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Knowledge Exchange at York St John; building capacity in a small university

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Abstract

Government policy and Higher Education (HE) sector strategy has promoted increased external engagement and participation in the knowledge economy on the part of universities. These drivers have sought to encourage academics to become engaged in the economic, social and cultural issues of society and to address problems in such a way as to demonstrate a knowledge contribution from the academy. Universities, as knowledge intensive organizations respond by changing their organizational structures and processes to support knowledge exchange and to encourage the involvement of academics in this endeavour.

This thesis demonstrates how the concept of absorptive capacity (Cohen & Levinthal 2000) was used to understand knowledge exchange capacity at York St John University; a learning and teaching organization with newly acquired University status and a key strategic aim associated with increasing enterprise and knowledge exchange. The action research revealed a very limited development of knowledge exchange strategy and planning and limited ability to 'assimilate' and therefore 'exploit' new knowledge. Academic individualism and managerial control inhibited participation in the action research process and whilst the diagnosis was partly shared with the academic community further actions were not achieved. However a subsequent re-structuring of the University and a very senior appointment to lead external facing activity, suggested that a structural commitment to external engagement was made.

Following a critical reflection on the research process and the systems theory of absorptive capacity, the contribution to practice-knowledge a conceptual framework was devised to explain the outcomes of the action research. The framework 'Knowledge Exchange Leadership in High and Low Absorptive Capacity Settings' articulates how academic leadership mindsets differ in high and low absorptive capacity settings. The framework is based on observed experience and individual interpretation of individual and corporate leadership in low capacity settings and an induction about the same domains in high absorptive capacity settings. The framework will help evaluate HE leadership behaviours and facilitate strategic planning for academic knowledge exchange and organizational knowledge productivity. The framework requires further application in other university contexts, to validate it as a practice tool for individual and organizational development.

Through epistemological reflection, the functionalist approach (Burrell & Morgan 1979) through action research is questioned. The practitioner-inquiry experience leads to a more critical and interpretive understanding about the barriers to university based organizational change. Further consideration is given to managing action research using more participative methods. I suggest some key questions to engage the academic community in knowledge exchange and 'engaged scholarship' (Van de Ven 2010) as a means to improve engagement with knowledge and to improve assimilation and capacity for knowledge exchange.

Sally Fowler Davis – December 2010

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Glossary of Terms

Abduction – an inference made on the best information available that includes practice based experience (Van de Ven 2007)

Absorptive Capacity – A concept originated by Cohen and Levinthal (2001) based on cognitive and behavioural science, seeks to demonstrate how, at a systems level, knowledge productivity can be understood as a capacity to generate new knowledge 'products' within the organization, specifically linked to the assimililation of new information but also based on the existing body of knowledge in the organization.

Dialectic - Describes the use of a range of knowledge sources to support innovation and build new ideas and actions. The purpose of the dialectic is, to provide a rationale for questioning of the normative assumptions of the personal and professional actions (Whitehead 1989; McNiff 2008).

Engaged Scholarship – A term which refers to academic practice, where the focus and actions work towards the integration and synthesis of knowledge across disciplines, and the application of this knowledge to solve public problems and issues and use societal realities to test, inspire, and challenge theory (Van de Ven 2007) In this way the intellectual climate of universities is enhanced because academics ask how knowledge can be applied, and address individual and societal needs (Boyer 1996).

Epistemology – the study of the nature and scope of knowledge or the theory of knowledge

Higher Education Council for England (HECfE) - The overarching strategic body that monitors and promotes the adoption of policy 'imperatives', and has developed a fund to incentivise participation in the required range of academic activity.

Higher Education Innovation Fund (HEIF) - This allocation of funding is currently in the forth and final round with HEIF4 in 2009. The fund is based

on the size of the organization and aims to support and incentivise universities to manage their external engagement.

Induction – a reasoning method for making a claim to a new knowledge that goes beyond the components from which it is drawn. Inference allows a researcher to generalise findings from particular information and data (Gill & Johnson 2009).

Knowledge Exchange – The term used for enterprising external-engagement with individuals or organizations, using knowledge to resolve problematic issues within the social and organizational context. Through knowledge exchange a University contributes to the 'knowledge needs' of a region sharing research outputs, expertise and experience. The engagement is based on the internal capacity to respond to demand and the capability to proactively use and share knowledge internally.

Knowledge Exchange at York St John University - The transfer of new or existing knowledge or expertise (additional to existing taught undergraduate or postgraduate provision) between University staff and external organizations, institutions or businesses or visa versa (YSJU Enterprise Strategy 2006)

Knowledge Transfer – The process of deriving benefit from expertise and experience gained in one unit or organization in another site (Argote 1999)

Knowledge Productivity – A term first developed by Joseph Kessels to refer to an organization's ability to generate, disseminate and apply knowledge to products, processes and services (Harrison & Kessels 2004)

Mode 1 Knowledge – Mode 1 knowledge production is a discipline-based and investigator-led form of enquiry. (Gibbons *et al.* 1994).

Mode 2 Knowledge - Mode 2 knowledge production describes a form of context-specific and problem-orientated knowledge creation that demands a multi-disciplinary collaboration to achieve a solution(Gibbons *et al.* 1994).

Organizational Learning – An 'umbrella' term for a range of concepts based on theoretical and practical issues related to organizational awareness and understandings (Easterby- Smith & Lyles 2003)

Radical structuralist – society and organizations are dominant and exploitative and processes require objective inquiry so as to identify the means to achieve social change.

List of Abbreviations

ASN – Additional student numbers

DVC – *Deputy Vice Chancellor*

HEFCE- *Higher education funding council for England*

HEIF- Higher education innovation fund

HoF- Head of finance

HoHR- *Head of human resource*

HoSD- Head of staff development

HoE&F- Head of estates and facilities

RAE- Research assessment exercise

RDA- Research development agency

R&EC- Research and enterprise committee

REO- Research and enterprise office

Chapter 1 Introduction

This thesis presents an action research project undertaken at York St John University (YSJU), a small university seeking to build a new capacity for knowledge exchange. This introduction will consider the concept of participatory action research, as a method to engage others in a process of change within the organization. I will specifically introduce the term 'knowledge exchange' and explain the use at YSJU in relation to enterprise and to external facing, academic practices.

This chapter provides further information about YSJU and my own role in the organization. The specific aims and objectives of the research process are presented and demonstrate a commitment to the organizational change that would allow YSJU to become more effective in knowledge exchange. I also consider the 'insider' researcher's role in the development of this strategic goal for the organization. I then present some criteria for evaluation of action research based on practitioner engagement and a concern with the validity of the outcomes.

The overview of chapters and presentation guidance are also included.

The action research process

As a principal lecturer and in the role of Head of Development and Innovation in the Faculty of Health and Life Science, the doctoral study represented an opportunity to undertake research that engaged with the critical strategic and operational challenges within my academic practice at the University. My practitioner role was strongly associated with managing and using knowledge to advance the University's participation in local, regional and national innovation, in health and social care. Experience of large and small knowledge-based projects, consultancy, evaluation and service improvement led me to think that YSJU might contribute more fully to the innovation and development across the public sector. I had experience of managing knowledge exchange projects in a number of other academic areas including the arts and technology businesses so had some knowledge about the limited processes and systems in place to support

academic knowledge exchange through the University. My assessment of the demand and of the way that a small organization had potential to operate more flexibly than a larger one, caused me to think that there was potential for the University to participate more fully, in knowledge exchange as a specific enterprise activity, across health and social care, the arts, sport and business. My aim was to build the organisational capacity and capability in knowledge exchange, enabling the development of new products (consultancy, courses etc) for external partners. My focus was on the internal processes and mechanisms that would allow this to happen.

Whilst acknowledging the challenge of reorganization (Etzkowitz & Leydesdorff 2000), I was aware that colleagues had enjoyed and appreciated learning from the knowledge-based projects in the Faculty of Health and Life Sciences. Whilst ill defined as an academic practice, I had experience of supporting others in knowledge exchange participation, as a new academic practice. The YSJU the Corporate Plan included eight key strategic aims, and 'Aim 7' was a reference to academic knowledge exchange as a named activity (YSJU Corporate Plan 2007-12). Specifically it describes the following aspiration:

Aim 7: To build capacity and good practice in research and knowledge exchange

Priorities: We will achieve a substantial increase in income via research and knowledge exchange grants from a diverse range of funding bodies and we will invest in collaborative projects to facilitate knowledge exchange with regional businesses and voluntary and community sector organizations.

Outcomes: Substantial increase in knowledge exchange and employer engagement and 100% increase in income from research and knowledge exchange grants by 2012 (YSJU Corporate Plan 2007-12)

The proposition stated in the strategic plan, was that the Organization could improve the way academic enterprise might be undertaken and supported, to generate income and reputational advantage from the outcomes of knowledge exchange. My hope was that the strategic aim would be achieved through a purposeful and systematic process, leading to better

organizational structures and new organizational knowledge, to develop academic knowledge exchange practices. The aspiration was reconfirmed when the Corporate Planning Statement (2007) was circulated widely, as a paper to accompany the key strategic aims. It was prefaced by the following reference:

"Everything is in play as nearly every aspect of academic life is being driven by a host of inter-related developments: dazzling technological advances, globalization that permeates academic boundaries, rapid increase in tertiary students worldwide, expansion of proprietary higher education , a blurring of the public/private distinction and entrepreneurial initiatives, on and off campus. Taken together these seismic shifts are profoundly changing how knowledge is acquired and transmitted (and) changing the face – even the very meaning – of higher education. The coming change is unprecedented, insofar as the sheer number of forces in play, the stunning rapidity with which they are shaping academic practice " (Schuster & Finkelstein 2006) (Corporate Planning Statement 2007)

The YSJU paper makes reference to both 'partnership' building and employer links to 'enterprise' in relation to regional development funding and 'employer engagement'. The quotation promoted an idea that YSJU was aware of and open to the understanding of changing demand on academic practices. Whilst challenging, the ongoing political and policy context presented opportunities for the academy to re-configure and to incorporate a new range of values, perspectives and backgrounds (Schuster & Finkelstein 2006) the specific point being made was that, entrepreneurial activity was strategically linked to the core purpose of the organization.

In the light of the corporate information and through the process of designing a doctoral level research proposal, I sought to develop a participative means of engaging in the strategic development. My goal was to collaborate in the implementation of the strategy, to build internal capacity for knowledge exchange. Furthermore, my aim was to use action research as a mechanisms for improving the internal functions to allow for the sharing and transferring of knowledge and experience about knowledge

exchange and to improve the different corporate functions that would create the infrastructure to support knowledge exchange practice. My initial view was that this would occur through a continuation of my work within the Faculty and through an extension of the relationships and practices that I had established in a number of lucrative and external facing academic knowledge exchange projects.

Based on experience of my academic practice, I defined knowledge exchange as:

The term used for enterprising external-engagement with individuals or organizations, using knowledge to resolve problematic issues within the social and organizational context. Through knowledge exchange a University contributes to the 'knowledge needs' of a region sharing research outputs, expertise and experience. The engagement is based on the internal capacity to respond to demand and the capability to proactively use and share knowledge internally.

A participatory approach to the action research, engaging others in the organization, appeared to be an unproblematic prospect because of colleague relationships and a working knowledge of the different functions of the University. This was in spite of the limited development of internal systems (i.e. costing mechanisms, inter-organizational collaboration) and processes (governance, quality, ethics) for enterprise practices, including knowledge exchange. A number of research objectives were generated, some that could be undertaken within my existing role, for example, an analysis of the organizational processes that supported knowledge exchange.

Through action research, I sought to apply a range of theory to my academic practice as a knowledge exchange practitioner and to share this knowledge and understanding with colleagues across the Organization. At that time, when the contemplation of how to strategically position the University within the sector, was at a critical stage, I wanted to generate a new discourse within the academic workforce at YSJU. The plan was to

work from the strategic vision created by government policy and within local strategy. I was interested in the challenge posed by Kessels (2002) and sought to begin with the question; *"how we can tempt each other towards knowledge productivity".* This term 'knowledge productivity' is used to describe an organization's ability to generate, disseminate and apply knowledge to products, processes and services (Harrison & Kessels 2004). I wanted to identify the critical issues and to generate a socially orientated critique (Herr & Anderson 2005) of the current situation across the University community but necessarily, this was to bring about a change which would contribute to the implementation of the University strategy.

My concern was for the implementation of local strategy – to increase the level of knowledge exchange and I saw a need to improve the internal capacity and the internal knowledge productivity.

Introduction to action research.

Action research was developed in educational settings (Somekh 1998; Mcniff 1996) and was often used to empower teachers to undertake local improvements in schools and to develop professional competences. The notion of praxis, the thoughtful and insightful development of professional behaviours (Eraut 1994) is explicitly linked to action research and to the improvement of organizational processes in particular context. The focus of the action researcher is on the context of practice and on the participation in that particular environment, where researchers seek to make improvement. In management practice, the development of 'praxis' in action research has been widely endorsed and is a means of engaging in internal, change orientated consultancy (Checkland 1981, Johnson & Duberley 2000, Darwin *et al.*2002)

The context considerations are critical to the design of the action research and so early in the process, I sought to gain an understanding of YSJU, based on an aspiration to support whole system change through the action research. I remained committed to the view that the University had resources and knowledge that could inform and partner with other local and

regional organizations, to bring about new or improved products and service and to engage in community-orientated developments.

Profile of the university context

This study took place within York St John University (YSJU), a 'new' and small, university that gained teaching degree awarding power in 2005 and University status in October 2006. The University had nearly 6,000 students at the start of the study in 2006, 72% of whom were women and nearly half of mature status (see Appendix 1- YSJU profile). The organization employed a workforce of around 575 staff, of which the academic community numbered approximately 250. Academic staff were based in four faculties that operated as semi-independent business units, supported by usual central functions (human resource department (HR) and finance department). Being a charitable institution, the board of governors was constituted and the executive team, senior managers, and corporate staff operated from a single city-centre campus location.

The University was committed to; 'the provision of excellent, open and progressive HE that embraces difference, challenges prejudice and promotes justice, and is shaped by York St John's Church foundation' (York St John University Mission Statement 2005). As a teaching and learning-orientated organization there was a commitment to the delivery of a diverse range of taught awards at undergraduate and post graduate levels with research degrees being awarded by Leeds University. In this context the submission to the Research Assessment Exercise (RAE) in 2008 was a widely debated issue, due to the relatively limited number of academics actively engaging in and publishing research.

In 2005, there was a newly formed Research and Enterprise Office (REO) to, in part, support the development of knowledge exchange across the institution. This was led by the Head of the REO, a professorial appointment recruited in 2005. The post was directly managed by the Deputy Vice Chancellor (DVC) but was not directly accountable to either the executive or senior management teams of the University.

As an early offer, the Head of the REO generated a number of definitions. Enterprise at YSJU was defined as:

"The beneficial development or application of new knowledge created by research or advanced scholarship, or of existing knowledge or expertise residing in the University and its staff." (YSJU Enterprise Strategy 2006)

This definition was generated to reflect the liberal arts and professional orientation of the University subject disciplines. The definition also has a reference to the application of research, scholarship or existing knowledge, and therefore encompasses an orientation towards external engagement and partnership activity.

Furthermore, Knowledge Exchange at YSJU was defined as:

"Transfer of new or existing knowledge or expertise (additional to existing taught undergraduate or postgraduate provision) between University staff and external organizations, institutions or businesses or visa versa." (YSJU Enterprise Strategy 2006)

The term 'Knowledge Exchange' was defined broadly, to include all forms of post graduate activity, e.g. continuing professional education, as well as the more recognised external consultancy or capital venture arising from research output. The commitment to further partnership working can be noted, also the lack of any reference to knowledge exchange being economically or socio-culturally beneficial. This definition is acknowledged as a locally derived and therefore context based understanding of the academic outputs associated with knowledge exchange practice.

The human resource at YSJU

In 2006, the organization had a low academic staff turnover, approximately 3% of the estimated 520 persons employed (full and part time), and all academic staff were tenured. As a small, campus based setting, the cultural values of 'community', were continually reiterated in staff and student surveys (Staff Survey 2006). Given the probable human resource implications of developing knowledge exchange, the Staff Survey

documentation was accessed to gain a wider understanding of the issues and priorities that may be culturally or historically relevant. The total staff at YSJU was surveyed, by an independent organization, using an agreed set of questions. Staff reported high levels of satisfaction with the terms and conditions and were eager to protect the unique 'quality of life' at YSJU. They expressed a strong sense of belonging and an understanding of the mission of the organization. Academic staff specifically reported a strong satisfaction from working with students. The top 5 priorities in the survey were reported as follows:

- That staff enjoyed the benefit of holiday and sickness entitlement.
- That staff had a clear understanding of the expectations in relation to roles and behaviours.
- That most staff decided on their own how to go about their work activity.
- That most enjoyed their work.
- That staff understood the need for change.

The rhetoric behind these findings showed that a high proportion (79%) of staff said that they enjoyed their work and that their knowledge and contribution was valued by colleagues. Overall the highest response was in relation to non pay employee benefits suggesting a very high level of satisfaction about the terms and conditions and the physical environment of the organization. The report identifies how much all staff value a sense of camaraderie and community and that this feature is due to a flexible approach to the workload and a 'caring' and 'friendly atmosphere'. These factors contribute to the view of YSJU as a somewhat unique environment with a highly developed and historically based community orientation.

Financial Profile

Information in the public domain, open to internal staff and accessible in the annual report for 2005, reported that income rose to nearly £30 million, an increase of 13% on the previous year. The University (then University College) received funding from the Higher Education Funding Council for England (HEFCE), which was reported at 18% of the total turnover. This is less than half of the usual percentage of income from funding council grants

across the sector, with universities more typically receiving 38.7% of total income through funding council, according to the Higher Education Statistical Agency (HESA). The majority of income, therefore, came from tuition fees and the majority of expenditure was staff costs and other operating expenses (76%) undertaken in line with the learning and teaching activity. The pressure on the University to retain and increase income from student fees and international fees was a clear imperative, particularly as the University was unlikely to achieve any substantial boost in income from research activity and research revenue, at that time, was negligible.

Until early 2007, when the tax law for charities was changed, the charitable status of YSJU had prevented the University from generating additional income. York St John Enterprises Limited had been a wholly owned trading subsidiary, managing the conferencing and sport and recreation activities. It was this commercial arm of the organization that undertook the business activity, largely associated with the use of estates and facilities for summer schools.

