life project work.

5.7.3 Phase 7: Summary and reflections

The elements of shared consensus across various modes of interactions and interventions were well established and provided rich evidence and endorsement of the triangulation research methodology that academics are at the heart of this employability skills challenge.

Figure 21 - Phase 7: Sub themes raised at conferences



The table in figure 21 highlights the responses identified by most global academics. Most shared similar levels of beliefs surrounding what they understood as built environment employability skills with occasional country nuances. Leadership and management skills were driven by employer's feedback that had been shared with

academics and conference participants felt employability and employment required a blend of soft and hard technical skills. That does not decry the valuable contribution that associated stakeholders make, but the richer, wider interpretations across all level 1-7 discreet inquiries suggest academics should take the leading role in locating solutions to the employability skills challenge.

Whether this involves the design, development and delivery of innovative curricula, the acceptance that employers and external stakeholders can make a valuable contribution to curricula design, locating real-life projects, designing assignments or in delivering in-class lecturers; or a recognition that graduates need more informative support and need to be a key motivated participant in this challenge is unclear. What these phase 1-7 discreet inquiries suggest is paradoxically a fluid and flexible proportion of all these interpretations.

Reflections from all 7 phases of discreet inquiries:

Observation/Comment/Request - The ability to consider all options in context and make informed decisions.

Observation/Comment/Request - An ability to understand diverse and possibly conflicting interest needs (e.g. Client, legislation and statutory requirements).

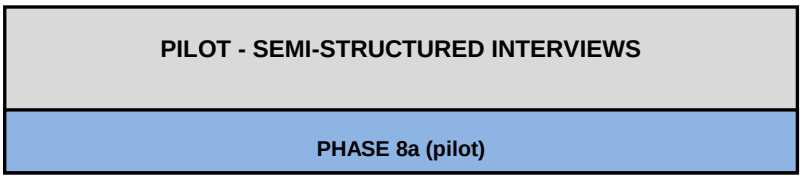
Technical knowledge of legislation, but the ability to recognise actions have consequences Including the ability to evaluate what knowledge needs to be brought to bear on the situation (Professional judgement includes an awareness of the limits of personal knowledge). The ability to work autonomously.

Aligned learning and teaching interventions and locating learning in real work based problems

Learning activities to promote reflective practise and criticality

Development of a range of rich soft interpersonal skills and locate skills associated with real life situations

I will always owe a debt of gratitude to all the CITC conference organisers who have supported me through this doctorate of professional studies journey and as a way of reciprocal arrangement I look forward to supporting fellow conference participants and PhD researchers in the future.



5.8 Phase 8a: Inference and deductions from stakeholders responses (pilot)

Questions: - All 10 questions used in the pilot study (refer appendix 1) were influenced shaped and designed post the evaluation of the earlier phase 1-7 discreet inquiries and would later be slightly refined for the final set of phase 8b semi-structured interviews.

Phase 1-7 phase discreet inquiries provided an excellent research framework model for ensuring the non-problematic targeted sample set of stakeholders were identified and provided a set of rich interpretations that would shape, support and underpin my project research investigations as I moved towards the final phase of semi-structured interviews. In particular the pilot provided an opportunity to refine my interview technique and style of delivery, robustly developed the interactive-relationship strategy surrounding the how I would approach the final set of interviews and test how I could reach the inner third space level exchanges where the richness of dialogue would be located.

As the interviews progressed I took the decision to reflect on my own practise and seek advice from Academic 1 (2011) and Academic 8 (2014) to see how I could improve my interview techniques. This pause in undertaking interviews was later rewarded as my participants suggested my interview techniques had improved. In particular these improvements assisted me in securing a deeper level of exchange and locate rich stories and experiences associated with the emotional connections and empathy from numerous interviewees.

I had not anticipated this serendipitous realisation or levels of richness in my interview exchanges but it vindicated my strategy to include semi-structured interviews at the close of my discreet inquiries. (Chirban, 1996, p.27) refers to this as “the capacity to understand another’s feelings or ideas”. (Gladstein *et al,* 1987) articulates this further to describe how this empathetic quality is a powerful bond that enables an individual to identify, support and mentor another individual. This also provided validity behind the adoption of a phenomenological methodology

which provided an intrinsic link to the richness located in the controversial emotional bond surrounding the richness of employability and the association with the life changing opportunity this provides for a graduate employee.

A series of ten questions were trialled within the pilot and interviews targeted stakeholders who were predominately based, except for the policy-makers, within the conurbation of the West Midlands. Most participants were supportive of the context and level of questioning within the interview and all participants appreciated the opportunity to stop, pause for reflection and then re-start the interview to ask questions or seek clarification. The issue of interview venue was reflected upon and it was found that graduates and employers were more comfortable taking part in the interviews outside of the University. The questions felt appropriate but at times I was clumsy in my delivery of the question. Importantly I must look to drill down and ask supplementary questions to underpin the main framework of questions.

Originally I had intended to conclude the pilot in 2011-12 and undertake the final semi-structured interviews during 2013. However I felt this would have curtailed the richness of my investigation. I accept this later caused a huge challenge surrounding the contextualisation of the vast quantity of data, interviews and recordings I located, but I felt it truly represented the depth and breadth of stakeholders associated within my investigation of what constitutes built environment employability skills. Eventually I extended the interviews over the entire duration of the project and continued to interview participants up to 2015

5.8.1 Phase 8a: Summary and reflections of semi-structured interviews (Pilot)

The pilot interviews were undertaken as a mechanism to rehearse my delivery and phasing of questions, but importantly provided an opportunity to enhance my own skills and interview techniques to reach meaningful engagement and locate reach interpretations.

Having spoken directly with Academic 1 (2012) they commented how a pilot study was relevant and pointed out that whilst interviewing should be straightforward it's about honing interview skills and learning to extract meaning whilst actively listening. This was sound advice and I concur that my interviewing skills have vastly improved during this project. As for the art of listening and building rapport I feel I still have

more to learn, but the pilot and the final set of interviews have increased my own knowledge and understanding surrounding engaging and responsive interviewing.

The pilot was a useful exercise, and whilst I originally resisted this process at its conclusion its benefits became coherent and provided rich insights. Chirban, (1996, p.50) suggested *"insight involves the capacity to elucidate the true nature of a situation; it reflects a penetrating grasp of the matter at hand. Insight is one's recognition of what one intuitively understands".*

The pilot interview process also increased and developed my own employability skills of active listening and learning how to pursue and explore positionality. (Cousin, 2012, p.88) articulated this within a review of semi-structured interviews *"if you want to keep a strong "active interview"* line of inquiry (Holstein and Gubrium, 1997), you might explore with the interviewee a possible connection between positionality and the account provided"

The pilot confirmed:

1. The questions were generally correct in subject and context for all levels of stakeholder.
2. The questions were presented in a language that was coherent to all stakeholder.
3. The quantity of questioning and timing of the interviews (approx-20-30 minutes) were appropriate.
4. My interview technique was improved and assisted in locating richer levels of interpretations;
5. This final set of inquiries (semi-structured interviews) was well designed, influenced and appropriately shaped by earlier phase 1-7 discreet inquiries.

FINAL SEMI-STRUCTURED INTERVIEWS
PHASE 8b – QUESTION 1

5.9 Phase 8b: Question 1 – Organisational language associated with employability

> Question 1:- With a theme relating to built environment employability; can you provide me with three words or phrases that would best describe your organisation/Business University?

This final phase of semi-structured interviews would provide the culmination of all discreet inquiries and afforded the opportunity to seek, locate, test, confirm, deny and locate new understanding associated with the aims and objectives of this project. It also triangulated responses with early interpretations to confirm or deny confirmation of earlier interpretations across a wider targeted set of stakeholders. To confirm this validation most stakeholders were shown transcripts of my recordings and was asked to confirm that my recordings were a correct interpretation of their responses. Only minor amendments to responses were required.

5.9.1 Phase 8b: Question 1 – Inference and deductions from stakeholder responses

The phrases, words and language used by respondents demonstrated a commitment and direct association through use of their own language to the adoption of widening participation across all sectors associated with employability. Words like ‘inclusive, diverse, widening’ were commonly adopted by academic participants and words like ‘innovation’ and ‘enthusiastic’ were adopted predominately by employers and graduates. Policy-makers and politicians endorsed the widening participation language, but incorporated words like ‘trust, integrity and ethical dimension’s that alluded to their accountability as civil servants.

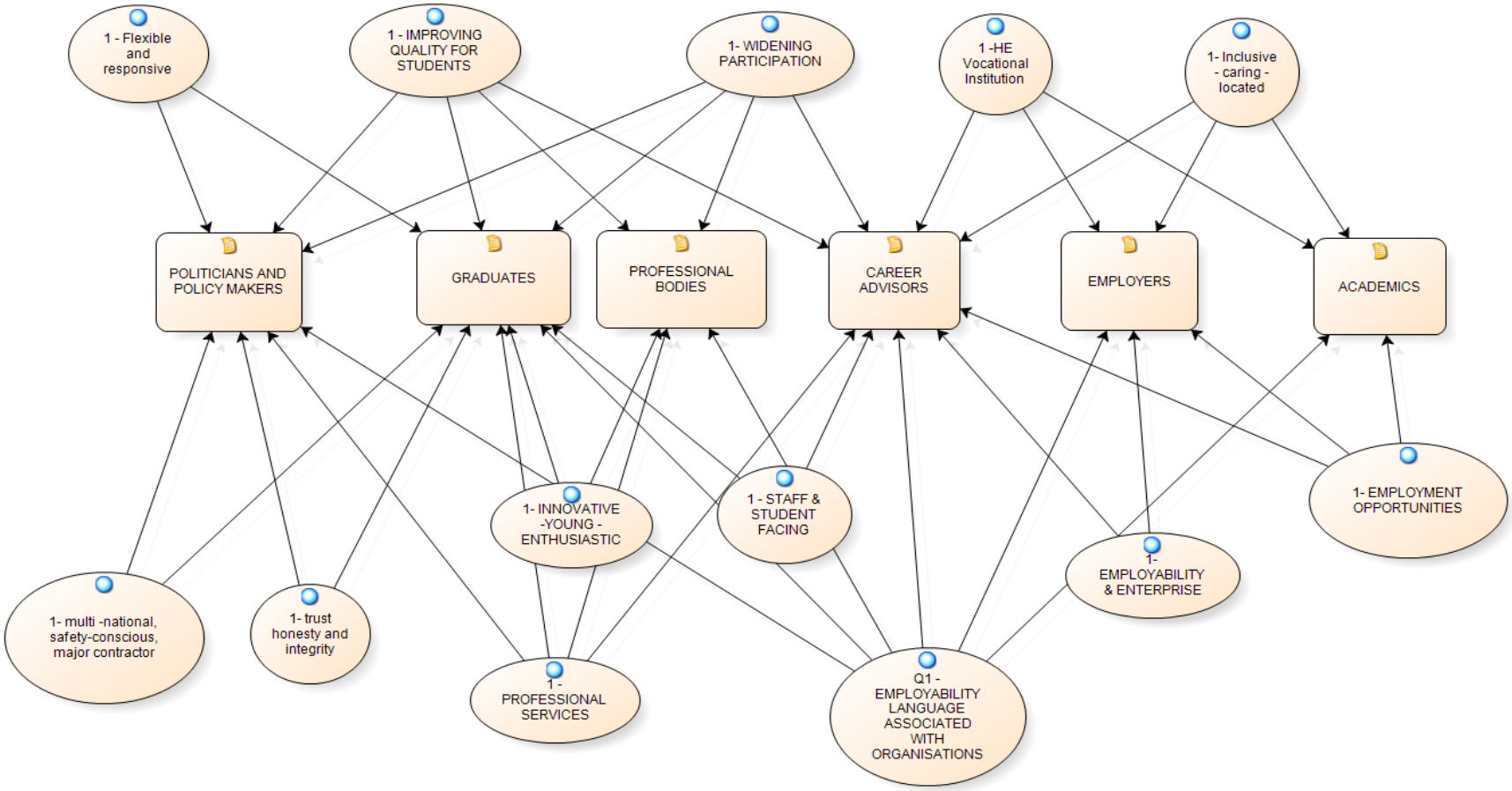
Whilst the rationale of this question was to settle interviewees, not all participants found the question relaxing. Question 1 certainly engaged stakeholders in thought provoking pauses and encouraged moments of reflection and at its conclusion in all interviews set the tone for the rest of the interview. The question additionally assisted in the search of themes, perceptions, experiences and recollections, articulated by Cousin, (2009, p.35) as *“complex layers of human meaning through*

interpretive moves". Using the final phase of discreet inquiries I uncovered richer layers of interpretation from interviews with stakeholders. This included fresh knowledge surrounding what stakeholders perceived as appropriate language and sub-themes associated with built environment employability skills. The responses and sub-themes derived from this question are categorised as follows:

Table 7: Phase 8b: Question 1 - Organisation language and responses

Phase 8b NVivo model Figure 15	Broad Themes associated with project aims and objectives	Sub-themes NVivo coded categorised responses
Associated with Research Aim	- To uncover new insights and understanding of Higher Education (HE) employability skills for a built environment undergraduate.	- flexible and responsive - improving quality for students - professional services - staff & student facing - employability & enterprise
Associated with Research Objective	- To Report the opinions and interpretations of stakeholders surrounding their understanding of employability skills for a built environment undergraduate. - Investigation of current understanding of employability skills across the built environment sector.	- growth, experience, professionalism - innovative, young, enthusiastic - multi -national, safety conscious, major contractor - stimulating - demanding frustrating - trust honesty and integrity - widening participation

Figure 22 - Phase 8b: Question 1 – Employability language - Three words that describes your organisation



5.9.2 Phase 8b: Question 1 – Analysis related to the project aims and objectives

The objective of engaging with the wider community of built environment stakeholders was successful. Including contributions from participants at varying levels of organisational hierarchy and contributions from employers, industry and commerce, academics, career advisors, professional bodies and graduates were included.

Relationships between the broad themes of Employability descriptors, derived from the NVivo chart (Figure 16), incorporated various shared agreement of interpretations and direct correlation with the aims and objectives of this project. Predominately HE providers and vocational institutions adopted the language and phrases linked to inclusive, caring and located; having employment opportunities, employability and enterprise at their heart. Whilst career advisers alluded to professional services and staff that were student facing. This association with language also located an insight as to how each set of stakeholders and their organisations would wish to be perceived.

The inquiry also emphasised the interrelationship between the internal stakeholders of academics, graduates and career advisors with the external stakeholders of employers, policymakers/politicians and professional bodies. All hold an evident affinity with built environment employability skills, but the interviews suggest this relationship is not directly aligned and occasionally not as strong and robust as white papers, Reports and reviews suggest. It can therefore be asserted that this phase 8b inquiry was useful in providing robust data on current thinking with respect to the research context aim and outlined objectives.

5.9.3 Phase 8b: Question 1 – Analysis related to literature or discreet inquiries

The responses located within this opening question of the interviews certainly shaped and aligned with areas of academic Reports that suggest universities are more inclusive and embrace wider participation, but the tone of discussion and language used by stakeholders depended on hierarchical status within organisations and perhaps demonstrated that this hierarchical level of employee is more affiliated with strategic policies. The blend and assorted mix of malleable and robust language that is contained within the built environment employability skills compass articulates and provides richer understanding of these interpretations and their potential application to all levels of a wider industry and academic community.

The interpretations of language located within these initial responses highlighted in the UKCES 'forging futures' (2014) Report that suggests part of the challenge of attracting talent into industry is the use of coherent language that demonstrates elements of wider participation. This collaborative affinity to shared employability skills language also supports the suggestions that employer-university collaboration increases student employability prospects as they are conversant with both academic and 'world or work' language.

5.9.4 Phase 8b: Question 1 – Summary and reflections

In summary, the question raised moments of reflection for stakeholders and encouraged association with terms, descriptions and words that represented the individual participant and their organisation as a wider context. Some participants found it challenging to use just three words, but generally the language and phrases used provided elements of commonality across all stakeholders. Most stakeholders accepted that language associated with employability was not generally discussed or reviewed, but they accepted the similarity of shared understanding and the need for richer coherence of employability skills language.

SEMI-STRUCTURED INTERVIEWS
PHASE 8b – QUESTION 2a

5.10 Phase 8b: Question 2a – Inference and deductions from stakeholders responses

Question 2a- In what capacity do you come into contact with external stakeholders?

The second question provided confirmation and supportive evidence that most stakeholders are actively engaged, albeit at varying levels, with stakeholders at micro-meso-macro levels within the built environment, with the exception of graduates who provided minimal levels of engagement. Again, participants at higher hierarchical positions within their organisations were more actively engaged with a wider breadth of external stakeholders, including local enterprise partnerships as part of a wider network. Surprisingly career advisors, graduates and professional bodies described their interactions as minimal, but career advisors, policy-makers and professional bodies felt they did contribute through various initiatives to the development of HE curricula, so they felt this was an indirect engagement.

Other key themes identified included confirmation that engagement with universities was taking place at all macro-meso-micro levels and nearly all stakeholders recognised this engagement as a core activity; *"for locating data, findings, statistics and providing confirmation of factual or research evidence"* (Employer 2, 2015). It can be inferred from findings located within NVivo (Figure 17) that this level of engagement would lead to acceptance of joint responsibility in training and education.

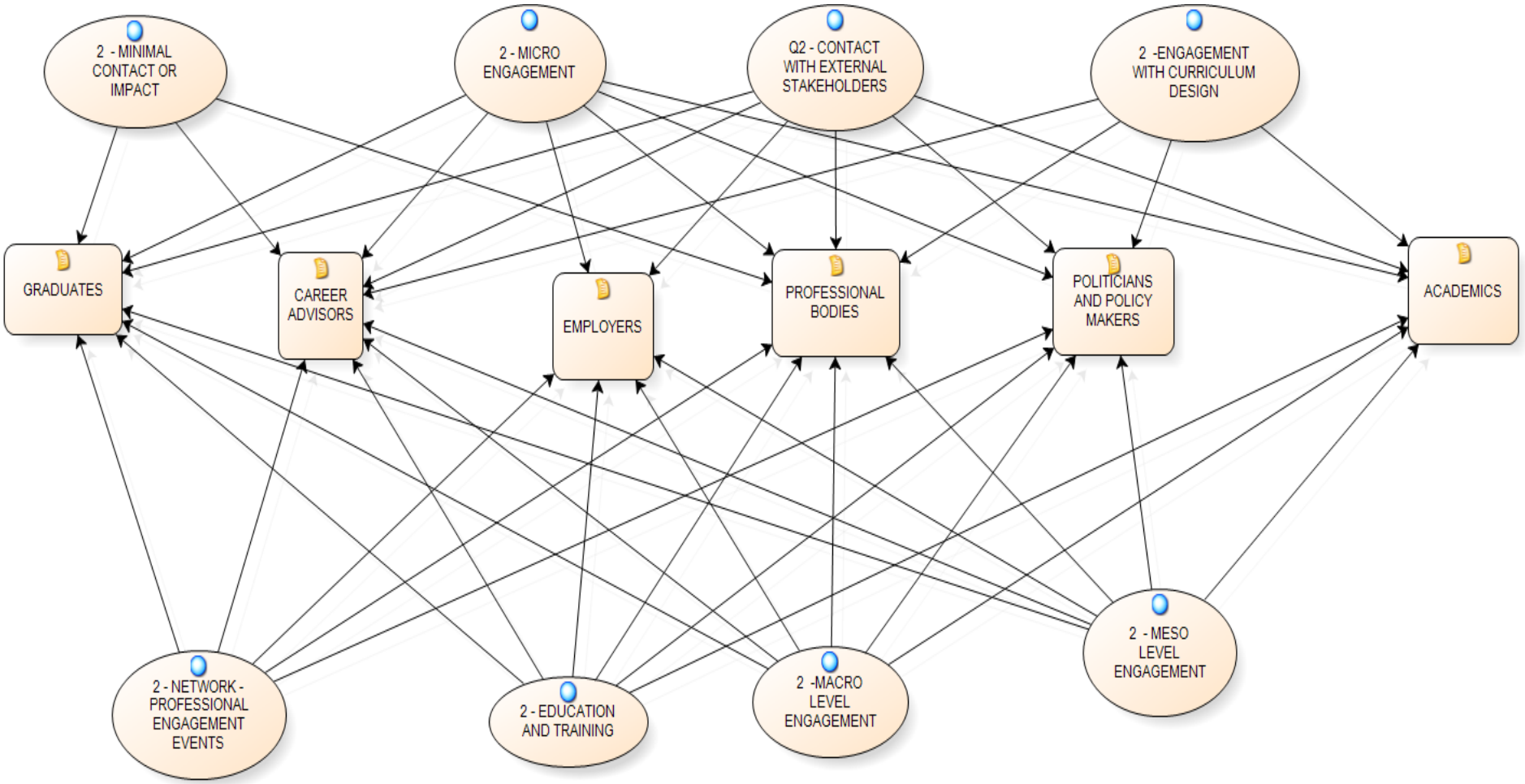
I had originally assumed that where stakeholders adopt a deliberate collaborative partnership with HE providers, this would involve collaborative contributions towards the development of HE curricula. However, when investigating further not all stakeholders agreed with this assumption and questioned why other stakeholders felt they should be responsible for assisting graduates to become more eminently employable. *"I already send students to university and pay their fees. Why should I therefore be engaged with the design of courses"* (Policy maker 2, 2013). However, this was not a general consensus of response and most recognised the value of

collaboration, even if it was used to increase business activities or integrate with research and development of products and services.

Table 8: Phase 8b: Question 2a – responses to levels of engagement

Phase 8b NVivo model Figure 17	Broad Themes Associated with project aims and objectives	Sub-themes NVivo coded categorised responses
Associated with research Aim Associated with research Objectives	- To generate insight and fresh understanding behind what constitutes and may be viewed as relevant employability skills for an HE graduate of the built environment. - To investigate current understanding of employability skills across the built environment sector. - To investigate and triangulate the dissemination of findings through multiple platforms of the academic community, the built environment and industry and commerce.	- Micro- level engagement - Meso- level engagement - Macro- level engagement - Minimal contact and impact - Education and training - Networking /Professional engagement events - Engagement with curricula design

Figure 23 - Phase 8b: Question 2a – Levels of impact engagement with external stakeholders?



5.10.1 Phase 8b: Question 2a – Analysis related to the project aim and objectives

By posing the question relating to the level of engagement with external stakeholders, I could further relate their responses to objectives which looked to investigate findings through multiple platforms of the academic community, industry and commerce. As the NVivo model indicates, all participant stakeholders held some level of engagement with external stakeholders. The question enhanced contributions from all participant stakeholders at varying levels of organisational hierarchy and uncovered new insights and understanding of (HE) employability skills for a built environment undergraduate and identifying the inter- relationships of participants.

5.10.2 Phase 8b: Question 1 – Analysis related to literature or discreet inquiries

The responses received from Question 2a on level of engagement with external stakeholders were wide-ranging, but provided parity with earlier investigations from literature reviewed relating to the need to encourage widening participation and stakeholder involvement at all levels of engagement, so as to enable knowledge partnership and knowledge transfer for value in supporting graduates to become more aligned with work place practises. Aligning with the Wilson (2012) Review and the UK Commission (2014) *"evidence shows that by engaging with universities, employers can directly support the development of skills that will benefit their business in the future, while universities can ensure their offers are up-to-date, relevant and directly support graduate employability"* (UK Commission, 2014, p. 7).

What the inquiry recognised was that various Reports fail to recognise that students should also be engaged with a wider set of stakeholders outside of university parameters; perhaps take opportunities to attend regional CPD events as suggested by professional bodies. These approaches will in turn address the knowledge gap identified with regards to the perceptions and understanding of what various stakeholders view as built environment employability skills.

From the NVivo model generated from Q2a responses; all the stakeholders were connected to the sub-theme of 'employability language associated with

organisations'. It can therefore be inferred that all stakeholders have an understanding and can articulate to various levels, their expectations of types of skills that built environment graduates need to enter the world of work. The relationship also lends credence to how the development of a built environment employability skills compass can be used to articulate richer understanding of these skills and their potential application to a wider industry and academic community. From the Q2a model developed within NVivo software, the results agree with earlier findings from desk studies which asserted that 'some employers and policy-makers felt interference with curricula design was unwelcomed and unwarranted' Academic 5 (2014). This view contradicts Interview findings that indicate academics confirmed their support for involvement of external stakeholders in developing built environment curricula.

5.10.3 Phase 8b: Question 2a – Summary and reflections

This second question increased interface with participants and predominately demonstrated that all stakeholders hold differing levels of understanding relating to the importance of collaboration and stakeholder engagement. The common levels of engagement between all stakeholders suggests that collaborative employer engagement with UK universities was also the way forward, Policy maker/ Politician 3 (2014), noted *"the answer to the existing challenge of delivering sustainable growth has to be influenced by the skills and entrepreneurship of stakeholders possessing relevant 'employability skills' to meet the global challenge".* However, this shared agreement was not seen within the sub-theme of curricula design, which identified that more work, needs to be done to encourage participation of all built environment stakeholders.

SEMI – STRUCTURED INTERVIEWS
PHASE 8b – QUESTION 2b

5.11 Phase 8b: Question 2b – Inference and deductions from stakeholders responses

> Question 2b- *Do you feel that this contact with external stakeholders impacts on your own decision making and practises?*

Most stakeholders interestingly changed their body language to strongly emphasise their responses to Question 2b and in most cases they recognised how engagement with external parties had a powerful impact on their decision making. No evidence was provided in Question 2a, but demonstrates the importance of reemphasising a point and highlighted how there are different ways of posing questions.

In particular examples of quotations *"absolutely, yes I certainly use this engagement to know what is going on across the sector"* (personal interview, Employer 4, 2013), and *"certainly the decision making process has influenced my decision making"* (personal interview, Academic 6, 2013); *"if both parties aren't listening and informed by each other then it won't be a long lasting relationship"* (personal interview, Academic 10, 2014). According to some stakeholders 'it's about employability'. The model shows that employers, professional bodies, graduates, politicians/policy-makers and some career advisers indicated that the impact of engagement with external stakeholders on their decision making was about employability. Academics, however, indicated that their engagement with external stakeholders had no impact on their decision making in this regards. The Model shows that some Career advisers also indicated that as the impact of engagement with external stakeholders on their decision making was not about the employer, it should hold a wider benefit for all stakeholders.

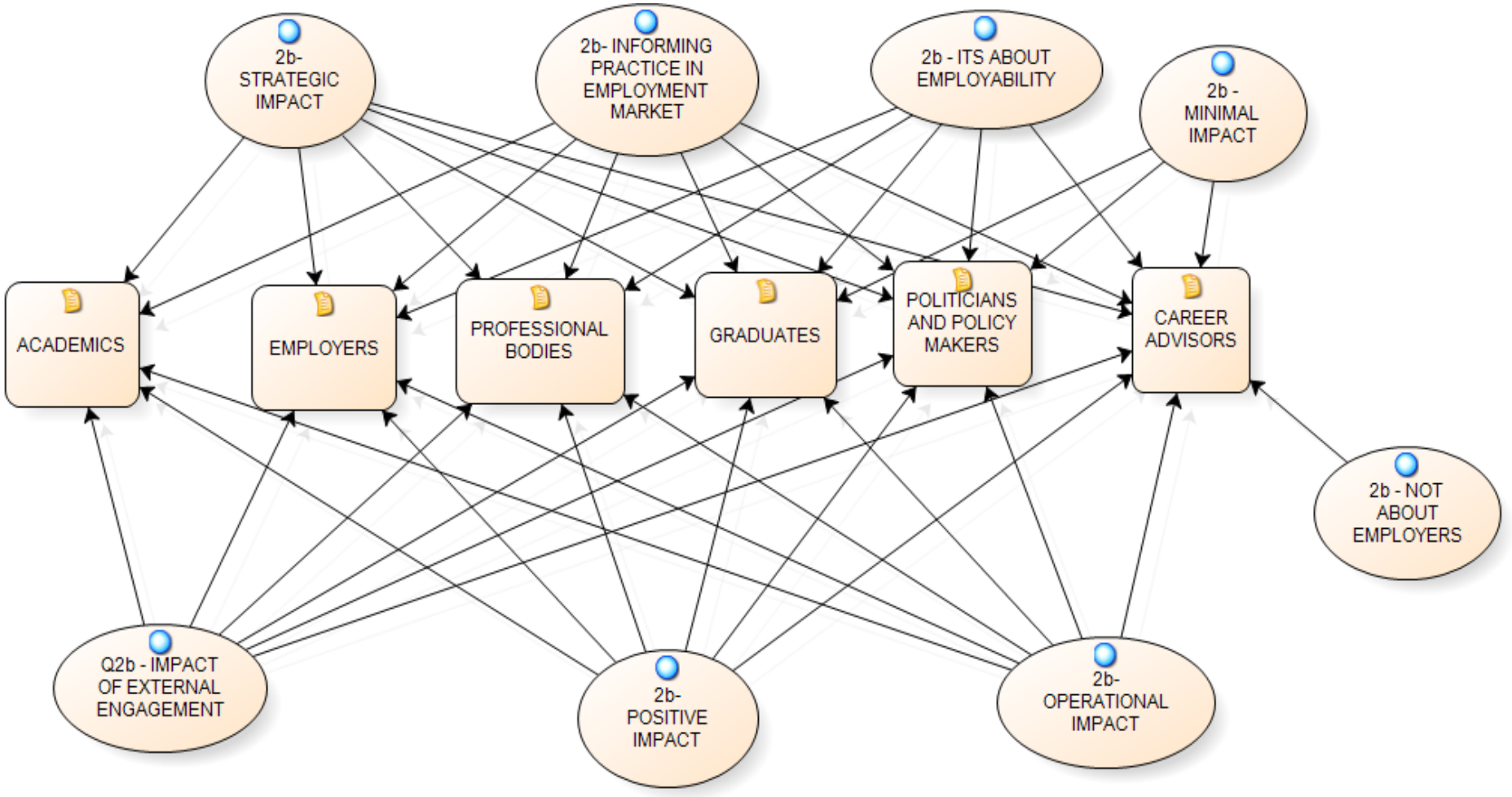
In regards to operational impact, the model indicates that all participant stakeholders' agreed that some level of engagement with external stakeholders had an operational impact on their decision making. The model also demonstrated that

followed across strategic levels of impact across all stakeholders. The responses contradict the comments received by graduates in the earlier part of Question 2a that suggested they had minimal levels of contact and engagement with external stakeholders.

Table 9: Phase 8b: Question 2b - Impact of engagement

Phase 8b NVivo model Figure 18	Broad Themes associated with project aims and objectives	Sub-themes NVivo coded categorised responses
Associated with research aim	Generate insights and fresh understanding behind what constitutes and may be viewed as relevant employability skills for HE graduates of the built environment.	- operational impact - strategic impact - minimal impact - related to employability - not related to employers - positive impact - Employment market practise
Associated with research objective	Investigate current understanding of BE employability skills.	