The conferment of University status in 2006, made YSJU eligible for Higher Education Innovation Funding (HEIF) (Higher Education Funding Council for England, HEFCE 2003). This grant was in the third round in 2007 with the funding made available on the basis of relative size and activity orientation. It is not the intention for this study to focus on the HEIF allocation, but rather, to consider the wider strategic development of knowledge exchange within the academic workforce. The allocation of HEIF was, however, based on the approval of an institutional strategy to develop systems and relevant knowledge and enterprise activity.

Setting up the action research project

In order to advance the corporate ambitions towards enterprise and knowledge exchange at YSJU, an action research project was proposed, based on data collection, feedback, action planning and local action. The proposal was presented to the Vice Chancellor in September 2007. As chief executive of the University, she endorsed the field element of the study, or the 'core action research project' (Zuber-Sherritt 1992, Perry 2002) and

became the 'client' in relation to the espoused ambition of the research; to develop capacity for knowledge exchange practices.

The ethics proposal was presented to YSJU soon afterwards (see Appendix 2) and was deemed to be an acceptable range of activity within the organization. The ethics approval for the study was agreed by the University Ethics Committee of YSJU in July 2007 and the outline method for the action research process was approved. The purpose of local ethics approval was to ensure that ethical understanding could take account of the specific context and ensure the appropriately managed inclusion of the academic workforce.

Action research objectives

My experience of academic knowledge exchange led me to believe that disciplinary boundaries have become less relevant, to those outside the university, looking for innovative solutions to critical problems in social and commercial contexts. The changing demand and increased opportunity to support external organizations with knowledge may be seen as a driver to manage a new commitment *inside* the organization. As researcher and manager in the University, my aim was to produce valid and trustworthy data to support an improvement process.

Ostensibly the improvement was in the capacity to engage with external partners and to undertake a wider range of academic knowledge exchange, however, the aim was to build capacity was necessarily based on an overt improvement in the internal methods adopted to manage and develop knowledge exchange as an academic practice. I was seeking to influence the organization to take action by implementing and evaluating an action programme within the organization (Lancaster 2005). The study was aspirational in two ways, the contribution of new, practice-based knowledge about the current university context and in the contribution to the critical challenges experience at YSJU in relation to enterprising and external facing knowledge exchange.

The objectives were identified as a series of purposeful tasks to progress a systematic improvement, as follows:

- To anaylse the current level and scope of knowledge exchange activity being undertaken within the University by those in an academic role.

- To identify and understand the barriers to knowledge exchange at YSJU specifically, the strategic and operational challenges, and in relation to HE policy.

- To plan interventions and share a framework of ideas (Checkland & Holwell 1998) and methods within the University to demonstrate potential for knowledge exchange.

- To undertake a range of interventions to enact a change process and seek to capitalise on the knowledge, skills and experience of those in the University community.

- To reflect on the involvement and appraise the impact on the organization and formulate outcomes and recommendations.

- To appraise personal and professional learning and identify wider relevance of new knowledge.

The nature of the action research at this stage was relatively deductive, based on empirical data and policy orientation. Whilst a formal hypothesis or theory was not established, the research objectives were couched in such a way as to investigate the organizational problem (Lancaster 2005) and to suggest the design and methods of data collection and analysis that might lead to further confirmation or clarification of the problems associated with knowledge exchange practices in the University. The testing of the researcher's initial idea or theory in action research would then lead to further use of the data to alleviate that problem. By their very presence, a set of objectives suggests a systematic deductive approach to the research (Lancaster 2005), but this does not preclude a further more critical

aspiration towards the data and the further analysis that supports a wider evaluation of the research process.

Criteria for the evaluation of action research

Action research is well acknowledged to be a lived experience (Reason & Bradbury 2006, Herr & Anderson 2005) that allows for a purposeful dialectical engagement (McNiff 2008). A dialectic may be described as, '*the use of a range of knowledge sources to support innovation and build new ideas and actions'.* The purpose of the dialectic is, to provide a rationale for a questioning of the normative assumptions of the personal and professional actions (Whitehead 1989, McNiff 2008). Questions arising in respect of initial assumptions, made at the start of the enquiry will be incorporated into the action research. The researcher names and uses possible contradictions and dilemmas encountered, to generate further dialogue into the research process. In contributing the research to the development of the Organization, there is a need to enable the dialectic encounter, where all the possible negotiation, argument and influencing serves to sustain the change to personal, group and system learning.

Action research is a complex and reflexive process (Weil 1998) which operates as a decision making method. It is informed by a range of knowledge, sometimes empirically based and at other times justified by specific context knowledge and local understanding of systems and relationships. Ultimately the action research results in a conceptual understanding that supports a more refined appreciation of the practice in question (McNiff 2008)

The evaluation in action research serves to identify the degree to which the research has achieved the objectives as an action orientated study. The process of improvement and the possible development of new structures, systems, processes and dialogues, across the organization, are the pragmatic outputs. These tangible features of change allow for the description of the change in practice. The conceptual understanding of a complex area of new academic practice is the critical output. The

conceptual framework serves to resolve a complex and multi-variant problem, through the research.

The following criteria for appraising action research, are adapted from McNiff (2008a), and have been tailored to the specific topic in question. The questions are intended to ensure the validity of an action research process at YSJU:

- Is the study accessible, appropriately presented and comprehensible as well as being sincere and appropriate to the discipline and context?
- Does the study have a logical form and is the enquiry undertaken systematically and without prejudice beyond participation in the research process?
- Does the research add to the knowledge and explanation of how universities engage with enterprise and knowledge exchange and identified 'good practice'?
- Have clear statements been made to explain the ways in which academic enterprise or academic entrepreneurship can be achieved within the context of the study?
- Have the generalizable elements of the research been uncovered and codified as contributions to wider knowledge and debate?
- Has the action research resulted in a more critical and empirically verifiable practice in academic management and personal development of the researcher within the organization?

The evaluation of the study will be undertaken by two separate audiences. Firstly by the academic community, who will deem the work's value in relation to the contribution to knowledge and secondly by the critical audience at YSJU (colleagues and managers) who will judge the value of the empirical data and the outcomes of the research in developing knowledge exchange? In reading the thesis, these academics and others, enter into a dialogue about the value and worth of engaging in knowledge exchange.

Scope of the literature

The intention to develop knowledge exchange practice as a multi-disciplinary academic practice is consistent with the concept of 'mode two' knowledge production (Gibbons et al 1994) and the scope of literature reflects this. Gibbons *et al.*(1994) describes 'mode two' as a form of context-specific and problem-orientated knowledge creation, based on finding solutions to practical problems. They (Gibbons *et al.*1994) contrast this with 'mode one' production; as discipline-based and investigator-led form of enquiry. This traditional modality of research might focus on the application of outcomes, but fails to address the social distribution of key findings to specific context. Nowotny *et al.*(2006), supported 'mode two' investigations on the basis of the purposeful use of knowledge in "an age of uncertainty" and, endorsed the contribution that 'mode two' initiatives made to academic practice. I use 'mode two' knowledge production as an overarching construct to support the multi-dimensional understanding of the organization.

'Mode two' knowledge production has been criticised for its lack of empirical validity (Hessels & Van Lente 2008) and challenged for simply articulating a modality of collaboration that is a historically emerging phenomena (Etzkowitz & Leydesdorff 2000). Of key importance in this study, is that 'mode two' might enable the cross-subject dialogue about knowledge exchange, within the University. The critical theory underpinning the notion of 'mode two' is highly relevant, as it brings together a range of ideas and uses knowledge and reasoning to support a solution to the organizational problems. A diversity of subject disciplines including organizational science, organizational behaviours, knowledge management and change management, are relevant to this study, but make a full appraisal of all discipline areas, impossible. The range of literature is therefore limited by two criteria:

- Relevance to the university sector and specifically to academic practice and management.

- Critical contribution within the timeframe of the research, in most cases using information published in or before 2008[1].

The purpose of literature and, in particular, the critical appraisal of the literature for an academic practitioner, is to clearly establish an 'espoused theory' (Argyris 2004); a working knowledge of the subjects that underpin practice and which can be stated as a set of personally valued criteria to support actions. The critical or 'reflective practitioner' (Argyris & Schon 1989) uses these understandings to plan and carry out a series of tasks, in this case, in the performance of research, to promote the development of knowledge exchange capacity. The 'theory in use' (Argyris 2004) of an academic practitioner is a realisation of the espoused theory, which Argyris sees as the conversion of theory into action. Practice knowledge (Argyris & Schon 1974) draws on a range of theory and adapts theory to the current circumstance through a process of reflection and planning (Kolb 1988).

Further literature is built into the study in later chapters, and includes seminal works which confirms the focus on internal knowledge transfer and learning to create capacity for external knowledge exchange. The study is intentionally multi-dimensional and as a practitioner enquiry draws on and therefore may contribute to a number of different areas or disciplines.

Chapters

The thesis is arranged in ten chapters that follow the norm for a Doctorate in Business Administration (DBA). The focus is on a 'contribution to practice', aiming to draw valid conclusions about the way that YSJU might continue to develop as a knowledge intensive organization. An overview of the chapters following the introduction is as follows:

Chapter 2 – The first literature chapter presents government policy and introduces a critique of the ways that government and strategic funding have influenced the HE sector. The policy literature alludes to the role that universities have in society and the ways that as government funded

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[1] A later publication is used where it was a product of this research

organizations they contribute to social and economic well being, through the development of knowledge and the sharing of knowledge and learning at a regional and local level. The commentary includes references to enterprise, 'employer engagement' and innovation, just three of the terms used to describe academic activity associated with knowledge exchange. The suggestion is made that a range of different policy adopt different terminology to refer to similar ideas about generating, disseminating and applying knowledge but that the policy encourages the view that the university is a knowledge-intensive organization which should contribute at all levels, to the knowledge economy. The university, in its turn, seeks to implement policy by becoming more outward facing and 'knowledge productive'.

Chapter 3 – The literature on individual approaches to knowledge exchange and knowledge transfer are considered. The new demand, to engage externally and commercially with other organizations is a challenge to the academic and to their organization, and an internal re-orientation is required at individual and organizational level. 'Engaged scholarship' is a term identified across the literature, relating to individual capability in external facing and problem orientated academic practice. Engaged scholarship is also a methodology that combines a range of evidenced based methods and relational skills and abilities. The notion of academic continuing 'professional' development is considered and a range of knowledge, leadership and strategic competencies are suggested as a core requirement for the further development of knowledge exchange practice.

Chapter 4 – This chapter begins with an overview of Clark's (1998) formative work about the transformation process toward an enterprising university, to reflect on how knowledge and knowledge exchange may be regarded as a strategic opportunity to increase knowledge productivity. Several further theories are described, to demonstrate how systems approaches to internal knowledge productivity may be exploited to enhance innovation and they show how the university could plan knowledge exchange activity. The concept of absorptive capacity (Cohen & Levinthal1990) is then introduced as the preferred theory to underpin the

action research. It is used to show how organizations use a whole-system approach to enhance their knowledge based activity and I will argue that absorptive capacity is a useful concept for a knowledge-intensive university setting. I will use the concept to explain how participant roles, systems and processes and organizational values can help organizations exploit 'prior related knowledge' (Cohen & Levinthal 1990) and how this might inform the re-design of internal knowledge capability at YSJU. The original theory suggests that the outcomes of high absorptive capacity can be seen in the successful external engagement of companies through new products and services thus enhancing their place in the sector and justifying Research and Development (R&D) expenditure from an organizational perspective.

Chapter 5 – Having identified the literature base, the rationale for the study and the action research methodology is described, using an understanding of paradigms (Burrell & Morgan 1979), and discussing how a functionalist approach was initially used. Seeing the action research as relatively unproblematic and with the Vice Chancellor (VC) as sponsor, the change process was planned and based on the adoption of empirical data, gathered and used to diagnose the organization. Further, more interpretative approaches are suggested for use at later stages, to make best use of the internal practitioner-based knowledge and to consider how the organization adapts practices, processes and systems to improve knowledge exchange. There will be a consideration of the risks and challenges of undertaking a study within a university and in the context of my own organization. Ethical considerations are discussed and the ethical approval and constraints are presented.

Chapter 6 – The action research process begins with the diagnosis which is an initial point of entry into the problem situation and the opportunity to collect data to test the initial assumptions. A case study (Yin 2003) is adopted and a range of methods, including secondary data, interview and survey, are described. The diagnosis is informed by the concept of absorptive capacity that suggests how 'prior knowledge' and a systematic participation will lead to better outcomes for the organization. The diagnosis is significant because it contextualises further actions that will be

planned on the basis of the data gathered and analysed. The diagnosis in action research is the point at which key messages are established and the researcher seeks to establish the range of information and actions that will result in an improvement. The action research process is iterative and ideas are collected and then shared in the organization. This chapter includes description of the methods used to analyse qualitative and quantitative data and the diagnosis is presented in order to justify and prioritise further action.

Chapter 7 – This chapter presents the findings of the diagnosis. Beginning with the results of the secondary data and moving onto the primary data. The categories are derived from the content analysis and presented as a cultural narrative around knowledge exchange. The diagnosis in action research is an important opportunity to generate data and formulate the problem, identifying the best possible intervention or range of actions in the context of the organization. I draw some conclusions about the potential for change to occur in response to the problem situation. The problem appears to be associated with a lack of operational strategy for knowledge exchange and I link this problem to the concept of absorptive capacity, identifying a need to assimilate knowledge better and develop mechanism to share knowledge in the organization.

Chapter 8 – This chapter presents further data about the ways in which the outcomes of the diagnosis were shared with senior managers and others through action planning and actions/interventions. It becomes clear that neither the data nor the proposed actions were acceptable to key actors in the organization and I discuss how the limited engagement and some resistance to the research made further development of knowledge exchange capacity very problematic. I go on to present some ideas about how and why the organization inhibited further development within the research process. Resistance and positional power were highly influential and as a result of further consideration and literature I developed a more 'critical position' approach towards the engagement within the organization. Finally I will consider how power in action research is a recognised phenomenon and how a deeper understanding power issues within the

organization can influence the choice of intervention. The contribution to knowledge is therefore influenced by a more critical, practitioner orientated response and somewhat based on the ways that the action research was inhibited in the organization.

Chapter 9   Absorptive capacity is an important concept for system wide improvement in knowledge use but limited as a tool for developing knowledge exchange in the university setting. Using YSJU as the initial site, it became clear that the ability to assimilate new knowledge was less well developed than expected and a more critical perspective revealed how leadership behaviours influenced academic knowledge exchange activity, specifically by inhibiting the development of internal methods to develop further academic knowledge based products and practices.   The original data (within the diagnosis) allowed an early analysis using absorptive capacity but further participation did not transpire and leadership, culture and power issues appeared that were not accounted for within a functional perspective. I go on to present a new conceptual framework to understand *'Leadership of knowledge exchange in high and low absorptive capacity settings'*. The discussion relates to the findings within the action research and the presentation of new literature on leadership in higher education. Finally, I will consider the degree to which the new conceptual framework may be used to improve knowledge exchange leadership in the university.

Chapter 10. The final chapter is a critical reflection on the action research process and a consideration about how the research might have supported further participation and the achievement of further strategic development. I will reintroduce the concept of praxis (Kemmis 2008) in the context of academic practice, confirming the concept as a means of demonstrating strategic engagement and leadership in academic performance. I will finally consider how the research, undertaken at YSJU, might be considered relevant to the actions and the outcomes in other universities.

I will also comment on my own critical awareness and how I plan to position myself as an academic in the future, both to support the University and to

participate in the knowledge use and productivity in society as an 'engaged scholar' (Van de Ven 2005).

Presentation

The following conventions are used to support the reader in the understanding and engagement with the research process

Use of grey shading- Where I am referring to YSJU in the chapters on method or literature, I will shade the sections to show that the text refers to a vignette or reflection on a specific experience within YSJU.

Glossary and acronyms – Knowledge 'exchange' is a term used to describe a wide range of different processes and academic engagement. Herein, it is the term referring to enterprising external engagement with individuals or organizations, using knowledge to share and resolve problematic issues within the social and organizational context. It is sometimes used interchangeably with knowledge transfer, in the policy literature. Knowledge 'transfer' a term used in both policy literature, often to mean the same as knowledge exchange. However in the academic literature knowledge transfer refers to a specific process of sharing and learning across an organization using internal processes and mechanisms to manage knowledge. Because of this variation in the use of terms, I have defined the use of terms once in the text but have also provided a glossary to support the reader in the specific understanding of the terminology. There are also a plethora of acronyms in the policy literature i.e. (HEIF) will be referred to in the text in full but a brief explanation will be offered in the glossary. There is also a list of acronyms used.

Use of first and third person - Where possible, I have used third person within the writing. I have separated the reflective experience or the particular YSJU experience placing this text into the grey boxes. I also use first person to demonstrate my participation and engagement in the chapters relating to local actions and interventions in the University.

Summary

In the timeframe of this study (2006-8) and the subsequent period of reflection and write up, there has been a considerable adjustment in HE, to meet the government policy and resultant national strategic context. Schuster & Finkelstein's (2006) analysis of the sector illuminated the key policy surrounding faculty roles and academic practices. They provide data to support a case for a new inclusivity in HE and the opportunity for a further role and engagement from the university sector.

This chapter has presented the initial rationale for the action research and provides an overview of the way that the study progressed using data to formulate a diagnosis, plan and carry out interventions and subsequently to understand the context of YSJU as the 'problem situation'. The initial approach, using data and systems improvement is somewhat deductive. The overview of chapters includes reference to a changed approach at later stages and the contribution to practice that supports leadership of academic knowledge exchange in HE. Initial concepts including knowledge productivity, mode two knowledge productions and the dialectical engagement of the academic practitioner, have been introduced. These concepts will be further developed and used within the study to explain the commitment to the participation in the action research as a change process. The term knowledge exchange has been defined and the use of the term at YSJU discussed. The aim and objectives of the study identify the intention to carry out a data driven improvement to the capacity for knowledge exchange, focusing on enhancing mechanisms, to develop new products and services for external partners.

The following chapter outlines the recent policy related to knowledge exchange practice, in the UK university sector. It creates a backdrop to strategic planning and conditions for individual institutions to play a role in the development of a knowledge economy. The focus on the external role of the university is essential to justify a further concern about internal methods and process change. I will demonstrate that the policy context is now demanding an increased participation from the HE sector and this demands internal re-organization.

Chapter 2 Literature, Policy and Organizational Context for Knowledge Exchange

Introduction

This chapter outlines recent government policy, which provides the national context for the HE sector and is a backdrop to the strategic planning process for any university seeking to make a contribution to the development of a knowledge economy. The impact of government policy can be seen indirectly in the management of faculty, through funding, measuring and regulating of activities (Bridgman 2007) and so it is imperative to acknowledge the widest operational context for enterprise and knowledge exchange.

Knowledge-based economies are thought to be dependent on the ability to self transform through innovation; to identify and meet the demands of the citizens (Hearn & Rooney 2002). The productivity and commercialization implicit in this definition of a knowledge 'economy' is problematic for governments. On the one hand, the state seeks to prepare citizens for participation (Hearn & Rooney 2002) through education and social inclusion, cultural engagement and work, but on the other hand, the market is seen as a driver to innovation and change.

As with all public sectors and through publicly funded organizations, the government has a number of high-level mechanisms to encourage and enable the progression of the sector into new or changed agenda. The sector is divided into separate and largely autonomous organizations operating within the strategic context. The viability, profitability and success of the individual organization is based on the existing conditions within a sector (Porter 2008) and through a series of political, strategic and funding mechanisms, the government influences and changes. Porter (2008) strongly advocates a high level strategic and sector based understanding of an 'industry':

"A healthy industry structure should be as much a competitive concern to strategists as their own company's position. Understanding industry structure is also essential to effective strategic positioning......and shaping them in the company's favour is crucial to strategy" (Porter 2008, p.19)

This necessitates an initial focus on sector strategy and the Dearing Review (1997)

The Dearing Report

One of the most significant reports was published by the National Committee of Inquiry into Higher Education, *Higher Education in the Learning Society* (Dearing 1997). The report set a wide-ranging agenda for the development of HE into the 21st century (Dearing 1997). This policy laid out a strategic vision for the HE sector:

- To inspire and enable individuals to develop their capabilities to the highest potential levels throughout life, so that they grow intellectually, are well equipped for work, can contribute effectively to society and achieve personal fulfilment.
- To increase knowledge and understanding for their own sake and to foster their application to the benefit of the economy and society.
- To serve the needs of an adaptable, sustainable, knowledge-based economy at local, regional and national levels.
- To play a major role in shaping a democratic, civilised and inclusive society.

Whilst the National Committee's report is noted for the commitment to widening access to HE and to instigating self-funding of university education, it is also a clear endorsement of a renewed role for the 'academy' in participating with the economic and social challenges of the whole of society. In response, the government set out a vision of a world-class HE system combining rigour and economic relevance. At the heart of this vision is the concept of a compact between universities and colleges, individual students, the world of work and society (Department of Education and Skills, DfES 1998). YSJU enterprise strategy (2006) was, therefore,

predicated on the intention to participate in mainstream innovation processes. The national, regional and local economic plan was a potential 'market-place' for the university knowledge exchanges. HEFCE as the overarching strategic body that monitors and promotes the adoption of policy 'imperatives', and has developed a fund to incentivise participation in the required range of academic activity.

The strategic perspective is laid out in the statement below:

"Stronger partnerships will be encouraged between HE institutions in each region and the Regional Development Agency (RDA) and other agencies charged with promoting economic development." (DfES 1998)

The Department for Education and Skills (DfES 2003) identified a corporate responsibility for the university to work in a regional context and to add a commercial value to the economies in which they operate. This focus, whilst perhaps not new for some universities, demanded a further recognition of the way that an institution perceived its niche value, within the regional economy. Some universities took advantage of the new market for 'continuing professional development', specialising in the provision of post graduate programmes. This participation was based on an assumption that education leads to competitive advantage for both individuals and their companies (Blass 2005) and that employers would engage their staff in higher learning.

The policy focus is based on a prosaic ambition, that a University, through the entrepreneurial academic, might become 'knowledge intensive' and driven by the demands of the market (Bridgman 2007), might contribute to economic success. Charles Clarke, then home secretary, forwarded a white paper with a warning that universities should not *"shirk the need to reform"* (DfES 2003). He endorsed the expansion of the sector, based on an employer-driven partnership, and sought to identify the outputs from universities in terms of; deliverables, outcomes for business and community, value for money and improvements in effectiveness or efficiency (HEFCE 2003).

The Lambert Review on Business-University collaboration (Lambert 2003) criticised the sector for being slow to change and risk averse. The report identified some high level mechanisms to manage the legal aspects of innovation and intellectual property, as well as developing a structure for supporting innovations. The diagram below (Figure 1) demonstrates the vision for third stream activity (HEFCE 2004). The term 'third stream' was adopted in the Lambert Review (2003) suggesting the importance of the spectrum of business *and* community (see Figure 1) to represent the social and cultural and economic landscape. The income generating potential in each sector is implicit and this is set against the reputational and social benefits as outcomes of knowledge partnerships.

Figure 1.

Third stream spectrum (business and community) (HEFCE 2004)

Third stream (B&C) spectrum –
Scope and *outcomes* of engagement

Business   **Community**

Private   Public   Cultural   Social & Civic
Sector   Sector   Landscape   Arena

Competitiveness,   Efficiency,   Cultural   Resources &
growth   cohesion   enrichment &   opportunities
                                               quality of life
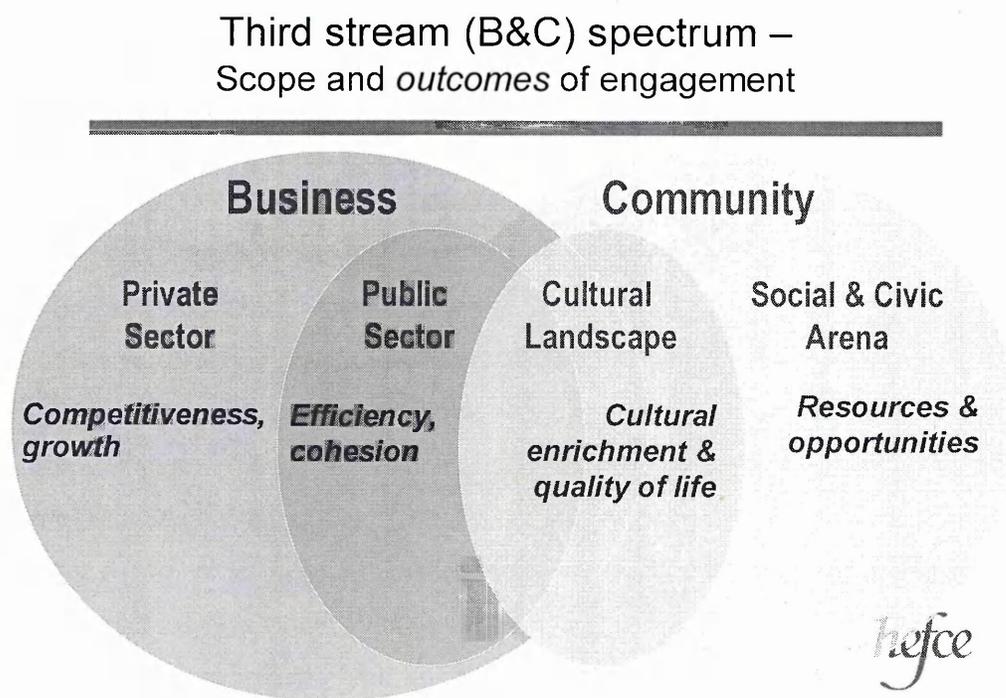
hefce

The Higher Education Innovation Fund (HEIF 2001)

HEIF was initiated in 2001 to provide special funding for activities that increase capacity to respond to businesses in all sectors, where it leads to

economic benefit (HEFCE 2001). The fund was a non-competitive allocation to all universities, to develop infrastructure and capability in 'enterprise' activity. The term 'enterprise' is used to differentiate the range of academic activity from research and, particularly in the second round of funding in 2003, to build 'knowledge exchange' sites that were defined as 'less research-intensive' (HEFCE 2003). They were however, able to participate with external organizations and work with Regional Development Agency and Sector Skills Councils. There was an explicit demand, with a required quality measure, to demonstrate external engagement and the fund sought to reward and incentivise academic participation in partnerships across the commercial sector. The final round of HEIF funding was allocated to institutions compliant with the specific mechanisms to deliver HEFCE objectives (HEFCE 2003a).

One impact of HEIF funding was in the diversification of the university workforce (HEFCE 2006) and through the recruitment of business development officers, and a university workforce to support industry driven innovation. The new administrative function was commercially orientated and directed much of the knowledge-based contracting. Commonly referred to as knowledge transfer, the scope of externally-focused enterprise activity was commonly related to so-called 'technology-transfer', and based on the generation and capitalization of intellectual property held by the universities, particularly in engineering and natural sciences. Direct knowledge transfer activities (HEI into industry) were distinct from more indirect knowledge 'transmission' activities, where university-generated knowledge was diffused into society through a variety of mechanisms (McGregor *et al.* 2006).   The 'transfer' of knowledge from within a university could result in spin-off companies, (Wright *et al.* 2004), with this, the traditional means of capitalizing on research. This model was not strategically a priority for a small, teaching based institution, like YSJU, with a professional and social science curriculum. Rather, the HEFCE strategy of 'Employer Engagement' had the primary aim of supporting the HE sector to meet the higher level skills needs of employers, employees, the economy and society (HEFCE 2006).

YSJU received HEIF funding in year 3 (2006) of approximately £250k, to participate in 'real world' knowledge exchange activity. This income allowed the University to employ four knowledge transfer officers (KTOs) on two year fixed term contacts and faculties were tasked with encouraging academic staff to generate income and build their enterprise expertise (HEIF 3 Submission 2006). The posts were centrally co-ordinated by the Head of Business Development in the REO and line managed by the Dean or senior academic within the faculty. Knowledge exchange (as it is referred to at YSJU) aims to respond to local, regional and national agenda by engaging with external partners and stakeholders, sharing knowledge in a more collaborative way and seeming to innovate in fields of, for example, arts, health/ social care and management development.

In 2007, the performance management of the university sector, via HEFCE, was then lead by the Department for Universities, Educations and Skills (DUIS) and this state department toughened measures for the governance of quality in HE. The functions of the sector to be evaluated are listed below, with HEFCE introducing performance measurement to 'manage' the transformation:

- Research[2];
- Enabling businesses to innovate or transfer knowledge;
- High-quality teaching;
- Improving workforce skills;
- Widening participation.

(HEFCE 2007)

Traditionally, research, was specifically performance managed by the Research assessment exercise (RAE 2008) and this has been a benchmark for many universities in relation to assessing income and participation in knowledge production through funded research. The remaining four areas of activity are clearly more market-driven and promote an engaged process of diffusing research outcomes. Participating in a commercial culture and using processes such as commercial innovation and knowledge transfer/

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[2] The research assessment exercise (RAE) reported at the start of 2009 and the newly created Research Excellence Framework (REF) is currently under consultation. This evaluation of quality and impact of research will be evaluated in new and trailed ways currently being tested by HEFCE.

exchange, were imperatives and an organizational responsibility. The monitoring of requirement was also an example of the regulatory mechanisms to control the sector, and whilst funding was available, the money was used to incentivise new participation from the academic community.

Critique and commentary on policy

Slaughter (1988) presented a wide ranging critique on the growth of the universities alongside the expansion of 'the state' and the public sector funding to the late 1980s. She commented on the initial 'reform' agenda that promoted minority participation in HE and the civil rights. This gave way to a different 'reform' process. She commented that these reforms constituted the management of the quality and effectiveness of HE that were resonant with the demand for public accountability from the HE sector. The transformational intent of an academic practitioner / leader was to participate critically in social and economic issues and to empower others to do so. Slaughter's (1988) argument was that professional academic expertise was central to the formal consideration of public and policy issues and, as such, she endorses a process of knowledge-use, beyond the academy. She called for a new theory that provides guidance for practices in the context of cultural change, especially where it is associated with financial austerity and immediate utility.

Etzkowitz & Leydesdorff's (2000) 'Dynamics of Innovation' is an often cited paper based directly on the interfaces between the state, academia and industry. They report on an international scientific forum, at which a series of discussions took place, resulting in the 'Triple Helix' model. Based on international examples of state and industry, and academic interactions in innovation projects, they assert that most countries are trying to attain a 'triple helix'. The Triple Helix purports to be; a common objective to realise an innovative environment, consisting of 'spin offs' initiatives for knowledge based economic developments and strategic alliances among firms, all based on a dynamic system of unstable alliances. They refute a commitment to either 'mode one' or 'mode two' knowledge creation (Gibbons *et al.* 1994) and present a picture of an ever evolving complex

range of collaborative interactions, which remain in transition, and change all parties, by virtue of the outcomes and experience. At the heart of the argument is a suggestion that universities combine teaching and research in the opportunity to create interactive opportunities, with the expectation of mutual profit.

The 'triple helix' (Etzkowitz & Leydesdorff's 2000) shows how the state and national governments are critical to the 'shape' of the interaction between universities and their external partners. The trend towards engagement, particularly led by the United States and more commonly seen in Scandinavia, demands a strategic learning and support that continues to reproduce the helix relationship. However, the Lambert Report (2003) and HEIF (HEFCE 2001, HEFCE 2003a) rounds, demonstrated a less complex understanding of the notion of 'third stream', than is indicated in the 'Triple Helix' model. Whilst the role for government as a state supporter of innovation and knowledge based relationships is acknowledged, the UK government appears to expect the HE sector to amend academic practice, rather than see the complex interaction between 'the market' and the range of institutions. The missing element appears to be the cultivation of a compact between the partners and a failure to support the unique attributes that a university offers by; combining a knowledge community (students and staff) with the continuous production of new research output (Etzkowitz & Leydesdorff 2000).

Other critics (du Gay 2004) warn against the redefining of the University organization at a sector level and stress the need to use a new business administration function and workforce to supplement, and not replace, the academic knowledge areas. Du Gay (2004) presents an argument for retention of the bureaucratic methods that have served to manage the policy 'deluge' into HE; a deluge with the potential to destabilise the purpose and identity of the university. Du Gay (2004) rejects the notion of the traditional bureaucracy as inefficient and unresponsive in the face of 'modernisation' and re-emphasises the importance of the subtle flexibility within a state bureaucracy. He suggests a more context specific response and further description of the individual organization, making a strategic

and operational development based on a local analysis and a custom-built organization development. He advocates a sustainable model of entrepreneurial activity and governance that fits the practices of particular institutions and persons (Du Gay 2004). What might easily be regarded as a 'traditional' critique and resistance of policy is more critically read as a 'community'-oriented process of strategy building, in support, of a changing demands on the sector.

A survey was commissioned by DfES, Employer Engagement, 'Higher Education for the Workforce: Barriers and Facilitators' (Wedgewood 2007). The report presents findings which led to several wide-ranging and strategic conclusions, principally that the HE sector must reorganize and undertake teaching and learning significantly differently, if it is to achieve a step change in the delivery of HE to the workforce market. Wedgewood suggested that universities undertake a range of organizational development, including the creation of a facilitating environment to build capacity and capability for employer engagement. These high level recommendations suggest that institutions need to adapt to the external demand and appraises the risks in relation to a range of required activity.

The term employer engagement is used to refer to the emerging relationship between HE, employers and employer organisations, which is seen as critical to success. This report highlights the role of enterprise and knowledge transfer / exchange in the development of a national workforce, rather than in the diffusion of research. The report identifies how government could create a step change, by helping to raise awareness of the impacts of education and training on productivity and performance in the workplace and help build institutional capacity and capability to address the markets. Finally, the results of the survey (Wedgewood 2007) identify that, whilst a market exists, it is largely latent, low demand and high risk at present, and that HE is not 'set up' to deliver to that market nationally with the required flexibility and sustainability required by partners. Employer engagement represents a 'new tradition' of HE, which the report argues is emerging and responsive to the varied service needs of employers and

employees, and relevant to the context of professional practice in the workplace across all employment sectors.

YSJU had four faculties, one of which is directly concerned with the education of health and social care professionals and another with the education of teachers across the age spectrum; they are funded through a commissioning and performance management process by the NHS and Local Authority contacts. Examples of participation in 'employer engagement' include, student work-based-learning-experience within an undergraduate provision, postgraduate and continuing professional development (CPD) and the use of facilities and estate for hire or loan and specific project based activity by way of commercial contract or consultancy. This form of 'employer engagement' is embedded into the work of the organization and is a valued income stream to the University but is not regarded as credible in relation to research outputs and knowledge exchange projects remain unreported.

Range and scope of responses to HE policy

Different forms of enterprise and knowledge exchange can therefore, be distinguished from the policy critiques and come into early consideration when attempting to build capacity for knowledge exchange. The schematic overleaf (Figure 2) contrasts large universities with small universities and dissects this with a mission to undertake research or focus on learning and teaching and widened curriculum. It has been possible to identify a range of recognisable models of knowledge management and enterprise[3] within the different positions. Whilst distinctions are relatively crude, they are a starting point for the generation of a critical theory, upon which to base further explanation and analysis and, action (Van de Heijders *et al.* 2002). The boxes aim to describe four different outlines of the ways that universities have approached enterprise activity. The diagram aims to identify the characteristic conditions that operate in HE organizations.

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[3] An alternative dimension of pre and post 1992 university might also have been legitimate but was not used due to a lack of perceived relevance to the particular university under discussion.

The descriptors in each of the quadrants (Figure 2) are derived from reported experience across the sector, based on personal networking and patterns of activity, and publicly available resources such as web sites and prospectus.