Figure 24 - Phase 8b Model 2b: What impact does engagement with external stakeholders have on your decision making?



5.11.1 Phase 8b: Question 2b – Analysis related to the project aims and objectives

Predominately responses located within the NVivo model identify how a selection of stakeholders can learn from closer collaboration, but some stakeholders only referred to minimal levels of impact and therefore minimal levels of engagement. The aim of generating insight and fresh knowledge was only sparsely addressed in this question. However the objectives surrounding 'what are employability skills?' could be seen. In particular, how academics can learn more about what are relevant built environment employability skills from richer levels of engagement with employers. Professional bodies also felt their collaboration with academics ensured that professional competencies were discussed in annual partnership meetings

5.11.2 Phase 8b: Question 2b – Analysis related to literature or discreet inquiries

Accepting that some graduates were the only stakeholders who had failed in part to make a strong connection with the impact this external engagement might have, most emphasised the need for stronger levels of engagement. These responses contradicts elements of the CBI literature and publications from the (CBI, 2011) guide relating to boosting students skills and the UKCES (2014) Employability Skills Report that alludes to evidence that engagement by students is widespread. The UKCES Report is aligned in its assessment that employers will increase their levels of engagement, but are unsure how to commence engagement. Employer 5 stated *"I would like to engage more with universities but it's difficult to know who to speak to and then find the time to attend meetings. If it's part of my job description then of course I would find that time".* (Personal, employer, 2012). Most stakeholders accepted that direct engagement with external parties was a critical part of their activities, thinking and information gathering exercise in a quest to locate a more coherent factual or supportive evidence and understanding of what is happening within industry. Therefore aligning with the suggestions of the Department for Business Innovation and Skills (BIS) 'Skills for Sustainable Growth' Report, (2012) that advocates engagement across sectors is increased and then learners will select qualifications that are valued by business.

The common themes that emerged with all stakeholders agreeing that external stakeholder engagement had impacted on their decision making (strategic,

operational impact and influencing practise in the employment market) therefore aligns with Jephcote's (2004) interpretative research that proposed that *"various macro-meso-level interventions and policies have tangible impacts on micro-level propagations".* The assertion that those macro-meso level policies also have a meaningful impact on micro-level engagements has been supported by response from project participants based on the model participants (Personal interviews, Policy maker/ Politician 3, 2014; Employer 14, 2014; and Academic 6, 2014).

5.11.3 Phase 8b: Question 2b – Summary and reflections

Further questions helped provide more detailed understanding surrounding the rationale behind stakeholder's levels of engagement and I was most intrigued how participants changed their body language to strongly emphasise that, in most cases, engagement with external parties had a powerful impact on their decision making. Themes and patterns located in this question included the acceptance in most cases that this contact was meaningful. How it informs their practise and in many cases, how it supports policy-making strategic and operational thinking. In particular all stakeholders' recognised engagement and collaboration were critical activities.

Perhaps increased engagement by graduates may aid their understanding of employability skills and it was interesting how this contradicted literature reviewed in this project, that suggests student and graduate levels of engagement are high. Most stakeholders, therefore, accepted that direct engagement with external parties was a critical part of their day-to-day routine.

SEMI –STRUCTURED INTERVIEWS
PHASE 8b – QUESTION 3a

5.12 Phase 8b: Question 3a – Inference and deductions from stakeholders responses

Question 3a- What do you feel are the important employability skills for a graduate leaving university?

This question generated another strong reaction from stakeholders surrounding their answers and most found it difficult to articulate their top four employability skills. Communication skills, interpersonal and 'soft skills' featured strongly across all stakeholders and graduates were more vocal with their answers. The NVivo model confirmed that only policy-makers, professional bodies and employers raised the importance of transferable skills, the same set of stakeholders who suggested that graduates are more academic ready that industry ready as they depart university.

The need for technical and industry specific knowledge featured highly and matters relating to leadership and management became strong themes with academics, employers and policy-makers. Academics highlighted how university was a stepping stone for the world of work and used phrases like *"enterprising, entrepreneurial"* (personal interview, Academic 6, 2013); whilst Academic 10, (2014) felt it was incumbent on graduates to have mastered *"understanding of what lay ahead in the world of work"* and stated the need for graduates to become more *"knowledgeable and professional".*

Policymakers and politicians highlighted a nervousness that graduates would still be in 'theoretical mind-set' whilst Policy maker/politician 1, in a personal interview, felt *"if undergraduates can master the fundamentals"* along with *"strong subject knowledge underpinned by robust interpersonal industry relevant skills", (personal interview, Policy maker/politician 1, 2013).* They would be suitably prepared. Whereas employers felt it was *"a pre-cursor"* and *"transitional phase"* (personal interview, Employer 7, 2014) and *"if they obtained the skills that demonstrate a professional attitude and they arrive with the correct attitude and good communication skills we can fill in the technical gaps"* (personal interview, Employer 4, 2015). Whereas the majority of other stakeholders collectively felt a good technical knowledge of their selected subject discipline was crucial. In particular

"actually doing the work not just talking about the subject" (personal interview, Employer 4, 2015).

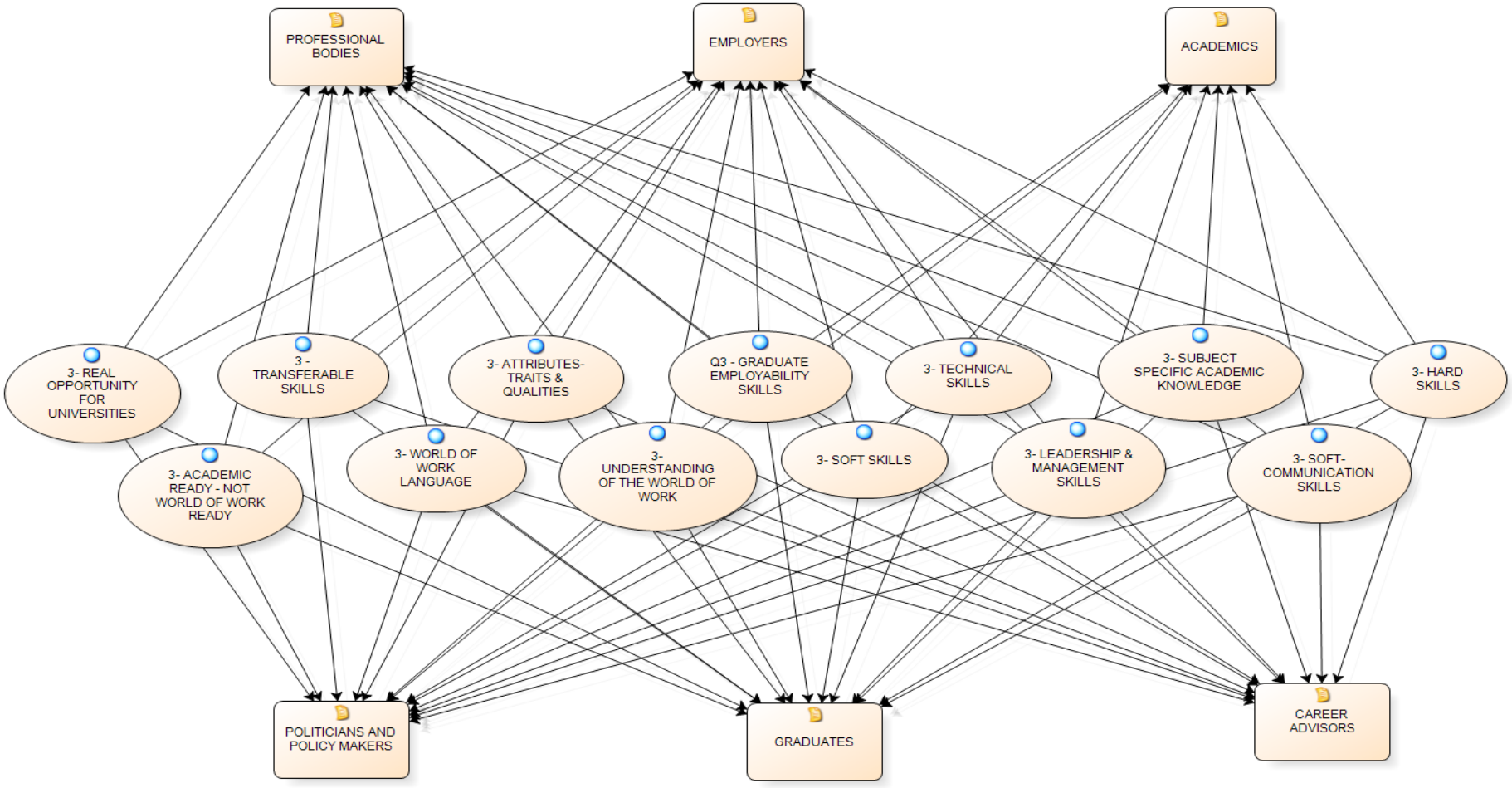
Career advisors provided lists of the employability skills they felt were critical and again repeated the need for graduates to learn the soft-skills that will endear them to new colleagues in the workplace. All career advisors again highlighted *"communication skills and team working"* as crucial but concurred with employers to state that graduates need to quickly become more *"commercial savvy"* (personal interview Employer 7, 2013) and *"hold commercial awareness".*

Professional bodies predominately remained focused on their own professional institution specific competencies, but again concurred with the *"importance of soft skills, communication skills for commercial purposes"* (personal interview, Employer 4, 2014) and the need for graduates to have grasped a *"good technical understanding of their specific discipline"* (personal interview, Employer 7, 2014). Graduates were more animated on the whole surrounding this question and felt the various issues should be addressed through their university learning and talked about generic more than specific skills and attributes and felt a graduate should be *"well rounded"* and hold the *"attributes of a professional practitioner"* (personal interview, Career Advisor 2, 2012). All graduates touched on the importance of *"good communication skills"* but did not identify fully with examples of its application (Browne, 2012). They did, however recognise the need to become a *"hard worker to cement and forge a position in a new company"* (Employer 8h, 2012).

Table 10 : Phase 8b: Question 3a- Important graduate employability skills

Phase 8b NVivo model Figure 19	Broad Themes Associated with project aims and objectives	Sub-themes NVivo coded categorised responses
Associated with research Aim Associated with research objective	Generate insights and fresh understanding behind what constitutes and may be viewed as relevant employability skills for HE graduates of the built environment. Investigate how to better develop, inform and embed employability skills pedagogy into built environment curricula at the University of Wolverhampton. Investigate current understanding of BE Employability skills. Investigate and triangulate the dissemination of findings through multiple platforms	- Transferable skills - Academic ready - Attributes-traits-qualities - Hard skills - Leadership and management - University opportunities - Soft skills - Subject specific academic knowledge - Technical skills - Understanding of the world of work - Language of the world of work

Figure 25 - Phase 8b Question 3a: What do you feel are the important employability skills for a graduate leaving university?



5.12.1 Phase 8b: Question 3a – Analysis related to the project aims and objectives

The question and responses provided a more coherent understanding of where stakeholder's priorities were placed, but I accepted that different stakeholders held different interpretation. It was enlightening to witness various consensus of shared understanding surrounding communication, interpersonal and soft skills, as well as equally relevant to see commonality in responses surrounding subject specific technical skills.

Employers provided a raft of responses and frequently expanded their explanation to evidence examples. Career advisors responded well, but at this early stage it became clear within the interviews that their specific understanding of careers across the built environment was restricted. This may provide a gap in knowledge and understanding as to where specific discipline skills might not align with the skills identified by career advisors. In response to this possible gap, Employer 13, (2014) felt that *"as a career advisor you are akin to a GP and have to hold a generic knowledge of where to signpost students to sector specific experts".*

Interestingly, interview responses confirm that most skills identified by stakeholders are predominately located within university teaching and curricula. However, elements surrounding clearer understanding of how the world of work operates, the language used in the workplace and elements of transferable skills may be areas that could be better signposted and more evidently embedded in curricula. Clear evidence of shared opinions, language and an understanding of what constitutes employability skills were exchanged and most responses concurred and triangulated with responses located within phase 1-7 discreet inquiries.

5.12.2 Phase 8b: Question 3a – Analysis related to literature or discreet inquiries

The interpretations from most stakeholders concurred with the Wilson Review (2011), Witty Review (2013) and the University Alliance 'Mind the gap' Report (2015) surrounding the need for universities to align with external stakeholders expectations concerning employability skills. However, it should be recognised that employers and universities are not the sole participants associated with this

challenge. Indeed, there is clear evidence in the responses to this question that each employer is unique and they will require employer specific graduates with employer specific employability skills. As the HEA stated in the 2011 ESECT Report for The Higher Education Academy *"employability is not the same as employment"* (HEA, 2011, p.6) and it is important that graduates gain sufficient flexibility and transferability in their skills and abilities to meet the ever changing needs of industry and commerce. Interestingly, academics had not mentioned this within their responses. However in defence of my profession, it maybe that they took this skill as a given?

5.12.3 Phase 8b: Question 3a – Summary and reflections

Question 3a elicited thought provoking, reactive responses that teased out patterns associated with employability skills. This included a set of shared beliefs and understanding as to what are the key and important built environment employability skills that were expressed by most stakeholders. The parity with earlier responses was confirmed and included reference to hard and soft employability skills.

The questions are providing transparent correlation with the project aims and objectives and it was good to witness a more proactive engagement from graduates. Some employers were hesitant with their responses once past the generic answers, although they were keen to expand upon their answers to give examples of best practise. The question provided evidence that certain elements of employability skills are indeed located in University of Wolverhampton teaching, but certain elements are not or require stronger collaboration with stakeholders to make refined adjustments.

SEMI-STRUCTURED INTERVIEWS
PHASE 8b – QUESTION 3b

5.13 Phase 8b: Question 3b – Inference and deductions from stakeholders responses

> Question 3b- *Do you feel these skills would be different for a built environment graduate?*

The purpose of this Question was to elicit deeper interpretations of previous responses and to ascertain if stakeholders viewed built environment skills as a different set of skills to the generic set of skills across other disciplines. Responses suggested the contrary. Academics, talked about the higher level appreciation of the awareness or impact of the built environment, landscapes, actual environments and a need for *"perception with regard to the community and the environment in which we're moving"* (personal interview, Academic 9, 2015). Others discussed the "relevance and rich importance of technical knowledge" (personal interview, Academic 5, 2013), *"team working and the ability to communicate with a large host of clients"* (personal interview, Academic, 2014), and *"attitude, flexibility and the ability to communicate ideas"* (personal interview, Academic 2, 2012).

Politicians and policy-makers echoed most comments discussed by other stakeholders, in particular *"the importance of a sound understanding of technical knowledge"* (personal interview, Policy maker/ Politician 3, 2014), *"cognitively engaged", "creativity" and "analytical problem solving skills"* (personal interview, Policy maker/politician 1, 2012). They also recognised the higher levels of the discipline and *"how the built environment impacts on society"* (personal interview, Policy maker/ Politician 3, 2014).

Employers were more emphatic and suggested that *"for too long our sector has not been recognised for the value it brings to society"* (personal interview, Employer 17, 2014). In contrast employers, felt that perhaps the skills were generic (personal interview, Employer 15, 2014). However their interpretation of what constituted

'generic' was more aligned to the built environment graduates *"excellence on quality and accuracy*" and good *"health and safety knowledge and awareness"* (personal interview, Employer 15, 2014), were seen by other stakeholders as specific built environment skills. Other skills identified were the *"ability to fit in"* and *"autonomy in working practises along with the ability to work as a team member"* (personal interview, Employer 4, 2013). The important soft skills identified by employers included attitude, politeness, respect, e-speak, awareness of changing technologies and the ability to be self-critical of their own work. The importance of business ethics and traits like trust, integrity, professional conduct and rich employability skills were strongly emphasised.

Career advisors predominantly felt the skills were generic, but most agreed their lack of knowledge of the sector may be the reason for their comments. However, they did relate to the higher level nuances of the sector through their acceptance and reference to *"the impact of the built environment and the nuances and disciplines within the sector"* and how technical skills would be extremely important to graduates (personal interview, Employer 13, 2014). In contrast, professional bodies identified the specifics and recognised that through their institute core competencies there was a need to capture *"core technical discipline specific skills",* and built environment graduates need to adopt a *"different way of thinking"* and a built environment graduate needs to be fit for purpose with sector specific transferable skills (personal interview, Professional body 3, 2012).

Graduates, who were predominately built environment graduates, were keen to point out all the specific skills, and articulate their abilities to present Reports and problem solving responses in an objective way. They also noted the key objective is the ability to work in teams and they recognised the *"expectation of working long-hours"* and how they held *"the passion that they believe employers expect"* (personal interview, Career Advisor 2, 2012).

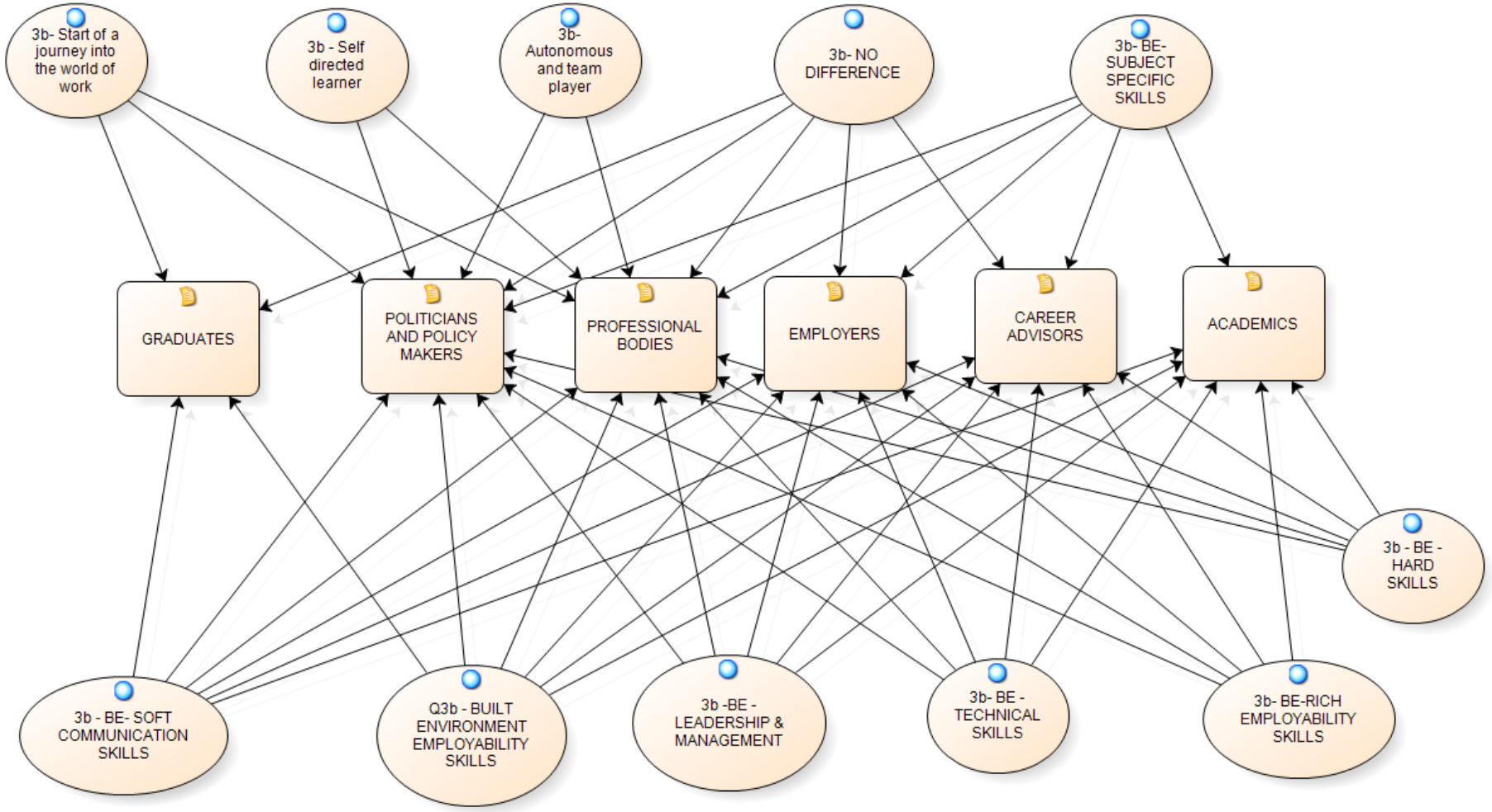
There were slight disagreements surrounding leadership and management skills and most graduates felt it was important to understand the basics before progressing onto managerial roles. In 2015, the same participants in responding to their earlier responses said that because of the recent skills gap across the sector they are indeed required to adopt management skills sooner than expected. Interestingly, most felt this was not generic management skills, as they tended to

work with new colleagues all the time and the nature of the projects they were involved with called for strong motivational skills; something that was not learnt at university, but in the workplace.

Table 11: Phase 8b: Question 3b Skills for a Built environment graduate?

Phase 8b NVivo model Figure 20	Broad Themes Associated with project aims and objectives	Sub-themes NVivo coded categorised responses
Associated with research aims	Generate insights and fresh understanding behind what constitutes and may be viewed as relevant employability skills for HE graduates of the built environment. Investigate how to better develop, inform and embed employability skills pedagogy into built environment curricula at the University of Wolverhampton	- BE Hard skills - BE Soft skills - BE Self directed learner - BE Technical skills - BE Rich employability skills - BE subject specific skills - No difference - Start of a journey in the world of work
Associated with research objectives	Investigate current understanding of BE Employability skills. Investigate and triangulate the dissemination of findings through multiple platforms	

Figure 26 - Phase 8b Question 3b: Do you feel these employability skills differ for a built environment graduate and if so why?



5.13.1 Phase 8b: Question 3b – Analysis related to the project aims and objectives

The mixed responses received from stakeholders confirmed elements of skills are already embedded and understood in university teaching, but it also identified how some stakeholders felt the skills are too generic. Employers were unsure and some agreed with the generic statement. However, when they reflected on their responses, they predominately made a 'U turn' and contradicted earlier responses as they began to understand the specific skills set associated with the sector. As a sector, we tend to be more responsive than reflective.

> *"We just get on with the hundreds of challenges we face each week on large projects and respond to tenders and requests for quotations. Thinking about it when I consider all the skills I have used over the last month it would be immense"* (personal interview, Employer 1, 2013).

The question provided clarification that at times, employers are unsure of what employability skills they would wish a graduate to hold. At times I felt employers were unsure of what they wanted from a built environment graduate. Professional bodies were more concerned with professional body competencies and suggested that built environment skills are both specialist to the discipline e.g. building surveyor, quantity surveying, land surveying and at times generic. The matter of rich employability skills was raised again but this time only expressed after further clarification was sort during the interview.

5.13.2 Phase 8b: Question 3b – Analysis related to literature or discreet inquiries

Most literature reviewed within this project does not explicitly articulate what are the built environment employability skills, and focuses more on STEM subjects or pure engineering skills. Trought (2012, p.6) concurs and suggests most stakeholders only have an understanding of the generic skills. The emerging differences related to the theoretical knowledge built environment practitioners would need to enable a practitioner to problem solve by contextualising images into a 3D/4D visual interpretations. This was also advocated by employers of construction managers, quantity surveyors and architects.

> *"People fail to recognise the complex nature of our industry and sector and they fail to see how these layers of knowledge that visualise and evaluate images and plans are vital in designing, interpreting clients requirements and developing their interpretation into a workable set of drawings"* (personal interview, Employer 19, 2015).

Some of these skills traits and abilities are discussed in professional body publications from the RICS, CIOB and RIBA, but widely dismissed as generic skills. Interestingly, when asked to further articulate how this could be translated to a wider audience, ((Employer 7, 2012; Employer 4 and Employer 19, 2015) made comparatively similar analogies to surgeons, doctors and the health profession. *"We are faced with making complex decisions and analyses but do not have a patient who can provide clues; we have to rely on experience, instinct and understanding surrounding building pathology"* (personal interview, Employer 19, 2015).

5.13.3 Phase 8b: Question 3b – Summary and reflections

Initially, I was deflated by the responses and felt that the findings suggested that there was no unique set of built environment employability skills. Indeed, the responses from employers were slow and at times confusing. In particular they were finding it challenging to articulate past surface level interpretations to a deeper interpretation. The interviews and questioning also confirmed that employers, policy-makers and academics had not given this topic sufficient reflective thinking time. Fortunately the pilot interviews had served me well to develop my own interview skills and after persisting with questioning to seek clarification employers provided richer and more coherent interpretations.

It is clear that there are disparities and generic skills are indeed located in all stakeholders understanding. However the need for core sector skills were identified by employers, Employer 19, Employer 4, Employer 7 and Employer 2 (2015) emphasised that specialist built environment graduate employability skills are relevant, but not appropriately represented or articulated to other external stakeholders. Question 3b responses provided differing responses and suggested that built environment employability skills were in part unique and held their own nuances and differential characteristics.

SEMI-STRUCTURE INTERVIEWS
PHASE 8b – QUESTION 4

5.14 Phase 8b: Question 4 – Inference and deductions from stakeholders responses

Question 4 - Do you feel UK universities appropriately prepare graduates for the world of work and how is this evidenced?

The responses associated with this question were wide-ranging and, in some cases, divergent. Most participants thought that universities graduates were well prepared for the world of work, although some stakeholders felt this referred more to graduates being academically prepared as opposed to technically prepared for the world of work. However, employers provided conflicting responses and provided differing opinion which suggested that graduates were not well prepared by university for the world of work. All stakeholders except academics believed that much more needs to be done to prepare students for the world of work, but during later questioning, most stakeholders contradict themselves and agreed that on reflection, most universities did indeed prepare graduates for the world of work.

Politicians, Policy-makers, professional bodies, and employers indicated that this research provided an excellent opportunity for universities to use the findings to better inform their curriculum

> *I would suggest that HEIs should use these richer style investigations into employability skills to learn from previous mistakes and use the findings of this PhD and similar investigations to enrich their curriculum. I would expect employers to recognise their importance within this role and indeed themselves rise to this challenge in making a contribution to curriculum design, but ultimately I would advocate that academics should continue to listen to policy-makers as we are ideally placed to witness the broader context of employability and respond accordingly" Professional body/ Policy maker 1 (2014).*

Arguably, it can be interpreted to mean that most stakeholders recognised traces or evidence of good practices in the way university graduates were being prepared for the world of work, but stakeholders suggested that there had been "lapses in concentration in responding to the current needs of industry within HE curriculum delivery, (personal interview, Employer 7, 2014).

The broad theme surrounded the 'preparation of graduates for the world of work' and the sub-themes related to "*Academically prepared", Employer 7 (2014) "World of work ready graduates" Employer 2 (2014), "well prepared" Employer 5 (2013), "More to be done", Employer 1 (2015), "not well prepared", Employer 1 (2014), "Opportunity for universities" Professional body/ Policy maker 1 (2014), "partially prepared" Policy maker/ Politician 3 (2014) and "World of work ready" Employer 20s (2015).* It can be inferred that all stakeholders thought that built environment graduates receive appropriate levels of tuition and some students are equipped with appropriate elements of knowledge and built environment technical skills required for the world of work, but maybe not necessarily all the skills employers were hoping to see. These interpretations therefore concurred with other sub-themes related to graduates being well prepared discussed during other questioning. However, later interview responses provided contradictory responses as a fair proportion of the same stakeholders also felt that there was *more to be done in the design of HE curriculum*. Inferring that some stakeholders had encountered built environment graduates in the world of work who lacked the employability skills required, but possessed skills owing to academic degrees that could be further developed to meet the expected levels within the world of work.

From the responses located in the NVivo model it also emerged that professional bodies, employers, graduates and academics expressed their concerns that graduates were 'not well prepared'. This may suggest that these stakeholders believed that *"certain key skills were lacking"* Employer 1 (2015). The model also articulates how all stakeholders felt they had at least encountered graduates who were partially prepared. *"Wolverhampton University's doing a great job and its placements and knowledge transfer programmes evidence this".* (Personal interview, Employer 2, 2014). Others placed emphasis on the need for more 'real-life' case studies to be used within teaching and the need for academics to use *"real life examples of best practise"* Employer 18 (2015).

A large proportion of built environment students studying at the University of Wolverhampton are part-time students with varying levels knowledge of industry and the sector they are currently working within. This knowledge is invaluable and for the astute academic, they will ensure the part-time and full-time students exchange ideas and work in a mixture of group exercises. What the professional bodies identified was the real tangible benefits of this and the way *"knowledge exchange between part-time and full-time students is crucial for both sets of students"* (personal interview, Career Advisor 2, 2012).

Some graduates felt they were inappropriately positioned to comment, but most accepted that, when they were on placement, the skills learnt at university were relevant to the skills used in the workplace.