Figure 2 Range and scope of knowledge utility in universities (Fowler Davis 2009a)
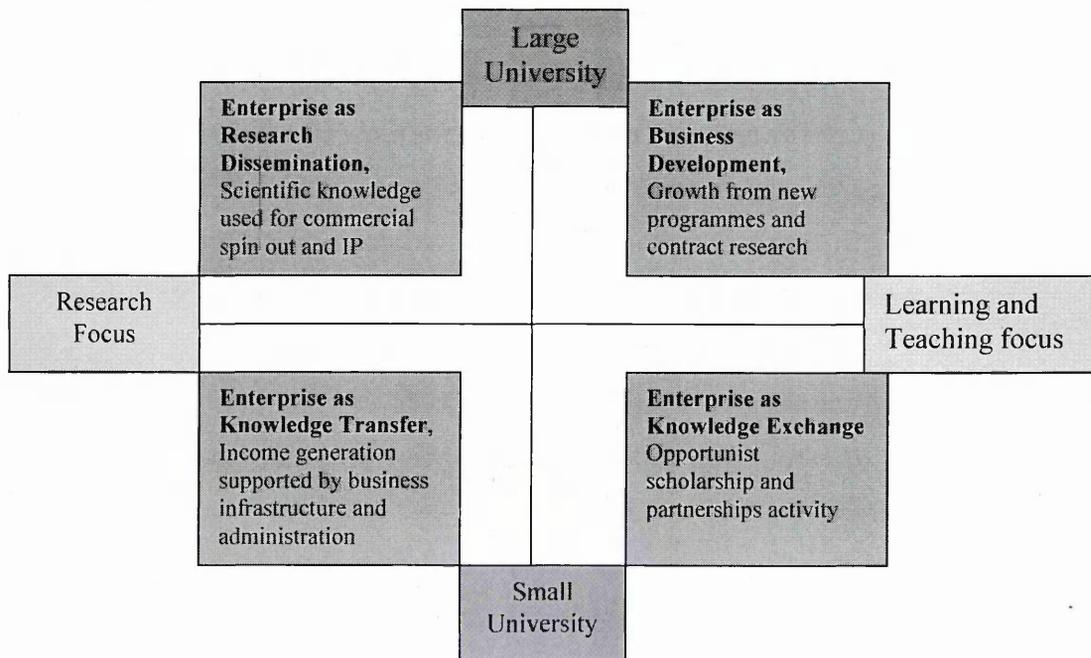
The experience of working in a small university and the published evidence of knowledge exchange-type activity in a larger university (Woollard *et al.* 2007) is also used. The generation of comparative 'types' to differentiate the range and scope of knowledge exchange, serves to differentiate institutions in the sector and reinforce the notion of local and institutional response to the policy challenge.

Whilst 1992 is often cited as having created a split in the priorities and status of the organizations, traditional universities and polytechnics, there is some evidence to suggest that differences in approaches to knowledge sharing in newer and older universities can be identified, namely in their relative success in gaining external contracts and integrating the activity in a meaningful way for staff and students (McKeown *et al.* 2006). The newer universities saw their role in relation to the policy agenda as linking with

business and community imperatives, and directly transferring knowledge. This was distinct from more indirect knowledge transmission activities, where university-generated knowledge through research is gradually diffused into society, through a variety of mechanisms (McGregor 2006), including, as a minimum, graduate entry into the workforce.

A tension exists between the way that the system maintains the internal business, in the case of education (the focus on undergraduate student and curriculum), and how it develops a capacity to innovate and engage in additional external consultation and robust knowledge exchange (Fowler Davis 2009a). Size is a consideration in the generation of knowledge exchange in relation to the strategic goals of the organization (Lord & Farrington 2005) and it is clearly of relevance when aiming to grow reputation and capability to deliver on external contracts and sustain partnership working.

Policy pressure and RAE preparations provided a perverse set of incentives for the smaller organization. The development of academic participation in research was balanced with a pragmatic need to use the academic workforce to capitalise on partnership developments; with local and regional entrepreneurs, with the regional development agency, and other strategic stakeholders. The flexibility and generative capacity within the academic workforce could be a significant asset, given the correct systems level responses from human resources and within the financial management of the faculties.

Summary

This chapter has identified some of the policy initiatives challenging the HE sector. The challenge is, to engage with the dynamic changes being experienced in society and across all sectors. Accountability for public finance is an overarching impetus, with governments seeking to maximise the benefits and quality, and reduce direct costs of publicly funded institutions. New terminology, including 'third sector', enterprise and 'employer engagement', was introduced and whilst meanings are not always consistent across strategic and HE institutions, there is some attempt to

explain the use of the terms from the perspective of their use in strategy documents. YSJU was compelled to take forward a range of strategic initiatives to become more knowledge productive and to establish a viable role within the 'knowledge economy'. The critiques suggest a system level change programme should be undertaken, based on local strategy and on the adaptive resources within the organization.

The next two chapters seek to consider how a university might align itself to the policy challenges of knowledge exchange and develop academic capacity through the organizational redesign, to build potential to transform organizations and create productive, knowledge based partnerships. Building capacity for knowledge exchange implies a change process and the first of the chapters will focus on individual change and the potential of the 'knowledge worker' academic to enhance their competence and develop their organizational capability through new knowledge and skills.

The infrastructure and systems to support organizational learning need to be considered alongside the incentives to reward externality and partnership projects. In a small organization, the resources are needed to maintain the core business, in this case associated with learning and teaching. The ability of the organization to diversify and grow opportunity is likely to be proportional to size. The size of the organization is of relevance in assessing the ability to appreciate external intelligence and assimilate and utilize knowledge. HEIF initiatives have developed a new administrative workforce, but this may be an unsustainable way of engaging with 3rd stream activity in the longer term.

Chapter 3 - Knowledge Exchange and Academic Capability for Engaged Scholarship- individual approaches

Introduction

An academic institution qualifies as a highly complex knowledge-based organization (Barnett 2004, Bridgman 2007) with an emerging role related to creating knowledge and frameworks of understanding, to support society in making intellectual choices within a democracy. Few academics, however, question the role of universities (Stinson *et al.*2006) particularly their central role and purpose of creating knowledge and enabling learning. Some support the view that academics possess many of the attributes necessary for successful enterprise (Birley 2002) including; vision, creativity, the ability to think laterally, self-confidence, and dogged determination (ibid). Others recognise that the range of competencies may be limited by the culture of individualism in academic practice (Usher 2002).

The 'scholarship of application' (Boyer 1990) is a term that affirms the values of enterprise-type academic work and is based on the historic values of a civic purpose and utilitarianism in the university. It is consistent with the recommendations of the HE reform proposals and with a 'public' *service* description of academic practice (Macfarlane 2005). However, Macfarlane goes on to discuss *"a neglected 3rd dimension"* of academic work in relation to the more traditional functions of teaching and research (Macfarlane 2005, p. 165).

The evidence of a generalised organizational commitment and university workforce strategy, orientated to support 'enterprise' and knowledge exchange, is all but absent from the literature, with the exclusion of references to overtly corporate organizations (Blass 2005). This chapter considers the literature related to the range and scope of academic practices and seeks to 'problematise' the issue of individual academic participation in knowledge exchange.

Research, knowledge transfer and knowledge exchange

The Research Council for the UK (RCUK) has recently supported a wider diffusion of research knowledge.

"The Research Councils encourage knowledge transfer[4] by supporting schemes and activities to transfer good ideas, research results and skills between, for example, universities and other research organisations, business, the third sector and/or the wider community" (RCUK 2008)

This statement suggests an emerging support for knowledge production *and* utility. Scholarship and academic esteem, in terms of research output, may progressively be linked to employer-driven activity or engagement and knowledge generation. In contrast to this message, the RAE (2008) sought to fix the notion of academic participation in terms of traditional research outcomes. In spite of this high level definition, an individual or subject related submission to the research assessment exercise (RAE 2008) clearly defined the required academic contribution as:

"...the creation, development and maintenance of the intellectual infrastructure of subjects and disciplines, in forms such as dictionaries, scholarly editions, catalogues and contributions to major research databases" (RAE 2008)

Based on these two statements, the research publication, a traditionally recognised method of developing academic esteem, needs to be questioned as a desirable outcome of academic effort. Academic publication remains 'gold standard' in terms of academic output and the best way of achieving a profile of academic research that is recognised and rewarded by the sector by career advancement. Individual universities plan a response to the policy context, and similarly, the individual academic might legitimately wonder what endeavour might produce the best personal and organizational

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[4] The use of the term knowledge transfer is here used to refer to the transfer of research and term was adopted by policy makers to refer to external facing activity. The academic, knowledge management literature refers to knowledge transfer as the internal use and sharing of knowledge within an organization. This can be confusing and within this thesis, in general, knowledge transfer is defined as in the academic world.

outcome. It remains rare to access an organizational response that identifies and demonstrates a strategic workforce development plan to support knowledge exchange (although 'Growing Esteem' –Melbourne University- might be considered one example). The institutional response can, therefore, seem antagonistic to the area of work because it does not attract the recognition or reward typically associated with teaching and research. Colloquially speaking, it "*won't get you tenure promotion or a pay rise!*" (Macfarlane 2005 p.172).

Those of a traditional academic persuasion maintained that HE was largely separate from society and tried to identify any possible intellectual spaces within which universities may enjoy a position of being their own end (Barnett 1997). The concept of academic freedom and the academic promotion system can foster a private and individual approach to academic practice (Lawrence & Sankey 2008). This tradition is directly challenged from the post-modern critique on HE, which advises practitioners to discard the contemplative conception of knowledge and promote a pragmatic conception of inquiry, knowing-how and higher learning (Kivinen & Ristelä 2002). The dilemmas presented by these conflicting values have been addressed, if not resolved by the notion of 'engaged scholarship'.

In keeping with the definition of knowledge exchange offered by RCUK (2008) and the requirements of a socially motivated use of knowledge from the university, Ernest Boyer's description of 'engaged scholarship' (1990; 1996) was useful and a shared view with others (Schon 1995, Ramaley 2004) who described engaged scholarship as an approach that melds:

• The scholarship of discovery, which contributes to the search for new knowledge, the pursuit of inquiry, and the intellectual climate of universities.
• The scholarship of integration, that makes connections across disciplines, places specialized knowledge in larger contexts such as communities, and advances knowledge through synthesis.
• The scholarship of application, through which scholars ask how knowledge can be applied to solve public problems and issues, address

individual and societal needs, and use societal realities to test, inspire, and challenge theory.

• The scholarship of teaching that includes not only transmitting knowledge, but also endorses the transforming impact of knowledge that extends beyond the university walls.

The description of engaged scholarship has been extended by Van de Ven (2007) as a methodology for academic practice. He describes the concept of academic or scholarly engagement as a pluralist methodology, to demonstrate multiple and alternative models of the problem situation. Van de Ven (2007) incorporates relationship and community into an understanding of academic service and regards:

"Engagement is the means for scholarship to flourish" (Van de Ven 2007 p.9)

His concept, grounded in a commitment to critical realism, seeks to argue that whilst the world is essentially unknowable, it can be understood through the construction of models and their relative contributions, in revealing the 'robust' features (Van de Ven 2007) of reality. His diamond model for undertaking engaged scholarship is represented below (Figure 3). It would appear to offer a holistic approach to guide performance of organizational and social research and potentially knowledge exchange. As a socially constructed method, the model for engaged scholarship (Figure 3) balances academic impact with the management of validity and relevance. Thus, it presents a method of changing the way that academic practice is undertaken and is identifiably different from traditional modes of academic practice. The scholarly engagement meets criteria associated with the expert approval *and* quality assessment of the academic community.

Figure 3. Diamond model for engaged scholarship

Adapted from Van de Ven (2007)
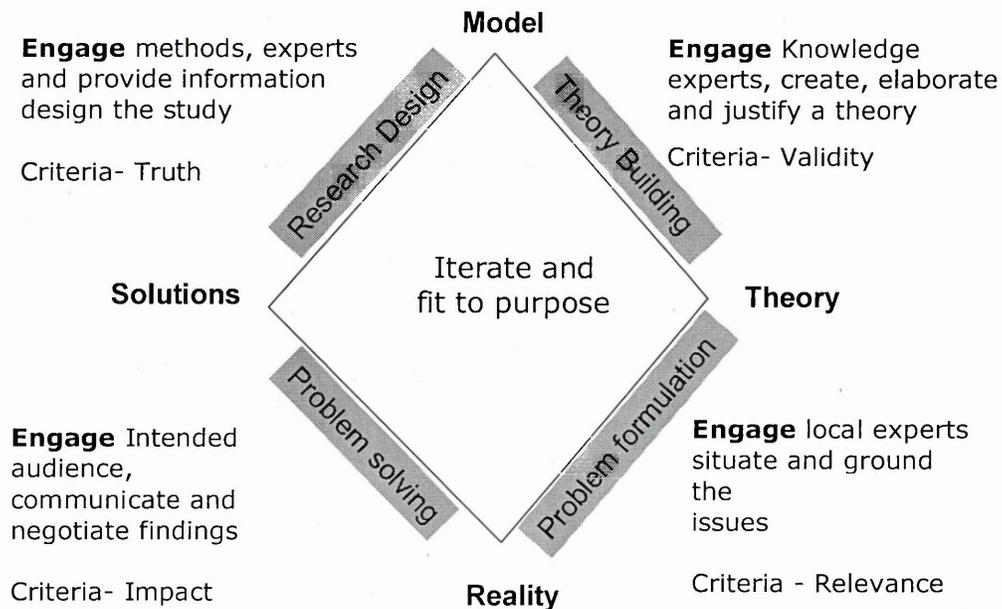
The purpose of including the model and criteria is to recognise the work of Van de Ven (2005) as a contribution to the specific analysis of a range of new competencies and abilities required to advance knowledge exchange practice. According to Van de Ven academics are required to engage in:

"*the progressively more complex processes of knowledge transfer translation and transformation are needed to communicate the meanings and potential uses of knowledge*" (Van de Ven 2005, p. 25)

Academic work has traditionally been arranged around professional and discipline groups; research is defined and codified in relation to the 'fit' with the academic knowledge base. Peters & Olssen (2005) regard 'engaged' work as a major challenge to the establishment of the sector and a specific epistemological issue related to the comparative worth of practical knowledge *over* theoretical. The challenge raises a difficulty with regards to academic development; can research training any longer remain an education in disciplinary knowledge and skills, or does it also need to

include the skill development required by the knowledge economy? (Usher 2002) New and different competencies associated with partnership activity, such as negotiation and collaboration, may be necessary to enable academics to apply their knowledge to practice. The traditional methods of delivering teaching, can have limited value to students who recognise the risk of obsolescence in knowledge and seek to manage their careers in a society characterized by uncertainty, complexity and plurality. (Brew 2002). Knowledge 'translation' (Schryder–Roy 2005) leads to new understandings, based on a process with feedback loops and practical outcomes.

Methods used in engaged scholarship and in knowledge exchange include; 'communities of practice' (Lave & Wenger 1991) and 'after-action' reviews (capturing the learning outcomes of a project), 'knowledge management toolboxes' and 'purposeful story telling' (Solesbury *et al.* 2003). Each method offers academics a means of communicating the research outcomes that leads to a discussion about the application of the knowledge. In most cases, stakeholders seek information but also the opportunity to accelerate improvements to critical economic and social problems. However, the body of literature reporting the use of these methods by the university sector is sparse and the absence of specific examples to demonstrate and validate application processes is less well developed, than the outcomes of research. This lack suggests a limited capability in the use of these methods to develop knowledge exchange across a broad range of subject and across disciplines. The use of knowledge exchange methods, in the health sector, offers some guidance as to how to enhance the impact of research and stimulate innovation and improvement. The three methods listed below have been identified as effective (Solesbury, *et al.*2003), in terms of changing and improving health care practice in a professional context.

- Networking – such as personal contact between academics / researchers and practitioner results in promoting subject research awareness.
- Targeting of service users – developing systematic ways of communicating with 'customers' about their preferences and perceptions of clinical practice.

- Incentives to practitioners – considering methods to advantage practitioners who adopt particular practices, resulting in increasing dissemination (for example academic credit and career esteem)

Some concerns exist about the overtly pragmatic methods used in knowledge exchange, regarded as, *"crude pragmatic empiricism based on what works"* (Peters & Ollssen 2005, p. 38). The concern is that research outcomes are applied without the critical thinking processes. The argument reinforces the need for practitioners to critically engage with the research evidence, as there *is* a risk of an over simplistic translation of research output into practice. It is beholden on the academic workforce to engage in continuous professional development (CPD) (as is mandatory in other 'public sector' work forces) and to encourage and extend notions of scholarship. Macfarlane (2005) regards this as part of the moral foundation of academic practice, based on the historic values of civic purpose and utilitarian principles.

The development of engaged scholarship

Taylor (2005) identifies the academic development role in the Australian University sector, demonstrating a synergy among the characteristics of person, context, and academic role in development strategies. She addresses the idea of academic development from the perspective of the corporate performance of a university, interviewing 23 academic development experts and reporting on the interplay of different leadership capabilities. The findings suggest that understanding and a person-centred appreciation of context was a critical leadership strategy, which enabled others to express their reflections on the issues. Described as *'knowing in community'*, academic leadership is closely associated with sharing knowledge of strategy and corporate goals (Taylor 2005, p. 42). The ability to transmit a relevant view of the organizational strategic goals and the national accountability processes is vital and Taylor identifies that these academic 'corporate leaders' function as boundary spanners, participating in and using the infrastructure of the institution to enhance the learning environment, thus building capacity for organizational learning.

Taylor's work demonstrates how the practice context or the university environment generates a strategic response and is the frame to the emerging strategy and change. When considering the potential for change in organizational practices, such as may be required in 'knowledge exchange', the first issue to consider is the individual academic experience and the potential for interaction and participation. The personal meaning given to the objective reality and the appreciation of a given surrounding is the precondition to productive and constructive work within the organizational space. Change processes are dependent on individual participation and a willingness to experiment and apply reasoning to new situation, as key pragmatic requirement within academic practice (Young 2009).

A number of international contributions show how European, Asian and Australian universities (O'Shea *et al.* 2004; Zhao. 2004, Poole & Robinson 2003) redefined the role of the academic manager and entrepreneur to support 3rd stream activity. Woollard *et al.* (2007) sees a "pivotal role" (p. 387) for the university within a knowledge economy, giving emphasis to the different work streams in faculties and directorates. Academic entrepreneurs were seen as those who generate income and provided an opportunity for growth, growth being measured in financial surplus and business reputation for delivery of desirable products and services. However, he reports that a range of disparate and uncoordinated actions on the part of different academics fragmented the effect and limited the learning potential across the organization.

Woollard *et al.*(2007), recognises the range of policy (Dfes 2003; Lambert 2003; Leitch 2006) driving the strategic change in the university sector, generating financial incentive and imperatives for universities to become more entrepreneurial in their activities and consider how the entrepreneurial university aims to impact on society through innovation processes. They identify a multiple and complex range of demands on one 'new university', as a case study. This critique shows how one university, through teaching, research and academic enterprise, has connected with the regional

economy and, through pockets of activity, has generated a sustainable income and business success (Woollard *et al.* 2007).