> *"Perhaps universities prepare the individual by capturing vocational experiences, which perhaps start a journey, but it isn't until you're actually out into the workplace that you perhaps become the finished article. For example, our current crop of graduates know and acknowledge the theory of undertaking valuations, but it not until you actually engage in your first £100,000 valuation that you realise the complexities and importance of getting this process correct. Admittedly a challenging lesson to learn" (personal interview, Employer 9, 2013).*

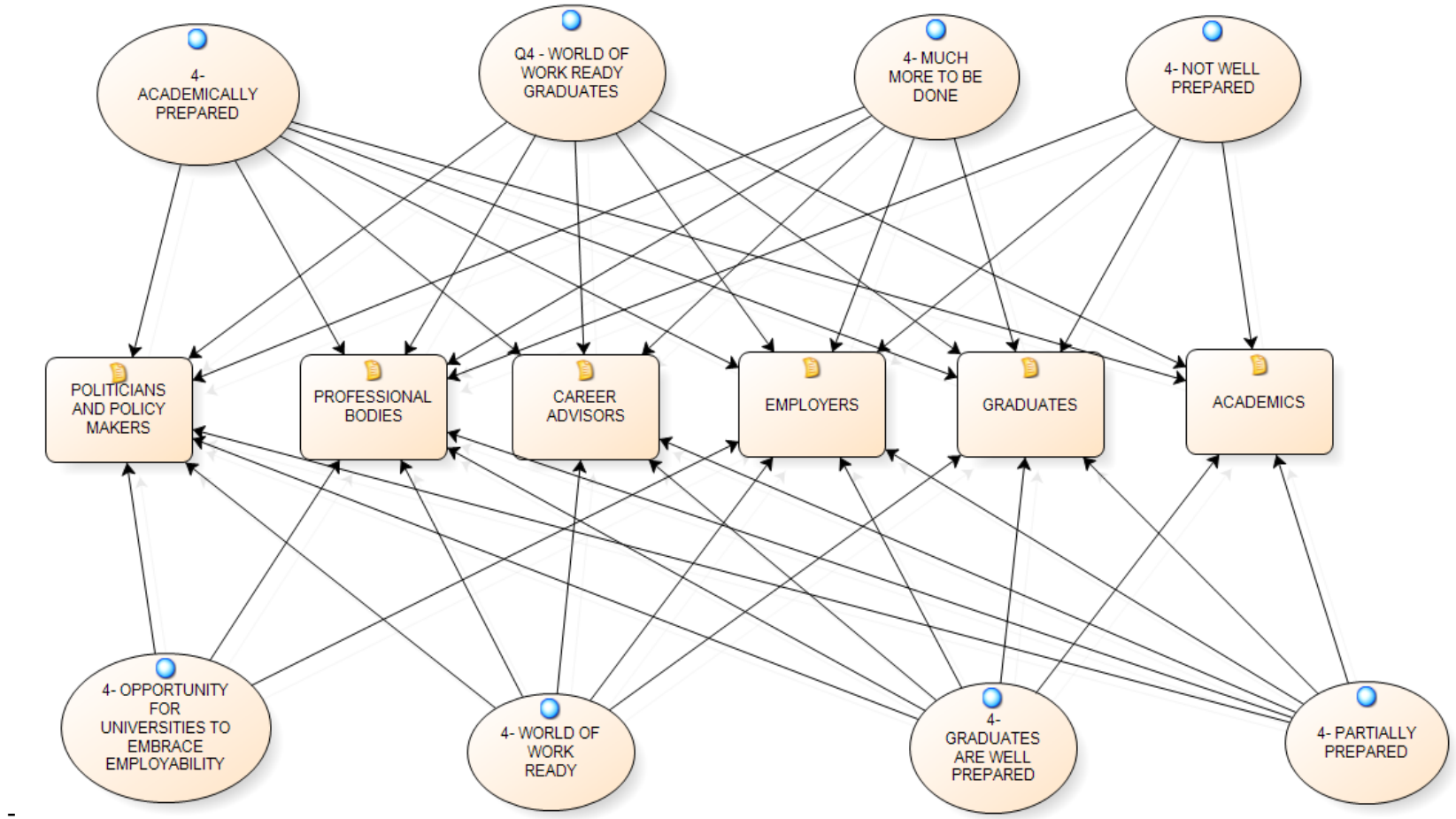
> *"Before I went on placement, I questioned the purpose and relevance of some of the stuff we were taught in lectures and when I would use this knowledge. After just three days of commencing my placement with Carillion it became very clear and I wish I had paid more attention to what my lecturers were saying" (personal interview, Graduate 4, 2015).*

> *"Yes, I agree with what Graduate 3 is saying, I did my placement with JN Bentley and within a few months I was running my own contracts and speaking to sub-contractors on site to get quotations. Glynis had covered this in-class and it was spot on". (personal interview, Graduate 7 2015)*

Table 12: Phase 8b: Question 4 – Do you feel UK universities suitably preparing graduates for the world of work?

Phase 8b NVivo model Figure 21	Broad Themes Associated with project aims and objectives	<u>Sub-theme</u> NVivo coded categorised responses
Associated with research Aim	Generate insights and fresh understanding behind what constitutes and may be viewed as relevant employability skills for HE graduates of the built environment. Investigate how to better develop, inform and embed employability skills pedagogy into built environment curricula at the University of Wolverhampton	- Academically prepared - Well prepared - More to be done - Not well prepared - Opportunity for universities - Partially prepared - World of work ready - World of work ready graduates
Associated with research objective	Investigate current understanding of BE Employability skills. Investigate and triangulate the dissemination of findings through multiple platforms	

Figure 27 - Phase 8b Question 4: Do UK Universities appropriately prepare graduates for the world of work and how is this evidenced?



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5.14.1 Phase 8b: Question 4 – Analysis related to the project aims and objectives

By asking the question about preparation of graduates for the world of work, the research aim and objective was met. The aim was to investigate how to better develop, inform and embed employability skills pedagogy into built environment curricula at the University of Wolverhampton. While the objective was to investigate all layers of the University of Wolverhampton pedagogy, in order to explore how I might further embed employability skills across the built environment curricula.

The question enhanced contributions from participant stakeholders from within and outside the university setting, as well as industry and commerce and these were from varying levels of organisational hierarchy. Thereby relating to the research aim: to uncover new insights and fresh understanding of Higher Education employability skills for a built environment undergraduate. What the responses demonstrated was that it was evident that there existed a paradoxical relationship between all stakeholders, based on the understanding of whether universities adequately prepared their graduates for the world of work

5.14.2 Phase 8b: Question 4 – Analysis related to literature or discreet inquiries

The response received from Question 4 on preparation of graduates for the world of work indicated inconsistencies and this lends credence to earlier investigations from literature reviewed about how the current global economy continues to present significant challenges to the employment status of built environment graduates. These comments were resonated with earlier pre-consultation responses with employers supported by research evidenced in this project indicated that the skills gap relating to built environment practitioners was widening. Policy maker/ Politician 3, (2014) commented *"the response to this challenge and delivering sustainable growth must be powered by the skills and entrepreneurship of people who hold the relevant employability skills to meet this global challenge".* Therefore, it can be deduced that stakeholder involvement was required for a consistent unified understanding of what constitutes built environment employability skills, so that the gap can be narrowed. The paradoxical outcome of the NVivo analysis of Question

4 also supports earlier literature reviewed which stated that *"Universities have historically integrated transferable skills and related employability skills within their education"* (Boud and Soloman, 2003) Their view identified learning and learning gained in the workplace is not only developed in the classroom, but is affiliated and extends as a transferable learning process across university education into the place of work.

The paradoxical outcome of responses on whether universities prepared their graduates for the work place arguably supports the findings from earlier responses from professional bodies who identified *"that the impact of this 'transferability' specifically associated within built environment employability skills has rarely been quantitatively assessed or qualitatively investigated"* RICS (2013) .

5.14.3 Phase 8b: Question 4 – Summary and reflections

The philosophy behind the macro-meso and micro-levels of this investigation with respect to the above inferences and deductions, as interpreted within the context of employability landscape, indicates that an inconsistency exists in stakeholders understanding of whether universities prepared graduates for the world of work.

From the Model there emerged sub-themes where there was undivided agreement by all participant stakeholders and at the same time sub themes with equal and significant levels of disagreement by the same stakeholders. Therefore, it can be deduced that with respect to the question on whether universities prepared built environment graduates for the world of work (with employability skills that enabled best practise professionalism and high levels of success) the responses that emerged were paradoxical.

The inconsistency in the outcome to the question could arguably be due to the fact that the participating stakeholders all had different understandings of what type of preparation built environment graduates required for the world of work. Universities have their own strategy for employability and enterprise, which may not be published, disseminated or known to other stakeholders. It can therefore be asserted that this lends credence to how timely this research is to address the challenges articulated in various stakeholder publications. Suggesting, on the broad theme 'preparation of graduates for the world of work', derived from the NVivo model (Figure 15) opposing relationships were seen to existed. Thus indicating that most

stakeholders within the built environment have different and inconsistent expectations surrounding what constitutes relevant built environment graduate employability skills.

SEMI-STRUCTURED INTERVIEWS
PHASE 8b – QUESTION 5a

5.15 Phase 8b: Question 5a – Inference and deductions from stakeholders responses

> Question 5a - *Can you describe a situation where you have come across a successful built environment graduate?*

All participants and stakeholders could recall examples of students/graduates who, they felt stood out from the crowd or demonstrated outstanding employability skills. In responding to this question all participants body language changed to express excitement, belief and the reaction that success brings. This was later articulated as the deep richer emotional bond held between graduates and other stakeholders.

Academics recalled numerous examples of positive encounters and highlighted that these encounters with their students were part of the reason that they were engaged or worked in education. Most went into great detail and recalled stories and emotional ties with these students. In particular, recalling evidence of students that had overcome personal barriers to reach their goals. However a proportion of academics recalled the converse and evidenced students who were negative in the way they approached university life and would undoubtedly fail to locate a career relating directly to their studies.

Politicians/policy-makers made reference to similar recollections and provided examples of individuals or groups of students who have achieved and Policy maker/politician 1 (2012) cited *"exceptional confidence, rich communication skills and demonstrated overwhelming determination to succeed". "We have found a number of individuals who have excellent employability skills. They are people who*

can contextualise theory into practical applications and then take it further by thinking about those skills" (personal interview, Policy maker/ Politician 3, 2014).

Employers continued the theme of recollecting positive examples of where students have been clever and suggested that these individuals are most likely to progress within their own organisations or indeed the sector. Two employers felt that *"learning comes from failure"* (Employer 7; Employer 2, 2014) and again cited *"communication skills and solid interpersonal skills as key employability skills that set them apart from others".*

Career advisors made reference throughout their responses to the traditional skills of active listening, and placed great importance on students undertaking extra curricula activities. They also predominately echoed the views of employers that suggested the importance of excellent soft skills, the ability to be self-motivated, good time keeping and entrepreneurial skills as 'rich employability skills'.

Professional bodies recalled similar encounters to employers and career advisors and evidenced examples of *"ability to disseminate the information without management input and the ability to think independently" CIOB (2014).* In particular, they recalled tangible outputs relating to projects that had been designed, constructed or developed by those students/graduates which were high on the exceptional, outstanding success stories.

Graduates accepted that they had witnessed fellow graduates who had demonstrated exceptional skills, but all graduates felt this was associated with leadership, motivational and good interpersonal skills that set them apart from other students.

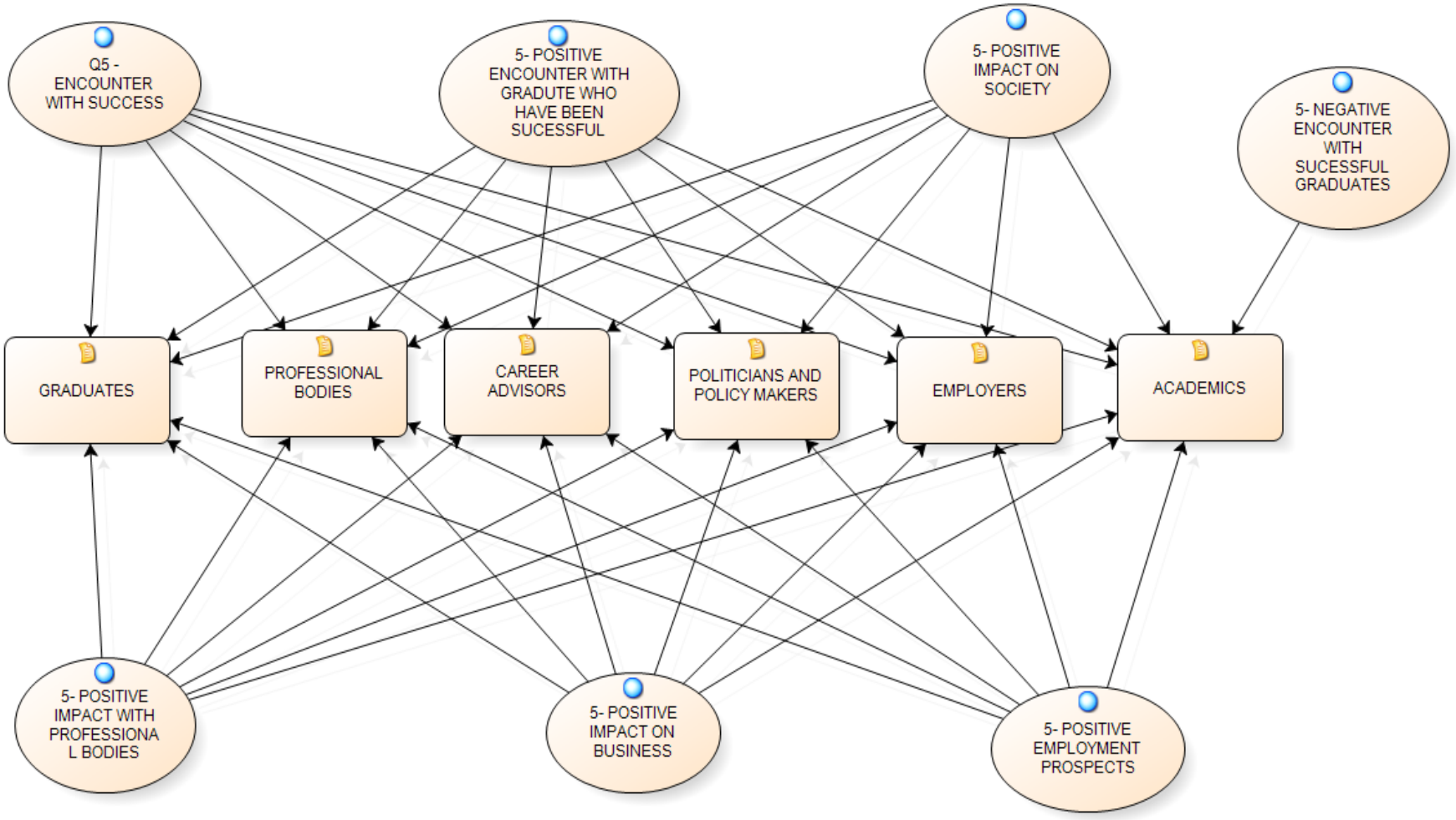
These stakeholders' interpretations identified in this specific question provided certain levels of clarification surrounding a connection between employability skills, success and built environment graduates. More specifically in dialogue with participants, reference was made to individuals within the built environment who held exceptional employability skills. These interpretations very much related to earlier responses found in previous discreet inquiries, where the term 'rich built environment employability skills' was recalled by various stakeholders. This was a very rewarding serendipitous moment and provided a further evidence of deeper,

richer set of built environment employability skills that are currently hidden or lost in literature.

Table 13: Phase 8b Question 5a Explanation of graduate success

Phase 8b NVivo model Figure 22	Broad Themes Associated with project aims and objectives	Sub-themes NVivo coded categorised responses
Associated with research Aim	Generate insights and fresh understanding behind what constitutes and may be viewed as relevant employability skills for HE graduates of the built environment. Investigate how to better develop, inform and embed employability skills pedagogy into built environment curricula at the University of Wolverhampton	- Encounter with success - Positive encounter - Positive impact on society - Negative encounter - Positive impact with professional bodies - Positive impact on business
Associated with research objective	Investigate current understanding of BE Employability skills. Investigate and triangulate the dissemination of findings through multiple platforms	- Positive employment prospects

Figure 28 - Phase 8b Question 5a: Can you describe a situation where you have come across a successful built environment graduate?



5.15.1 Phase 8b: Question 5a – Analysis related to the project aims and objectives

Responses to questions within 5a provided clear delineation with the aims I had looked to investigate within this question relating to generating fresh understanding and provided clear evidence that some built environment graduates were directly associated with success stories. Indeed, it was gratifying to witness how all participant stakeholders were illuminated when providing their recollections and recalling their experiences. If I could better articulate these successes and embed them in teaching that would be a recipe for its own success.

In respect of the objectives of understanding of what are behind the associated employability skills associated with stakeholders, most stakeholders suggested links to success, leadership, strong personality and excellent interpersonal skills. These responses certainly provided direct correlation and triangulation with earlier responses was noted and later responses from Question 5b confirmed these skills as key skills.

5.15.2 Phase 8b: Question 5a – Analysis related to literature or discreet inquiries

Literature associated with success is predominately recorded in various reviews and Reports such as the UKCES, (2014b) ‘Forging Futures’ Report and the University Alliance ‘Mind the Gap’ Reports where case studies of best practises and successes are recorded. Unfortunately, the number of case studies and examples of best practises directly associated with built environment graduates are sparingly used. From earlier attendance I have heard numerous recollections and numerous examples of successes that academics have witnessed and but again there has been no correlation of where these stories are disseminated. Perhaps this confers that the sector at all levels needs to improve its dissemination of best practises to a wider academic and industrial community.

Professional bodies were more successful in articulating success through annual competitions that require graduates to engage in problem solving team activities, but again this is sparingly recorded in publications outside of general marketing publications specifically generated by industrial practitioners.

5.15.3 Phase 8b: Question 5a – Summary and reflections

Most stakeholders recalled positive encounters with built environment graduates and they all appeared positively animated in their responses and recollection of encounters. Themes and patterns and recollections located in the NVivo model were generally shared across all stakeholders. However, academics were keen to point out that for every positive experience there are numerous habitual encounters with graduates.

The ability to contextualise and apply knowledge was important to employers. Other prominent skills recorded included evidence of strong interpersonal skills that set graduates apart from their peers and the ability to work within a team or take ownership of a task. Importantly, existing students and graduates in their recollections could identify with an individual who demonstrated these abilities and skills whilst at university. Thereby suggesting a correlation in responses from stakeholders that these skills may be learnt whilst at university or are skills that are developed, nurtured or embedded in HE curricula.

Success and measures of success can relate to various interpretations and can be viewed independently or differently by various stakeholders. What stakeholders suggested within their responses was that academic success (i.e. graduates passing their HE qualifications) does not always lead to automatic success in the workplace. However, stakeholders recognised that graduates are more likely to be rounded individuals with elements of the employability skills required for the workplace and it is about mentoring and supporting graduates to unlock further skills and attributes. This view supported Barrie (2004) that suggests HE graduates are more likely to be upstanding citizens and are likely to seek further success in their own life, whilst supporting others to do the same.

> *"What we have recognised is a correlation between university graduates, their behaviour patterns and their willingness to engage in corporate social responsibility activities. Whether it could be argued that they are merely attempting to forge a foot-hold within our organisation is debatable, but I would suggest not. This would therefore lead me to believe that in general most graduates are switched on to becoming model citizens and appreciate that in life hard work perhaps attributed to obtaining their undergraduate*

degree qualification provides its own rewards" (personal interview, Professional body/ Policy maker 1, 2014).

SEMI-STRUCTURED INTERVIEWS

PHASE 8b – QUESTION 5B

5.16 Phase 8b: Question 5b – Inference and deductions from stakeholders responses

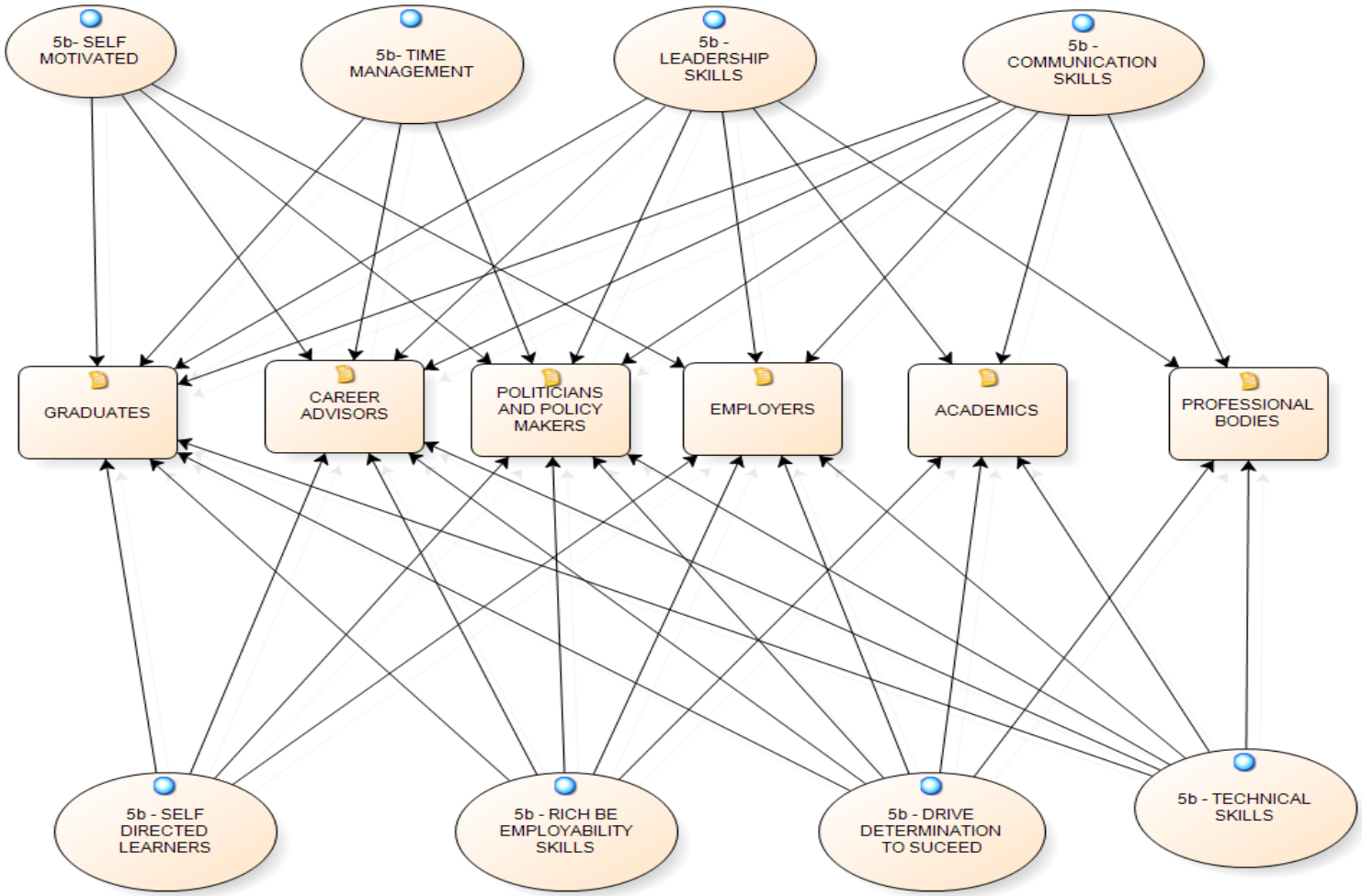
Question 5b –Can you articulate what employability skills set them apart from other graduates?

Question 5b built upon the previous question (5a) and provided further explanation relating to the specific detail behind stakeholder's interpretations. Specifically, how stakeholders formed an association between success and specific qualities a built environment graduate might hold. From reviewing the Nvivo model graduates predominately felt that if they were self motivated and self directed learners. This would align with the expectations of employers, but they also described how leadership and good communication skills lead to success.

Table 14: Phase 8b Model 5b- Skills that set graduates apart

Phase 8b NVivo model Figure 23	Broad Themes Associated with project aims and objectives	Sub-themes NVivo coded categorised responses
Associated with research aims Associated with research objectives	Generate insights and fresh understanding behind what constitutes and may be viewed as relevant employability skills for HE graduates of the built environment. Investigate current understanding of BE Employability skills. Investigate and triangulate the dissemination of findings through multiple platforms	- Self motivated - Time management - Leadership skills - Communication skills - Self directed learners - Rich BE employability skills - Drive/determination to succeed - Technical skills

Figure 29 - Phase 8b Question 5b: Can you articulate what employability skills set them apart from other graduates?



5.16.1 Phase 8b: Question 5b – Analysis related to the project aims and objectives

The aims associated with this question investigated the possibility of identifying a deeper understanding of stakeholders interpretations surrounding what are the exceptional skills shown by successful graduates, so these skills may be better embedded within HE teaching and used to enrich curricula development. It was rewarding to see various levels of agreement surrounding what constitutes these skills and even more rewarding to again hear the term rich employability skills repeated by all except professional bodies. The terms drive, determination and ambition were repeatedly inferred, but surprisingly academics failed to record self directed learning as a key to success. All stakeholders supported the claim that communication skills were important and, in seeking examples of how this was noticeable in successful graduates, most stakeholders recalled experiences where the individual had spoken with confidence, authority and the ability to articulate their messages. Recognising that presentation skills are embedded at all levels within the current University of Wolverhampton built environment curricula; I wondered if these skills were the same communication and interpersonal skills they were seeking within commercial environments.

5.16.2 Phase 8b: Question 5b – Analysis related to literature or discreet inquiries

The direct association or correlation with success and evidence of successful graduates was previously discussed in Question 5a. However there is a direct correlation with the earlier phase 4 FSE graduate employability and enterprise course. Graduates and employers interviewed for both inquiries provided similar responses that suggested that Wolverhampton graduates had indeed demonstrated strong presentation skills, but suggested that they still lacked confidence.

These issues were previously raised by the graduates who attended the graduate employability and enterprise course (Phase 4) as a perceived barrier that had prevented them reaching the world of work. I had certainly witnessed and experienced this during day one of the course and if I was interviewing any of the graduates I would have described this lack of confidence as a negative. This might infer that confidence in the workplace is a key consideration and a key employability skill (or trait) that employers are searching for.

When further pressed on this matter, most employers suggested that an actual perception of confidence was just as important as confidence itself and there was a fine line between confidence and arrogance. In recalling examples of graduates that demonstrated apathy in their ability to engage in the world of work employers felt this was unacceptable and part of the problems in recruiting graduates. They did acknowledge that this would be an influential factor to be considered when interviewing graduates and it may therefore be inferred that there is a correlation between stakeholder's interpretations in both inquiries and where feasible, confidence should be embraced in HE learning and teaching.

5.16.3 Phase 8b: Question 5b – Summary and reflections

Through a process of further deduction and deeper investigation, it was clear that all stakeholders held specific examples of working with exceptional graduates and could expand on this to articulate the specific skills and traits that these individuals had verified. The NVivo model was a useful mechanism for identifying the prominence of shared interpretations between stakeholders. However, when pressing interviewees to the exact context it became evident that paradoxical differences existed surrounding how success is measured. It may also be inferred from the findings that a mix of both hard and soft skills provide a more measured graduate who can be responsive in their actions, demonstrate drive and determination to succeed and can clearly evidence and articulate how transferable skills located in HE undergraduate teaching can be transferred to the workplace.

"Young Smith, our 2013 intake of graduates was on the money. Not only did he understand how to negotiate with contractors but he had a certain way about him. For examples we were experiencing a few issues with our German friends and their interpretation of tight deadlines. Young Smith, flies over to Berlin negotiates with the supplier and returned home with a written set of terms and conditions. His Professors obviously taught him well" (personal interview, employer 21, 2014).

SEMI-STRUCTURED INTERVIEWS
PHASE 8b – QUESTION 6

5.17 Phase 8b: Question 6 – Inference and deductions from stakeholders responses

> Question 6 – Do you feel external stakeholders, such as employers, should contribute to the design and development of HE Curricula?

The broad themes located in the responses associated with this question were derived around external stakeholders 'contribution to curricula design'. The sub-themes included how this engagement might '*add value'; suggested various levels of engagement and suggested that if this interaction was to take place it should be meaningful and worthwhile. T*he NVivo model indicated that all stakeholder participants agreed that employers and external stakeholders add value through contribution to HEI curricula design and this was later endorsed during individual interviews.

The NVivo model findings also indicated that professional bodies, career advisers, graduates, politicians and policy-makers and academics were already engaged with HEI Curricula design, but contributions from employers were sparse. NVivo analysis indicates that employers did not have a link to this sub-theme. The findings could be due to the earlier findings from the discreet enquiries in which employers concurred with other stakeholders and recognised *"the validity of this exercise, but they predominately felt they would need assistance, training or guidance from the academics"* (personal interview, Employer 2, 2014)

Interestingly, only politicians and policy-makers and academics have a link to the sub-theme 'should not be engaged', as they predominantly felt this would interfere with existing professional practises. Other stakeholders felt the reverse, that it would enhance professional teaching and might actually inform policymaking.

The NVivo model shows that all participant stakeholders agree that all stakeholders in the built environment, along with employers and external stake holders should contribute to HEI curricula design. These interpretations were evidenced in earlier responses during Phase 6 discreet enquiries where professional bodies highlighted

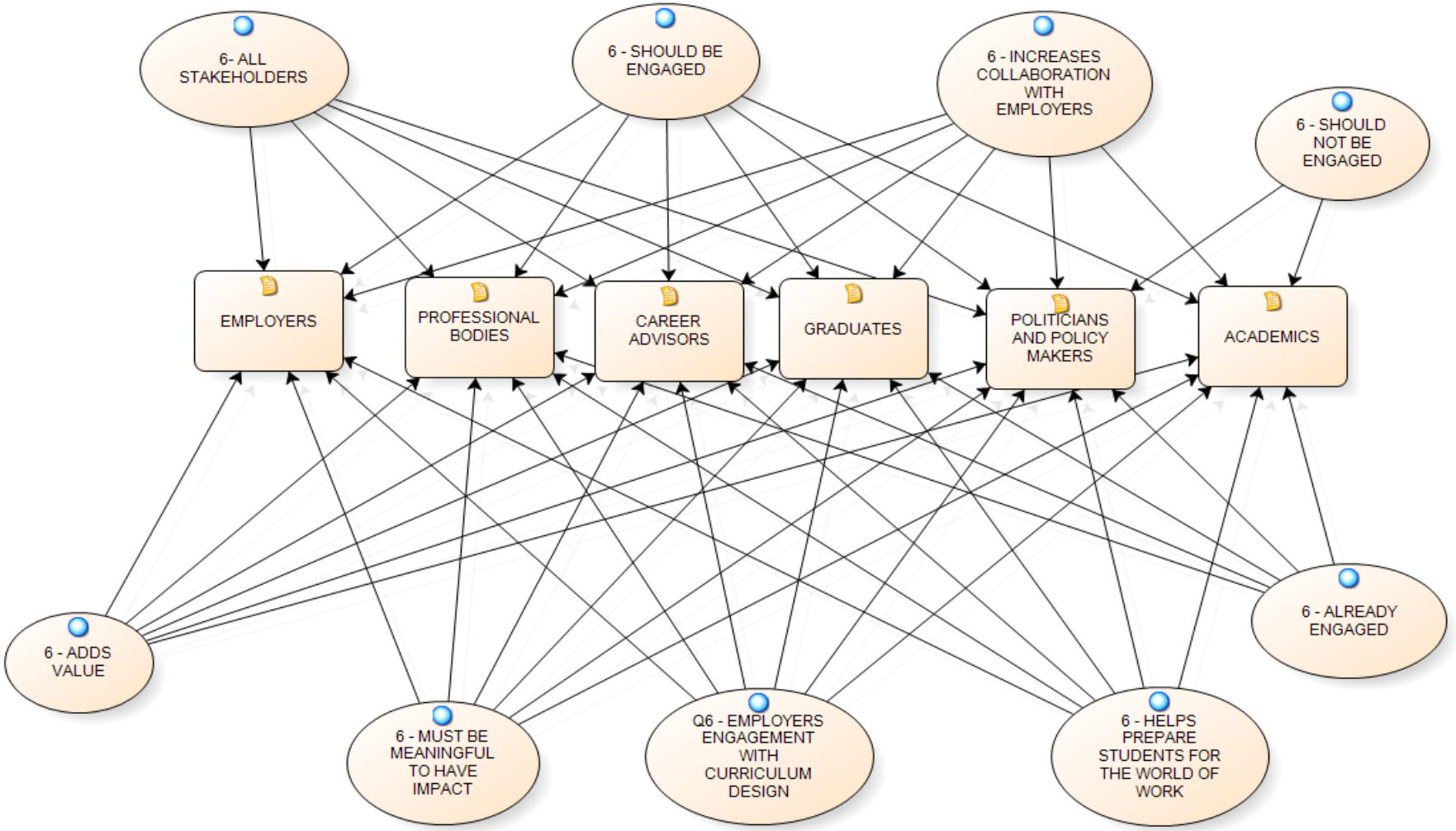
that they already contribute to curricula design through the restriction and bias surrounding professional body competencies as this formed part of the accreditation. *"The built environment is changing daily, so we need to equip graduates with the relevant skills"* (personal interview, Professional body 4, 2015).

All participant stakeholder responses indicated a positive affirmation and relationship to the sub-themes; 'adds value, already engaged, must be meaningful, should be engaged, employers engagement with curricula design, helps prepare students for the world of work, increases collaboration with employers, and all stakeholders.' Therefore, it could suggest that that there is evidence of a converging relationship between the employers, professional bodies, career advisers, graduates, politicians, policy-makers and academics in this regard. Literature cited in Chapter 2 predominantly suggests otherwise.

Table 15: Phase 8b Question 6 – Should external stakeholders contribute to the design and development of HE curricula

Phase 8b NVivo model Figure 24	Broad Themes Associated with project aims and objectives	Sub-themes NVivo coded categorised responses
Model 6 Associated with research aims Associated with research objectives	Generate insights and fresh understanding behind what constitutes and may be viewed as relevant employability skills for HE graduates of the built environment. Investigate how to better develop, inform and embed employability skills pedagogy into built environment curricula at the University of Wolverhampton Investigate current understanding of BE employability skills. Investigate and triangulate the dissemination of findings through multiple platforms.	- Should be engaged - Increases collaboration with employers - Should not be engaged - Already engaged - Helps prepare students for the world of work - Employers engagement with curricula design - Must be meaningful to have impact - Adds value

Figure 30 - Phase 8b Question 6: Do you feel employers and external stakeholders should contribute to HE curricula design?



5.17.1 Phase 8b: Question 6 – Analysis related to the project aims and objectives

The research aim and objective was better informed by participant responses as the aim was to investigate how to better develop, inform and embed employability skills pedagogy into built environment curricula at the University of Wolverhampton. While the objective to investigate all layers of the University of Wolverhampton pedagogy to better understand how I might further embed employability skills across the built environment curricula was also increasingly informed from stakeholder interpretations and responses. The question showed that all participant stakeholders from HEI and industry and commerce indicated an acceptance of this idea of collaborative contributions to the development of HEI curricula, but recognised barriers that might prevent this engagement. It was also evident that all stakeholders agree strongly on the value of their collaborative contribution within the built environment, albeit not directly associated with HEI curricula design.

5.17.2 Phase 8b: Question 6 – Analysis related to literature or discreet inquiries

The responses received from Question 6 on contribution to curricula design indicated a strong unified correlated consensus with research undertaken by Williams and Thurairajah, (2009, p.54) that highlights, whilst there are concerns surrounding employers understanding of what is required, this raises issues concerning the value or status of accredited course material. Supporting Policy maker/ Politician 3's comment *"The response to this challenge and delivering sustainable growth must be powered by the skills and entrepreneurship of people who hold the relevant employability skills to meet this global challenge"* (personal interview, Policy maker/ Politician 3, 2014). These interpretations and suggestions are articulated in various BIS and HEFCE Reports and concur with these findings suggesting that enriched built environment curricula can play a valuable role in ensuring students and graduates are better prepared to succeed in the world of work. Therefore, supporting the opinion that:

> *"If the sector, (construction and the built environment) were to play their part in meeting the global skills shortage, we (built environment professionals and associated stakeholders) must ensure graduates hold the relevant employability skills to meet sector demands and better prepare graduates for*

the challenges the sector faces as we approach 2020; I suggest universities have a pivotal role in this challenge. Arguably this can be achieved through collaborative built environment stakeholder's contribution to the design of HEI curricula" (personal interview, professional body 3, 2015).

Importantly, the HEFCE, (2011, p.5) statement suggests that:

"Embedding employability into the core of higher education will continue to be a key priority of Government, universities, colleges and employers are fully aligned with stakeholders understanding; they just need to understand the process and how they can contribute".

Suggesting employers contributions to the design of curricula will undoubtedly bring significant benefits, and confirm how higher education's broader role contributes to economic growth as well as its vital role in social and cultural development. Therefore it can be deduced that this will invariably result in a 'win-win' outcome at all levels for HEI, external stakeholders and built environment graduates.

5.17.3 Phase 8b: Question 6 – Summary and reflections

The question was well received and policy-makers and politicians felt this was an excellent proposal. The concept of increasing employer's engagement in the design of curricula was well supported but academics felt this should be extended to encourage employers to play a more active role in the delivery of in-class lectures. The matter of anxieties was raised by most participants as they felt they would fail to understand the protocols and complexities, but they all felt with support from academics these issues could be overcome.

Importantly, all stakeholders understood the added value of supporting curricula design and delivery and policy-makers/politicians, employers and career advisors felt this was a perfect way of ensuring that graduates leave university with employer relevant skills. Interestingly most participants recalled previous encounters and or stated that they were already making a small contribution and all respondents said a key issue was to ensure time is used effectively. *"One university who I will not name kept me at a meeting for two hours discussing protocols so there was only 15 minutes left to discuss my contributions to the design of the course material"* (personal interview, Employer 7, 2014).

Only two academics and two policymakers felt this was a matter for experts (academics) and external stakeholders should not interfere.

SEMI-STRUCTURED INTERVIEWS

PHASE 8b – QUESTION 7

5.18 Phase 8b: Question 7 – Inference and deductions from stakeholders responses

Question 7 – Do you feel policies, Reports and publications relating to employability skills are suitably accessible and appropriately disseminated?

I had not envisaged or anticipated posing this question at the start of my research as I had assumed that all stakeholders have direct access to all relevant publications. It was only when posing questions to participants in 2012 that it became clear that most associated stakeholders had not read, and in many cases heard of, any employability skills publications. Having put five years work into this project and having received contributions from over 250 participants I felt it appropriate to investigate this matter further. Overall, there appeared to be nervousness by all stakeholders surrounding answering Question 7, thereby their responses may demonstrate a lack of engagement.

Academics predominately felt wider dissemination was taking place and as shown on the NVivo model they felt there was an ease of access to publications and research to a wider set of stakeholders. However, when directly asked to cite examples of employability skills publication or examples of associated literature most academics failed to cite an answer. This was surprising, as all academics acknowledged that access to these resources might better inform their own practice.

Academics felt that professional bodies and professional associations could do more to highlight key Reports, but if there were specific topics they wished to investigate they would search out the Reports by themselves. *"Policies and*

procedure statements are often complicated and sometimes quite deep and difficult to penetrate" (personal interview, Academic 10, 2014).

Politicians/policy-makers likewise felt accessibility to policy Reports and their commissioned publications was fairly easy, but some stakeholders passed comment to say *"In the end I don't think the policies are. I think they are fertilising ground, they create more of an appetite for change"* (Policy maker/politician 1, 2012). Similar to the responses received to Question 3 and 4, most policy-makers felt that dissemination is taking place in certain macro and meso levels of the nation, but accepted that more could be done in this area in respect of dissemination at the micro level grass roots. In particular two politicians felt *"there could be more adopted use of social media which has greatly extended my contact with local constituents"* (personal interviews, Policy maker/ Politician 3 (2013); Academic 5, (2013).

Most employers acknowledged that they only viewed or engaged with publications when they needed to produce their own reports for work. The exception being one employer, who was keen to state how, the importance of taking personal ownership of locating statistics and facts, was a personal matter. *"You need to be very proactive yourself in seeking out these reports".* (Personal interview, employer 1 (2011). Where the arguments became animated related to the follow-on question posed specifically at employers to seek their views as to whether the Reports and literature they had previously reviewed were user-friendly. It was clearly pointed out by four of the five respondents, that academic publications were too distant in their use of academic language and excluded wider accessibility.

It was at this point in questioning that I made the conscious decision to ensure where possible I would re-visit most participants to ensure my own interpretations were correctly recorded and interpreted. Specifically ensuring that the genre and language used within this project provides coherence in understanding and accessibility for all.

All careers advisors acknowledged that they were not as engaged with employability reports and literature as they might, but accepted that there was no excuses, as it was predominately down to workloads and they could access reports on built environment employability skills through a third party. Confirming that they were not sufficiently engaged with the built environment sector or literature surrounding built

environment employability skills. Something I had suspected for while. Although two advisors said they use their own advisory service web-portal to keep them informed.

Professional bodies said they were aware of certain Reports but again they could not cite specific examples. They also recorded the electronic mechanism they use for dissemination of their own commissioned Reports but accepted that only between 40%-60% of member's actual open emails or read the guidance" Professional body 4 (2015). The majority felt that other stakeholders could be more proactive and *"universities have a role to play here, and could assist with this matter. I think it should be a university liaison officer role as a mechanism to improve this dissemination"* (personal interview, Professional body 4, 2015).

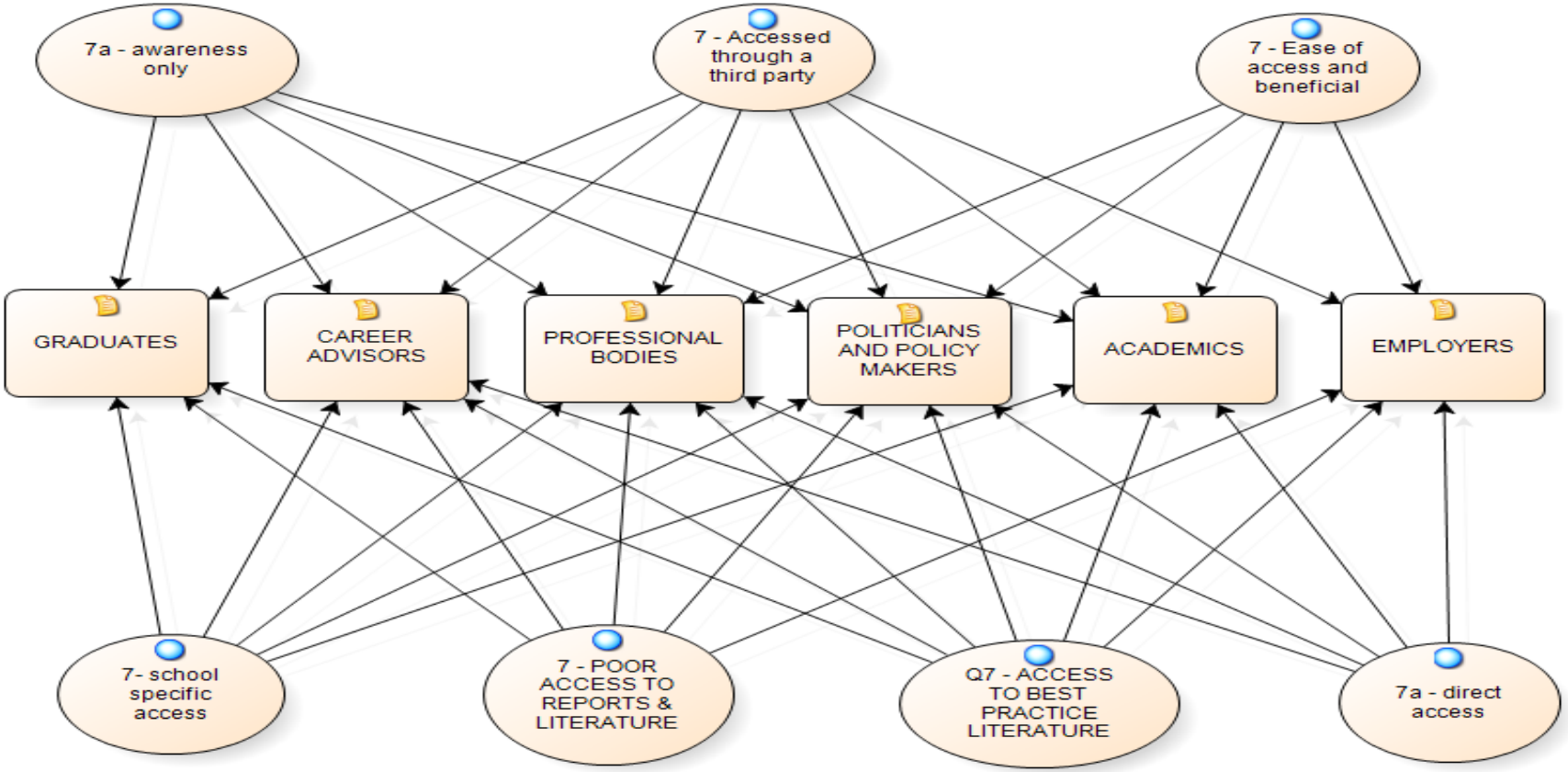
Graduates took the view that it's down to the individual concerned to find the information and concurred with some of the employers that it's about the individual graduate being proactive and self-directed in their learning. Again all accepted that whilst employability skills had a huge impact on their transition from education into the world of work, they had no knowledge of the Wilson Report (2012) or other more widely known published Reports. They accepted that when studying within a higher education environment you become a self-directed learning and you are familiar with researching and locating academic literature, but understood the challenges this may cause external stakeholders.

> *"Most employers I work with have never been in a university library and they would not be familiar with accessing reports, journals and government publications. Perhaps they should reflect on this fact a little more and respect that as students we are fully engage with locating data and using web-sites, publications, journals and academic publications for submitting our assignments. If my line manager asked me I will help out a little more, but it's clear they use the same reports from years gone by and they thing that's current thinking" (personal interview, Career Advisor 2, 2012).*

Table 16: Phase 8b: Question 7 Dissemination and accessibility of employability skills Reports

Phase 8b NVivo model Figure 25	Broad Themes Associated to project aims and objectives	Sub-themes NVivo coded categorised responses
Model 7 Associated with research aims	Generate insights and fresh understanding behind what constitutes and may be viewed as relevant employability skills for HE graduates of the built environment. Investigate how to better develop, inform and embed employability skills pedagogy into built environment curricula at the University of Wolverhampton	- Awareness only - Accessed through a third party - Ease of access and beneficial - Direct access - Access to best practice literature - Poor /minimal access to Reports and employability skills literature
Associated with research objectives	Investigate current understanding of BE employability skills. Investigate and triangulate the dissemination of findings through multiple platforms.	- School specific access

Figure 31 - Phase 8b Question 7: Are policies and Reports relating to employability skills are suitably accessible and appropriately disseminated?



5.18.1 Phase 8b: Question 7 – Analysis related to the project aims and objectives

The responses provided from the question and contained within the NVivo model reconfirmed the importance of one of the key aims for this project, to increase the levels of dissemination across all levels of the academic and industry and commercial sectors. Originally viewed as a complimentary activity, but as the investigations and discreet inquiries continued, it soon became apparent that the issue of dissemination resonated extremely strongly with various stakeholders and highlighted how this was a matter of vital importance. These findings suggested that the issue of wider dissemination and accessibility and engagement with employability skills reports was a matter not specifically unique to this project. At all levels of my discreet inquiries I used the concept of dissemination with participants and in securing the agreement with Syed, A to attend the series of CITC international conferences; I would use this opportunity to disseminate my own incremental findings.

5.18.2 Phase 8b: Question 7 – Analysis related to literature or discreet inquiries

The question of dissemination is rarely reviewed within the publications and literature contained within Chapter 2. However, there is a wider acceptance by all stakeholders that in a digital age universities need to invest in digital repositories to ease access. This does not suggest that reviews such as the Dearing (NCIHE Review, 1994; Lambert Review, HM Treasury, 2003; Leitch Review 2006; Wilson Review, 2011; Witty Review, BIS, 2013; and Dowling BIS, Review 2015 have failed to articulate the need for wider dissemination of their Report/review findings, but suggests that these informative and extremely well defined reviews and publications are failing to reach certain levels of targeted audiences.

5.18.3 Phase 8b: Question 7 – Summary and reflections

Most stakeholders felt the question was relevant, but most also accepted that it raised a deficiency in their understanding of the employability agenda. In general there was an acceptance that if they all gave more time to researching or accessing publications, they might be better informed but the consensus of opinions suggested

time and knowing where to access reports were key issues. Most respondents felt that this constituted poor levels of dissemination by all parties and publicists, and whilst professional bodies were targeted out as possibly making more effort, there was a general acceptance by all stakeholders that each individual could be more proactive.

Employers still maintained that access to more user-friendly publications and reports would assist their levels of engagement and two employers cited their own internal one-page documents which contextualised a 50 page report into 10 key bullet points and actions. The results were again divided and responses were sometimes paradoxical. However there was a general thematic agreement that to give more informed comment you should assemble the facts and read around the subject matter. I am not advocating that personal experiences and encounters are not trustworthy, but suggest that a wider perspective of views, opinions and interpretations may enhance understanding and enrich those encounters and experiences to add additional context.

> *"The last report I published included quotes and data from a CBI report. The report was easy to read and provided elements of text that underpinned my report. However when I reviewed an academic report, I can't remember the name, apologies; it was like wading through treacle. The words were all airy fairy and in my opinion the report failed to tell me as an employer the findings of the report in a language that was transferable, understanding and meaningful. I am not suggesting this is the same for all reports, but it made me feel incompetent and reluctant to read any other academic reports. I hope your findings are more coherent and as I said before written in a language that us employers can understand" (personal interview, Employer 11, 2014).*

SEMI-STRUCTURED INTERVIEWS

PHASE 8b – QUESTION 8a

5.19 Phase 8b: Question 8 – Inference and deductions from stakeholders responses

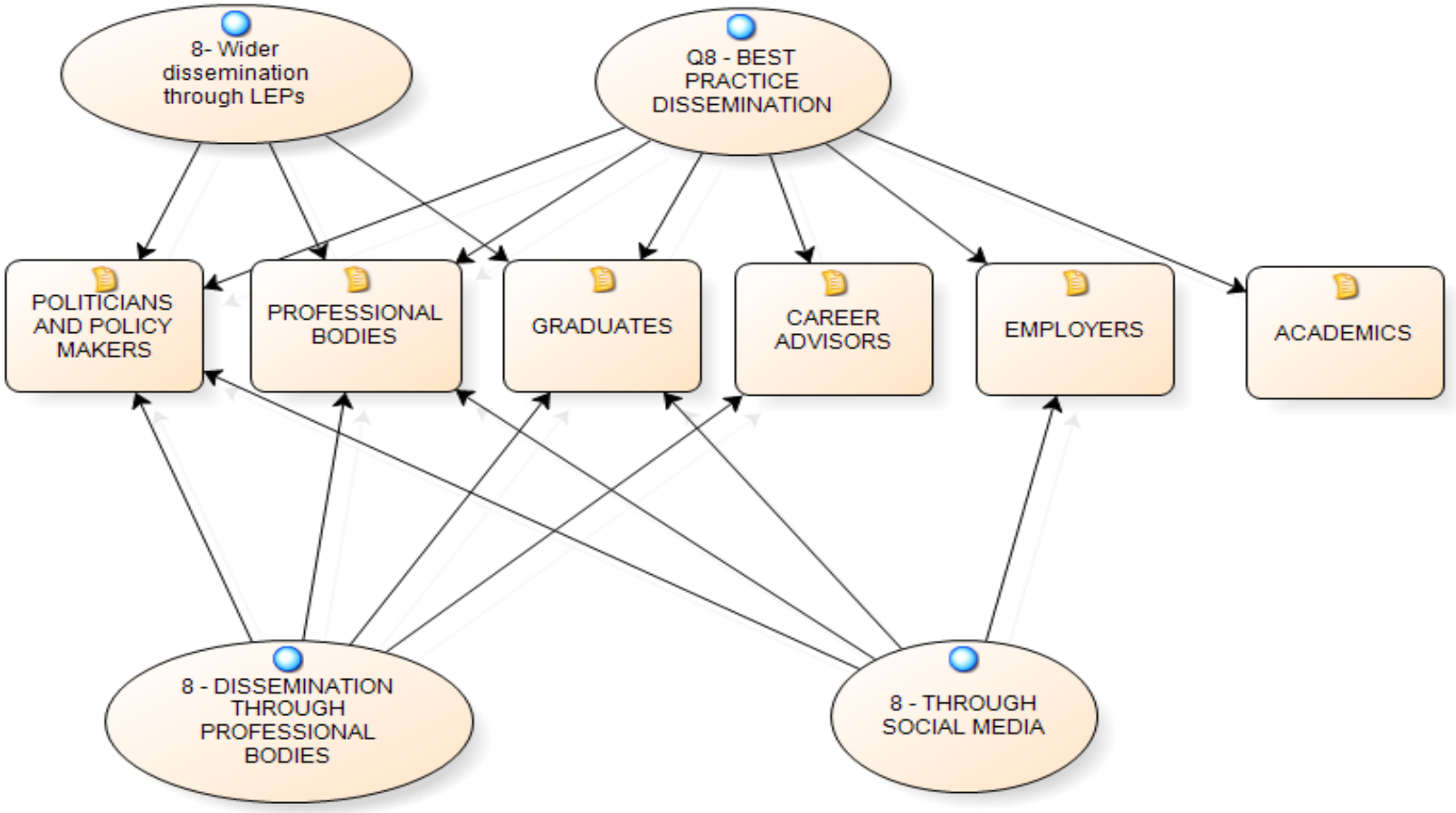
> Question 8 – How do you feel the dissemination of Reports, publications and papers may be improved?

The broad themes located in the responses associated with this question were derived around how the poor dissemination of Reports, policies and literature might be improved and enhanced. The sub-themes included how this engagement might improve if the Local Enterprise Partnerships (LEPs) were more widely used as a facilitator or building upon responses from Question 7, how professional bodies might well be the appropriate facilitator. Additionally, most stakeholders, except academics, felt social media is not maximised in its true potential but when asked about use and management of e-mails employers felt they were constantly inundated. *T*he NVivo model indicated minimal responses were exchanged. However, responses tended to include lengthier discussions.

Table 17: Phase 8b Question 8 – Themes surrounding access to employability Reports

Phase 6 NVivo model Figure 26	Broad Themes Associated with project aims and objectives	Sub-themes NVivo coded categorised responses
Model 8 Associated with research aims Associated with research objectives	Investigate current understanding of BE employability skills. Investigate and triangulate the dissemination of findings through multiple platforms.	- Wider dissemination through LEPs - Best practise dissemination - Through social media - Dissemination through professional bodies

Figure 32 - Phase 8b Question 8: Access and improvements in dissemination of employability Reports, reviews and publications



5.19.1 Phase 8b: Question 8 – Analysis related to the project aims and objectives

Research aims and objectives were better informed by participant responses, as the aim was to better understand interpretations surrounding built environment employability skills. This was slightly enhanced, as it enabled me to investigate how if their access to Reports and publications was restricted, where did they secure their knowledge from. The question would also aid my understanding of what dissemination processes work well and how the dissemination of these project findings can be better disseminated to a wider community. Ideally sharing and disseminating responses across a wider academic community at micro-meso and macro-levels.

5.19.2 Question 8 – Analysis related to literature or discreet inquiries

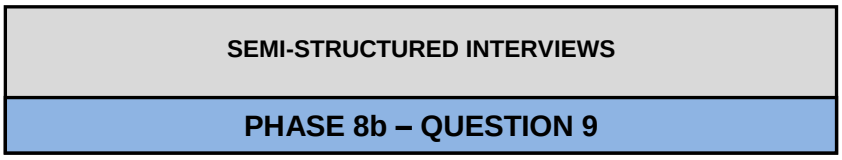
Most academics elaborated how 'knowledge exchange' was part of an enrichment process and made a valuable contribution to their further development of learning and teaching. Specifically stating how the idea and concept of wider dissemination was important to support the employability agenda. Quoting how Sir Michael Latham, a well respected innovator across the built environment sector, had provided the foreword for Anumba *et al,* 2006 book advocating that 'Knowledge Management in Construction and dissemination of best practices are key objectives to finding solutions for up-skilling the next generation of built environment professionals. Specifically how explicit and tacit knowledge exchange involves gathering, integrating, transferring, diffusing and editing knowledge, (Nonaka and Toyoma, 2007).

Professional bodies suggested they already provide a vast array of publications and, through sponsorship funded various initiatives relating to built environment research. However they all accepted that more could be done and perhaps there were opportunities to play more active roles. As a best practise exemplar the Royal Academy of Engineering cited their publications, which indeed provided a wealth of accessible knowledge, but in viewing their statistics the numbers actually accessing their Reports were low.

5.19.3 Phase 8b: Question 8 – Summary and reflections

Most stakeholders identified two main sets of stakeholders who could improve dissemination. Firstly, the LEPs, *"the gatekeepers of funding",*(Employer 2, 2013) and secondly the professional bodies, including the RICS, CIOB, ICWCI, QSi, CIAT and the RIBA.

The question extracted further richer understanding and this knowledge will certainly improve my own strategies and methodology for dissemination of these project findings. Post this project, I will work with the ICWCI and QSi to improve their portals and website access to publications, to increase access to report and, adopting the suggested actions reported by employers. With an objective to ensure that journals and publications are more freely available to employers and wider stakeholder groups. Interestingly all employers and career advisors said they would be willing to be more involved, engaged and supportive of making their own contributions to publications, if given guidance.



5.20 Phase 8b: Question 9 – Inference and deductions from stakeholders responses

Question 9 – Can you articulate your top four Built Environment employability skills?

Question 9 was a vital summative question, as it provided the culmination of responses located in a single question. Accepting that this was articulated in Question 3a and 3b, the intention was to see if the respondents' views and interpretations had changed having been given more time to consider and reflect on the wider depth and breadth of discussion relating to built environment employability skills across the entire interview. Importantly the responses gained from this particular summative question would confirm, enhance and enrich the previous responses located as part of earlier interventions to confirm or deny what

stakeholders viewed as the most important and relevant built environment skills for a university graduate.

The broad themes located in the responses associated with this question were derived around external stakeholders' identification of their top four built environment employability skills, supported with discussion around why they had selected these specific skills. The sub-themes included various levels of responses and generally involved a fusion of 'hard' and 'soft' employability skills.

*T*he NVivo model indicated that all stakeholder participants secured elements of shared consensus of opinion and again communication skills aligned with technical skills featured highly across all stakeholder responses. The traditional '3 R's' was quoted by policy-makers and professional bodies and they both expanded upon how they felt *"the foundation skills are so important before graduates go rushing off into unchartered waters"* (personal interview, Professional body/ Policy maker 1, 2014).

All responses agreed that some of their responses were indeed generic, but they also elaborated on their responses to state that whilst they accepted my comment, it was more about the application of the skills across the sector and in the workplace that was different. *"A QS is good at numerical skills but this applied totally differently to bank clerk with similar skills; so for me it's the application of the employability skills that makes them unique to a built environment graduate"* (personal interview, Academic 9, 2015).

Other stakeholders made a variety of responses and employers and policy-makers/politicians were extremely vocal and keen to see how built environment employability skills and delivery of HE curricula across the built environment incorporated more entrepreneurial and enterprise skills into their teaching. All stakeholders recognised value in students undertaking workplace experience and felt this assisted students to better understand the techniques associated with problem solving and how the world of work operates. Surprisingly, only the professional bodies and graduates felt professionalism was a key skill.

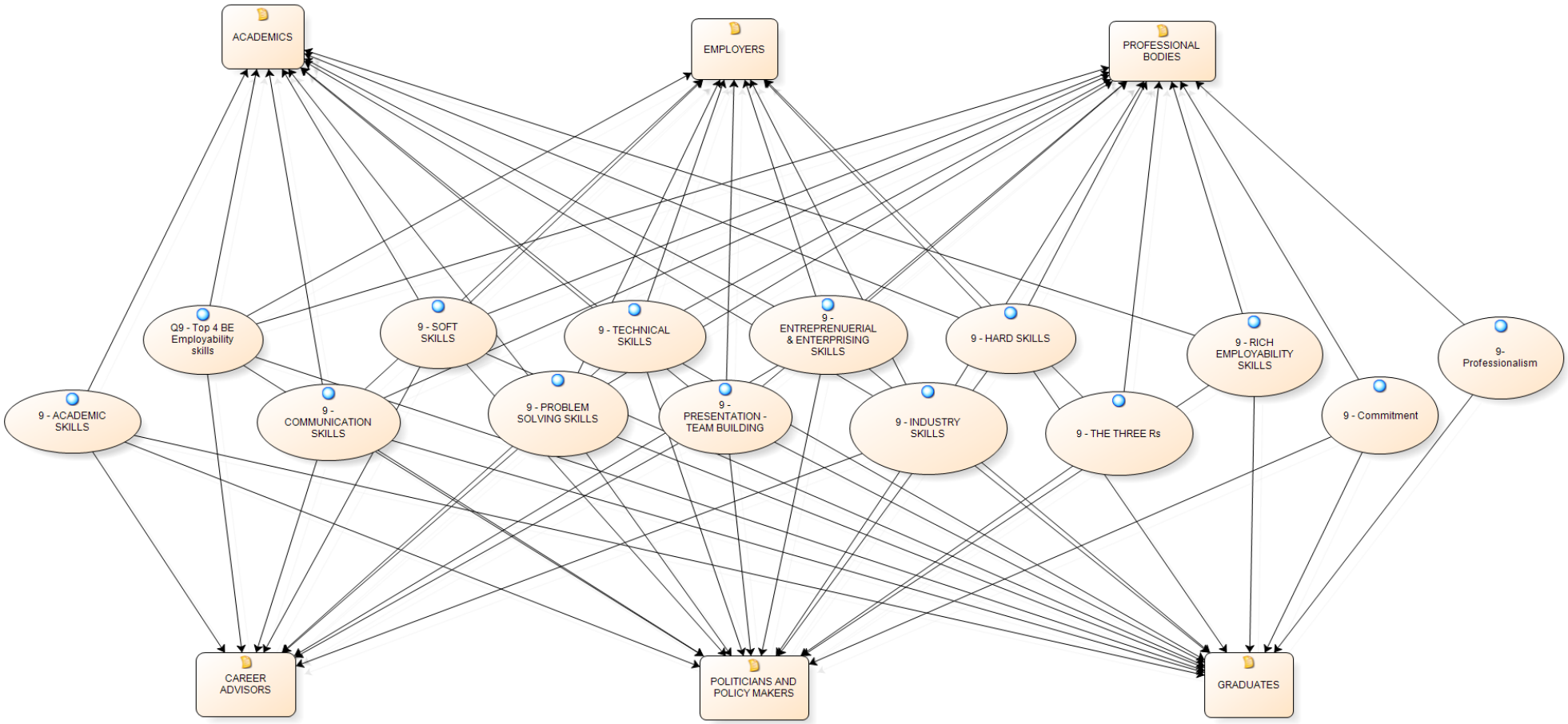
Various levels of triangulation with earlier findings and interpretations were evident and predominately employers added additional contributions to their earlier responses. Academics became more engaged in this penultimate question and felt

that numerous skills recited were already embedded within their teaching. However, the majority accepted that this might be better communicated to students or required students to become more actively engaged. Academics, policy-makers/politicians and on this occasion graduates mentioned the term ‘rich employability skills’, but this may have been recited by myself during earlier questioning.