Wollard *et al.*(2007) highlights the professional orientation of the HE institution as a large, post-1992 university and identifies the organizational purpose of the specific institution being defined as 'research informed teaching'. The study site, therefore, contrasts with YSJU in relation to size, but not in purpose, being 'research informed' with a focus on professional and undergraduate curriculum. The successful areas of enterprise at 'new university' are recognised as originating in professionally orientated subjects (Woollard *et al.*2007).

This case study refers to a range of localised and faculty based initiatives that have been successful in the diversification of income streams, but less successful in generating an entrepreneurial culture within the institution. Without dismissing these activities, the research (Woollard *et al.* 2007) shows the limitations of this initiative with individual leaders aiming to manage the change to enterprise capacity or undertake knowledge exchange capability from a university. Their analysis demonstrates the need for a developed infrastructure for knowledge based academic activity and shows:

"… that university-wide academic enterprise activities are not systematically organized or co-ordinated…..and that [the centralised] research and enterprise structures have not yet produced any tangible synergies or shared learning" (Woollard *et al.* 2007, p.395)

The study, based on a northern, post-1992 University is highly relevant to the situation at YSJU and by careful analysis of the whole system, shows that the segmentation and disjointed management is a threat to the sustainability of enterprise capacity.

Reflecting upon my experience at YSJU as an academic manager, I am conscious of developing a way of practicing that does not attract acknowledgement of the financial surplus nor transparent promotional opportunities. Any appointments that I have made to knowledge and enterprise 'centres' are short term appointments, and will often be difficult roles to fulfil and to manage because they sit outside the normal range of academic practice. Questions, aimed at the individual, the group and the organization, need to be asked about the range of knowledge management tools and techniques employed to support and develop a learning culture and participative project management to support enterprise activity as a separate and important area of academic development. It is difficult to see how the different capacity building for research and knowledge exchange can be undertaken in the same corporate planning period at YSJU. A small, new university is subject to the same range of policy and quality accountability as a larger one but has to scale activity to manage the diversity of demand. It is significant that this YSJU study takes place in the same time frame as the RAE preparation (RAE 2008).

Further consideration of academic competencies

The ambition implicit to the promotion of knowledge exchange capacity at YSJU is that university staff learn through experience to broker new knowledge, using research processes and collaborative practices to generate new work. The learning process is essentially a contribution to organizational learning and should be strategically driven (Cross & Israelit 2000) to avoid a failure to capitalise on the influence that individual performance and often tacit contribution, might have on organizational performance (ibid). The criteria for managing new academic competence may be defined by the notion that "*doing new things that customers ultimately appreciate and value*" (Cash *et al.* 2008). Cash *et al.*(2008) recognised how the development of new products, services and customer experiences requires an equal and opposite effort, around the systems and processes within an organization, to allow integration of new and more established mainstream activity.

YSJU is a small organization and the REO is the central services to coordinate faculty-based initiatives. One might assume that a small university has some advantage in its organizational responsiveness to the 'pull' factors; government policy, regional demand for university 'products' and services, and commercial (and public sector) demand for participation in innovations. At YSJU there are a few examples of employer led curriculum initiatives, which are mostly driven by individuals who are sufficiently committed to professional engagement to participate. Reputational gains, as a result of individual activity in relation to employer responsiveness and commercial participation, have failed to result in a shared or distributed idea about innovation or enterprise being a core activity of the institution. There would, however, seem to be a substantial and growing market 'pull' from the public sector (NHS, social care) that generates participation and opportunity to learn and engage with partnership organizations, for example, workforce development, strategic planning and service evaluation.

Further deficiencies have been identified in the range of regional links used and systems available to spread and sustain the entrepreneurial activity (Woolard *et al.* 2007). It was found that the inability of individuals to support a widening network or 'customer base' resulted in a limited impact across a region. Access to regional business support networks and, for some, a limited infrastructure in relation to public relations, suppliers and a regional pool of interested customers was a critical concern in the ongoing enterprise performance.

Academic knowledge workers

The focus on knowledge management is a relatively new perspective on academic practice that can be tracked back to Peter Drucker's notion of academics as a type of 'knowledge worker' (1999). The concept of 'knowledge worker' helps to recognise the individual person and their knowledge in the context of an organization (Drucker 1994). The role of the academic, contributing information and knowledge as the 'raw materials' is a useful and inclusive means of recognising the contribution to

the development of products and services. In this sense, the university becomes an organization of 'knowledge workers', employing a wide range of people with the purpose of sharing knowledge, resulting in learning that has both internal and external outputs and purpose (Bridgman 2007). Academic knowledge workers are required to enhance their professional competency by building a capacity to respond to the changing demands of the sector and expectations are:

"they have to be prepared to live and work simultaneously in two cultures- that of the 'intellectual' who focuses on words and ideas, and that of the manager who focuses on people and work" (Drucker 1993, p. 215)

It is this balance between generating knowledge through learning and discovery and the ability of that knowledge to impact on the organization that is critical to the development of individual, team and organization in the university.

The original conception of the knowledge worker (Drucker 1993) as a liberated actor in the organizational framework, has been brought up to date by Moss Kanter who recognises the need for creative people to work within a set of values to guide their actions and choices, stressing that innovation, social participation and well being may be powerful motivational forces for individual workers (Moss Kanter 2008). A strategic understanding and a capability to work within an emerging and changing sector environment is an important ability for an academic and subject leader within a university. The engagement with strategic priorities and the goals laid out in policy are echoed by Moss Kanter (2008) who recognises and sees as a trend in new behaviours;

"The employee once acted mainly according to the rules and decisions handed down to them, but they now draw heavily on their shared understanding of mission" (Moss Kanter 2008 p. 44)

The importance given to strategy, individual engagement and autonomy is evident in the literature I have chosen and this perhaps reflects something of my own values as an academic practitioner.

Summary

This chapter defines knowledge exchange as a practice associated with 'engaged scholarship' (Boyer 1990; Van de Ven 2005) and is an individual notion of knowledge exchange practice based on personal preference and competencies. This range of capabilities and the proposed methods for academic participation are relatively new to the academic workforce and are associated with a progressive form of autonomy in HE. Competencies include, relationship building and other strategic management skills that enhance the use of knowledge and the distribution of knowledge with a range of audiences, but also specifically within this context. The suggestion made explicit here is that academic development is needed to change individual knowledge and skills, required to meet current and future academic practice.

In order to build capacity in an academic setting, a diagnosis of the culture and customs needs to take place. There are clearly discipline-orientated differences and traditions within the knowledge base at YSJU with vocational subjects, such as health and arts, using a pluralistic approach to knowledge production and use. The pervasive understanding of any organization is evident in its day-to-day activity, but also in its history and economic imperatives, which are considered to be the main concern of the leadership executive but perhaps equally significant to the academic community.

The change process in any organization is guided by the overt strategic planning process and a move in the direction of 'knowledge exchange', as described, requires a specific and planned 'turn' in the direction of organizational learning and a deeper academic commitment to the ambition of meeting the knowledge needs of a wider society. As many small organizations are aware, this purpose is motivated by a need to become flexible and responsive to the changing demands of the wider market and

the need to create a competitive advantage over other education providers. Knowledge generation through research has traditionally been a lucrative opportunity for the sector and is an imperative and responsibility that most academics have incorporated into their ethos of practice. This has not been the case with knowledge exchange and considerable work needs to be done if the system is going to be able to meet the policy agenda.

The following chapter will discuss the literature related to knowledge exchange and the associated requirement to operate as a knowledge productive organization. This shift in focus from the external to the internal will be explained and the concept of absorptive capacity will be introduced as a way of approaching organizational change and systems-level capacity for knowledge exchange.

Chapter 4 - Knowledge Exchange and Absorptive Capacity in the University – systems approaches

Introduction

This chapter discusses how the Organization, YSJ University, might manage the transition to become a more knowledge productive environment and therefore more able to undertake academic knowledge exchange. The effectiveness of a knowledge productive setting is based on the strategic integration of knowledge and the processes to share and learn across the organization (Harrison & Kessels 2004). Knowledge productivity is a term developed by Kessels to refer to an organization's ability to generate, disseminate and apply knowledge to products, processes and services (Harrison & Kessels 2004). To consider the development of knowledge exchange capacity, one must first consider the nature of knowledge as an outcome of university activity.

The capability to transfer knowledge; is the effective transmission of specific items of information, for the use in new problem situations (Argote & Ingram 2000) enabling one area or unit to benefit from expertise and experience in another. Developing a systems-wide perspective, promoting and sharing knowledge, is a core purpose and a driver to fiscal sustainability. The idea of enterprising university as a corporate entity is described, and some further detail about YSJU, the research context, is considered.

A range of theory will be considered to support the structural and strategic changes required to manage the systems level change in organizational capacity for knowledge exchange. Knowledge management and learning provide a compelling background to the further understanding of the organization as a system with an internal structure and a range of processes that can be influenced by leaders.

The strategic use of absorptive capacity as a system-orientated method of managing and capitalising on acquired knowledge will be discussed. It can

be usefully applied to the organization to understand how external sources of knowledge are often critical to the innovation process (Cohen & Levinthal 2000). Absorptive capacity addresses the institutional ability to identify, recognise, assimilate and exploit knowledge from the environment (Lane *et al.* 2006). In theoretical terms, absorptive capacity is a cognitive understanding of how an organization needs 'prior related knowledge' to assimilate and use new knowledge. Prior related knowledge can be basic skills or language-use but it confers an ability to recognise the value of new information, assimilate it, and apply it to commercial ends (Cohen & Levinthal 2000) In turn, this knowledge concept may provide a new perspective in the continuous improvement process for the university, by increasing the understanding of the problematic issues for academic institutions in relation to knowledge transfer and exchange.

The initial attention is on the theories that suggest the transition process for a university towards more external knowledge exchange

The enterprising university

Clark's (1998) formative study into the transition from a traditional to an enterprising university identified a transformative 'pathway' to change. His study was based on a thematic analysis of data from universities undergoing structural and cultural change in the US, where retention of financial viability was imperative. In America, a commercial relationship between a university and the society and region within which it operates is an accepted state of affairs. The enterprising universities are more knowledge intensive and knowledge productive, based on the following framework of actions:

- A strong steering core (based on a quicker and more flexible response to changing demands and embracing central managerial groups and academic departments)
- An expanded developmental periphery (growth of units and corporate functions connected to meeting external demands across the boundaries of the university, including continuing development and alumni contacts)

- The diversified funding base (typically referred to as third stream funding, which insulates the university from risks associated with fluctuations in public sector funding and broadens the range of income streams)

And significantly

- The stimulated academic heartland (a diversification of the traditional academic departments towards an interdisciplinary response and acceptance that individual academics influence the academic values, modifying the traditional)
- The integrated entrepreneurial culture (rooted in strong practices and institutional identity and reputation for knowledge productivity)

(Clark 1998)

In contrast with the United States (US), the university institution in the UK may confront a range of challenges if attempting to apply a transformational strategy and for some, by virtue of history and culture, may be ill disposed to the development of what many regard as entrepreneurship. For other organizations, the professional culture, or more recently the 'managerial culture', characterises them and may not actively lead to an extended participative activity (Clegg & McAulay 2005).

Clark (1998) acknowledges that the uniqueness of the individual university setting and the context of organizational change are critical factors in the changing scope of the university and recognises a need for a 'whole system' response to the challenge of building enterprise and entrepreneurship into a university culture:

"[the] *changing character of the university to become a more adaptive organization requires that we acknowledge the individuality of organizational development*" (Clark 1998, p. 6)

Clark's (1998) comments on the bespoke nature of a change process within a particular organization and endorses each university to debate the relative worth of enterprise for the organization. The conclusion drawn is that a university must engage in a specific and system-wide process to 'adapt' to

external demands. There is some evidence to suggest that approaches to entrepreneurship can be distinguished between newer and older universities, and that relative success may be measured not solely in relation to gaining external contracts (and income), but also by the success in integrating the activity in a meaningful way for staff and students (McKeown *et al.* 2006).

Structural change in the university

Given the relatively recent policy, the focus on capacity in knowledge exchange, is to consider how the institution restructures in order to 'absorb' policy demands and manage the new range of activity, which that might bring about. In universities, Gunn (1995) argues that the bureaucratic methodologies that encompass decision making are reinforced by a pyramidal power structure and a dominance of academic administration over academic management (ibid).

At YSJU there was, in 2006, an executive and a senior management team supported by three corporate leads, each responsible for different aspects of external-facing activity. They were the Head of Research and Enterprise (a professorial lead), Head of International Development and Head of Strategic Partnership Development and all reported directly to the Deputy Vice Chancellor. All of these posts were external-facing and aimed to develop various types of external enterprise opportunity, at local, regional and international levels. Each ran a small office, with a small staff group including administrators and officers. None of the personnel in these corporate centres had academic responsibility, nor did they have delivery targets in relation to income, or direct accountability to Deans, who effectively manage the faculties as business units. A recent development, in light of the University's status, was the appointment of Deputy Deans, whose role was designed and recruited to support the internal functioning of the quality systems within the Faculties, to ensure that Deans were then able to develop their strategic partnerships and external activity.

In this organizational context, the REO and the HEIF-funded appointments were the formal structure to support academic knowledge exchange. In

another case example in the UK, similar early initiatives to create offices and posts were identified (Woollard *et al.* 2007). The development of the REO at YSJU was based on the reasonable assumption that the development of capacity would focus on the development of the 'office' and that a new range of activity could be promoted with a new external appointment. This is a common pattern of management in new areas of activity (Lucas & dt ogilvie 2006). It is thought that these organizational structures are critical for two reasons; firstly, as a management trigger to encourage participation and secondly, to meet the expectations of employees who might then actively engage in knowledge sharing routines (Lucas and dt ogilvie 2006). The conviction that the bureaucratic structure to manage knowledge is managerial in its intension and contrasts with the psychological understanding of knowledge and knowledge sharing. This is outlined in the following section.

Knowledge in organizations

Human knowledge in organizations can be classified as tacit or codified (Polanyi 1967). Codified knowledge is that which is easily recognisable or transferred, it is explicit, whereas 'tacit', is that which has a personal meaning, is rooted in actions and is informally acknowledged as discretionary (Polanyi 1967). These terms have been widely used and expanded to refer to many types of relevant and useful information, and are applied to new and practical uses. Tacit knowledge provides a powerful underpinning to professional practice and represents personal knowledge, or 'know how', in the organizational context. Whilst 'soft' and socially transmitted, through conversation and demonstrable action, tacit knowledge is particularly relevant where there is a need to accelerate research evidence into a practical setting and to make a change in practice in order to challenge personal values (Russell *et al.* 2004).

The understanding of these different forms of knowledge allows an organizational development to be undertaken, to enhance the productivity of knowledge across the system and between systems. Nonaka & Takeuchi (1995) suggest that the creation of complex knowledge within an organization occurs as a result of a dynamic interchange between explicit

and tacit forms of knowledge and they identify four specific forms of knowledge creation:

Socialisation - Tacit knowledge exchange through the sharing of experiences

Externalization - Tacit knowledge articulated into explicit knowledge through successive rounds of dialogue

Combination - Explicit knowledge systematised and documented into a wider knowledge system

Internalisation - Explicit knowledge embodied into tacit operational knowledge

Nonaka & Takeuchi's (1995) work, in a Japanese company, was intended to show how a shared understanding of issues and problems could result in a fertile setting for innovations to appear, as a result of deep levels of tacit knowledge being brought forward in an organizational context.

In support of this view, Hansen *et al.* (1999) differentiated between the objective notions of organizational knowledge management, which they call '*codification*'. The intention, with codification, is for people in an organization to learn and absorb the textual and IT-based knowledge through specific channels and to continually reuse knowledge artefacts (Hansen *et al.* 1999). In contrast, a process called '*personalization*', demonstrated how to use methods to promote networking, and conversation, and reward individual effort to undertake knowledge exchange across an organization. As with tacit knowledge (Polanyi 1967; Nonaka & Takeuchi 1995), the process described as 'personalization' is informal and person-centric, difficult to 'manage', and is often an outcome of happenstance. A functional activity might be 'soft networking', which is a process of developing explicit knowledge through conversation and dialogue, but made meaningful to the organization through a series of informal interactions (Russell *et al.* 2004).

The term 'personalization' (Hansen *et al.*1999), used in the context of a university, has some appeal in implying a continuous practice of transferring

'tacit' knowledge into explicit knowledge and then into 'product' or process (Hansen *et al.* 1999). The efficiency of this process in the development of new knowledge artefacts largely depends on the ability of an organization to convert the individual, personal and action-orientated understandings of employees into a collective, shared and 'codified' meaning for the company as a whole[5] (Nonaka 2007):

"New knowledge always begins with an individual. A brilliant researcher has an insight that leads to a new patent. A middle manager's sense of market trends becomes a catalyst for an important new product concept…In each case, an individual's personal knowledge is transformed into organizational knowledge" (Nonaka 2007, p.165)

Stewart (1998) follows Drucker in recognising a need to change the way that organizations manage their assets, with greater discrimination in the management of 'knowledge workers' to bring about and stimulate a new organizational design. His analysis introduces the professional model of organizational practice, familiar in the public sector, with the specialist knowledge structured through groups of practitioners, rather than being operated and managed as chains of command and control. In contrast with this view, the flattened organization is designed to facilitate an academic practitioner in taking responsibility and in acting with relative autonomy across the organization. It is the anatomy of the organization that guides behaviours used in practice (Dalton & Tudor 1980). The flattened structure is often unquestioned, but there is some evidence to suggest that co-ordination and control of new activity, especially within a changing system, is not managed well by a flat organization (Gittell 2006).

Knowledge productivity is seen as essentially linked to incentivising group working especially between those who hold knowledge 'assets'. This human engagement can then be followed up with structures, systems and processes to meet the level of output required. Stewart (1998) advocates

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[5] The use of the term 'codified' will be explored in some depth later in the chapter as a process capability within 'absorptive' capacity. There is a question to be asked and answered within the study, what is the strategy to support knowledge management and is it to do with learning processes or management of people

for retention of the overall control of organization within a flat structure of senior executives, with a series of entrepreneurial teams, composed of knowledge workers who act as change agents, sharing the outcomes of their labour and entrepreneurship based on four factors:

- **Expertise -** gathering knowledge workers and asking them to work together
- **Reputation -** access to talent and ability to deliver
- **Salesmanship** - based in power and relationship
- **Entrepreneurship and negotiating ability** - towards a formal contract (Stewart 1998)

Jones *et al.*(1998) recognises the role of the individual agent and the use of knowledge by people within a system. Whilst earlier work by Giddens (1984) rejected the notion of a universal law to explain or guide the process of innovation, this work was the basis of their further development of the centrality of innovation networks in the management of a systematic process of capacity building. Jones *et al.*(1998) note that Giddens' work offers a dual focus on 'structure' and on 'agency' and is attracted to this duality as a foundation to further investigation of the organizational development at the university:

"*emphasising the way in which knowledgeable, reflexive social actors draw on rules and resources in their day to day social activity*" (Jones *et al.*1998, p.128)

It may be that, within a professional organization in the state-funded sector, the management of knowledge and expertise is an implicit demand. Clegg & McAuley (2005) recognise the significant contribution that middle managers in the university might make to radical organizational change, such as indicated by the enterprise and innovation agenda. They particularly recognise that the middle management is not well understood and that this limits academic and organizational development (Clegg & McAuley 2005). As a transmitter of core strategic values, the middle

manager acts as an agent to control academic activity, but also to innovate and to support a collegiate approach to development and change.