Table 18: Phase 8b Question 9 – Articulation of top four built environment employability skills

Phase 8b NVivo model Figure 27	Broad Themes Associated with project aims and objectives	Sub-themes NVivo coded categorised responses
Model 9 Associated with research aims Associated with research objectives	Generate insights and fresh understanding behind what constitutes and may be viewed as relevant employability skills for HE graduates of the built environment. Investigate how to better develop, inform and embed employability skills pedagogy into built environment curricula at the University of Wolverhampton Investigate current understanding of BE employability skills. Investigate and triangulate the dissemination of findings through multiple platforms	Top 4 BE employability skills - Soft skills - Technical skills - Entrepreneurial & enterprising skills - Hard skills - Rich employability skills - Professionalism - Academic skills - Communication skills - Problem solving skills - Presentation – team building - Industry skills - The three ‘R’s - Commitment

Figure 33 - Phase 8b: Question 9: identify your top 4 built environment employability skills



5.20.1 Phase 8b: Question 9 – Analysis related to the project aims and objectives

Question 9 predominately provided fresh understanding across most of this project research aims and objectives and would be better informed by triangulation and confirmation of participant responses. By attempting to refine and restrict participants interpretations to four key built environment employability skills I was attempting to locate understanding of what they viewed as the important and relevant graduate skills and locate any thematic shared understandings.

Most stakeholders were engaged and indeed supported my quest to better contextualise the relationship of participant interpretations of built environment employability skills and all stakeholders were keen to know if their responses were shared by other stakeholders and to read the findings of my project.

> *"One would be keen to view your findings old chap. In particular, I am keen to view the responses of policy-makers against my own responses and whether the government policy-makers fully subscribe to engaging with your project. Or are they just playing lip service to employability and do they expect employers to pick up the slack?" (personal interview, employer 21, 2015).*

5.20.2 Phase 8b: Question 9 – Summary and reflections

All stakeholders responded proactively in their interpretations and most stated that this was a useful penultimate question for them to reflect on what are the key skills a graduate should or must hold. Most stakeholders shared a consensus of opinion surrounding the need for greater understanding of the subject, but most felt other stakeholders should take ownership of the situation. When I suggested that the literature I had reviewed within this project and evidence I have secured via inquiries and interventions leads me to believe that everyone making a more proactive contribution, most participants agreed. Perhaps the challenge is situated around who takes leadership and project management of this task.

Responses from these semi-structured interviews suggest the top four built environment employability skills are, communication skills, problem solving skills, technical skills and presentation skills.

1- Communication skills: The majority of respondents felt that the ability to communicate with internal colleagues and forge client relationships was the most vital built environment employability skill. The majority went as far as to state that they would sacrifice a lack of technical knowledge if the graduate held strong communications skills. This included both verbal and non-verbal communication skills and all employers and professional bodies emphasised the importance of civility and common courtesy as something that could make a vital difference.

   When discussing body language, employers also felt that graduates were nervous around making eye contact and they should rehearse presentation skills more as a mechanism for securing improved communication skills. Importantly all stakeholders (including graduates) felt active listening skills were a necessity. Especially when taking an instruction from a client and interpreting a clients brief. Most employers felt this is a dying art and the constant use of IT equipment was a distraction.

2- Problem solving was viewed as the second most important skill and again employers were extremely vocal in articulating how commercial sector problem solving was an employability skill that was used on a daily basis. Importantly the majority of stakeholders felt the ability to undertake effective interdisciplinary project work was a true reflection of a real-life working environment and suggested the need for enriched pedagogy to simulate these real-life situations. All employers offered support and access to real-life projects and this offer was taken up in University of Wolverhampton teaching 2015-2016. Interestingly students felt that a real-life project and an in-class competition felt more engaging and enthused their learning.

3- Technical skills were identified as the third most important, but within this project only marginally behind problem solving. The majority of participants discussed how the 'basics' and 'foundation learning' such as basic estimating and basic understanding of how buildings are designed and constructed are missing from previous cohorts of students and without these 'foundation skills' the graduates were starting from a compromising position. The majority accepted that these skills could be learnt and progressed in the workplace,

but also confirmed that the starting position of the graduate within their organisation may be influenced by their knowledge and understanding, or by the lack of technical skills knowledge.

4- Presentation skills were mentioned numerous times throughout the entire project investigation and reemphasised the importance of this skill-set. All stakeholders accepted that presentation skills were addressed within current HE curriculum, but the majority felt that the skills excluded non-verbal communication skills, or an emphasis on responding to technical and commercial questioning. Importantly for the development of the compass model, presentation skills were morphed into numerous quartiles (North, East, South and West) and acknowledged how good presentation skills would enhance individual prospects. In particular how well rehearsed and delivered presentations skills are more likely to increase employment prospects.

The relevance of the responses and interpretations gained through this key penultimate question were extremely valuable in context and rich in obtaining a deeper understanding behind what stakeholder's viewed as their top four built environment graduate employability skills. Importantly this question provided respondents with time to reflect and analyse what they viewed as more important or less important skills. Respondents also used this valuable reflection on practice time to acknowledge that perhaps they could indeed provide a more robust contribution to teaching and/or design curriculum that would enhance these experiences to further develop a stronger graduate skill base.

Interestingly, most of the respondents when given an opportunity to reflect on their answers and comment further on matters they felt had been missed during the interviews, reverted back to this question (question 9) to ensure their answer was in the correct order and ensure their interpretation was correctly understood.

SEMI –STRUCTURED INTERVIEWS
PHASE 8b – QUESTION 10

5.21 Phase 8b: Question 10 – Inference and deductions from stakeholders responses

> Question 10 –Would you wish to comment on any additional matters not covered within the interview?

Question 10, afforded participants the opportunity to share any additional information or comment further on the matters discussed during the interviews. The Broad themes included additional comments relating to wider perceptions and sub-themes associated with '*access to mentors and professional advice, Critical thinkers, Industry experience, technology expertise, mentoring, accountability, macro-competitiveness, social employability skills and well designed and delivered teaching*

All participant stakeholders except the career advisers, observed that access to mentors and professional advice was of key importance which had not been initially covered. However most professional body representative stated that employability skills and skills to educate the next generation were high on their agenda. All stakeholders agreed that the built environment was a complicated sector and there was a shared consensus of opinion suggesting graduates needed a mix of specialist knowledge.

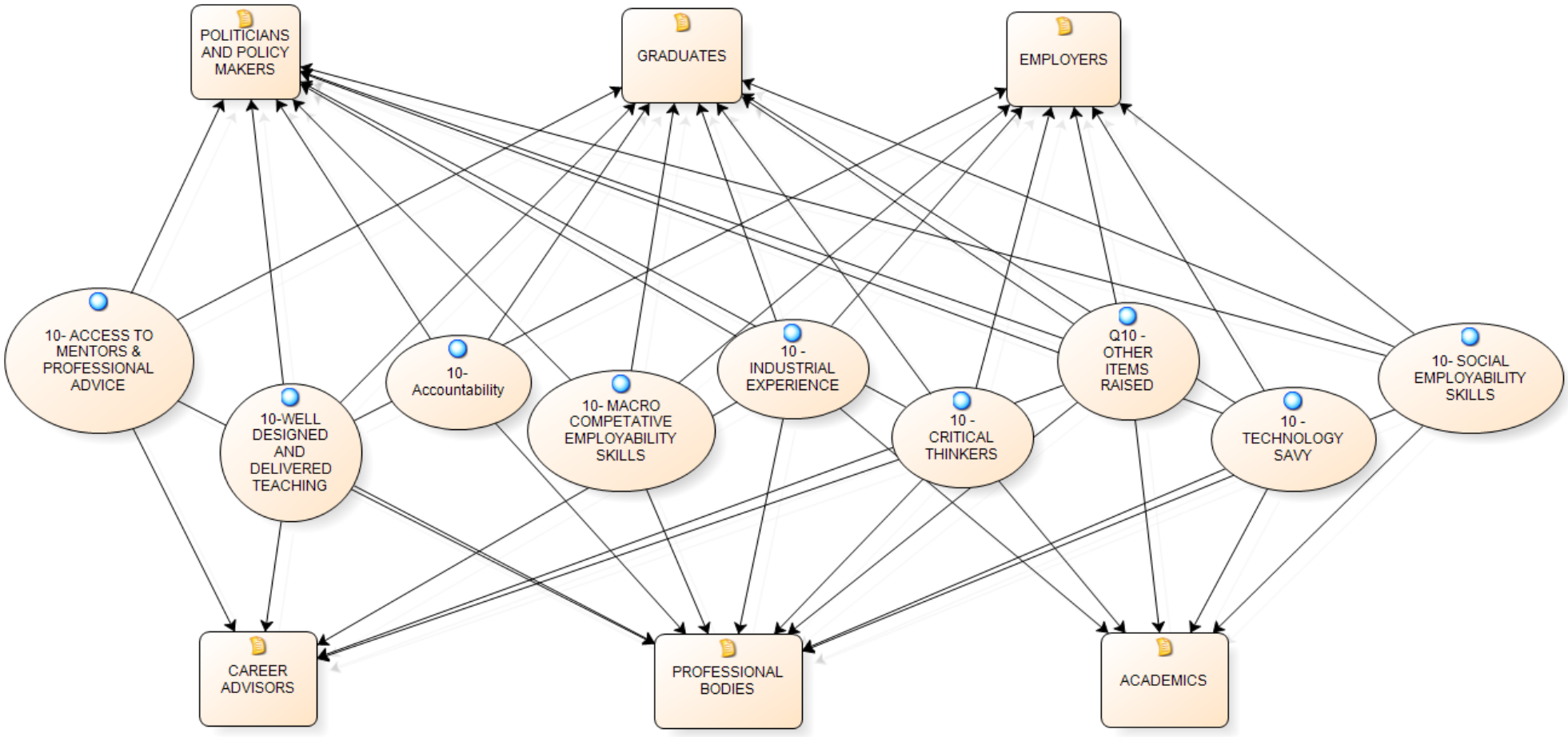
Other observations made by all participant stakeholders were suggestions that as well as problem solving skills, it was important that built environment graduates develop the ability for critical thinking. The benefits of industrial experience was again repeated and endorsed by all stakeholders. Most agreed that changing approaches to construction buildability meant graduates should enhance their understanding of technology and rich employability skills lay in the ability to develop social employability skills. The politicians and policy-makers, graduates, employers and professional bodies observed that accountability was essential and emphasised the importance of well-designed and delivered teaching. Graduates, employers and professional bodies also emphasised the need for greater awareness and understanding of global macro-level employability skills, as they felt education was a catalyst for building the UK's knowledge economy. In particular graduates need to

understand a wider global perspective. Further comments made were about the *"sense of purpose", "sense of identity"* and *"how do we make actually sure that were imparting within a framework of academia and how we do that"* (personal interview, Academic, 2012).

Table 19 : Phase 8b Question10 – Additional comments

Phase 8b NVivo model Figure 28	Broad Themes Associated with project aims and objectives	**Sub-themes** NVivo coded categorised responses
Model 10 Associated with research aims	Generate insights and fresh understanding behind what constitutes and may be viewed as relevant employability skills for HE graduates of the built environment. Investigate how to better develop, inform and embed employability skills pedagogy into built environment curricula at the University of Wolverhampton.	- Access to mentors & professional advice - Well designed and delivered teaching - Accountability - Macro competitive employability skills - Industrial experience - Critical thinkers - Other items raised - Technology - Social employability skills
Associated with research objectives	Investigate current understanding of BE employability skills. Investigate and triangulate the dissemination of findings through multiple platforms.	

Figure 34 - Phase 8b Question 10: Additional comments exchanged



5.21.1 Phase 8b: Question 10 – Analysis related to the project aims and objectives

Originally Question 10 was intended to secure closing remarks, but in its delivery provided additional rich interpretations and consensus of shared understanding by most stakeholders. The additional comments and observations contributed to the richer evaluation of the research aims to generate insight and fresh understanding behind what constitutes and may be viewed as relevant employability skills for an HE graduate of the built environment.

In particular surrounding comments previously not mentioned that related to macro competitive skills, social employability skills, technology expertise, accountability, critical thinking skills and new emerging interpretations that participants exchanged during these final exchanges. Therefore, this question forms a vital closing contribution to my aim to better develop, inform and embed employability skills pedagogy into built environment curricula at the University of Wolverhampton.

Whilst the objective to investigate all layers of the University of Wolverhampton pedagogy to investigate how I might further embed employability skills across the built environment curricula was enhanced by graduate, policy-makers/politician and careers advisors responses, who identified the relevance and importance of securing mentoring opportunities as part of a richer knowledge exchange process. The question additionally identified that all participant stakeholders from HEI, industry and commerce indicated an acceptance of the idea of improvement of the design and delivery of HE teaching to improve built environment employability skills understanding and support graduates from the built environment to become more eminently employable.

5.21.2 Phase 8b: Question 10 – Analysis related to literature or discreet inquiries

The response received from Question 10 reconfirmed previously recorded findings in the 2015 University Alliance ‘Mind the Gap’ Report that suggest greater employer engagement with universities can support economic growth, and suggested that at the close of the interview most stakeholders were more informed of the magnitude of this challenge. The significance of the emergence of sub- themes such as ‘well designed and delivered teaching’ relating to HE curricula design and sub-themes

relating to what can be alleged as built environment employability skills (social employability skills, macro-competitive employability skills, technology expertise, critical thinking, accountability, and industrial experience) indicated that stakeholders had related expectations with respect to improvement of the HE curricula but were stilling placed the emphasis of this challenge on academics. Contradicting reviews by Leitch, (2006); Wilson, (2011) and Dowling, (BIS Review 2015) strongly advocated the importance of shared ownership and responsibility in addressing and responding to, meeting and resolving the challenges.

Nearly all stakeholders involved in the interviews supported the suggestions and earlier investigations by Boud and Soloman (2003) surrounding the tangible benefits and value of work-based, situated learning. Specifically making reference to the adoption, acceptance and embedding of a robust version of 'transferable employability skills across HE curricula'. However, literature reviewed stated that within the built environment the levels of engagement by stakeholders was slow and the productivity of working with partners to promote intellectual capital was still developing and rarely elucidates expectations of professional built environment employers, manufacturers and other built environment associated stakeholders in delivering enriched curricula'. Independently the built environment employability skills sub-themes associated within this research is supported by the 2012 Research Council publication that suggested the burden for HEIs to address 'graduate employability skills' has been longstanding. Reinforcing Professional body 3, (2015) opinion that:

> *"If the sector, (construction and the built environment) were to play their part in meeting the global skills shortage, all BE stakeholders must collaboratively ensure graduates hold the relevant employability skills to meet sector demands and better prepare graduates for the challenges the sector faces as we approach 2020; with the universities taking the lead role in this challenge'. Arguably this can be achieved through jointly designed and delivered HE curricula that embed the transferrable built environment employability skills for graduates".*

5.21.3 Phase 8b: Question 10 – Summary and reflections

The shared consensus of opinions raised by this final question were far reaching and whilst certain issues had not been previously mentioned during earlier questions

this question provided all stakeholders with time to reflect on their responses. At the heart of their responses lay the situated acceptance that more could be done to assist graduates, and for professional bodies it was clear that mentoring was part of their suggested solution. The issue of the ever changing face of technology was imperative and often overlooked. However all stakeholders agreed that the emergence of Building Information Modelling (BIM) would be transformational for the sector.

All accepted that employability and employability skills are complicated and in most circumstances there is a wider landscape of considerations that can affect each individual graduate and each employer. Indeed, two employers said *"with the nature of industry adopting a boom or bust approach it was difficult to plan ahead and know exactly where what skills we need in 2010-2030"* (personal interview, Employer 3, 2015).

5.22 Chapter 5 conclusions

The complex and subjective nature of my project investigation made this investigative interrogation of the immense set of data, recordings and interpretations, rewarding, but at times equally frustrating. Most participants contributed in a unbiased professional manner, but occasionally I was forced to bring the subject back to the main question as participants were prone to move 'off message'. I believe the process of adopting a non-probabilistic approach to secure my sample of stakeholders was appropriate, relevant and held currency, but I accept the size of any project research can always be enhanced, improved or change subject to increased numbers. I acknowledge that the group fora were a little less personal in richness, with the exception of conference fora, but as Academic 1 (2012) suggested it provided a successful mechanism for gathering data and extending the academic practise of exploring and locating extended discussions.

I believe the copious series of discreet inquiries provided a rich tapestry of interpretations and fresh knowledge and understanding and in context provided various modes of opportunity for participants to express a wider ranging set of interpretations. In particular the series of bespoke conversations, discussions and individual interviews added real qualitative in-depth exchanges and assisted me in

peeling back the layers to reveal rich exchanges of knowledge and fresh understanding. However the investigations would not hold the richness of qualitative inquiry and interpretations without the phenomenological methodology that surrounded the series of 30 semi-structured interviews. Accepting that whilst most interviews took longer than anticipated this allowed rich and meaningful depth of discussion and occasionally located a 'third space' interaction *"where interviewer and interviewee work together to develop understanding"* (Davies;1999:96-97; cited in Cousin, 2007 p.73).

> *"I have found this interview enlightening and in reflecting on my responses, I accept that as employers we should indeed play a valuable contribution to HE curriculum design. I had not really considered the implications and complications if we collectively fail to invest in graduates and I will certainly take the time to read some of the reports and reviews you have mentioned. Please ensure that I can review your findings and I would indeed be happy to review my responses to ensure they are correct. I studied at Wolverhampton myself and I will certainly look to support you a little more with new initiatives. Paul, well done for highlighting the importance of our sector and how as a sector, we make a valuable contribution towards economic recovery" (personal interview, Employer 1, 2015).*

I had previously noted similar responses from employers and accepted throughout this project that interpretations might change as economic and political change affects confidence. In many ways this justified my decision to include interviews and discussions at different times throughout this five year investigation. The emerging themes located within these investigations and inquiries therefore identified a shared consensus of beliefs surrounding interpretations contained across all discreet inquiries that:

- The subject of employability skills is complex, subjective and open to interpretation.
- There are clear misunderstanding and at times misinterpretation surrounding the meaning of employability skills and built environment employability skills.
- There was a general consensus behind whether built environment skills are unique; but an acceptance that whilst a proportion of built environment employability skills may be shared across other graduate disciplines, there is

a common held shared agreement that there lies a uniqueness in the application of those skills associated directly with built environment tasks.

- Evidence of successful adoption and use of built environment employability skills is frequently situated and evidence in various case studies within literature and in recollections by stakeholders.
- The matter of who holds responsibility and ownership of the employability skills challenge is still unresolved; but evidence suggest progress is being made.
- Stakeholders are becoming more aware of the challenges faced by academics and graduates in matching skills to industry expectations, but are unsure at times how to contribute or resolve the challenges for the future of the industry;
- In 2015, employers are acknowledging the skills gaps across the built environment and are looking to better engage with universities.
- Dissemination of publications, research and access to literature associated with employability skills is restricted and complex;
- A general acceptance that more research into built environment employability skills would enhance understanding across a wider community.

CHAPTER 6 - PROJECT IMPACT

6.1 Introduction

The purpose of this chapter is to recognise and acknowledge the impact that this project has provided to-date and highlight how further impact made be demonstrated post 2016. The primary aim of this research is to locate fresh, more current interpretative understanding behind what a sample of stakeholders understand as employability skills for built environment graduates. The project was in many ways a response to a gap in research I have located surrounding knowledge of the built environment employability skills and formed the basis for this Doctoral research project. In particular, the claims I make towards various levels of impact my Doctoral project provided towards promotion and delivery of quality informed academic practises across the School of ABE within the Faculty of Science and Engineering at the University of Wolverhampton. Recognising the impact my project might elicit from a wider university and academic community. Importantly how the findings which have been contextualised into the built environment employability skills compass (Figure 35) created by the author will in my opinion impact towards pedagogy and improved practises in learning and teaching. Using the compass as a tool to promote wider understanding of built environment employability skills.

6.1.1 Project impact

It was originally anticipated that the impact of this project would be founded at the close of the project. However, as the landscape of Higher education changed during 2011-2016, I have used my research findings to respond to my own universities challenges. Indeed *"employability and enterprise remains at the heart of our mission"* Academic 10 (2015). As more UK universities follow a similar strategy and students view employment prospects as a key output at the close of their education. Specifically the findings have impacted on my own practises and have located fresh understanding of what are interpreted as built environment employability skills. By incorporating project findings into a built environment employability skills compass I have provided a model for recording:

a) A contextualisation and combination of sub-themes in one model to identify what 250 participants who have contributed to this investigation viewed as built environment employability skills.
b) Levels of personal development. Allowing various stakeholders to identify where gaps in knowledge and skills may exist.
c) Provided stakeholders with a coherent and accessible set of sub-themes elicited from this investigation.
d) Provided students at the University of Wolverhampton a model for enhancing their employability; measured against increased levels of employment across the built environment department.

6.2 The built environment employability skills compass

The built environment employability skills compass was a model generated from this project that holistically contextualises the finding of my work and provides a tangible output that I can develop into a journal paper and will presented at the House of Lords in 2016 and the CITC conference in 2017. The compass will also be use to disseminate and articulate my findings. The compass will assist stakeholders associated with the research, and specifically built environment graduates to navigate through the macro-meso and micro-levels of the built environment terrain.

The compass is a visual representation of the stakeholder's perspectives, views and interpretations expressed throughout this project (in particular employers) that have shown exemplary participation in this project research. Importantly the compass provides an overview of all the key knowledge, behaviours, attributes and built environment employability skills that hold credibility and relevance for a built environment graduate.

The compass is formed from interpretations, themes, interdisciplinary language, experiences and recollections that have been recalled and mentioned by stakeholders at least five-times during my project investigations. This includes occasions where I have returned to the interviewee for clarification of their responses, or where I have used spirit of action research investigations to locate correlation between numerous interpretations. The compass includes four points

aligned to a traditional compass: North point (navigate); the south point (provide substance); the east point (increase engagement); the west point (develop wisdom and knowledge). Representing what all stakeholders have acknowledged during this investigation as the key areas that will enhance an individual's built environment employability skills and how the importance of developing all four areas can assist an individual to develop, adopt, adapt and re-develop appropriate skill-sets applicable to an ever demanding and changing environment and build lifelong learning skills.

North – Navigate:

- Recognises personal skills and commitment to lifelong learning
- Recognises skills associated with decision making and risk analysis
- Recognises the skills associated with working in a commercial environment.

East – Engagement:

- Recognises interpersonal skills
- Recognises the application of soft skills in a business environment
- Acknowledges personal attributes

South – Substance:

- Acknowledges personal and professional behaviour
- Recognises spiritual, moral, ethical and social developmental skills
- Recognises ethical behaviour and personal standards.

West – Wisdom and Knowledge:

- Recognises technical knowledge
- Recognises wisdom associated with theoretical and cognitive thinking
- Recognises visualisation and codified knowledge

The central core of the compass recognises how 25 of the 30 semi-structured interviewees and 150 of the 250 participants articulated a higher level of skills,

namely, esteem and trust, commercial awareness, interoperability and connectivity with the sector, international culture awareness and entrepreneurial skills. These skills, traits and behaviours are subjective and at times, dependent on the specific discipline within the built environment. However, employers specifically recalled *"how these skills were the hierarchical level skills that would assist a graduate or future employee stand out from the crowd"* (Employer 7 and Employer 2, 2014).

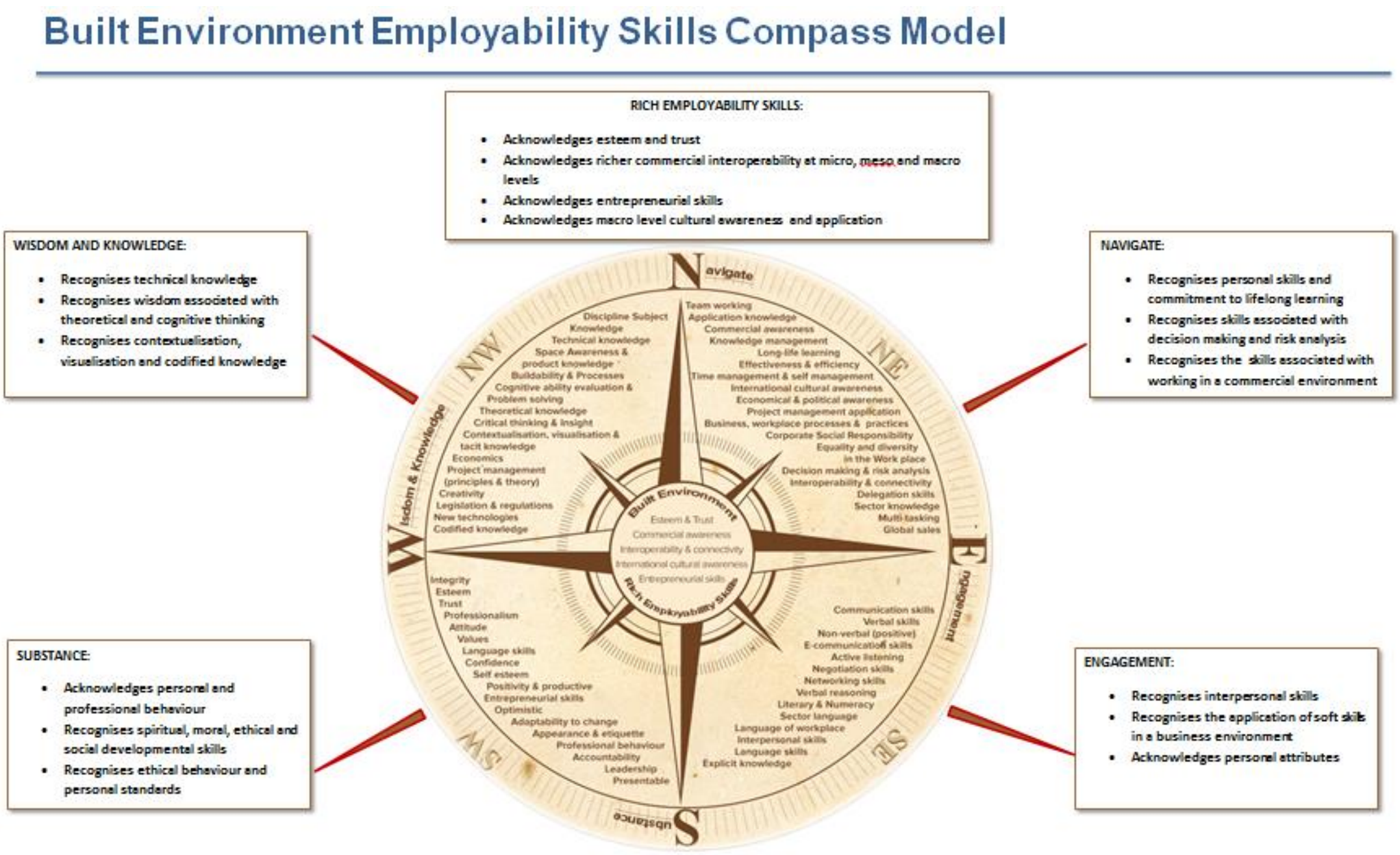
What has been extremely rewarding since the project findings have been shared with participants, is the way two public and one private organisation have adopted the employability skills compass as part of their annual appraisal scheme to review where employees might further enhance their position within their respective organisations, and/or where the individual may need to further develop specific skills, that will enhance their holistic skill-base.

The built environment employability compass compliments previous employability models and toolkits developed by other organisations. Specifically recognising and complementing the excellent HEFCE (2015) Framework for embedding employability in higher education employability, based on the HEA publication, 'Defining and Developing your Approach to Employability'; and the 'Employability Lens' (2010-12) developed by The Career Development Organisation (CRAC) delivered in partnership with regional Hub host universities.

6.2.1 How should the employability skills compass be used?

The compass outlines the sub-theme skills, knowledge and behaviours generated from this project and provide a diet of language and sub-themes that may be contextualised, into built environment curricula. Alternatively, sub-themes may be incorporated and adopted by various stakeholder communities to negotiate the subjective topography of built environment employability careers, landscape, learning and teaching; highlighting and identifying gaps that some stakeholders believe are missing from university learning and teaching. Refer to figure 35.

Figure 35 - Built environment employability skills compass model



In particular the model can be utilised by:

Academics Prioritising and mapping specific skills that may enrich built environment pedagogy, curricula design and delivery of quality teaching. The model should also assist academics to be more coherent in define employability and built environment employability skill sub-themes and encourage wider dissemination and understanding of these terms, phrases and language.

Employers Identifying the skills, knowledge and attributes that might inform their own practises, or practises of their organisation or employees. Using the compass as a tool to enrich their interactions and engagement with HEIs and promote a more active contribution to the design and delivery of curricula design. Removing fear of engagement with university lecturers and university teaching that were highlighted in conversations with most interviewed employers.

Graduates Using the compass model as a tracking mechanism or part of a skills SWOT analysis exercise to locate their current skills, identify where gaps exist and promote the wider adoption, understanding and development of skills located within the four segments of the model. Specifically, so graduates understand that one set of skills in one quartile is not always sufficient for most employers. Recognising that if they use a metric to measure the number of skills they currently hold in each quartile this will identify the areas they need develop and nurture their own growth and professional development to become more eminently employable.

Career advisors: to locate a richer more informed understanding of how these skills are associated to specific built environment disciplines so that pupils, students, teachers and parents are appropriately informed of the wide range of careers across the sector. Recognising how subjects taught at schools can be better aligned with careers across the built environment e.g. quantity surveying, building surveying, construction management, architecture and civil engineering.

Professional bodies To review how the skills, knowledge and attributes located in the compass model align with their own professional body competencies and use any findings as further discussion points for future employability skill debates. The sub-themes may also increase wider understanding by members of promoting and

enhancing the sector, particularly when lobbying government policy-makers/politicians, employers, members and HEIs.

Policy-makers/Politicians To review the skills, sub-themes, knowledge and attributes that this research has identified and provide a wider appreciation of the contribution built environment graduates in supporting the UK economic growth. Acknowledging that the sector provides approximately 9% of the UK GDP and up-skilling graduates across the built environment will support the UK economy in defending its position in a macro-level environment.

The Compass may also assist policy-makers and politicians to better understand the type of sub-themes that are associated with the sector and the type of language that resonates with stakeholders so they can better articulate their own messages in reports, reviews and publications.

> *"Following up on our interview I took the time to review the Wilson Review and read some of the employability skills report you mentioned. I agree, they are getting better and the use of an executive summary was most helpful. However, I still advocate that the majority of reports are written for academics and not for employers. It took me a few hours to locate the reports and two days to read them. That's all fine, but surely there is a better way of passing on their views and a better way of politicians understanding our views as employers?"* (Personal interview, Employer 1, 2016).

More informed research for the sector:

The claim I make is that the project has generated a localised step change in better understanding of built environment employability skills within a regional capacity and generated increased focus on employability skills within the built environment. The project has also acted as a catalyst for increasing research within my own School that better informs learning and teaching and increased contributions by employers in the development of refreshed pedagogy. As the University of Wolverhampton

approach our Quinquennial review in 2015/16, I hope my findings will enhance and enrich the curricula offer by adopting the findings of this project.

To keep employability and enterprise at the heart of the mission within the University of Wolverhampton and within the Faculty of Science and Engineering, School of Architecture and Built Environment:

In 2013/4 when the University undertook a review of Principal lecturing (PL) posts, I made a conscious commitment to leave my previous business engagement PL role and apply for the role of PL for employability, as I move towards closing this project my title and position has changed again. To undertake this Dprof whilst developing my academic career was a calculated risk, but a demonstration of the impact the Doctoral project had made on my academic life.

The impact will be to remain committed to ensuring students at the University of Wolverhampton are more eminently employable and, in a wider context, attempt to keep employability and enterprise at the heart of the Faculties mission. I would not have made this decision without the knowledge I had gained during my research and would not have anticipated this outcome prior to the commencement of this project.

6.2.2 DLHE and Centre of Excellence

A further claim I would make relates to the Destination of Leavers from Higher Education (DLHE) survey undertaken over the last three years. During 2011/12 to 2014/15 the University of Wolverhampton DLHE returns that have seen the employability figures rise from 87% to 95%, the exact duration of this project research. I would certainly claim that the project research has made some level of contribution, but of course is difficult to quantify exactly how this can be measured or proven. I can, however, confirm that since my appointment to Principal Lecturer for employability within FSE, employability figures within my School have increased. This may be attributed to various factors and may again be a contributory factor that this project research made a valuable impact.

6.2.3 University Technical College (UTC)

In 2012/13 I was approached by the Deputy Vice-Chancellor to contribute to a project for Wolverhampton to secure finance to build the first ever UK University

Technical College (UTC). The individual had previously contributed to my project and was aware of my passion and dedication to enhance the promotion of the built environment (which includes construction) and felt some of the research I had gathered at that point would enhance the submission. This was a partial contribution to a larger document and again it is difficult to measure and quantify the exact impact my contribution made. However, the tangible output is that the University has secured the funding and the new UTC campus building which will open in December 2016.

6.2.4 Springfield

In 2014, my visionary Vice-Chancellor approached me to work alongside my Head of Department to develop a new vision for Architecture and the Built Environment. The School would be relocated to a brand new site in the region. The vision is well progressed and under the leadership of the Vice-Chancellor in 2015 we will finalise the vision to include a 'ladder of opportunity' to provide education opportunities for youngsters from the age of 14–19 at the UTC and from 18 upwards at the University incorporating opportunities for lifelong learning.

I cannot claim for certain that the Vice-Chancellor, who as echoed his support for my project, was influenced by my research or indeed whether he recognised the enormous 'added value' his vision would bring to the sector. What I can confirm is that this project made a valuable contribution to articulating the vision of the project across a wider set of associated stakeholders, thereby demonstrating how my own professional presentation skills have been enhanced by this project.

Springfield as a wider venture will undoubtedly provide a magnificent legacy for the sector and make a huge statement surrounding "*the contribution the University of Wolverhampton is making in creating opportunities for the next generation of architecture and built environment professionals"* (Personal interview Academic 6, 2014).

I will always be eternally grateful to the Vice-Chancellor for giving me the opportunity to be part of his project team and make a contribution to his vision. Of all the claims of impact I make, the potential association that my project may have made a partial contribution towards this vision, provides a satisfaction and justification that this five years doctoral research was an extremely worthwhile and influential project.

Strategically, I have also used my term in office as West Midlands RICS Chair to promote career opportunities, employability skills and up-skilling the next generation of built environment professionals within land and property as my impact statement during my three year tenure. I make no apologies for this mission statement and it has since been confirmed by senior management at the RICS that my mantra is part of the 2020 vision launched in Autumn 2015.

6.2.5 Employers

Engagement with stakeholders has continued to increase during 2014/15 and as a measurable impact; more employers are attending industrial panels, graduation, open days and career events than the previous three years. During 2014/15, I have worked with the Vice-Chancellor to sign two partnerships with high profiled organisations. Both organisations have taken part in this project investigation and both have made a commitment to increase their levels of engagement with the University of Wolverhampton. Providing placement and work-experience opportunities for students and graduates, contributions to lecturing, undertake mock-interviews, help with CV writing, presentation skills and work with myself to identify how we can collectively further embed work relevant built environment employability skills into our curricula. This measure have had far-reaching impact and has already provided employers with 16 placement students, eight full-time employed graduates and on a personal note a deeper and stronger two way relationship with their staff.

Additionally I have also received five independently generated letters of commendation stating how employers have noticed how the graduates they have recently employed or recently completed a placement year appear to be better aligned to the workplace demands. In three letters the term employability skills is mentioned or the term *"students appear more appropriately furnished with workplace/employability skills"* (Employer 7, 2014). For employers to take the time to write to me is extremely rewarding, two of the employers to my knowledge were not involved with this project research. It could be argued that I was fortunate that recent batches of students over the last three years have been more knowledgeable or indeed that some of the employers have been engaged with this project. However, I did in no way canvas this response and genuinely argue this increased student knowledge is a demonstration of tangible impact.

Whilst accepting it is difficult to irrefutably and conclusively measure the exact impact that I have made on regional employers, I can factually confirm that all employers I have surveyed during 2014/15 are extremely delighted by University of Wolverhampton students undertaking a placement year or taking up employment. I can factually confirm that all placement students since 2012 have been offered full-time employment positions post their placement year. Measureable employment figures are 64.

6.2.6 Curricula development

During 2014/15 the national QAA audit visited the University of Wolverhampton to undertake a Quinquennial Review and as part of that review it encompassed the strands and team directly associated with the delivery of the employability and enterprise agenda. The statement given post the audit from the QAA was *"Outstanding and worthy of praise".* I suggest that this endorses that the process is in place and in order and, evidence of employability enriched curricula is resonating and percolating through into Faculty teaching. Whilst acknowledging that there is still much more work to done in this field; the feedback suggests that colleagues are recognising and acknowledging the importance of embedding employability skills within their curricula. This industry relevant pedagogy has been recognised by the Vice-Chancellor and employers are continuing to support initiatives such as the Kier Prison design brief (2013) which saw the top six students receive commendations of their work by Kier senior management.

6.2.7 Students

From a student's perspective, it was vital that I could trial and share feedback from employers and utilise the findings from in-class activities to capture their contributions. Employer's contributions to in-class inquiries were beneficial to students. Especially students who over the next two years will be transferring from HE into the world of work. *"Your insider knowledge will unlock the mystery of what employers want from us"* (Employer 1, 2014).

As an impact measure, my full-time students would all secure employment opportunities and my part-time students would adopt their newly acquired transferable skills as they progressed within their current organisations. As it transpired, I have witnessed a tangible increase students securing employment, but

as highlighted in above paragraphs it is difficult to categorically confirm or deny whether this impact can be attributed to my project work or a general increase in sector employment.

6.2.8 Career advisors and teachers

In 2012 I was approached by representatives from the Royal Academy of Engineering (RAEng) to be part of a project to increase awareness of STEM subjects to teachers and career advisors. I was appointed as regional project manager and, working alongside other colleagues, I approached the RAEng to suggest built environment forms part of STEM and inquire if I could use this project as an output towards my Doctorate project. The impact for teachers and career advisors was phenomenal. Some had never engaged with industry and commerce since commencing a career in teaching and a quote taken from a deputy head teacher at a regional School provided context *"it's been 15 years since I had worked outside of school. I cannot believe the transformation that has taken place".*

Over 270 teachers of various ages undertook a placement day across the region (3000 nationally). Surprisingly over 40% of regional teachers were unaware of opportunities that existed within STEM and the built environment and had surprisingly never heard of disciplines such as quantity surveying, building surveying, and project/construction management. The lack of awareness of careers within the built environment was first highlighted when undertaking feasibility fieldwork reconnaissance when questioning career advisors on employability skills. The RAEng Project provided triangulation that my original findings and feedback were trustworthy. The measurable and factual impact evidence is therefore relating to the increased awareness and knowledge that teachers and careers advisors have gained during my doctoral project and the RAEng project. Importantly teachers are now better advised on the relevant subject choices that students should take when progressing towards GCSE's and A Levels if they wish to pursue careers within the built environment. These findings have been disseminated directly back to the University schools' project team and we have now filtered specific schools who teach specialist curricula to support pupils with their career choices. This work is on-going but this intelligence would not have crystallised without the projects. Knowledge gained has also allowed my own team to increase targeted recruitment

opportunities and use past students as ‘ambassadors’ to share their career choices with various family and academy schools. This is a vital University impact initiative.

6.2.9 Professional impact

In respect of professional impact I feel this qualification will be my *“threshold concept”* (Meyer and lands, 2006) moment, where I transfer through my *“liminal state”* from a fledgling academic into a new venture of fully fledged academic supported by academic peers. In respect of timing this is an important phase in my career and similar to previously obtained professional body qualifications I see this as a “rite of passage” (Meyer and lands, 2006) where I can commence a new journey as an academic practitioner. In particular the Doctorate of Professional Studies will enhance my confidence to continue with research into built environment employability skills and widen my aspirations to become more research active. I have taken genuine pleasure from attending conferences over the last five years and have been rewarded by the acceptance of my work by global academic practitioners who are located in my sector.

The Doctorate qualification may also act as a catalyst for career progression or at least the ability to apply for higher level positions within academia. A tangible impact that would provide career and life-time achievement rewards. In respect of academia, lecturing and my current position as Head of Employability within FSE, I would claim that the impact on my own professional performance is two-fold. Firstly, I believe I have located fresh understanding surrounding what are built environment employability skills. The learning and teaching pedagogic contributions I now share with university colleagues/external academics/policy-makers will be better informed. This statement can be confirmed by the feedback statements from students both in Hong Kong and the UK who have expressed that my learning and teaching is more engaging; more informed and include case studies of how students can use employability skills as a transferable asset into their workplace. Two students also believe my teaching provides a professional connectivity with industry and employers. Secondly, comments from university colleagues suggest a change in the way I engage with academic activities and the delivery of more informed and trustworthy messages around the Built Environment employability skills agenda. *“I have noticed a more informed and more ensured confidence in what you say and how you deliver messages”* Harris, (2015).

A further measurable impact relates to accessibility to external stakeholders. Prior to this Doctoral project, my colleagues would consistently comment how accessibility to stakeholders was restricted. This project provided and nurtured a platform to forge deeper relationships with stakeholders, exemplified by increased contributions by employers as guest lecturer; developed opportunities for knowledge transfer partnerships; increased student placement work-experience opportunities and an expressed commitment by employers within the Built Environment to expand their offer to work with academic colleagues to develop research papers. My colleagues have been extremely supportive and thankful and moving forward I hope to develop my research further to make a valuable contribution to the University of Wolverhampton REF.

6.2.10 Built Environment Employability Skills Centre of Excellence (BEES)

In 2016, at the close of this project, I will be approaching the Vice-Chancellor to seek his support as well as the support of the Black Country LEP to develop a Built Environment Employability Skills Centre of Excellence (BEES). This would see an extension and continuation of this project research and increase the levels of engagement with stakeholders to implement the full extent of my research findings. With a national call by the UK government to reduce the ever increasing skills gap, the Centre of Excellence will provide a valuable contribution to this challenge. This will allow a continuation of my research and will encourage wider dissemination accessibility to communities who will benefit from more research into employability skills.

6.2.11 Visibility and awareness

Increased visibility of built environment employability skills is another impact claim I make based on the evidence I have witnessed during face-to-face discussions, interviews and discreet inquiries undertaken over the last five years of this project. The lack of awareness of ‘what employability skills were’ was poorly understood by the stakeholders, including internal and external academics in 2010 and first surfaced when I undertook fieldwork investigations and therefore highlighted the gaps I had anticipated. The lack of awareness stretched further to include knowledge of Reports, papers or any publication relating to employability skills. Policy-maker was the only exception, as they were using employability as a policy

statement. Worryingly after I had asked a colleague to use publications on employability skills in-class tutorials, most students failed to make the connection of their importance. "*Not sure what they are, we touched on interview techniques and did some presentations in-class, so I guess that's what it was about*" (personal personal interview, Graduate 4, 2013). This was not an isolated case and, as discussed in my recommendations, I am now piloting a scheme where at the end of each module guide, a list informs the students what employability skills they should have gained whilst undertaking a specific module. Increased visibility should emphasize the importance of the built environment employability skills. Interestingly, when I transferred discussions towards built environment employability skills, the knowledge of context was even worse, re-confirming that a gap in knowledge was wider than anticipated and my investigations were indeed timely and relevant.

An important impact of this project is, therefore, increased awareness and visibility surrounding employability skills. If this statement is factually correct then my project investigations will have closed the gap in knowledge and understanding of stakeholders and ensured the interoperability of these transferable skills are more visible and recognisable. Finally I am delighted to report that in February 2016 Wolverhampton homes will be using my built environment employability compass in a pilot for measuring employability skills as part of their annual staff appraisals scheme.

> *"This is not meant as a mechanism for finding weaknesses, but more of a reflective tool for identifying where we need to assist our built environment staff to better understand their own skills gaps, so we can organise training and further professional development. As one of the companies listed within the Financial Times top 100 companies to work for, we are continually striving for excellence; Can I record my thanks to Paul for allowing us to use his employability skills compass as one of the matrix for this initiative" (personal interview,* Employer 2, 2016).

CHAPTER 7 - CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

The aim of this chapter is to present conclusions and recommendations originating from project findings discovered during and at the conclusions of this project research. This includes the views and opinions of the selective sample of 250 external and internal stakeholders at macro-meso and micro-level of organisations that took part in this investigation and how fresh knowledge and understanding surrounding what constitutes built environment employability skills provide more coherent understanding. In particular how the micro-level findings will enhance and inform micro level activities at my university and encourage colleagues to increase the levels of employability skills embedded into built environment curricula at the University of Wolverhampton.

The research was an expansive and at time a complex project investigation with various layers and indifferent levels of knowledge. With overall contributions from over 250 participants, 30 semi-structured interviews, 45 individual interview style discussions, 65 discreet inquiries, over five conferences and over 35 personal quotations, I feel the project was sufficiently rich in its collation of views and opinions, but accept the project held a restrictive prominence of regional participants. Micro-macro-level contributions formed a key part of the investigation and the varied complexity of discreet inquiries has ensured that all national and sector stakeholders were given a voice.

> *"I personal thank you for your contributions to our bi-annual conferences and sharing elements of your PhD work with our attendees. As academics we all recognise the challenge surrounding more coherent articulation of employability skills and your choice to use various modes of investigation and interventions with a variety of stakeholders make your work a valuable contribution to this research topic. I look forward to reading the final publication and hosting our celebratory tenth anniversary conference in Wolverhampton and the UK" (*Ahmad, 2015).

The chapter will also revisit and review the question of validity, trustworthiness and credibility and will review how the aims and objectives of this project have been investigated and addressed. The chapter introduces the built environment employability skills compass and how it is to be used; reflects on my research objectives; and concludes by suggesting further recommendations at macro-meso and micro-levels for the adoption of key employability skills for the lifelong learning of a built environment graduate.

7.2 Summary of findings

In summarising the findings of this project, I have recognised what academics have acknowledged for a long time as the internal and external threats to validity of qualitative research. Specifically, internal validity refers to how this research is replicable and how the findings would be similarly located in any future studies.

Acknowledging that the nature of this subject of built environment employability skills will always remain subjective; I believe the adoption of what I believe is a robust dual methodology, which supported by purposeful modes of inquiry advocate that this research can therefore be duplicated and developed. Recognising at an early stage of the investigation the need to use modes of non-probability purposive and stratified sampling, that addressed the matter of flexibility and the investigative results are incorporated and acknowledged within the built environment employability compass to allow stakeholders flexibility in the use and adoption of the tool.

7.2.1 Generalisability, validity and credibility

A key factor to this project was the importance of recognising that a qualitative research methodology is not the only approach I could have used in my investigation and how some academics question the external validity of qualitative methodology and questions the value of its dependence on small samples which is believed to render it incapable of generalising conclusions. I personally challenge these believes and advocate the contributions from 250 participants and various modes of inquiry contained within this project provide as a minimum a micro and meso-model level of interpretation and current thinking of built environment stakeholders. In particular how my research findings and stakeholders views in relation to their interpretation of what constitutes built environment employability skills are relevant and meaningful.

7.2.2 Generalisability

According to Willis (2007: 222) *"looking for traditional generalisations assumes that the individual human and group behaviour is characterised by laws that apply across many different settings. What is generalised is abstracted out of the local context in which it was discovered". According to* Myers (2000, p.1) taken from Polit and Hungler 1991, p.645). *"generalisability can be defined as the degree to which the findings can be generalised from the study sample to the entire population".*

I acknowledge that this project will undoubtedly benefit from further research into built environment employability skills and by increased semi-structured interviews. However, by adopting a diligent and rigorous abstraction, adopted in the translation of stakeholder's interpretations, I have what I believe to be robust, trustworthy and coherent representative contexts.

7.2.3 Credibility

O'Leary (2004, p.56) believes *"for research to have the potential to create new knowledge it must be seen as credible. In other words, it must have the power to elicit belief".* Acknowledging the parity of credibility ensconced in my professional beliefs and through my association with professional body membership, where ethical credibility and 'credibility indicators' associated with research are strictly policed, I have carefully negotiated and managed my biases associated with the

subject research. Whilst earlier acknowledging a strong alliance to my research as an undisputed insider researcher, I have returned to stakeholders to ensure credibility of my comments, interpretations and findings.

Recognising what Shenton (2006) advocates, that *"numerous critics are reluctant to accept the trustworthiness of qualitative research, I still believe in various areas of qualitative research and this is still emerging". "One of the key criteria addressed by positivist researchers is that of internal validity, in which they seek to ensure that their study measures or tests what is actually intended".* I would, therefore, suggest that my project has indeed commenced a richer beginning behind what constitutes built environment employability skills. This is not the close of the journey and I intend to submit academic bids to HEFCE to seek further financial support to further investigate and add more credibility to these initial project findings.

According to Merriam (2004, p.64), the qualitative investigator's equivalent concept, i.e. credibility, deals with the question, *"how congruent are the findings with reality?"* [Lincoln and Guba (1985) argue that *"ensuring credibility is one of most important factors in establishing trustworthiness"* cited in Merriam (2004, p.64). Through undertaking a full analysis of the findings, duplicating various modes of investigation and at various times throughout this project triangulating reactions, interpretations and responses, I submit this work as holding trustworthiness and credibility. Distinctively the adoption of a retrospective discussion with stakeholders and participants was used to validate their statements, interpretations and responses is a further enhancement that supports researchers in ensuring accurate reporting, understanding and elucidation of validating qualitative research.

In reviewing the project aims of this project, I advocate richer informed knowledge and understanding has been found. The next challenge lies in its wider dissemination and acceptance that more knowledge and research is required to enhance these findings.

Explore the history and literature around employability with a further focus on employability skills directly associated with the built environment

An extensive review of the history and literature surrounding employability skills was undertaken, but the desktop study and literature critique still suggested and

identified that literature surrounding built environment employability skills is sparingly and densely populated. In contrast, literature and reports surrounding the power and influence of generic employability skills is enormously populated and in September 2015 HEFC released a toolkit to assist in embedding employability skills into curricula. This highlights the currency and relevance of this subject research and advocates the timeliness and credibility of my project research.

Generate insight and fresh understanding behind what constitutes and may be viewed as relevant employability skills for an HE graduate of the built environment.

My findings indicate that most stakeholders who participated in this project agree that employability skills are important component in the transfer of graduates into the world of work. There was a consensus of opinions with stakeholders that suggested the built environment as a sector, held specialist and occasionally unique employability skills. Importantly, I have located thematic insights of what participants within this project interpret as built environment employability skills. Explicitly their interpretations of what they termed 'rich built environment employability skills'. Confirming that built environment employability skills are extremely interpretative, subjective and influenced by economic, political and macro-meso and micro-level policy changes.

Investigate how to better develop, inform and embed employability skills pedagogy into built environment curricula at the University of Wolverhampton.

As an institution, my project investigations confirm through a body of findings that the University of Wolverhampton has a clear commitment to keep employability and enterprise at the heart of its mission and, at the micro-level of practise, academic staff at the university are willing to adopt change. I hope through the adoption and consideration of the findings, that further dissemination of my findings will lead to the wider adoption of new and innovative ways of embedding employability skills into curricula.

With new initiatives planned across the Faculty and School for 2015/17, I suggest that a broader visibility of my project findings surrounding key built environment employability skills will be more widely distinguishable to a student body and wider internal and external academic community.

Disseminate the findings of this project to stakeholders across the HE and built environment practitioner community.

I have continued a process of dissemination throughout the entire project and feel fortunate that at a macro-level, I was afforded the opportunity to share project interim findings with international conference participants. Concluding in 2017 when I will deliver a key-note speech on my findings. Additionally I will deliver a dissemination presentation at the 2016 QSi Conference and in securing the CITTC 2019 Conference for Wolverhampton, I will be working with organisers to incorporate the theme of built environment employability skills challenges.

In respect to meso-sector level dissemination, I will continue to inform all areas of sectors who have participated in this project and use my access to professional academic fora and external professional bodies to share my findings. This will include the annual RICS CPD day scheduled for June 2016, the QSi 2016 Conference, the ICWCI 2016/17 conference and other opportunities that might crystallise.

At micro-level, the project findings will be presented to the Office of the Vice-Chancellor at the University of Wolverhampton, as well as diffusing my findings as part of my academic interactions to fellow Faculty and wider network academic communities. As promised, I will also look to exchange further discussions with all participants who requested feedback to share my findings.

7.3 Findings directly linked to my project objectives

The objectives of my project centred around my exploration on how project findings could locate fresh insights for graduates of the built environment and encourage deeper learning. This learning requires context sensitivity and the ability to reflect on practise and the ability to make secure sufficient employability skills to become eminently employable. Project findings have located fresh insights and whilst discreet inquiries and exchanges with stakeholders have identified a deficit awareness of published material, reports and literature related to employability, the published findings and recommendations concur with the findings of my project research. Interviewed stakeholders (academics, policy-makers, students, career advisors, employers and politicians) are predominately aligned and agree with

generic employability skills identified within various publications, whilst sharing an interpretation of sector specific employability skills within the built environment.

The next objective was to investigate if all layers of the University of Wolverhampton pedagogy were sufficiently aligned to the strategic sub-strategy to locate employability and enterprise at the heart of the University's mission and investigate how employability skills may be embedded across the built environment curricula. This included an exploration as to whether HE built environment curricula delivered at the University of Wolverhampton is appropriately designed with sufficient content relating to the findings of this project.

At the commencement of this project I made the following statement; I have long observed that whilst working within industry and more recently teaching at the University of Wolverhampton how students leaving higher education may not always be work ready as they move from academia into the world of work. Post my project investigation, I have revised and amended this belief statement to state that my project finding suggest there has been an increased adoption of blended learning activities and their 'pockets' of good practise. University of Wolverhampton academics are providing curricula, incorporating a blend of built environment employability skills, but evidence suggests that this is still isolated and more work is necessary to ensure this is a much wider accepted common practise. More needs to be done to ensure these best practises are disseminated across all university faculties. However, this statement should be clarified, as I would advocate that students leaving the institutions I have engaged with as part of this project research are predominately prepared for the world of work.

The findings of this project confirm that most colleagues within ABE are indeed informing and improving academic practises associated within the community of built environment teaching and employers and external examiners are continuing to respond to the increased pressure from external stakeholder's in developing new 'industry relevant' curricula.

The fourth objective was to investigate and triangulate the dissemination of my findings through multiple levels of the academic community. By hosting, attending and presenting findings from my project at various interim stages at conferences, colloquia and within the on-line academic employability community, it appears that

the project findings triangulate across most participant stakeholders. As articulated above, I accept this will be an on-going activity and during 2015/16 I will continue to disseminate my findings.

The final objective involved the exploration of how my own existing knowledge, research, practise and experience as a teacher and industry practitioner within the built environment might add value or influence this project. Measured against feedback, comments, letters and commendations from participants both inside and outside of this project research, I claim that my own professional practise of teaching, business engagement, employability skills and engagement with the development of new pedagogy has been recognised as valid and in various ways provided measurable impact.

I have already adopted findings from spirit of action research discreet inquiries to inform my practises and I will continue to adopt new industry–led and sector informed ways of embedding built environment employability skills into my curricula. My project has certainly provided me with a richer appreciation of the higher academic attainment between research undertaken at Levels 7 and 8 and, as a new reflective practitioner, I will use the knowledge gained to support others along this journey of self-fulfilment.

In regard to the new relationships and partnerships forged during the project, I will always be forever grateful to those who have tirelessly contributed and supported my research. I would also strongly recommend and encourage more academics to engage with external stakeholders and use what I believe have been valuable contributions to my research.

7.3.1 Motivational responses

Listening to the issues raised by many employers, I was keen during this project to disseminate the responses of employers to poorly motivated graduates. I suggested a range of discreet inquiries to initiate the conversation ad responses very much related and were influenced by the size of the organisation. For instance, smaller SME’s who may not have a human resource department would use confrontation as a mechanism for resolving poor attitude employability skills. On the other hand, larger organisation managers were more sympathetic to motivational techniques, such as creating a democratic and sympathetic safe environment. I agree with this

philosophy, as, by having an opportunity to revisit past graduates, I witnessed visible evidence that these traits and work-practises have affected the attitude and operational attitudes of graduates.

As a discovery from my investigation, I have contextualised these findings into my periodic review of curricula design and have disseminated the following shared knowledge messages with various employers. Reviewing what motivates staff and by identifying tasks and output targets to meet these challenges, this will recognise and align with the outputs identified by these organisations and listed below:

- ✓ *Celebrating success.*
- ✓ *Confronting and challenging issues that may arise surrounding attitude or absences immediately after they occur.*
- ✓ *Requesting measurable outputs.*
- ✓ *Recognising individual differences.*
- ✓ *Active listening (two way exchanges).*
- ✓ *Enriched employment by locating ways to enrich the working environment.*

Studying the 2004 Leith Review, the report aims suggested that *"the skills profile in 2020 across the UK should include a maximisation of growth, productivity and social justice", and "should aim to improve its prosperity and fairness in a rapidly changing global economy"* (Leitch 2004, (p. 27). Unfortunately in 2016, Europe may be seen as suffering from a lack of investment in prosperity and fairness within employability and unemployment for under 25's in Greece and Spain has reached unprecedented proportions. If the employability compass can assist European academics to better

inform their graduates that would be a remarkable outcome. As for the UK, the focus still remains around skills, qualities and competencies and whilst some of the employability skills may have changed *"to be employed is to be at risk, to be employable is to be secure"* (Hawkins, 2005, p. 9).

7.4 Rich employability skills

The phrase 'rich employability skills' was first identified by employers and career advisors during my series of discreet inquiries. The term was used to describe the exceptional skills and abilities some of their graduates and/or employees have shown in the workplace. These skills are not always transparent but two employers discussed the term again during my semi-structured interviews, when I inquired about examples of graduates that demonstrated these exception employability or enterprise skills. In attempting to contextualise these skills I have therefore positioned them into the heart of the built environment employability skills compass and confirmed back with employers that this was a correct interpretation of what they had described.

7.5 Recommendations

I believe vast amounts of scope for further research into built environment employability skills and the subjective nature of this interest will indubitably lead to differing findings. The constant is how the transferability of those skills still relies on the lecturer's ability to embed employability into their curricula based around solid learning and teaching practises and an acceptance surrounding contributions from external parties to help develop or deliver their material. Even then it falls upon the student's ability to actively contribute to their own learning. Importantly they should also be willing to interpret the complex, application of those skills and then use transferable skills to use and adopt this knowledge, skills and experiences taken from HEI teaching into workplace practises.

Notably, it requires student's engagement and an avoidance of students presage; to ensure both the lecturer and student are appropriately constructively aligned to share these learning experiences and translate the visibility and importance of employability skills for now and at future time in their working life. Suggesting

employability skills are a lifelong learning journey that develops and emerges as you develop, change or realign your career.

7.6 Feedback from Stakeholders

Having communicated the findings of this project to confirm validity and accuracy of my recordings approximately 95% of participant stakeholders said they were comfortable with my interpretations and were delighted to view my first draft prior to official submission, I have been overwhelmed by the positive comments that support the idea that my work is illuminating, relevant, timely and provides context and structure to the subject.

> *"I am delighted to have taken part of this study and fully accept the findings. Indeed, I have personally gained fresh insight and gained a wealth of rich understanding from this project and have already encouraged my organisation to become more actively engaged with the development and up-skilling our own new crop of quantity surveying graduates; Indeed using Paul's built environment employability skills compass as a tool for supporting career plans, writing job applications, providing context to interviews and setting targets and competencies for our new graduates"* (personal interview, Employer 2, 2015).

7.7 Further recommendations to address employability skills challenge

These are personal beliefs that contextualise my own personal experience I have gained during this project and do not represent the views of organisations or professional bodies.

7.7.1 UK Government: More investment in the skills agenda.

Employment is an accepted economic measure of a nation's wealth and prosperity. Citizens who hold appropriate knowledge, education and employability skills are part of the solution. Over the last six years, the UK government and HEFCE have made valuable contributions to fill the skills gap and invested funds searching for ways to address this challenge. I suggest a more coherent understanding of what constitutes built environment employability skills will provide valuable solutions.

7.7.1.1.1 First recommendation

That the current Government HEFCE, LEP and professional body council support continues and the current concentration relating to STEM subjects is extended to include architecture and built environment (STEAM). If we are to avoid a deeper skills shortage across a sector that contributes over 9% of the UK's GDP, it is imperative the sector secures consistency of funding and research.

As a case study I was recently informed by a national employer that they will need 25 quantity surveyors and 100 engineers per year over the next five years. This may not sound vast numbers, but if these numbers are translated across other HEIs, we will collectively witness a further built environment skills shortage. However, it's rewarding to see how a commitment to re-introduce apprenticeships and a new initiative to promote higher apprenticeships are making tangible impact and commendable.

7.7.1.1.2 The second recommendation

Involves continued support of the BIS and RAEng 'Steps at Work' initiative to provide industry placements for teachers and career advisors. The last project secured placements for over 9000 teachers and provided teachers with direct exposure to what constitutes modern careers and workplace expectations. This might also lead towards an initiative that encourages teachers to undertake continuous professional development (CPD), which includes three placement days per year.

7.7.1.1.3 The third recommendation

Advocates levy and tax incentives for employers to establish industrial panels. The panels would include attendance at regional Universities and would ideally close the collaborative knowledge exchange loop. Importantly, a regional or national policy maker could ensure that research, white papers and publications relating to employability are transferable into this forum. What my project has identified is that there is a current gap in this knowledge transfer process. This would build upon the work of Latham, (1994) and Egan, (2002). I recommend that the Government host periodic 'think tanks'. Securing contributions from various sectors to develop new employment strategies and ensure global best practises are piloted across the UK.