Knowledge related processes

Szulanski (2007) identified a range of knowledge-related processes within organizations and specifically identified knowledge transfer as a process across the organization which happened as a deliberate act on the part of internal actors. He was interested in the cognitive processes of developing new knowledge and the intensity of effort required to learn and retain new knowledge. Szulanski is known for a concept called knowledge 'stickiness' (Szulanski 2000) that refers to the likelihood of new knowledge being retained in an organization. It is thought to be notoriously difficult for an organization to achieve the appropriation of new knowledge (Szulanski 2000, Argote *et al.*2000) but without the processes to recognise and value new knowledge there is likely to be a more limited ability to compete and the cost of knowledge acquisition may increase (Szulanski &Cappetta 2007) through, for example, recruitment and information systems.

Organizations are concerned with knowledge transfer, whilst also recognising that successful knowledge transfer is difficult to achieve (Argote *et al.* 2000, Szulanski 2000). Organizations that were able to 'transfer' knowledge effectively were more productive and more likely to survive than those that were less adept at the internal processes that support 'knowledge transfer'. (Argote *et al.*2000). There is empirical evidence to demonstrate remarkable increases in performance where the systems and processes to advance the transfer of best practice and knowledge flows within the firm and knowledge transfer has been achieved (Argote *et al.* 2000, Szulanski 1996). This organizational outcome is more likely to occur where the historical knowledge base facilitates an understanding of a new demand and where new knowledge builds on but is consistent with the 'old' knowledge in the organization (Szulanski 2000; Cohen & Levinthal 2000)

Human resources

As indicated in the previous chapter, the individual, as an entity in the knowledge exchange process, is a vital component to understanding

knowledge productivity. Lane & dt ogilvie (2006) identified an empirical base for the ways that organizations might understand and incentivise participation. They identify a combination of factors that predict the sense of ownership where participants experience an affinity with the knowledge transfer / exchange process. The following are distinctive in the knowledge sharing process:

- **Reputation** - employees seek to protect their positions and, therefore, retain or share knowledge based on the 'economic' value of that knowledge
- **Reputation 2** - employees will transfer knowledge to others in the service of retaining a good reputation
- **Close Relationships** - increase the likelihood of successful knowledge transfer / exchange
- **Supportive Culture**- the experience of support and participation in decision making enhances knowledge transfer

The notion of incentives, timing, type and expectation of reward were not categorical outcomes of the research. The subtle relationship between management, reputation and incentives are linked to a 'feel good' factor (Lane & dt olgivie 2006, Szulanski 1996).

"Employees were not motivated to participate in knowledge transfer because of management's failure to design an appropriate incentive system that is linked to tangible knowledge transfer goals[but were motivated where]....perceived as "feel good" rewards rather than carefully designed tools to generate action" (Lucas and dt olgivie 2006, p. 20).

The idea of rewarding individuals for their participation in a knowledge culture is, therefore, an initial concern, but specific reward doesn't appear to resolve the issue for organizations seeking to sustain team engagement and knowledge sharing. Ultimately, the individual reward for knowledge is promoted by systemic and structural change, which supports the human dimensions of the operating ability. The ability to get the job done and to organize the change processes required in a knowledge economy (Smith &

Rupp 2002) is a pragmatic 'reward' in itself. Similarly, the participation of the knowledge worker is more likely to be dependent on the ways that organisational structures can engage with the person, recognising personal life as a factor in the contribution to the organization. These authors, (Smith & Rupp 2002) are clear that the cognitive / knowledge base is more likely to be converted into high performance, with clear communications about benefits and transparent opportunities to develop skills to keep pace with job requirements. They say that management should resemble start-up companies, not big bureaucracies, building a common purpose and vision for success, rather than a focus on narrow performance targets. Staff who have goals and objectives defined in broad terms are more able to pursue different approaches and this should be a priority for innovation and entrepreneurship (Mumford 2000).

Leadership

Knowledge productivity suggests a focus on innovation and exploration but requires a strategic renewal and the formulation of a strategy to support the internal functioning of the organization (Van de Bosch *et al* 1999). It is notable that the intention to engage university based academic practitioners to a new and innovative purpose requires a strategic leadership and spotlight on human resource practices (Harrison & Kessels (2004). For these authors the strategic planning and analysis behind an engaged and innovative (learning) culture, is a major leadership commitment. They coin the term 'strategic capability' as the ability of individuals, teams and leaders at all collective levels of the organization to plan their work in relation to the economic performance and knowledge productivity of the organization. This orientation to enterprise is based in the fundamental and theoretical position for the organization; to promote the learning capability of all managers and leaders. This is not a matter of continuing (professional) development, but a wider construction of learning about and within the operating environment, whereby the manager seeks to work within a structure and system, and to generate activity that enhances learning from and in practice. They suggest an integrated strategy, based on building human resource structures, to embed knowledge production and learning. Building strategic capacity in managers and leaders and making a structural

commitment towards team practices to enhance the motivation and ability to work in partnership. Harrison & Kessels (2004) unequivocally criticise human resource practice in the development of knowledge productive organizations and strongly suggest that knowledge management requires the development of new organizational forms and responsibilities.

The capacity for enterprise development is, therefore, linked to the management of organizational learning, and the alignment of workforce interests and ability, with participation in the sector and industry in question. The core competence of the organisation is based on a capability to adapt and manage knowledge and to utilise the internal resources to purposeful ends. As Hamel & Prahalad (2000, p. 8) identified:

 "Core competence' is communication, involvement and a deep commitment to working across organizational boundaries......core competencies must coalesce around individuals whose efforts are not so narrowly focused that they cannot recognise the opportunities for blending their functional expertise."

Similarly, and with a strategic perspective on the human resource, the 'resourced based view' of the firm (Wright et al. 2001) clearly puts the management of people central to the planning of strategy and change, with talent and willingness to engage within an entrepreneurial paradigm as key to the achievement of the strategic goal. The nature of the relationship between the learning organisation and the knowledge worker is subject to a range of employer/employee relationships and also people management practices. Significantly, the use of training and development, personal rewards and career progression (Lepak & Snell 1999) are related to the ability of an individual to generate and transfer knowledge. It is therefore, the learning capabilities of individuals within an organization that combine to create an overall capacity to engage in new activity (Cohen & Levinthal 2000). The ability to individually and collectively assimilate existing knowledge and create new knowledge is at the heart of the enterprise participation in the knowledge economy.

Summary

In summary, knowledge is a socially mediated process within the organization, which can be understood in terms of discretionary knowledge used by an individual. Knowledge productivity can be incentivised and knowledge exchange (the external intra-organizational transfer of knowledge) is a prerequisite to productivity. Far from being a commodity, knowledge is a strategic asset to an organization and justifies the careful and considered management of knowledge workers within structures that promote and enable knowledge exchange.

Hence, it becomes necessary to consider how to manage a systems-level improvement by understanding the structural and process requirements of knowledge productivity within an organization. The following section presents the concept of absorptive capacity. The concept will be discussed and a new schematic will be presented to provide a visual representation of the multiple considerations in the improvement required to build capacity for knowledge exchange.

Given the multi- dimensional nature of knowledge acquisition, management and exchange, there is a need to consider a concept that potentially works as a holding frame and permits the consideration of knowledge as a multilevel and transdisciplinary construct (Van de Bosch et al 2007). Considerable theoretical interest has been shown in the potential of organizations to 'learn' or use knowledge. To become more interested in enabling 'learning' and with the notion of the 'learning organization' (Senge 1990) gives rise to a numerous range of interest in how and under what circumstances this might be achieved. Learning in its widest context, is the main antecedent of a concept that mediates between a range of literature to analyses several levels of learning and problem-solving within the organization (Van de Bosch et al 2007). For this reason, 'absorptive capacity' is highly relevant to the question of building knowledge productivity (in general) and knowledge exchange practice in particular. Further rationale for the use of the concept is included below and consideration given to the transfer of the concept of knowledge-intensive technological industries to HE that is also knowledge- intensive and wanting

to capitalise on knowledge in the development of projects and services (including consultancy).

An introduction to absorptive capacity

Using a framework suggested by Levinthal & Cohen (1990), absorptive capacity was redefined by Dyer & Singh (1998) as "an iterative process of exchange" (p.668), with partnership success and income generation correlated to the ability of the organisation to:

- acquire new knowledge from the external environment
- assimilate the demand and then seek to exploit the internal knowledge base
- grow the expertise and knowledge base to respond to demand.

This orientation supports the more complex understanding that is essential to a strategic improvement. The proactivity and problem-solving capability creates a competitive advantage for the organization, based on the reinforcement and successful refocus of the organisation's knowledge base (Lane *et al.* 2006).

Absorptive capacity is the ability of an organization to recognise and assimilate new information and apply it to commercial ends (Cohen & Levinthal 2000). Absorptive capacity depends on individual knowledge and on the transfer of knowledge across and between units of the organization, permitting linkages and associations that give rise to creative solutions to internal or external problems. Cohen & Levinthal (2000) base the concept on cognitive learning theory, suggesting that 'prior related knowledge' forms the template for further learning. Fundamentally, absorptive capacity is based on the idea that learning is cumulative and that learning and performance are greatest when the learning is related to what is already known. They identified that an organization might use prior related knowledge in much the same way as an individual, to recognise and engage with new but linked information.

Absorptive capacity is generated in a variety of ways. The research shows

that firms who conduct their own research and development (R&D) are better able to absorb new external information (Cohen & Levinthal 2000). Also, that absorptive capacity may be a positive by-product of R&D, where there is investment in the wider training, knowledge and skills of the research teams, resulting in enhanced learning (Cohen & Levinthal 1989). Investment in learning, and the development of core competencies, including a shared language and basic skills (communication, group/team work), appears to help individuals aware of the potential of new information and able to share this, ultimately making it more likely that the they are able to realise the benefits of new knowledge in the widest organizational context.

Cohen & Levinthal (2000) saw individual knowledge as a basis of what they called 'prior existing knowledge', the sum of the historic and proactive contributions of human knowledge within the organization. The individual academic and the connectivity between academics represents the capability and thus the capacity for new and original contributions that may be converted and 'exploited' (Cohen & Levinthal 2000) for organizational purpose. Discipline and organizational engagement is required from 'knowledge workers' through their contribution to common knowledge and to the transdisciplinary outcomes required by external partners.

The level of absorptive capacity depends on the structure of communication between the external environment and Cohen & Levinthal (2000) write about the need for a board range of 'receptors' to the external world, commensurate with the diversity and range of knowledges within. 'Gatekeepers' are named as those who scan, monitor and translate the external information, that sometimes appears as an ill defined problem, rather than as a specific request for factual knowledge. The organizational knowledge capability is therefore regarded more broadly than technical expertise. Knowledge capability may be found in experience, track record or in the high performing team where the capability leads to the effective exploitation of knowledge. Absorptive capacity is based on knowledge transfer and not solely based on capability within any one individual, but dependent on the links across the people, within an organization:

"An organization's absorptive capacity is not resident in any single individual but depends on the links across a mosaic of individual capabilities……it also includes awareness of where useful complementary expertise resides within and outside the organization" (Cohen & Levinthal 2000, p.45)

These process capabilities need to be fostered alongside the generation of new knowledge that is readily categorised within, for example a science or technological industry. It is thought that the combination of these capabilities, used in product or process innovation are firm specific and are a factor in the firms viability. In addition, they are difficult to replicate and hard to acquire from external sources. Therefore the link between absorptive capacity and competitive advantage can be seen in the ability of a firm to gain and invest in an integrated approach to R&D, resulting in new knowledge, exploited to commercial ends.

A further key elements of the concept was developed by Zahra & George (2002), in a sequencing of absorptive capacity that operates as an additional tool to analyse capability in knowledge transfer and the outcomes in knowledge productivity.   Zahra & George (2002) identified a specific process and named 'potential' and 'realised' absorptive capacity as two distinct outcomes in a sequential process of absorption through an organization. The first, 'potential absorptive capacity' was based on 'acquisition and assimilation' of knowledge and 'realised absorptive capacity' was based on 'transformation and exploitation' of knowledge. (Zahra & George 2002). This additional perspective offered by Zahra & George (2002) is untested through empirical case study. Their research does not provide evidence of the impact of the sequence or process for the structure of knowledge transfer. The additional research does however add to the multi-dimensional analysis of knowledge based organizational change and the systems re-design literature. As an 'idealised' image of how to progress a more strategic view of knowledge transfer, it has some advantages because it takes a wider perspective than has previously been applied through cognitive psychology (for example see Argote 2000, Suzalanski 2000) and seeks to offer a method to manage absorption across the

organization. 'Absorptive capacity' is concept developed for use in science and technology firms and presents an argument for the investment in internal R&D. The impact of R&D investment on outputs and particularly on financial sustainability and competitiveness has not been fully tested, in part because of the difficulties in agreeing the measurement of these factors for a company (Van de Bosch 2007).

Further related work includes suggestion of the relevant capabilities at each stage of the process. Jansen *et al.*(2005) investigated systems-working, coordination-capability and socialization across the organization. Their results indicate that the formalization of the absorptive capacity process can be achieved through the participation in decisions and cross functional team participation at the start of the process. In the acquisition stage a 'dense knowledge networking' allows all concerned to realise new learning, based on their discipline knowledge and expertise. The shared knowledge is therefore 'codified' into a new form, whereby individuals and the organization builds and understands the knowledge 'asset' and can plan to apply it to a range of practices. Their research findings support the fundamental use of the concept to show that organizations working in dynamic markets improve their performance by improving their potential absorptive capacity (Jansen *et al.*2005)

Jansen's research is somewhat limited by a lack of definition for the terms used, including 'connectedness' and 'routinization', so that their meanings have to be assumed. One assumes, for example that 'connectedness', as part of the transformation stage (Zahra & George 2002) ,refers both to a checking process, aligning new knowledge to corporate goals *and* to the sense of purpose gained in realising the benefits of new knowledge to existing practices. The lack of definition limits the use of this research although, Jansen *et al.*(2005) continues to make claims in relation to the competencies required to undertake knowledge transfer. He also claims that a reduction in effectiveness of transfer can be seen as a result of *'routine'* processes within the acquisition stage of new knowledge. It is unclear what this refers to but may be a critique of the traditional academic practices associated with governance and management, used to assure the

quality of teaching and research activity. He seems to be suggesting that a new range of methods are needed to manage the acquisition of new knowledge from the external environment, necessitating an internal collaboration and an increased emphasis on shared intelligence and negotiation.

Role behaviours in absorptive capacity

Absorptive capacity can be used to understand and redefine the roles of managers who are concerned with the organizational performance in relation to knowledge productivity and knowledge as an economic driver for the success of the firm.

Jones (2005) uses absorptive capacity to identify key roles for local actors within an organizational change, where they are focused on the development of new knowledge. Referring to the work of Zahra & George (2002) on knowledge productivity, Jones (2005) defines the 'change agent' as working at the heart of the organization, building new knowledge and acting in accordance with the needs of the organization with respect to managing change. Jones identifies the change agent role as that of dual champion; seeking to stimulate bottom-up development with the strategic awareness and looking for organizational sponsorship. Change agents assimilate and transform knowledge by creating formal and informal processes and structures (for example a 'research centre' in a university) to manage the 'connectedness' (Jansen 2005) of the social and human dimension of the process. In this way, a change agent is a critical arbiter in the introduction of new ways of working. Working to 'assimilated' and to transform knowledge, change agents are critical to the process of realizing new knowledge. Change agents codify and lock new knowledge into the system, permitting the exploitation into new codified knowledge products.

Jones (2005) identified the 'boundary spanner', a person who acts across the organization. This person is used to build linkages between the different, but associated, functions and is active in the process of knowledge assimilation and transformation. 'Boundary Spanners' support with assimilating and transforming knowledge by connecting people and

information across functions and different parts of the organization, seek to codify and arrange new information. Jones' case example recognises how, in one organization, the roles were undertaken and a level of absorptive capacity was achieved. Like change agents, the boundary spanners work to assimilate and transform knowledge, but undertake a role in bridging and making connections across teams and units. Although it is not explicitly stated, the boundary spanner works to generate 'stickiness' (Szulanzki 2002 see above) by actively addressing the multi disciplinary generation of knowledge and the linkages of new knowledge into internal and external activity, making sure that the new knowledge influences, and adds value to the existing activity and embeds the knowledge into existing activity.

The diagram below, (Figure 4) is a schematic to demonstrate the synthesis of three roles identified in the absorptive capacity literature. Jones (2005) related the critical roles to the different aspects of the absorptive capacity process as identified by Zahra & George (2002). In the diagram, each concentric ring identifies the scope of the role. The leadership capability within the role of 'gatekeeper' for example, is operating at the edge of the organization, managing 'acquisitions', confirming the importance of the external knowledge or demand within the environment and assessing the value and priority of response needed. This critical role operates as receptor but is a critical role in potential absorptive capacity (Zahra & George 2002) because of their superior knowledge of the 'prior existing knowledge' within the organization. Gatekeepers are also associated with managing the 'exploitation' of knowledge (that Zahra & George (2002) regard as part of the realization absorptive capacity), ensuring that the process is completed and informs the strategic circumstance of the organization going forward. The gatekeeper both facilitates and limits the new knowledge requirements, their leadership role and the decisions they make influence at the beginning and the end of the process. They have power over the process and legitimately control the level of absorption in the organization.