7.7.2 HEFCE - Continued research across the sector

Recognising that the built environment sector is occasionally viewed as extremely vocational my recommendations that HEFCE continues to support research into employability and extend this to associated sectors. Thereby enhancing understanding and making a valuable contribution to reduce the skills gap if findings feed into the governments' communication strategy.

My second recommendation within this sector involves HEFCE encouraging and rewarding partnership collaboration. These rewards would support the collaborative rewarding of research funding and recognise universities and higher education institutions who are actively contributing to this type of discreet inquiry.

7.7.3 Universities and Higher Education providers - Increased collaboration

The first recommendation within this area suggests the commitment of compulsory employer fora, with a tax incentive for employers and professional bodies who engage and contribute to discreet inquiries. Each year, as with European funding research initiatives, a set of case study best practises should be evidenced. These activities can then be part of a national set of statistics and demonstrate 'pockets of best practise'.

7.7.3.1.1 The second recommendation

Suggests recording the active levels of engagement HEIs have with external stakeholders. This could be recorded within the DLHE survey. This incentive would promote wider engagement and provide parents and potential students with actual evidence of the levels of engagement HEIs are involved with;

7.8 University of Wolverhampton: Employability and enterprise

My project findings provide the recommendation that the University continues with its well thought out sub-strategy to keep employability and enterprise at the heart of its mission. We continue to host the 'Rich exchanges conference' that showcases best practises to the university community, but investigates additional ways of communicating and exchanging 'pockets of best practise' across the wider academic and business partnership community. This may include a collation of

these findings in an annual publication, to increase research into employability and enterprise to enhance our REF submissions.

7.8.1.1.1 Second recommendation

My second recommendation involves the expansion of the University of Wolverhampton commercial employment agency to enhance the opportunities for increased levels of graduate employment. Acknowledging our existing investment, but widening our aspirations to exploit our knowledge within certain sectors and supports our collaborative partnerships with agency and employment solutions. The venture would need University Governor's support, but demonstrates leadership surrounding the practises we preach surrounding enterprise and employability.

7.8.1.1.2 Third recommendation

Involves an annual piece of research to identify what skills our alumni found most beneficial whilst they attended university and additional skills they developed has they progressed into the world of work. Conducted as a five year study, findings could increase the opportunities to invite past students to share their case studies with the current student body.

7.8.1.1.3 Fourth recommendation

My fourth recommendation involves an opportunity I have already actioned in the creation of more student-friendly technology discreet inquiries, such as an APP. The pilot APP will be used for monitoring and recording employability and enterprise award activity. I recommend that findings from the pilot may extend the IT application towards nationally, employer-endorsed awards or achievements.

7.8.1.1.4 Fifth recommendation

My fifth recommendation is at micro level and suggests that all University module guides include employability descriptors. This would ensure a more coherent visibility of the employability skills gained through curricula and would assist the students in the creation and recording of skills-based achievements on their CVs.

7.8.2 Personal commitment and recommendations: Development and dissemination

The personal recommendations are informed by personal reflections and reflexivity I have captured during my project research and suggest wider dissemination of my

findings are imperative to inform participant stakeholders of the challenges we face across the sector running up to 2020.

7.8.2.1.1 Second recommendation

The recommendation requires a personal commitment to continue with my research in the area of employability skills within the built environment including research papers, journal articles and to continue my negotiations with a national publisher regarding the publication of a book. Potentially using project case- studies discovered during the project investigation, wider media exchanges and increased press releases and comments on regional, radio, media and TV. I have already committed to this recommendation and will finalise this work post completion of my professional doctorate.

7.8.2.1.2 Third recommendation

My third recommendation requires further expansion of my engagement with national employer fora and professional bodies, such as the RICS and QSi in the promotion of careers and employability skills within the sector. Potentially providing a catalyst to seek political support to promote employability skills and increase careers advice across the sector and triangulates my accessibility and communication strategy with politicians and policy-makers that were forged during my project research.

7.8.2.1.3 Fourth recommendation

My fourth recommendation was based on discussions with national employers who provided market intelligence to suggest the annual graduate employability course could be easily transferable into a 20 credit on-line course accredited by a professional body. This would be a pathway to a nationally recognised qualification and award would require endorsement at the highest level.

7.9 Concluding remarks

To demonstrate further validity, I recommend that more research is undertaken into employability skills within the built environment supported by larger sample size. Findings would be triangulated with my project findings and may suggest further adjustment or refinement. This supplementary research should ideally include contributions from UK and transnational universities and this would expand

understanding surrounding global employability skills and richer appreciation of international cultures across the built environment. My project research could never endeavour to close the entire gap in knowledge I believe I have located or provide conclusive evidence of what constitutes built environment skills for HE graduates. What I am proud to take away from this body of work is a commitment to use this fresh knowledge and understanding to generate 'pockets of impact' and use the data to make a contribution to tackling the national challenge of a skills gap within the built environment sector. To quote Blanden *et al,* (2010, p.110) *"Skills have the potential to transform lives, by transforming life chances and driving social mobility. Having higher skills also enables people to play a fuller part in society, making it more cohesive, more environmentally-friendly, more tolerant and more engaged"*

CHAPTER 8 - REFLECTIVE AND REFLEXIVE ACCOUNT

8.1 Introduction

The purpose of this chapter is to provide a reflective and reflexive account of this Doctorate of Professional studies project personal journey, underpinned by a series of diary notes, comments, personal thoughts and observations I collated. These recollections are not restricted to external or internal situations, but include reflective analysis of the circumstances, motivations, professional development and increased personal knowledge.

As a Principal Lecturer and an insider to my research what I have discovered is the richness of reflection and reflexivity. Stakeholders reinforced the message that reflection encourages transparency to analyse successes and failures. Employers continually repeated this as a critical skill. For instance *"graduates can use reflection as a process for post-contract evaluation, highlighting where mistakes were made and where lessons can be learnt"* (Employer 7, 2015). Reflection can also assist graduates in forging stronger collaborations with clients.

I accept that some academics (including my colleagues) felt reflection and reflexivity were too deep for some students in the lecture theatre because of restrictions on time. This was echoed by Copeland et al. (1993) and because of reflective/reflexive

practises is another subject to pack into already stuffed curricula. However I have convinced tutors to run trials at Level 6 and 7 studies.

Davis (2003) concurred with my colleagues and makes reference to packed curricula taught by de-motivated and over-stretched tutors. The challenge of *"stuffed curriculum"* (Cousin, 2012) is a challenge academics are faced with, which I empathise with, however my findings suggest that the incorporation of reflection, encourages deeper, richer levels of evaluation on practise. This knowledge is transferable and can in many ways encourage students to mature and become reflective practitioners (Schon, 1987), thus developing capacity to engage in critical reflection (Lucas and Tan, 2013). Rich employability skills were thematically accepted by all participants and stakeholders. On the commencement of my project research investigations, I was extremely nervous about missing particular elements of important knowledge, understanding, themes, or indeed making sense of what was happening. What I have taken away from this project research is a clear sense of direction behind 'what next'?

8.2 Commencement of the journey

Historically, I have always been engaged with matters relating to employability, motivating staff or establishing training programmes to support colleagues to reach career heights. From my early career days at the City of Birmingham Architects Department, where I developed a training course for young professionals, through to my current position as Head of Employability within FSE at the University of Wolverhampton, my commitment, dedication and passion towards promoting employability and access to education for all has never waned. "*Find every opportunity you can. Take every opportunity you find. And importantly provide every opportunity you can for others*" (personal interview, Academic 6, 2014).

Certainly as a motivation or job satisfaction there is nothing that can replace the fulfilment surrounding increased knowledge that engagement with education provides supported by a "*rite of passage*" as expressed by (Cousin, 2012) when students take their place in the world of work. In particular the prospect of locating deeper and richer understanding of employability skills for my sector was a key motivator and I was keen to unearth an inner knowledge of myself. What I have

discovered is techniques of bringing ‘real life projects’ into the classroom is indeed having impact on my students and forging interoperability with real life workplace challenges.

8.3 Why undertake this project

My personal motivation for undertaking this doctoral project was located in early reconnaissance fieldwork that highlighted poor understanding amongst stakeholders on what constituted as built environment employability skills. There was a shared appreciation of generic skills but when investigated further, it became apparent that there was a disparity of definitions and interpretation of what constitutes as a built environmental employability skill set, and, confirmed that there was a gap in knowledge through limited literature publications and understanding surrounding the built environment employability skills.

As part of my early field work investigations, I had spoken with students at various regional universities and had accepted their comments implied that they were fully conversant with the concept and meaning of employability skills. However, as the project research continued, it became clear that these recollections were not strictly correct when I investigated in depth. This was typified by comments such as Career Advisor 1 (2011) “*We only cover presentation skills and work in groups, so I feel we could do more in respect of employability skills in-class to be better prepared for work*”. This was echoed by further interviews with students. What later transpired, was the issue of visibility and the need for clearer signposting of employability skills by academics in lessons, CPD events and HE pedagogy. On reflection, perhaps I could have recognised this gap in translation earlier in my investigation.

Prior to this project investigation, I was consistently informed by employers of their concerns that graduates were leaving universities with inappropriate skills, identified during their experiences in the workplace, however in support of these claims, publications on employability concurred with employer’s assumptions, suggesting that more could be done by UK universities to address the perceived problems. This gave parity of my earliest motivations to try to locate evidence, fresh knowledge and stakeholder interpretations to source richer coherence surrounding what constitutes appropriate employability skills for a built environment graduate. These findings

informed my own practise and, through a strategy of dissemination, the findings were shared with a wider academic and industry community.

Prior to commencing the project, I had been tasked with the development of a suite of new modules surrounding work-based learning and industrial placement for built environment students. An impact from this project work is that findings enhanced and influenced alterations to my curricula design. As it later transpired, this was a factual belief and all my modules incorporate enhanced employability skills and further findings from this research.

As I transferred from industry into academia, I was also extremely motivated to continue my own education and positionality within the academic world. By undertaking a Doctorate in professional studies, I could also investigate my own techniques and abilities for learning and teaching employability skills. I suggest a traditional PhD would not afford this opportunity.

8.4 Wider aspirations

I have frequently observed that most individuals, who enter the world of architecture, construction and the built environment, often join the sector by association with connections to family, friends or associates who work within the sector. This view can be confirmed by the findings and observations that the sector is misrepresented as a valuable career choice in various fora; including media, radio and television. My doctoral research confirmed that the sector is also insufficiently promoted as a professional career choice at managerial level. Many people in schools and colleges associate the built environment careers at manual level, i.e. construction trades.

I have always held an emotional connection to the built environment and this project has heightened this connectivity and charge to make a difference. I have always been supportive of encouraging the next generation to join the sector. During my research to locate fresh understandings, it was imperative to demystify and remove barriers that were preventing the participants from articulating exactly what they felt were relevant employability skills.

As RICS West Midlands Chair, I have tasked over 200 professionals to undertake a similar personal reflective evaluation and ask themselves, ‘what is their reciprocal

contribution to a sector?', including remembering the support and encouragement they would have certainly received from individuals when they first entered the sector and again as a reflexive question of 'what support will they give to the next generation of sector professionals?'. Project participants agreed that to help someone throughout their career provides personal fulfilment.

Strategically, the finding from my doctoral project stresses the importance of the built environment sector towards the influences of the UK economy. I was motivated to share this richer intelligence with policy-makers, politicians, teachers, career advisors and parents, as it became apparent at an early stage of my project that there was a clear lack of knowledge and understanding surrounding the sector. During the research interviews and interpretations I had to make a conscious effort not to influence their responses and taint their responses with my personal bias, opinions, relationships and beliefs. As a minimum the illumination of my finding would expand stakeholders understanding surrounding professional career opportunities and better appreciate its national contribution. My project findings have already provided a platform for this higher profiled dissemination. Whilst there are no guarantees surrounding the adoption of the project findings, at least I feel I have made a genuine gesture to dismiss the myths and share the facts.

8.5 Professional motivations

In one of my early diary notes I recall a reference to the trepidation and uncertainty I held towards undertaking this complex Doctoral investigation. Not only the layers of the investigation, but the complexity and fear that this journey was beyond my capabilities. As my university entered a process of change, I was struggling to locate quality time to continue with my doctoral studies outside of previous commitments, where I had made a promise to deliver presentations or at least a project update at the Construction in the 21st Century Conferences. In hindsight, what the conferences provided was a platform to share my doctoral findings and an acceptance of my work by fellow academic peers gave me an inner-strength to continue. It was at this point in the winter of 2014 that I made a personal self-revelation. I have always been known as a proactive and positive individual, but the serendipitous moment helped me realise, I am more comfortable assisting others than capturing time for myself.

Even down to the sentiment and motivation that this doctoral project investigating was not only a personal goal, but the findings could or would have a huge impact for others, including my students in reaching employment were a key incentive. This again links directly back to the need to help others and the psychological rationale for my transfer and instant adaptability to an academic life. I have also observed on a personal front, how frustrated I get if students fail to fulfil their goals and achieve the grades I know they are capable of. I suggest the focused discussions I hold post this occurrence prepares students for another workplace experience of receiving constructive criticism.

8.6 Personal motivations

On completion of this project, I will be the first family member across all generations to have completed a Level 8 qualification. This was a strong motivation that kept me going through the 'dark days' of writers block or moment of disbelief and I will be extremely proud of my achievement and forever grateful to the team who supported me.

A further personal motivation was that on completion of this doctoral project, I would have completed a piece of work that has been accepted by my academic peers. This transfer into the academic community is a key driver. I recognise my respected position within industry and commerce, but it was imperative that I position myself within the academic community as an industrial professor. The achievement will motivate me to undertake more research and will allow me to progress within the world of academia.

What I have constantly observed is how certain individuals or certain situations can have a huge impact on your life. Comments, interactions or feedback can hold tangible impact on your own confidence, motivation and ability to continue to seek opportunities. I noted four case studies during my project interviews that confirmed this observation. This project was no exception and the key moments, events and reflections I have recorded during my doctoral project are:

2009: A lecture given by GC.

The lecture formed part of the PGCert qualification in learning and teaching. GC contextualised pedagogy and provided a deep richness of understanding that I had previously not discovered or experienced. This inspired me to continue with my research, progress onwards to my level 8 qualification and eventually this 'light bulb moment' gave me the confidence to undertake my project reconnaissance. This would later lead to the location of gaps in knowledge that formed the subject of my Doctorate of professional studies. Truly inspiring and messages expertly delivered. Something I hope to emulate at some stage in my career.

2010: Discussions with Doctorate of Professional studies supervisor KJ.

KJ provided context to my project, personal motivation and professional guidance surrounding the format and approach I should take to add structure to my project research. Whilst KJ would later depart Middlesex, I will always be appreciative of KJ's consistently of advice and motivations.

2011: The feedback from the PAP Panel.

On reflection, another moment of truth where you leave yourself and your project work exposed to your peers. I would suggest this reinforces my early observation that suggests the power of the spoken and written word holds a deep impact on your confidence. The procedure was conducted in a professional manner and the Panel were extremely supportive and appreciative of what I was trying to investigate within my submission.

They provided me with extremely constructive feedback, which required minimal alteration and a reassurance that my project held academic value. This was a memorable milestone in my journey and a situation that refuelled belief in my own abilities. Without this positive experience, I would not be submitting this more expansive piece of work and the impact this project holds for numerous stakeholders would not been investigated.

2012: Reconnaissance interviews with participants.

Early engagement with external stakeholders was extremely motivating, as it confirmed the assumptions related to the 'known's and unknowns' of my research surrounding employability skills. Importantly, it confirmed the gaps I had located were genuine. I was pleasantly surprised by the willingness of participants to contribute to my research and the shared motivation and desire to locate fresh understanding. Accepting that 5% of participants did not share my vision of the contribution my project may make towards locating a richer understanding of what constituted built environment employability skills, I was still empowered and reassured by the commitment and continued support of most participants. Participants identified this support when re-confirming my interpretation of their interview transcripts, discussions and personal quotations. It is a true testament to the strong relationship and partnerships that can be forged during doctoral project research.

2012: Interview and discussions with JK.

I was introduced to JK by the then Deputy Vice-Chancellor during the 'Steps at Work Project'. The Project was supported by BIS and it was soon identified that JK had played a major role in developing the project.

The project encouraged teachers to spend a placement day in industry so they could better appreciate careers associated with STEM. I was nominated to project manager for the West Midlands conurbation and through national support by Professional body/ Policy maker 1 (2011) and Policy maker/ Politician 1 (2013) the project continued to meet targets.

Policy Maker/ Politician 1 (2013) supported me with this project and as a participant, provided me with access to higher level participants. On reflection, he not only guided me towards locating fresh knowledge and understanding by 'standing in the shoes in others' but motivated me to take a more empathetic philosophical stance towards my participants.

At times, the reassurance and brevity of understanding that JK provided was contagious. In particular, JK provided me with a richer appreciation of the wider considerations surrounding political cultures and the strategies policy-makers adopt as a methodology for delivering messages. As I disseminate my findings to captains

of industry I must thank JK for his friendship, guidance and support in facilitating various high profiled dissemination events to a wider audience. His informative discussion, insights and inspirational words are legendary.

2014: Critical incidents.

In 2014, as I commenced by write up of the Doctorate project I was extremely nervous of my position. I had experienced a wide range of career changes within my academic life and I was faced with volumes of notes, reports and academic data that required contextualisation into my final submission.

I had already adopted a proportion of my research findings to enrich my curricula design and learning and teaching and my students had been extremely supportive and appreciative of the knowledge I had exchanged on employer expectations. However, I was struggling to locate time and faced with a breach in my confidence.

One of the problems of seeking support from higher level OVC officers is the expectations and pressures this brings to conclude a project on time. I was suddenly faced by a lack of personal confidence and a critical incident of gigantic proportions. I had experienced critical incidents before, but I could not locate a solution. I decided to speak to my project supervisor and followed his suggestion to take four months away from the project. For an individual who completes tasks on time this was extremely frustrating, but on reflection extremely appropriate.

Personal change in professional circumstances.

Throughout this project journey, I experienced two major employment re-alignments and numerous, critical incidents. This will be more expansively articulated within Chapter 8 as part of my reflexive summary. Indeed both incidents have had various levels of impact on my project and impacted on my ability to complete this project. In 2012, I was upgraded to a Principal Lecturer and took ownership of Business develop.ent activities for the School of Technology. This increased my workload capacity and slightly impacted on the availability of time I was given to complete my project. However on the positive side, I had greater accessibility to further external stakeholders and was able to complete my semi-structured interviews.

I continued to maintain and deliver my Work-Based Learning and industrial placement modules, but I had to work harder to secure ‘buy in’ of internal staff in respect of the employability agenda.

During Spring 2013 I was again faced with career change as the School of Technology (SoT) was merged with the School of Applied Sciences (SAS) to form the Faculty of Science and Engineering. Along with other staff I was invited to apply for my own position as Principal Lecturer. This was a very unnerving set of circumstances. After various stages of inner-reflection on my career path I made the decision to transfer from Principal Lecturer in Business Engagement and took a career re-direction towards Principal Lecturer in Employability. This was a calculated risk, as numerous other applicants were looking to secure the same position. However, I was confident in my own knowledge and ability to deliver in this sector and further evidence of my connectivity with the role.

As I moved towards completion of a second year in post, I feel my decision to change career direction was justified. I accept that in my wider cross-Faculty the Science subjects require a more bespoke approach to graduate employability, but I feel there are various areas of transferable knowledge I can disseminate across sectors once I have completed my project. More importantly my new role has provided a stronger focus of attention and relevance to my work I have undertaken.

A final change in circumstances related to the departure of my Doctorate of professional studies supervisor KJ. Within each relationship there is a bond and trust that help bring out the best in each other. Having worked with KJ through the early years of my project I found KJ extremely approachable and knowledgeable. Having taken feedback from my PAP this was a pinnacle moment in our relationship and a joyous shared experience to hear that I was only required to make minor adjustments and the Panel felt my project proposal was meaningful.

The cause and effect of all these interactions were not exhaustive but as I have noted through numerous diary comments they were reflective and reflexive experiences that gave me critical incidents, inspiration, renewed motivation and finally believe towards completing this project. In particular as a theme throughout my journey I have found the project research, challenging, exciting, in-places exhausting.

8.7 Implications of the project

My interaction with various stakeholders has been extremely fulfilling and rewarding. As a ‘people person’, who was keen to ensure that University of Wolverhampton built environment students/graduates are provided with the best possible opportunities to become eminently employable, then this project has been successful. I support this claim with letters of support and the various notes and calls from recent graduates, teachers and employers. If other participants share or adopt even a proportion of my findings the project may hold an even wider and deeper implications. This project was never likely to be a panacea that claims to locate precise factual evidence surrounding what constitutes built environment employability skills, but if I have filed some of the voids in knowledge that exist in this space then that will be a measurable output. On reflection, I suggest this project is only the first chapter of my research into employability skills and I will be expanding my academic research into this subject in years to come. A further reflexive comment relates to my observations surrounding people. Over the last five years of this project research, I have invited 365 people to visit the University. One of key implications that every stakeholder agrees upon, is that the mystery surrounding employability skills will only be solved with increased collaboration between HE providers and external stakeholders. These finding have since been shared at all dissemination seminars I have attended and everyone in the audience concurs.

The impact of a 95% employability rate for the University of Wolverhampton is a real measure of the level of contribution that the academic and workplace team make on a day-to-day basis. If this project and its findings contribute to the Faculties employability figures, then the University mission to place employability and enterprise at its heart is a tangible measure of project success.

Finally, a longer-term legacy for the sector will be the Springfield ‘Global centre of excellence’. The centre will provide a ‘ladder of opportunity’ for all ages and if this project was a catalyst or driver for the Vice-Chancellors vision, this would be a magnificent outcome.

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APPENDICES

Appendix 1 - Group forum intervention

Appendix 2 – Stakeholder intervention

Appendix 3 – In-class discreet inquiry 1

Appendix 4 – Employability and enterprise course

Appendix 5 – Employability and enterprise award

Appendix 6 – In-class discreet inquiry 2 : May 2014

Appendix 7 – FSE Employability and Enterprise action plan

10.1 APPENDIX 1- Group forum interventions

GROUP FORUM

Network 4: Industrial employers/ stakeholders forum

(Discreet inquiry)

Phase 1 Group forum

	Group discussion **(Phase 1)**	**Network 4: Industrial employers/ stakeholders forum** **(Discreet inquiry)**
	Group Intervention/activity Group forum discussions with employers, students, policy-makers and a career advisor. Followed by one-to-one discussions with stakeholders after the 'Network 4' forum. Venue – Wolverhampton Homes premises and/or the University of Wolverhampton and Birmingham City University.	To undertake fieldwork investigations to seek opinions and views of a range of regional and national stakeholders to seek their understanding of employability skills and their views surrounding the robustness and need for further project investigations. 4 questions were posed within the discussion and hard-copy notes were taken. All participants were informed of the purpose of the questioning and all agreed that the comments, quotations and findings could be used within my research.

	Group discussion (Phase 1)	Network 4: Industrial employers/ stakeholders forum (Discreet inquiry)
Q1	What do you understand about the term Employability skills?	<u>Employers</u> Important skills that students should seek whilst studying at University • Good communication skills • Work experience • Could only partially be gained whilst at University <u>Employers</u> • Good communication skills • Work experience • Could only partially be gained whilst at University <u>Students</u> • Communication skills • Something I need in the future • employers may ask about it at interview • not sure • Important…I think we covered it in-class

	Group discussion (Phase 1)	Network 4: Industrial employers/ stakeholders forum (Discreet inquiry)
		Academics • Relevant but generic • Unknown quantity • Aligned to work experience • Embedded in my curricula Career advisor • Vital • Communication and interpersonal skills • Partially gained at University but traditionally gained when in industry • Unknown quantity • Aligned to work experience

	Group discussion (Phase 1)	Network 4: Industrial employers/ stakeholders forum (Discreet inquiry)
Q2	Do you feel Universities are sufficiently engaged with Employers?	<u>Employers</u> • In some instances • Dependant on individuals • to a small degree • Yes-through this forum • Unsure where synergies lie <u>Students</u> • Yes • Some academics are but not all • Through placements • Ex-industry staff • Not as much as they should be <u>Academics</u> Some staff Don't have time Yes for pockets of research Occasionally

	Group discussion (Phase 1)	Network 4: Industrial employers/ stakeholders forum (Discreet inquiry)
Q3	Should employers assist and contribute to the design of curricula?	<u>Employers</u> • Yes but we need help to understand the process • No we should leave this to University staff • Yes as we need specific training embedded • Unsure one way or the other <u>Students</u> • Good idea • Would help with how studies • I thought WBL was designed with industry • If it helps <u>academics</u> • Unsure – we don't tell them their business • Yes if it helps and informs my curricula • Yes if we can find someone to donate time • No –we have tried this before • We already have to follow professional body prescriptive curricula design.

	Group discussion (Phase 1)	Network 4: Industrial employers/ stakeholders forum (Discreet inquiry)
Q4	What five key employability skills do you think a graduate of the Built Environment should hold?	Employers • Good time management • Work ethic • Good communication skills • Knowledge of Maths • Problem solving skills <u>Students</u> • Presentation skills • Team working • Presentation skills • Drawing skills • The ability to work on your own <u>Academics</u> • Communication skills • Technical knowledge • Ability to work in a busy environment • Ability to meet targets • Team working abilities

10.2 APPENDIX 2 - Stakeholder intervention

Phase 2- Stakeholder intervention

Phase 2 – Face to face interviews

	Reconnaissance	
	Face to face discussions in a less formal interview style meeting with stakeholders in their own office, study area or workplace environment	To undertake a more detailed reconnaissance investigation into the views, opinions, knowledge and awareness of employability skills with internal and external stakeholders. This would confirm or deny the findings from the feasibility stage workshops and help to formulate what are the key questions to be raised surrounding employability skills. Participants included: • Eight regional Employers • Five graduates • Two policy-makers • Three career advisors • Three professional bodies.

Q1	What are your views surrounding the quality of graduates that are leaving University?	<u>Employers</u> • Fairly well qualified • Some have no practical knowledge • Lacking in work readiness • Same as previous years • Lacking in practical skills <u>Graduates</u> • A University degree • Have a good work ethic • Have industrial placement experience • Have something to offer to employers <u>Policy-makers</u> • Limited engagement • Some are not prepared for the world of work • Dependant on where they undertake their University education • Some graduates hold the relevant employability skills that employers need, some do not.

Q1 Cont'd		<u>Career advisors</u> • Fairly well prepared for the jobs required within the region • Different abilities • More likely to secure employment • Mixed Reports from employers <u>Professional bodies</u> • Well prepared if associated with our accredited courses • Hold the relevant competencies to meet employers needs • Generally positive

Q2	Do you feel modern graduates hold the relevant employability skills for the world of work?	<u>Employers</u> • Not really • If they have some industrial knowledge to back up their University knowledge • Depends what the employer requires • We are better to mould them ourselves when they join us • Occasionally you come across an excellent student <u>Graduates</u> • Yes I think so • It depends what the employer expects from us • We practise presentation skills all the time sp this must be relevant <u>Policy-makers</u> • Reiteration that “Some are not prepared for the world of work” • Not where STEM subjects are concerned • Some leave University with inappropriate skills or hold employability skills which do not meet with UK employer wants and needs.

Q2 Cont'd		<u>Career advisors</u> • I believe so but it depends on what career they are looking to transfer too • Generally yes <u>Professional bodies</u> • Depends what the individual takes away from their University experience • Yes if they follow our guidance and the lecturers deliver quality courses • We are lots of examples of positive experiences where graduates have gone on to become chartered so we believe they are well prepared.

Q3	Do you feel graduates who qualified a decade ago were better prepared for the world of work?	Employers - Hard to say but they seemed to have more maths and English grammar skills; - About the same; - It was a different time and employment outputs and requirements were different back then;- Back then the work ethic was more established. Today's graduates want to be managers straight away. Graduates - I would say the same; I think we are more computer and IT literate and are willing to work just as hard; What do you think? Policy-makers - Possibly yes and their expectations surrounding careers and loyalty to one employer was more readily established;- It's a different world and difficult to make the comparison; Career advisors - Career requirements were different a decade ago I think about the same although employers were a little less demanding then Professional bodies - The knowledge held then was probably the same but there appeared to be a more experienced awareness of what was required by employers. Difficult to judge - That is the perception from some of the employers we speak to.

Q4	What do you feel are the relevant employability skills for a Built Environment graduate and do you believe they are different from those in other STEM subject areas?	Employers - Yes they should be discipline specific Similar but it depends if legislation or legal knowledge is required - Probably problem solving is a key skill - We need graduates who are flexible, willing to adapt to change and willing to work across the world. This applies to all graduates - A knowledge of solving mathematical equations - Common sense and good communication skills are imperative Graduates - Yes we need more technical knowledge - I think we need more awareness on how structures are assembled - We tend to use quite a lot of calculations Policy-makers - Yes we tend to think of the sector as construction which would tend to suggest more skills related to knowledge of trades, assembly and planning skills surrounding project management - Similar in respect of mathematics, science and technology. Perhaps a greater emphasis on meeting targets Career advisors - I tend to advise careers for trades, carpenter, electrician etc and they will progress to University with those practical vocational skills. This will serve them well in their future careers - Communication skills, team working, knowledge surrounding problem solving Professional bodies - We make the distinction through our core competencies and then through our specialist modules. These are discussed and agreed on an annual basis with partner Universities - We have our own CIOB competencies and we have an expectation that lecturers will pass on this knowledge within a framework of client care, health and safety, technical knowledge, discipline specific knowledge like construction management. We have the expectation that University graduates who complete our courses will be industry ready when they transfer into the world of work.

10.3 APPENDIX 3 - In-class discreet inquiry 1

In-class intervention- 1

In class intervention 1

	In-class survey	Preparatory activity
	In-Class activity to test the awareness and appreciation of employability skills with level 5 students.	To better appreciate student's awareness of employability skills within their University modules and see if they can make the connection towards the importance of employability skills. This will also set the scene for next week's observational activity where (S A) - Director of a LHA. 23 students took part in the activity and 18 students submitted a response. Students were identified by their seating position: Front row A1, second row B1 etc.