Figure 4, Roles associated with absorptive capacity in the organization
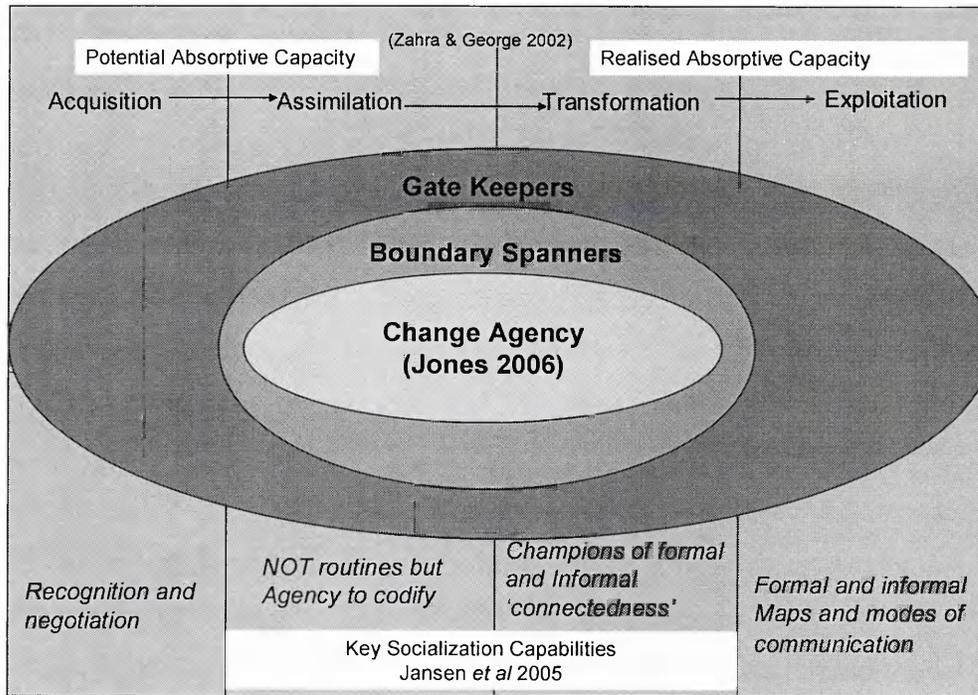
As demonstrated in the diagram Figure 4, Jansen (2005) reports a range of social capabilities for the 'gatekeeper' that includes recognition and negotiation. Ultimately the gatekeeper 'holds' the boundary of the organization and determines the degree to which prior existing knowledge can be used to inform and conversely to benefit from external knowledge. As arbiter in the process, the negotiation of knowledge's ultimately depends on the ability to communicate and engage human interactions that result in new knowledge assimilation; engaging people and building a shared understanding as would be typical of a transformational leadership styles (Bass 1990).

Application of the concept to the university context

Absorptive capacity is an objective, structural tool to manage internal knowledge performance as a general commercial application of acquired knowledge (Cohen & Levinthal 1990). The 'rejuvenation' of the construct suggests that absorptive capacity may be viewed as a context-specific set of combined capabilities (Lane *et al.* 2006). In the turbulent policy

environment and the changing demand of HE (Willmott 1995), the challenges need to be regarded from an organizational perspective with leadership at every level of the organization addressing critical questions about how knowledge is being generated, transferred and applied to the internal purpose but also to new and responsive purposes and products.

The University can be identified as a knowledge-based organization with an academic workforce, arguably, the most highly qualified and autonomous in any sector. Further understanding of knowledge exchange in the university is made possible through the use of absorptive capacity and in particular the understanding of role behaviours and competencies. Based on the literature, an improvement in absorptive capacity at an organizational level will derive considerable value for the organization in relation both to products and outputs but also to the leadership's strategic understanding of knowledge productivity. Jones'(2005) research, using case examples of new roles relating to absorptive capacity is indicative of the opportunity to identify the gaps in the process of absorption and in the ways that individuals are encouraged and enabled (through external rewards) to pursue a wider use of new knowledge.

In keeping with Cohen & Levinthal's original ideas, a by-product of research outputs would include experiential capability and experience; knowledge and skills to negotiate and engage with others so that information is transferred and makes an impact beyond the discipline. The academic gatekeeper, boundary spanner or change agent could contribute to their faculty and university, by understanding their own capacity to absorb new but related knowledge that; enhances the outputs of the faculty, develops new curriculum, contributes to vocational understanding in the field and enables problem solving. In addition, the leadership behaviours of academics may be increasingly codified; with change agents recognising opportunities to develop key strategic structures including research centres, knowledge exchange systems and processes and methods for quality reporting on knowledge exchange outputs.

At YSJU, the roles identified in absorptive capacity are unrecognised and ill defined as a set of role behaviours. Within a faculty, change agents are those who come forward to manage new knowledge based activity, examples of which might include local innovations in learning and teaching materials or shared procedural initiatives to improve university quality management. Gate keepers might be regarded as those who broker larger scale initiatives like the HEFCE funded 'Centres of Excellence in Teaching and Learning (CETL), that require organizational response, alongside academic input. Boundary spanning behaviours seem relatively rare in the academic role performance, with the majority of staff working within discipline groups to deliver curriculum and pursue individual research. In many cases the administrative function appear to be the brokers of external and intra-organizational engagement, for example, HEIF began in 2004 and supported some new roles to work administratively across the faculties. These low grade posts managed by the REO were intended to develop contracting as an administrative function, managed by a central office. Sadly, this initiative further limits the inter-disciplinary opportunities . Non the less, small scale research initiatives to cooperate on the tending for external funds are undertaken and usually depend on individual relationships and informal partnerships that may or may not be sanctioned by the faculty.

Absorptive capacity as a concept is a focus and justification on knowledge productivity in a firm justifying the co-production of knowledge to a productive conclusion with research, developmental consultancy and knowledge exchange practices all means of increasing new knowledge. Realising the by-products of discipline knowledge and capitalising on the collective outputs of an organization and new knowledge production is the key purpose of absorptive capacity. Absorptive capacity is a theory that supports analysis of the university (firm) at individual, organizational and inter-organizational level (Van de Bosch 2007) and provides incentive for the organization to learn. The combinations of prior-related-knowledge and learning derived from experience become assets that manifests into a shared capability and a capacity to engage and respond with the external environment. .

The improvement in the absorptive capacity of universities is potentially a highly effective means of stimulating the knowledge economy, where the university seeks and manages new knowledge production and shares benefits with partners. Examples of national infrastructure, for example Knowledge Transfer Partnership (KTP) are promoted as a systematic and funded means of increasing knowledge production and the Research Excellence Framework (REF 2008) aims to appraise the level of more traditional discipline specific outputs. A question remains however, as to whether these mechanisms enhance the participation by universities in the knowledge economy or whether they result in an enhanced knowledge exchange practice.

My proposal is that the level of absorptive capacity in a university is as significant as in other organizations, existing within a turbulent market. As previously suggested (in Chapter 2), the university sector experiences political loading through a complex funding structure and fluctuating competition for both students and staff. As public funding reduces, the financial pressures necessitate new levels of efficiency and a dedicated effort to managing the relationship with the external environment. The individual university, co-exists with, but also competes with neighbouring educational institutions for students and external partners. The careful strategic analysis of 'prior knowledge' partnership working opportunities and a scoping of its potential is a clear imperative to identify the knowledge contribution that the organization uniquely makes to the region or knowledge sector. Van de Bosch (2007) refers to this exploration as an important action in the context of an uncertain knowledge environment; where absorptive capacity of a university remains low, there is little expectation of building outcomes and products to meet wider or different demand.

Where absorptive capacity is low, the organization is unable to appreciate the opportunities that exist in the external environment or there is low aspiration for new external knowledge to influence the overall performance of the organization as a whole. It may also be the case that the new

knowledge or the knowledge demand in the environment may be too remote to be of benefit to the organization. This is particularly the case, where the perception of internal knowledge is highly segmented and prescribed within discipline or scientific/technical boundaries. Similarly, modest absorptive capacity will only sustain a knowledge-reactive capacity and will result in a failure to perform within the industry or sector. It is necessary to improve the processes used to generate and 'exploit' knowledge, and this requires a dedicated investment in internal R&D to create an absorptive capacity within the organization and across partnerships between organizations.

If R&D spending is an antecedent to absorptive capacity *and* to the related knowledge levels in an organization, it therefore suggests that YSJU may be at a disadvantage, having a limited history, experience and outcomes related to research. As a 'learning and teaching organization' one could argue that the focus of development of students as undergraduates and professional practitioners has a limited potential in relation to the creation of new knowledge and organizational learning. This raises questions about the usefulness of the concept in the development of knowledge exchange, based on the existing knowledge and prior related knowledge of the institution.

An example of boundary spanning activity at YSJU was demonstrated through a project brokered between the University and a local health care trust. The CEO sought to promote a customer facing services and wanted to ensure that all staff recognised and used patient feedback in re-designing services within the hospital, (the tendency had been to focus on service centric improvement that indirectly benefited patients but was not transparently based on patient feedback and preferences). The Faculty of Health and life sciences constructed a project to gather patient experience on film and share that information with staff and patients to condense it into a short film, reflecting customer experience. The University team consisted of academics, a small film team (from a social enterprise within a separate faculty) and generated a partnership relationship with a senior manager in the Patient Advice and Liaison team, within the hospital. The product of the

engagement was a film, used to develop internal corporate training with staff in the Trust. Further outputs included internal reports and several internal papers regarding the method adopted to collect and collate the qualitative experience of NHS service users. The output was subsequently used to tender for a large national contract to develop a national curriculum in service improvement, that was won by the University. The role of the boundary spanner was critical in the development of lucrative output for the Trust and the University. Furthermore, the methodology and collaborative use of film materials to capture and 'edit' data was used in two further external contracts in Faculty of Arts and Health and Life Sciences. The by-product of the new knowledge was seen in the local capability to undertake transdisciplinary knowledge exchange and also in the deepening of knowledge about participant validation within human subject research; data capture and analysis methods.

The University sector is increasingly business orientated in terms of managing its resources to meet a wide variety of outputs (programmes, consultancy, research) that are assessed by strategic and governing bodies. Widening participation, student satisfaction and achievement compete with research and enterprise for strategic attention, in a system that segments knowledge into highly distinct and often unrelated work-streams. The achievement of a diversified and external funding stream is a high priority in HE and this imperative suggests that the university must succeed at a number, if not all areas to create the best chance of continued existence and reputational viability. Absorptive capacity lends itself to the strategic prioritization of university knowledge productivity to intensify the participation in knowledge exchange as a by product of research and also as a driver towards partnership and external engagement for academic staff. As Cohen & Levinthal (2000) explored through their investigation of the impact of R&D, through a higher absorptive capacity it was possible to insulate the company from substantial risks of knowledge isolation.

Conclusion

The enterprising university concept, attends to a range of strategic factors, in particular, the importance of the human resource and the promotion of

active problem solving in academic practice. The transformation process and the organizational change dimension have been introduced and will be considered further within the action research process at YSJU. Of key significance in the literature is the emphasis placed on the 'stimulated academic heartland' (Clark 1998) in which the traditional academic response is used to modify and respond to new and that the enterprise culture is rooted in an identity and reputation for knowledge productivity (Clark 1998)

This chapter has presented a range of literature based on a systems understanding of knowledge creation and management. Absorptive capacity as a relatively recent concept to support the review and strategic development is used because of its usefulness in understanding systems-wide knowledge productivity and organizational behaviours associated with the productive use of knowledge. Absorptive capacity has the potential to increase understanding of the ways that the University recognises and makes full use of new knowledge and recognition of the application of new knowledge across different business unit or in partnership with different organizations. Absorptive capacity presents an objective process alongside a subjective and human change process. The process of 'absorption' is both an organizational and an individual phenomenon and is becoming a way of understanding how new knowledge impacts on the pre existing systems and processes, and how new roles and competencies, may be required to support the delivery of different ways of working within the University and between the University and its partners.

Further chapters will now develop the research methodology and discuss how the action research is set up and progressed.

Chapter 5- Rationale and Action Research Method

Introduction

In this chapter, the rationale for the study is presented and critiqued. Management and particularly organizational research varies according to the reflexive scholar's own epistemological and ontological commitments (Johnson & Duberley 2003) and, as a consequence of this, it is vital to present a clear justification as to the position adopted by the researcher in the study.

The argument will be made that the action research requires a fundamental individual participation on the part of the researcher, particularly where the researcher is an 'insider' to the organization. The purpose is to make explicit the nature of the research as a qualitative study, undertaken as action research. The chapter outlines the practitioner-researcher perspective, and through the participation in the research revealing new knowledge to be shared in the organization.

The chapter discusses the opportunities and risks associated with ethics and personal participation within action research. The text is again interspersed with 'grey shaded boxes' where a specific example, or vignette, from YSJU is pertinent.

The chapter will also discuss the data analysis process and introduce the content analysis, categorization and interpretation, showing the method used for condensing the data into a diagnosis. The methods for collecting data will be presented in the following chapter, along with the findings of this initial stage in the action research process. This chapter will provide examples of data display and a full consideration of the risks and ethical dilemmas within the action research process. I will demonstrate a commitment to building theory through the action research, using qualitative and quantitative data.to represent the current situation, including the key aspects of the social world from the perspective of actors, within the organization.

Researcher 'world view': understanding participation

Giddens (1991) uses the term 'Ontological security' to define the framework of beliefs that helps researchers (and others) to understand, anticipate and plan action, to trust and be trustworthy. Giddens (1991) bases many of his views on self-identity; on the concept of 'basic trust', which comes from positive experience of, object relations and a sense of being 'good enough'. It seems important to begin a research process with a positive self image which "inoculates" (Giddens 1991, p.52) against the engulfing uncertainty at the initial stages of a research process. More significantly, to an academic practitioner taking forward an enquiry into her own practice, it reinforces the need to sustain a positive self- concept, as a robust mechanism to withstand new and novel experience.

As an employee of the University and manager within a single faculty, the structure of the organization, my role, relative to the structure and the published strategy all influence my experience and thinking about the operating context. Where managers are regarded as rational technicians, there is a tendency to regard the organization as a space in which to use superior knowledge to make decisions and to 'improve' the organizational effectiveness. This is regarded as a functionalist approach (Johnson & Duberley 2005) which, when adopted as a research strategy is based on the gathering of observable evidence. The objective reality that the research seeks to represent, is based on an ontological assumption, reflective of the positivist paradigm. Action research seeks to understand what can and should be done in (McNiff *et al* 1996) the context of an observable reality. Actions, in action research are techniques by which the new knowledge can be shared and constructed into a solution to manage and change the observable reality. Techniques and methods are also functionalist because they can be reduced to a range of protocols that are recognised, replicated and 'nomothetic'- in the application of procedures.

Burrell &Morgan (1979) presented a paradigm model with two dimensions, the sociology of regulation and the sociology of radical change. The regulatory dimension assumes that society and the organizations that exist within it have an underlying equilibrium and that they exist as objective

entities with a range of systems and processes that maintain the status quo. In contrast, radical change implies that society exists in the context of conflict and ultimately involves the domination of one group by another; hence, they represent a more subjective account of the environmental constraints on individuals and groups. The two domains form a matrix and four paradigms are represented.

- Functionalist Paradigm (objective- regulation)

The primary paradigm for this study assuming that through rational human action and beliefs, one can understand the organizational behaviour

- Interpretive Paradigm (subjective – regulation)

Also of concern within this action research, that seeks to explain the individual behaviour in the context of a relatively stable situation although an ongoing process of change

- Radical Humanist Paradigm (subjective – radical change)

This paradigm is mainly concerned with releasing human constraints that limit, for example, the human potential within the organization. Often used in the context of revolutionary change.

- Radical Structuralist Paradigm (objective – radical change)

This paradigm suggests an ongoing and radical change to society caused by social, political and economic crises

Burrell & Morgan (1979) argue that by choosing one set of assumptions, the researcher stays in one paradigm and denies the others, rejecting that the researcher can synthesis the different elements of the situation. Functionalist approaches have been popular and widely used for organizational study and denotes a pragmatic relationship between the researcher and the objective features of the organizations they investigate. Ultimately the organization is ordered and can be re-designed using a scientific method. The use of data to categorise the key elements in a re construction or challenge to the current status quo is based on a

commitment to regulation and assumption that the objective reality can be known and changed.

Using a functionalist approach, the researcher is necessarily a 'functionary' of the organization, and assumes a role of rational protagonist. The suggestion is therefore that the diagnosis of the organization is limited to an understanding of key factors that determine further actions, for example a structural change that can be facilitated through a organizational change process. The human factors, for example, a social nuance, the influence of relationship, the understanding of how people shift their thinking to accommodate to new contingencies are not considered fully at this stage, indeed, the only reference to values and views is in the stated and observable evidence.

Seeking to explain and change behaviour from an individual perspective reflects the Interpretive Paradigm(Burrell & Morgan 1979). This approach to radical change is within the context of a regulated system where the manager /researcher operates within the parameters of the structures, systems and processes. Of critical importance here is the role of the individual, whose subjective experience is altered by their knowledge and participation in systems and hierarchies as they exist. In many organizations, knowledge and perception of the whole systems are more available to more senior staff and data relating to annual reporting is known and appraised. This paradigm is less well used and could be regarded as less influential in organizational change studies. This 'position' can provide a mediated view of the individuals and participants in the organization and the reality generated can be changed by new sets of values and beliefs that emerge over time.

Both paradigms operate as a initial set of values and concepts that underpin action research. The model proposed by Burrell & Morgan (1979) suggests 'incommensurability' between different paradigms, insisting that it is not possible to function within two paradigms simultaneously. The diagnosis can operate as a fundamentally functionalist initial position for the researcher as manager, whilst the outcomes of the diagnosis can be

understood and interpreted by participation with the data and an appraisal of the picture that the data presents about the organization.

A high level of autonomy existed and was based on individual effort and an idiosyncratic practice responsibility for knowledge exchange that was unique across the university. The freedom to undertake a study as an 'insider' mirrored the relative freedom to undertake knowledge exchange at YSJU. As insider and participant in the study, I was not separate and distanced from the process that I investigated.

It seemed important to generate some empirical data, at the start of the process and then to share the findings with others. Ultimately I sought to generate a group of academics who could assess the changes required in the organization. Building a consensus as to what it meant to individuals, within YSJU, to participate in knowledge exchange was the initial stage. This would then lead to action and to observable improvement in the processes and systems to support this academic practice.

The goal of the study was to consider how to mainstream the activity and as 'insiders' seek to convene an institutional effort (Herr& Anderson 2005). The ambition for academic participation and collaboration was to undertake a system-wide inquiry and for participants to make changes to their own and organizational practices.