	In-class survey	Preparatory activity
Q1	How would you describe the meaning of the term employability skills?	Poor response rate – Approximately 75% • "I think this relates to the skills we need as we progress into work" student (A3) • "Employability skills helps us do our job well and maybe they can helps us move up within our organisation" student (B2) • "We will need them to secure employment or at least get an interview" student (B4)

	In-class survey	Preparatory activity
Q2	Would you say you have been encouraged to develop your employability skills in any of your lectures since you began your studies at University?	Better response rate – Approximately 90% • "Yes, In this module Paul constantly tells us about the importance of employability skills and that they are life-skills" Student (A2) • " Not sure really, I think presentation skills are used in all modules, but not sure if this is what you mean". Student (A4) • "I think we need to work in industry before we can develop our employability skills". Student (B3)

	In-class survey	Preparatory activity
Q3	If you answered yes to question 2, what skills do you feel you have you developed? What lecture/s have you encountered them? And can you give an example?	Poor response rate – Approximately 75% • "Presentation skills" Work based learning and personal skills. Its part of our assessment brief for the modules". • Student (A4) and Similar comment from Students (A1,A3) • "Network skills, communication skills and presentation Skills". "We have a task in the Quantity surveying module and the personal skills module that encourages professional letter writing and communication skills with employers". Student (C1)

	In-class survey	Preparatory activity
Q4	Do you feel are employability skills are important to a Built Environment student? And What are the key skills that are extremely important for a career within the Built Environment?	Excellent response rate – Approximately 98% • "Yes, as we need to know how to construct buildings" Student (B2) • "Yes, we work with lots of different people every day" Student (C2) • Yes, because Paul tells us they are very important, we trust his judgment and to be fair we agree", Students (A1, A2) <u>Selected responses</u> • "Communication skills, presentation skills". • "Communications skills, ability to read drawings and create Bills of Quantities". • "Working with teams and different colleagues" • " Networking skills, ability to sort out claims" • "Working with others and take-off skills" • "Ability to find solutions on a project"

10.4 APPENDIX 4 - Employability and enterprise course

Employability and Enterprise course

Employability & Enterprise course 2013		(Measurement of impact)
Day 1- Introduction to course Activity The first week involved the “ice breaking” activities and the getting to know you exercises.	Rationale Make sure graduates do not feel they are on their own and look to tease out the whys, how and what next steps that would move them forward. The ice breaking activities were fairly well received but the confidence levels of students was low. The format and rationale for the course was discussed and the negotiated learning outcomes were explained. Other members of the delivery team were introduced and the message of “we are here to help” was shared. Swot analyse This involved taking a personal stance as to some of the areas where improvements may be required and encouraged graduates to firstly develop their own model and then later by working in pairs discuss how with the help of others they may improve their position.	Reflections I was extremely shocked by the very low level of confidence. For some students it was all they could do to attend the course and two graduates had been encouraged to attend the course by parents. I believe without that encouragement they would not have attended. Having spoken to past graduates they had highlighted memories surrounding their low levels of confidence and I had included this in my mind-mapping. However the extent of low morale was way below my expectation. Reflecting within action and recognising I could be faced with an academic critical incident I switched my delivery to solely move to a motivational and confidence boosting lecture. This was a better activity and the ice was beginning to thaw. Clearly day one would be more about confidence and trust. The presentations /feedback were very good and it was clear that the students are happy talking about someone else.

Employability & Enterprise course 2013		(Measurement of impact)
Day 2 – Communication skills The session was introduced by me for the first two hours and after lunch my colleague with Careers would take over the afternoon sessions.	Communication skills Using YouTube links and short videos we looked at examples of communication skills and why communication skills are so important towards securing employment. Interactive workshop Using the acknowledgement of the success of working in pairs, I invited graduates to design a brief job description for their buddy's ideal job and then design a list of five interview questions that they would ask when their buddy applied for the job. I personally witness their mock interviews but would not at this stage ask them to deliver their mock interview to the rest of the class.	Diary note Delighted that all the graduates have returned and one of the missing three graduates have joined us. The atmosphere was better and the work they had been set at the close of last week's session as completed. Reflection Using positive media clips and more visual learning material may increase attention and contributions. I will also build upon group task to increase confidence and interaction with others.

Employability & Enterprise course 2013		(Measurement of impact)
Day 3	Although I introduced the day and I set a weekly homework (self directed learning task) I was unable to contribute to the delivery of any presentations or activities. Colleagues continued with communication skills and CV writing.	Diary note I was personally disappointed that I was unable to continue with my contributions to the course but I was called away to work on business engagement matters.

Day 4 **This week the focus of attention is on CV's, personal statements, application letters and interview techniques.**	I introduced the session for the first hour to talk about the homework that was set last week and I was delighted that most of the graduates had completed the task. Colleagues from the workplace would then run CV clinics and use their own resources to discuss how personal statements should be laid out. <u>Close of weekly session</u> I returned at the close of session to discover that meaningful activities and learning had taken place but a slower speed than anticipated. I asked graduates to write down three things they felt was going well and any areas they felt could be improved • (A1) "I like the help with job applications and making me realise, I am not the only one who didn't get a job". • (A3)"I have a job interview next week so I feel I can answer questions better". • (A5) "I feel better about myself and the staff has been very positive. Paul was my lecturer and I have to be honest I did not realise the importance of what he was saying about employability skills".	<u>Reflections</u> The graduates had taken the time to find three job adverts and the jobs they were looking to apply for were applicable to their discipline and courses. I used the activity to encourage a wider class discussion. This should lead on nicely to the rest of the day's activities. <u>Diary note</u> Better interaction in class – The use of a combination of lecturers/career advisors and personal is working well. Confidence levels are better and feedback from graduates was positive at the end of the session. It is important to ensure we repeat some sessions to help them apply for jobs. Graduate 3 (Computer science) has an interview.

Employability & Enterprise course 2013		(Measurement of impact)
Day 5 **This was the penultimate week.**	I had planned this week as “opportunities”. This included presentations from various colleagues in the workplace team, enterprise team and placement team. • Opportunities • Work experience • Charity work • Leonardo international placements • Enterprise opportunities • networking	 Reflection note Perhaps I did not allow enough weeks to complete all the activities that the graduates needed. Consider that my mind-map needs further development.important lessons learnt – Need to consider how I reach more graduates to take part in the course. Diary note - The atmosphere is extremely positive. Disappointingly Graduates were unaware of the opportunities that existed whilst they were attending University and perhaps I could have signposted the opportunities a little more pro-actively. I felt the opportunities were well described and I witnessed a positive interaction with colleagues.

Employability & Enterprise course 2013		(Measurement of impact)
Week 6 (Final week) Everyone would be involved in a session and I invited the Deputy Vice-Chancellor to present CPD certificates to both Graduates and Staff who helped me deliver the course.	<u>Course design</u> • Reflections on what we have learnt and experienced; • What next in regards to obtaining employment; • Are you a better person (Closing confidence session); • Review of CV (CV clinic) • Job applications Closing remarks The course closed on a high as Graduate 3 had secured his first employment and two other graduates had been called for interview.	<u>Reflection note</u> • Lessons learnt from running the course • Useful to have support from colleagues • Material required adjustment but overall the design was about right • Need increased numbers • Success stories <u>Diary note</u> The idea of asking the deputy VC to present the certificates was appropriate and colleagues appear more engaged with my PhD activities. Welcomed their contributions to the course and felt I had learnt many things I need to evaluate on what was missing from the course, their skill set, and what if any were the rich employability skills that would have assisted the graduates in achieving employment.

10.5 APPENDIX 5 - Employability and enterprise award

Employability & Enterprise Award

Employability award context

The Employability Award was showcased on the University of Wolverhampton website; http://www.wlv.ac.uk/default.aspx?page=26227 . The awards were originally developed to increase awareness of employability and promote a Vice-Chancellor Award that would hold kudos and relevance for all who took part in the scheme.

The award was seen as “a brand new way for students to gain recognition for their skills and experience. Through the awards you can also develop and demonstrate new skills to impress employers and help you plan to set up and run your own business. We run two versions of the award: the Wolverhampton Employability Award and the Wolverhampton Employability and Enterprise Award”.

http://www.wlv.ac.uk/default.aspx?page=26227 . Accessed 12/01/14.

The award requires students to demonstrate various contributions made towards increasing their own employability and as a minimum each individual must complete the following outputs.

The Award accepts that students would need to spread their work towards the award over an academic year or over the University vacation and the first few months of the following semester, however there perhaps needed further clarity as to whether this was appropriate and applicable to part-time students, and how the expectations of the award may be embedded into a Built Environment module.

	First Draft Stage	
	Employability Award	To engage students at the University of Wolverhampton with activities workshops and vocational “work placement” opportunity, so as to enhance their position as they seek employment.
	• Introduction to Awards • Induction workshops	To encourage students to take the first step towards improving their employment status. In particular recognising that the student must be pro-actively engaged with the Award.
	• Give a short presentation on your skills and career plan;	This is a pre-cursor for enhancing communication skills and commences the process of reflection. Simulating a real life environment it highlights the importance of communicating key messages, enhances the art of preparation skills and allows an individual to consider my appearance, abilities, posture, speech and consider how will others view me (first impressions).

	First Draft Stage	
	• Analyse your skills and experience and market them in a high standard graduate CV;	This uses exercises to analyse your own individual strengths and highlights the skills you hold or need to hold going forward. The CV review again helps the individual to refine and develop a professional CV.
	• Carry out a study on a job, organisation or industry, or write up your business plan;	This is looking to re-evaluate career and industry opportunities and provide a further reflection on practise. Recognising various careers may not be as transparent as they would first appear, it encourages the leaner to drill down to the detail and see what skill-sets help enhance your career opportunities. The business plan write-up is for those more specifically focused on establishing their own organisation. By mind-mapping and then wring up a structured business plan for presentation to an external stakeholders, it will ideally highlight where challenges will occur and where opportunities exist.

	First Draft Stage	
	• Produce a careers action plan to help you focus on your next steps;	This is the “what next”. What is my own personal road map to success? What have I learnt and what do I next to support and enhance my position as I transfer from education into the world of work.
	• Access support from careers advisers, employment, placement And volunteering or Enterprise Department;	This is a further recognition that you will need support and we are here to help. This can be delivered through pastoral care, a critical eye, through opportunities, or generally as a support mechanism.
	• Compile a portfolio which will act as a useful toolkit for future career planning and job seeking.	This is the culmination of the award and allows the student to produce a meaningful conclusion to the exercise. It allows the individual to create a toolkit for now and something that can be shared with a potential employer to showcase you at interview.

10.6 APPENDIX 6 - In-class discreet inquiry 2

In-class activity discreet inquiry 2

May 2014- (Not fully incorporated in the main text)

Curricula Intervention: Student workshop – May 2014

After making appropriate reflections on practise and identifying the refinements and adjustments I felt were appropriate based on the Action research cycles of investigative research, it was imperative that I was brave enough to test the results of my actions before I moved to complete the write up of my recommendations on what I viewed as “Rich employability skills”. This was an opportunity to triangulate some of my earlier research and take a final view from students I had interviewed two years ago to see if anything had changed.

I accepted that prior to this activity the comments and feedback from my students, employers and associated stakeholders may have demonstrate that I had failed with my adjustments and failed to have any meaningful real impact. Therefore it was with trepidation that I completed my final action research workshops as late as possible.

The activity would take place during early May 2014 and would involve a comparative summary of findings based around adjustments and refinements I had made during 2013/14.

The final piece of action research took place on bank holiday Monday 5th May with a dedicated group of Construction management students. After explaining again the purpose of my research students were asked to firstly engage in a group discussion surrounding employability skills. This was specifically targeted at employability skills within the Built Environment and focused on what they saw as the most important employability skills they use during their employment and what employability skills they had learnt whilst studying at the University of Wolverhampton.

They were then asked to complete a private survey consisting of two questions, but to help me clarify who said what they selected their own numerical letter and number i.e. A3 so I could add in their final comments to the closing out session.

Eight students in their final year of studies took part in the workshop style survey and this assimilated the previous activity I undertook back in 2012.

Research cyclical developmental intervention: context

The theory behind the “academic as a designer” is both challenging and complex, but encourages a “constructive alignment” Biggs (2003) of the intended learning outcomes and ensure that the academic is giving the scope to develop a meaningful module contents that best aligns to his/her students and learners. Like most Universities I am governed by quality control systems and in looking to develop modules that incorporate “Rich employability skills” I must ensure that due process and due diligence of minor modifications has taken place.

One of the key themes to come out of my project literature critique was the message behind the Governments White Paper “Student at the heart of the system” Department of Business Innovation & Skills (2011); and the comments relating to how educators are not engaging or seeking the opinions of Employers and associated stakeholders with their curricula design.

This is further echoed by (Kirton, 2012) who suggests graduates are more likely to be equipped with the skills that employers want if there is a genuine collaboration between institutions and employers in the design and delivery of courses. My own philosophy would endorse this message and in looking to use my Dprof project as meaningful research I was engaged with a broader church of pedagogical engagement.

I was also mindful of the counter argument that we (academics) should not seek short term solutions or bread strategic surface learners who are solely focused on capturing key employer focused learning outcomes. As educators I feel I would fail to pass on “the academic baton of knowledge” Ridge Newman (2012) if I did not look to incorporate the wider aspects of Employability skills through a complimentary mix of views and opinions and contributions by external stakeholders.

Having attended various seminars and one-day conferences on the benefits of incorporating employers opinions when designing curricula I felt it would be appropriate to use the chart cited in Williams, A, and Thurairajah (2009:p54), as a

starting point. With a Quantity Surveyors and RICS conference on the horizon I therefore devised three workshop questions to seek contributions from employers.

I feel the three questions and the platform of a conference where professional bodies will also be in attendance may provide the ideal environment for meaningful discussion.

The concept for the framework to my WBL module was originally discussed and evaluated at the RICS conference in November 2010 and later at the Quantity Surveyors International (QSi) conference in early 2011. Using the rationale that Conner and Hirsh (2008) "Graduates are more likely to be equipped with the skills that employers want if there is a genuine collaboration between institutions and employers in the design and delivery of courses". I prepared the three questions that would encourage meaningful interaction with employers and other stakeholders in attendance. Both events host attendees from across the world and the contributions and solutions would be aimed at a global audience.

Predominately the attendees were associated with the Built Environment and the main discussion of topic I presented related to how my WBL curricula design would be extended past my own original vision, to ensure a meaningful cognitive learning experience takes place.

Q1 what do you feel are the important components of a Work Based Learning module delivered in HE?

Q2 what do you recognise as the important employability skills that need embedding into the module and course design?

Q3 I will now show you my module guide for 2013. Is there anything you feel is missing or are there areas which you feel are not relevant?

Whilst I would have like to have extended the discussions further and used a 10 point question and answer session I was grateful to the organisers for allowing me 45 minutes to host the session and take as much feedback as possible.

I have combined the conference events to simplify the activity and have selected particular feedback answers that were meaningful and appropriate for my project.

	Employer's RICS CPD Day	**AR Cycle 5a – Employability Award**
	Face to face Q&A workshop, held at the annual RICS CPD day in Birmingham City Centre Friday June 6th 2012 My position at the event – Regional Chairman and Chairman for the event.	Using a workshop style forum I will share a presentation of the Employability Award and take the views from employers of the Built Environment to seek their views. This would provide rich data as to inform my refinement of the employability award before I more to develop a Built Environment specialist version and/or embed the award into my modules. Participants included: • Fifty six regional Employers • Twelve regional graduates • Three Policy-makers (Speakers)
Q1	What do you look for in the first set of correspondence you see from a graduate of the Built Environment looking to seek employment?	<u>Employers</u> • Good grammar/spelling – not text language • Well presented letter with readable font • Something personal not generic – a USP • Hand –delivered – "made an effort" • Evidence of work experience

	Employer's RICS CPD Day	AR Cycle 5a – Employability Award
		• Politeness that can be picked up in a letter • Enthusiasm • Use of industry knowledge • Evidence that they know who we are • Willing to learn • Why they want the job • Ability to work with autonomy and as part of our team • Policy-makers • Professionalism • Willingness to be flexible • Awareness and knowledge of industry • Knowledge of legislation • Evidence of practical skills or work experience
Q2	What do you look for when you interview a graduate of the Built Environment?	<u>Employers</u> • Promptness • Professional manner • Dress sense

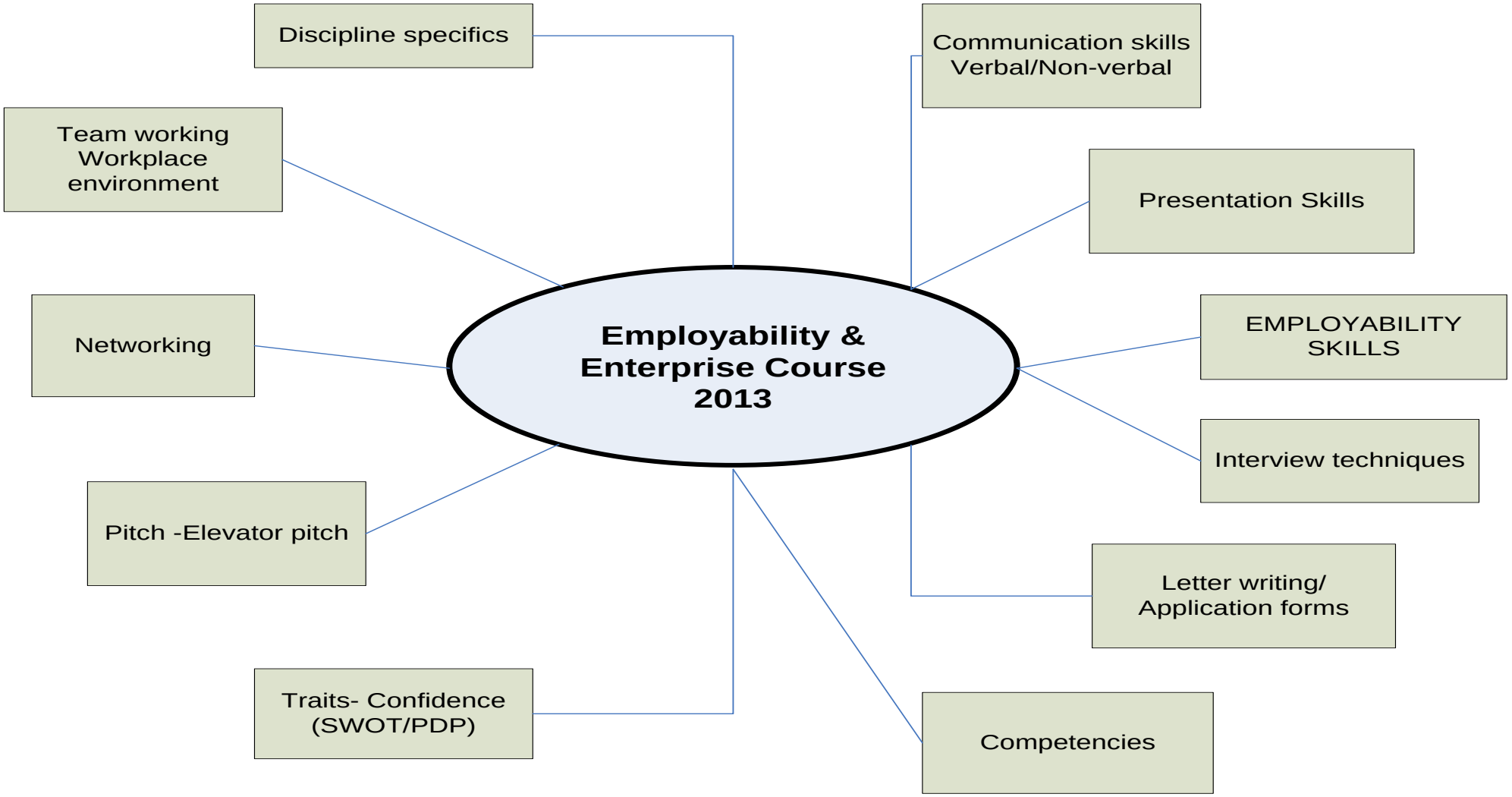
	Employer's RICS CPD Day	AR Cycle 5a – Employability Award
		• Politeness • "Likeability factor" Jenkins and Employer 6 • Knowledge of industry and specialist knowledge of our company • Personality • Body language • "Ability to answer questions and communicate an answer that is legible" Employer 7 <u>Graduates</u> • Dressed correctly - Smart • It depends who the job is with • Good communication skills • Know about the company • Good presentation <u>Policy-makers</u> • Professionalism • Attention to detail • Excellent communication skills • Research on the employer • Their manner • Ability to engage with the audience

	Employer's RICS CPD Day	AR Cycle 5a – Employability Award
Q3	Having viewed and listened to the presentation on the employability and enterprise award, identify five things you liked, five things that should remain and five things you may wish to add in or change?	**5 Things you liked** Employers • Use of work experience • "The CV review as some are appalling" Pitt, Employer 4 • Presentation skills Carers adviser • CSR – Charity work Graduates • That employers might recognise the award • The help from the team • Knowing what to prepare • Work experience Policy-makers • The rationale behind the award • Access to support mechanisms • The engagement with work experience • The fact that it will incorporate all students • Emphasise on the importance of the subject matter

	Employer's RICS CPD Day	AR Cycle 5a – Employability Award
		5 Things you feel should remain <u>Employers</u> • Use of work experience • The CV activity • Anything connected to communication skills • Support from the University to find work <u>Graduates</u> • All of it • Difficult to fit in with studies so it needs to be less challenging. Graduate 4 • Presentation skills

	Employer's RICS CPD Day	AR Cycle 5a – Employability Award
		Policy-makers • If has been designed well and it works well only make minor changes and adjustments • Access to the world of work
		5 Things you may wish to change Employers • Increase access to workplace experience • More communication skills activities • Interview skills • Visits to sites and industry • How to become more aligned to industry expectations. Graduates • More work experience • Knowing who and where to get on the job training • What professional bodies expect from graduates – APC training • Support from lecturers who have been in industry so they can share their knowledge • Access to networks and clients/employers

	Employer's RICS CPD Day	AR Cycle 5a – Employability Award
		Policy-makers • Make the programme compulsory • Greater access and buy-in from employers who are willing to contribute to the award • Appreciation of workplace ethics and expectations • Better awareness of the expectations from an employer as from day 1 of employment • Importance of health and safety within our industry


Discipline specifics
Communication skills Verbal/Non-verbal
Team working Workplace environment
Presentation Skills
Networking
Employability & Enterprise Course 2013
EMPLOYABILITY SKILLS
Interview techniques
Pitch -Elevator pitch
Letter writing/ Application forms
Traits- Confidence (SWOT/PDP)
Competencies

10.7 APPENDIX 7 - FSE Employability and Enterprise action plan

FACULTY OF SCIENCE AND ENGINEERING

EMPLOYABILITY & ENTERPRISE ACTION PLAN STRATEGY

Figure 36: FSE Employability Action Plan v5

FSE Employability Action Plan

Objectives and Implementation

No	Objective	How/Initiative	Timeframe	Responsibility
	Specific, Measurable, Achievable, Realistic, Time-bound (SMART) include target	*Summary/ statement of how will the objective be achieved e.g. Employability Initiative*	*Month/Year e.g. July 2015*	*Committee/ School/ Department or Individual Role E.g. Student Affairs Committee*
Goal 1 -Provide all of our students with the opportunity to undertake an element of structured, credit-bearing, career-relevant work experience (short, medium and long term) as part of their course. This will include both full-time and part-time, paid and unpaid, internships, volunteering, charity work and consultancy opportunities with University partners, suppliers and tenant companies as well as self-employment opportunities. Furthermore, the University will develop increasing opportunities to employ our own students and graduates				
a)	We are working closely with internal departments to seek out new and appropriate ways of signposting opportunities to the students.	1. Arranging for FSE pod-team members and Workplace/Placement team to visit class to disseminate the wide range of opportunities – A pilot by the placement team proved successful in 2013 Additionally Sign-post the FSE Employability offer 2. Students continue to be signposted to the Employment /workplace centre and Placement	Oct – Dec 2014 Oct – Feb 2014/15	Pod-team members and workplace team/Placement team to liaise with Module leaders to arrange talks and presentations specialist visits / session's in-class. University announcements and creation of FSE Opportunities face book page + additional marketing material specifically aimed at FSE students.

		Unit		
b)	Continue to encourage schools within FSE to take on STEP Placements	Over 6 STEPS placements were deployed in FSE during 2013/14…with a good percentage of them going on to secure full/Part-time employment.	Sept – August 2014/15	Pod-team members to continue to liaise with Dean of Students and develop FSE specialist information
c)	Continue to promote and support SPEED programme	FSE are continuing to work with the SPEED team and are currently discussing terms and conditions with 2 graduates in regards to establishing their own company.	August – Spring 2014/15	Paul Hampton to facilitate meeting with Heads of schools and STEP team to explain the rationale and value of scheme
d)	Consideration towards "growing our own"	Early discussions surrounding demographics of staff – Must be aligned closely to intake numbers.	August – Spring 2014/15	Paul Hampton to continue to facilitate talks Part of Heads of School discussions to seek out opportunities
Goal 2 - We will develop an appropriate framework to enable increasing numbers of our students to participate in mentoring opportunities (including e-mentoring) provided by our employer contacts and University alumni.				
a)	Have a cross-School forum for School mentoring champions so experiences and best practice can be shared and Schools can work collectively in the development and delivery of mentoring systems and training	Champion forum established within WBL forum – Consideration of PL Employability group to be formed during 2015	On going	PH/KN to continue to attend meetings. PH to liaise with fellow Employability PL's re- formation of independent group – Simon Brandwood to Chair meeting

b)	Continue to sign MOU's with regional , National and global employers which are proving extremely successful for FSE	3 Further signing of MOU's planned during the year 2014/15 including West Midland Police – Carillion – DMW (With further discussions taking place)	August – August 2014/15	PH to continue talks with new and established contacts to develop a position for further MOU's and student engagement opportunities
c)	Establishment of 1-day a week placement/work experience opportunities	Pilot with Faithful and Gould /Wates discussed with Pauline Corbett	August-August 2014/15	Pod-team to assist in establishing a pilot scheme and developing a framework for other schools
d)	Careers fair with WhatHouse group and associated partners.	Pilot agreed with WhatHouse to encourage established partners to attend and provide a host of opportunities for UOW students	Feb 2015 Venue Molineux	Organisation team to be established ASAP – Early discussions with Rupert Bates (Director of WhatHouse) have taken place
Goal 3 - All students will have access to high quality careers information, advice and guidance and employability skills as a core part of their course and will have the opportunity to receive the University of Wolverhampton 'Employability Award' to enable them to demonstrate to potential employers the work experience, employability skills and the extra-curricular activities they have undertaken including involvement in student societies.				
a)	Following on from successful pilot schemes – Each school will be asked to consider the further embedding of employability and enterprise skills within their programmes	The pilot was undertaken in ABE at level 5-6 and awards will be presented in class by Professor Ian Oakes - Oct/Nov 2014	August - January 2014-15	School representative to work with Employability award pod-team member to facilitate further opportunities

		Each Head of school to nominate an individual to work with pod-team member to continue to roll out the scheme so scalability of 50% is achieved.		
b)	Employability Award Pod-team member to promote new Bronze-Silver-Gold scheme	Member to disseminate scheme to schools and students within class	August - January 2014-15	Pod-team member to work with School representative to disseminate new scheme across the faculty and attend FSE Management meeting
c)	Nominate FSE students for special Employability Awards	All – Identify top award students	October - April 2014-15	All
Goal 4 - We will actively demonstrate the employer informed context of our courses through the provision and promotion of a wide range of guest lecturers from industry, business and the professions, employer events and links with professional bodies.				
a)	Continue to establish strong relationships with large membership based professional business networks and invite professionals to give expert lectures…	Maintain and continue to build existing links with Employers, schools, and Colleges – FSE Continue to contribute to various initiatives' but need a more co-ordinated approach and "take ownership"	NOW	Create a data base of clients and contacts with a structured, collaborative approach to managing communication links. Establish a timetable of events/progression agreements/meetings FSE Marketing – Outreach team and Schools and Colleagues PL's to work together.

b)	Educate employers about the value of employing graduates.	Raise the profile of graduate engagement mechanisms (KTP/KEEN/STEP/Interns) through a structured regional wide marketing campaign – FSE have successfully engaged with the STEP initiative – KEEN /KTP's and through BECCI further opportunities may come forward.	Throughout the year	Pod-team and all FSE members to identify further opportunities for engagement and record outputs and achievements
Goal 5 - We will prepare our graduates so that they will be confident when applying for employment opportunities and provide them with access to a 'Job Pool' of employment opportunities that will connect them with major employers in the region. The contribution made by employers in supporting the employment of our graduates will be recognised through a University 'Employer Award'.				
a)	Provide our students and graduates with access to easily accessible job-placement-volunteer and career opportunities	Continue to develop and establish FSE face book page and maintain content Continue to run FSE workshops and career sessions within classes-lunchtimes – Pilot Evening – Employability workshops Increase marketing activity to promote 'Job Pool' opportunities	September – July 2014-15	Pod-team to work with Heads of Schools to create workshop opportunities Careers team/placement team to lead on initiatives Team to pilot a scheme within a nominated school Nominated Face book champion to create user friendly platform

Goal 6 - Promote enterprise and entrepreneurship in our curricula and provide opportunity for those graduates wishing to start their own businesses through a specific Graduate Incubation Programme of support drawing on resources at the University's Science Park and e-innovation Centre.				
a)	To ensure communication flow between Business solutions and FSE in respect of KTP's KEEN, SPEED and other enterprise opportunities that may increase student involvement	Continue to work with Business solutions team to communicate opportunities to schools within FSE	Throughout the year	Business solutions pod-team member
Goal 7 - Provide necessary development and support for our academic staff (including Personal Tutors) so that they can provide effective employability and employment advice to our students as well as proactively engaging the University's alumni network in providing employment opportunities and developing employability skills for our students.				
a)	Signpost career opportunities through establishment of career paths.....	Pilot work commenced September 2014	TBC	Paul Hampton to work with Heads of schools Paul Hampton working with Ndy/Sir Geoff to establish pathways for Schools /Colleges that lead to University programmes
b)	Offer career workshops for FSE Staff	Develop pilot	TBC	Nominated team from Careers to manage pilot
Goal 8 - Develop a centralised university system which will facilitate the collection, collation, monitoring and analysis of our student/graduate enterprise and employability data to ensure that we have accurate and timely information in order for us to be better informed and able monitor our progress against our Key Performance Indicator.				
a)	Introduce a centralised system of data management through existing SITS Application	Investigate the appropriateness of SITS for the collection, collation and monitoring of Employability and Enterprise data – FSE will continue to	On going	PH and KN to liaise with Simon Brandwood and Helene Turley

		contribute to the initiative, and undertaking their own audit on KIS data.		
Goal 9 – Prepare for QAA Audit				
a)	Ensure that FSE Employability and Enterprise activities are all following correct procedures and policies in line with the expectations of the University QAA procedures	Representatives from the pod-team to contribute to ensure their activities follow QAA guidance and hold up to scrutiny	Sep-Nov 2014	Agree strategy at FSE Pod-team meeting
Goal 10 – Continue to promote University and FSE to a regional national and international audience including - Employers - Professional Bodies - Schools - Colleges - General public - Internal and external stakeholders				

Report based and aligned along the outputs of the *Enterprise and Employability strategy.*