Kemmis provides a useful framework for the participation in a 'self – constituting public sphere' (Kemmis 2006 p.104) a term he uses to sanction a critical perspective on professional engagement. Individuals, who are committed to local action, have a 'fluid' understanding of the wider and emancipatory context to their work and practice. There are social and political factors that influence academic practices with individual actors playing out a role within the social construction. Kemmis (2006) reports that participation in the practice context is both influential and responsive, but that practitioners are prone to behaving in ways determined by the systems and mechanisms of the social construction. In this way, practices (in a university) are structured through spaces provided for the actors and also exist in a historical context, which in some ways pre-determines possibilities for organizational participation and corporate performance

(Kemmis 2009a). His ideas are a useful reminder, that knowledge exchange, whilst recognized as a policy construct, has yet to become established, as an organization practice.

Historical relativism

A critique presented by Kuhn (1970) provides a useful historic reference point for a researcher seeking to understand and engage the organization in a change process. Kuhn (1970) reports that scientific inquiry, when viewed from a historical perspective, has failed to coherently answer some important scientific questions.. His critique, also questions the role of the individual scientist, who manages a systematic study based on a self referencing set of assumptions. His 'sociology of the scientific community' leads to a criticism of a self-serving 'professional elite'. His theory was that professional groups (or groups of scientists) self-perpetuate their understanding and:

"*Attempt to force nature into the perceptual boxes supplied by professional education*" (Kuhn 1970 p.5)

Kuhn (1970) acknowledges that *historical* truth demonstrates that actions/methods are rarely politically neutral or sufficiently demonstrated as technical activity. By developing the idea of a 'social psychology of science', his focus is on the 'socialisation' of knowledge generated within communities. His view was that consensus rather than individually generated knowledge, will lead to revolutions and new scientific theory as new consensus emerges and becomes 'incommensurable' with the old theory. In organizational science, there has been a prevailing context of utilitarian perspectives (Wright & Wright 2000), leading to, for example, a strong reliance on cost-benefit approaches to organizational development (ibid). Kuhn's work represents a further endorsement of a critical and reflexive participation through action research, in that it reflects the potential for a shared and subjective account to question the dominant paradigm. The relative contribution of individuals, through consensus and action, to the development of an academic practice within a university, is one feature of the study.

At the start of the study, I believed that the change process being proposed was relatively unproblematic, policy driven and enshrined in local strategy. I was conscious of the opportunity within action research to adopt a more interpretivist's stance (Rowen 2006) but chose to pursue a pragmatic enquiry. The functionalist approaches to planning, managing and gathering data came from this stance. Further stages of the action research included a plan to share the data, including values and beliefs about the internal mechanism for knowledge exchange. I realised that this approach involved human interaction and potential conflict but that undertaken as a rational process the change could be achieved.

Further consideration was then given to the ways that, as an insider, I would adopt a reflexive stance in relation to the research process, the data and the participation with colleagues

A reflexive epistemology

Reflexivity, defined as engaging with ourselves through thinking about our own thinking (Johnson & Duberley 2003), is prerequisite to critical thinking and, pragmatically, is the opportunity to create knowledge from human subjectivity. This mode of epistemology is inductive, generating theory from human experience, subjected to critical appraisal. Reflexivity is arguably a defining feature of qualitative research and the researcher is an accepted, central figure who actively constructs the collection, selection and interpretation of the data (Finlay 2003).

The notions of 'self hood' and 'self' are deeply connected with reflexivity and with the field of human relations and analysis, which has strongly influenced action methodology (Gill & Johnson 2002). Reflexivity is about developing the idea of a 'self-in-the-process', through which the world, or in research terms, the problem situation, is perceived. This core sense of self is not a fixed idea but a 'conceptual framework', which is both pre language and continually evolving in relation to the environment (Hunt & Sampson 2006).

Two forms of reflexive engagement exist; (Gough 2003, Johnson & Duberley 2003); the first is a reflection on the methodologies used. The

aim of the methodology is to evidence the variables in the problem situation and enhance the rigour in a scientific method. For example, the application of an improvement method, Plan-Do-Study-Act (Deming 1982) cycle, requires a reflective focus on stages of action and enquiry. Evidence is sought at each stage of the cycle, to ensure that the procedural element supports the ongoing analytical and experimental approach. It focuses the manager, on making evident at each stage, the ways that the data has been exposed and the treatment it has received to bring it under control or into awareness.

The second form of reflective engagement requires an attention to the discourses taking place and places less, if any, emphasis on the objective truth of the situation. This reflexivity aims to deconstruct and reconstruct the situation, to finally settle on a version that is most revealing of the power and relational aspects of the social structures (Gough 2003). For example, the evaluation of staff qualifications might reveal a high level of professional qualification and associated experience in YSJU, but few academic staff with a PhD or doctoral level academic qualification. Different views and values will inform a reflective engagement with this 'data' and each of these views and values are likely to need some deconstruction to understand the associated 'world view' underpinning the analysis.

An additional relevant example is presented below to illustrate the complexity of managing the objective process alongside the reflexive engagement in action research.

The presentation of the research proposal to the Vice Chancellor (VC)
In April 07, a planned meeting took place in the VC's office, with the meeting undertaken prior to the Doctorate in Business Administration (DBA) formalization of the research for award.

I adopted an approach at the meeting, of a non-neutral participant and strategically engaged employee, with a track record and known position in

relation to enterprise and knowledge exchange activity. In the words of Horkheimer in Johnson & Duberley (2003)

"rather than occupying a neutral position over the object which serves to conceal values and interest of the knower, we should see ourselves embedded in our social locations" (Johnson & Duberley 2003, p.116)

The formal meeting included a discussion about the remit and limitations of the study, with the focus being particularly related to the roles of other employees and their objective role in managing enterprise and knowledge exchange. The VC was conscious of the Deputy Vice Chancellor (DVC) and the Head of Research and Enterprise (HoREO), both 'having an interest' and, in fact, substantive responsibility in the processes, findings and outcomes of the study.

There was a sense from the outset that the VC was interested in supporting the study but a complex dialectic was present in the discussion. It was clear that the concept of 'critical engagement', with the issues relating to enterprise, was going to be fraught with complexity. The ability, to speak freely and to present an independent view, was certainly a challenge, and as a researcher, I sought to justify my interest and engagement with issues that were considered to be the domain of 'my superiors'.

The organizational framework presented at the meeting was both permissive, i.e. the VC encouraged the investigation and was supportive of developments in relation to enterprise. It was also hierarchal and bureaucratic, i.e. the VC was keen to present the study to the senior management team and to the DVC with direct strategic responsibility for the area of development.

The proposal to inform and agree the doctoral research with the university was reported on 3rd July 2007:

-*'It was agreed that Sally Fowler Davis should join the Executive Group Meeting on 10th July(2007) to discuss her work on the transfer of knowledge and the change in management to embrace the enterprise culture'.*

The reported invitation seemed to suggest a non collaborative stance and certainly does not refer to participative action research. Managing a course between the permissive and the confrontational, demanded a critical reflection on my own position and the challenges I was presenting to other participants, within the hierarchical structure of the institution.

This episode is presented to highlight the complexity in negotiating an action research process and as a demonstration of the complexity of the reflexive participation. The functionalist approach was used to manage a somewhat complex power dynamic early in the study. The introduction of a core approach to the action research was required to both support and 'hold' the critical challenges that would develop over the course of the study.

Further critical approaches to participation in action research
Eden & Huxham (1996) identify the concept of agency and use it to explain their understanding of action research, which they refer to as an 'espoused paradigm' (Eden & Huxham 1996 p.75) in management research. Drawing on the seminal work of Argyris & Schon (1974), they quote the definition of action inquiry, using the phase:

"*consciousness in the midst of action*" (Eden & Huxham 1996 p.77)

They show that the pragmatic participation grounds the researcher in the process and justifies the intent to act in situ, and to capitalise on the use of a research process to understand and manage the change process and its impact (Eden & Huxham 1996). These authors acknowledge a learning approach, within the research and recognise the need to build research skills to articulate a 'theory in use'.[6] Eden & Huxham (1996) coined the well recognised phrase below, based on an understanding of the critical dialectic

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[6] Theory- in-Use (Argyris & Schon 1974) is the theory that lies behind actions and is believed to contrast with 'Espoused Theories' – or what we say we do. Argyris & Schon identified the gap that commonly exists between learning due to new language and concepts and the translation of a 'mental model' into new behaviours and performance. 'Espoused theory' is insufficient participation in a participant action research process, where one is looking for evidence of new methods and actions in the organizational context.

that emerges through the real and systematic engagement with an organization;

"the best way to learn about an organization is by attempting to change it" (Eden & Huxham, 1996 p.82)

It is argued that new insights are revealed that cannot be discovered by attempting to stabilize the environment. This unstable position is at the heart of critical realism and action research. The contrast, and perhaps, the conflicts created in the change process, shows the 'true' state of affairs within an organization and this study therefore focuses on the variation, and not the normalization, of processes at work.

Articulating a commitment to a 'reflexive turn' (Weick 1999) in management research, draws out the academic obligation to 'think about thinking' (Johnson & Duberley 2003). The core purpose of this research is the genuine attempt to deepen the understanding of the organization and reliably articulate the ways that people view knowledge exchange activity, as a professional and contemporary understanding of academic practice. The way that this is achieved is by an explicit concern with theory formed from the characterization or conceptualization of particular knowledge and experience that can be articulated to others (Eden & Huxham 1996).

Summary of the rationale

The purpose of this study is to gain and share a deep understanding of the desirable changes in organizational process, by systematically engaging in the production of new knowledge about knowledge exchange. A renewed commitment to engage scholarship in management research is based on a functionalist perspective that seeks to gather qualitative and quantitative data from within the organization. Ultimately, through sharing the diagnosis within the organization, a more critical perspective and a commitment to 'consensus' building will underpin the action research process. The practitioner orientation is critical, with an additional understanding of the dialectical engagement in the academic environment and the impact of the environment on behaviours and on new learning. It

would seem that popular theorists (Argyris & Schon 1989 Boyer 1989, Van de Ven 2007) all relate to the professional practice world and yet, this commitment to academic practice is not as yet, widely accepted as a modality of academic practice. The following section presents a historical and critical perspective on action research and then presents the methodology for the study.

Action Research

Action research is a recognized and staged process, which takes place within a specific context. Participatory action research has two objectives; to produce knowledge and action directly useful to a group and the second; to empower people through raising consciousness (Johnson & Duberley 2000). Complexity and the intention to change or perhaps produce a new product are part of the action research process (Jarvinen 2005).

Action research is systems-orientated (Warmington 1980) and seeks to improve the problem situation as a result of feedback and learning from the change that the research has brought about. The research outputs are a collaborative decision between the client and the researcher and the inquiry may result in either purely practical or totally theoretical outcomes (Rowen 1997). Action Research is a commitment to the practice setting, but the choice of action research within a university is significant, because it is a choice to undertake a practice-orientated study in a setting where, in general, people do not see themselves as practitioners (Boyer 1990, 1996; Van de Ven 2007).

Reason & Bradbury (2001) consider that action research is more than research and more than action, but there are a variety of perspectives that different authors have brought to the methodology.

- Checkland & Howells (1998) sought to identify an intellectual purpose in the engagement with complexity of an organization. Most significant was that action research exposed the conceptual framework and allowed the actor, or the practitioner or 'the

researcher', to make a solution part of their professional development process and behaviours.

- Reason & Bradbury (2001) have a particular focus on the relational aspects of practice, and on authentic and empowering involvement and the generation of knowledge between the people who commit their energy and knowledge to the services they provide. They describe this as:

  "*an emergent, evolutionary and educational process of engaging with self, persons and communities that needs to be sustained for a significant period of time*" (Reason & Bradbury 2001 p.12).

- Somekh (2009) has recently focussed on the dependency on cultural and systemic factors and on a dynamic environmental context, in which a strategically focused enquiry takes place. Somekh (2009) also focuses on the personal commitment to leadership and to a critically engaged 'praxis'.

- Participant action research is '*less about getting it right than making it meaningful*' (Herr & Anderson 2005) The 'nature of the reality' that a practitioner experiences, is more complex than the social order, which exists as an observable reality alone.

These different foci are based on the development of a methodology consistent and adherent to Lewin's (1948) original application of experimental logic which defines a series of steps in the process from action, reflection through to theorizing and planning, with each contributing to the experiential nature of the action cycle. Above all, the outcomes of this study are intended to impact on the history of the organization and are not a separate concern or the topic for a subsequent study (Gill & Johnson 2002). The researcher.

"*enters a real world situation and aims to both improve it and to acquire knowledge*" (Gill & Johnson 2002. *p.9*)

This quotation sums up the intension to participate and improve the organization

Critique of action research as a methodology

During the 1970s and early 1980s, there was substantial critique of action research, dismissing it as untheoretical and predominantly technical in nature (Levinson 1972, Rapoport 1970), having more in common with consultancy than with research. Argyris (1983) saw that a practice and 'practical orientation', based on a genuine commitment to a client's needs, had led to an over emphasis on the definition of the 'problem' by the client. There was then a risk that action research resulted in 'crude empiricism', based on the notion of descriptive observation and leading to a formulation of a 'truth' that failed to address the complexity of the human situation and lacked social engagement.

The early response to this challenge was to reinforce the theoretical component of the methodology, in-so-far as the method produces knowledge (Cooperider & Srivastva 1987). Cooperider & Srivastva (1987), among others (see Argyris & Schon 1989, Checkland 1981, Checkland & Holwell 1998) presented the need to integrate a theory in action research, in order that the methodology might grow and develop to a point that it might influence not only a first order change within an organization, i.e. a change in practice, but also the values and systems in operation; a second order change (Argyris & Schon 1974).

The idea that theory could be created from action is highly relevant to the aspiration of knowledge production. As an inductive process, the concept is that theory, transformed into new mental models and local behaviours is a powerful means for helping social systems evolve, adapt and creatively alter their patterns over time (Cooperider & Srivastva 1987). The field of action research has continued to develop and many authors have re articulated the stages and processes necessary to undertake an action research process. The theoretical output remains the critical element to inform practice (Whitehead 1989, Somekh 2006, Kemmis 2006)

Management of the action research process

A recommendation from Hammersley (2004) is to subordinate the inquiry process *or* to make it primary. This separation of action focus and reflexive critical process is supported by Zuber-Sherritt & Perry (2002), who suggest a pragmatic solution to this implicit contradiction of researcher attention, using a form of project management to manage the change process and support access and validity criteria. The development of materials and the inquiry process takes precedence at key stages and for the researcher the ability to manage the material is most important.

The table overleaf, (Figure 5) sets out, the plan for 'stages of action research method with theoretical implications'. The five stages to the action research process (Coghlan & Brannick 2006) contrast with the theoretical processes suggested by Cooperider & Srivastva (1987). The aim within the figure is to articulate the external tasks of the researcher, whilst identifying the theoretical considerations and the overt meaning for the process for the research as a whole For example, row 1- contrasts 'Framing the context and purpose', with the theoretical process of, 'Establishing a conceptual and contextual frame' (Cooperider & Srivastva 1987).

Coghlan & Brannick (2006) identify the practical 'tasks' within the research and the procedure is a key framework for the study. Based on a critical understanding of the tasks associated with this study, it was important to identify the research processes whilst building in the theoretical or thinking processes to guide the pragmatic enquiry. The process aims to extend the range of possible meanings and actions as a consequence of the theoretical framework. These elements and the table that follows (Fig.5) reinforce the functionalist approach to the research, using a staged enquiry and specific data-driven processes to inform further interventions.

Figure 5

Stages of action research method with theoretical implications

Stages of the action research Cycle (Coghlan & Brannick 2006)	Theoretical methods (Cooperider & Srivastva 1987)	Meaning within the research process
1. Framing the Context and Purpose	1 Establishing a conceptual and contextual frame	Creation of a world view, a focus on a range of underlying assumptions (ontology)
2. Diagnosis	2 Providing presumptions of logic	The orderliness brought to a situation which allows a person to act with care and control and 'in awareness' of the situation (epistemology)
3. Planning Action	3 Transmitting a system of values	Undertaking a formulation of the situation or aspiration and capturing the dominant 'variables' in a relationship with each other (theory generation)
4. Taking Action	4 Creating a group-building language	Enabling participation by framing an idea in such a way as to capture the meaning and translate it to the audience (communication and action)
5. Evaluating Action	5 Extending visions of possibility or constraint	Extending the range of the possible meaning and therefore actions as a consequence (impact and outcomes)
6. Write up of project	6 Articulation of the theoretical impact	Presentation of the contribution to knowledge and action

Risks and challenges to participant action research

Given the challenge of undertaking the study in my own organization, I sought to understand the context and the environment of YSJU. In part, this involved collecting and collating published data from public sources including the Higher Education Statistical Agency (HESA), the results of this initial focus (See Appendix 1- YSJU Profile). The early conceptual focus was also in relation to the role and performance of the research task. I sought to identify the risks to myself and others and also to identify actions to mitigate the risks.

Challenge to the validity of the method

Action research is not regarded as a credible process to develop organizational or individual learning about knowledge exchange. However, there is evidence to suggest that experiential learning is more likely to occur where knowledge is dependent on context (Argote 1999) and where it is difficult to predict the effect of all the variables at play in the organizational setting. The way that individuals learn is by performing a task and finding out their own capabilities and the tolerance or malleability of the system they work within. Where knowledge is not well understood or highly dependent on organizational context then 'learning by doing' is more effective than learning through planning (Argote 1999). This evidence justifies action research as a legitimate process.

My plan was to promote an appreciation of action research that is relatively well accepted in the education sector, but it has not been widely promoted in HE (Kember & Gow 1992). I also sought to make links with other action researchers in the University and engage with the international action research community (see Fowler Davis 2009a)

Insider position of the researcher

Whilst knowledge exchange remains a marginal activity, the researcher's role within the organization is complex, and conflict with senior managers and others is possible and this may result in challenge or conflict.

In the context of the study, it was not necessarily clear to others why I might engage in a research process that extended beyond the remit of my working role. However, during the diagnosis, I was offered access to minutes and materials, including data regarding the University staffing establishment and staff turn-over, estates policy and strategic and corporate planning and had no difficulty setting up meetings with senior colleagues and the administration.

Warmington (1980) commented that an action researcher may need to be; *"a particularly resilient type of individual, with the ability to tolerate ambiguity in his own role"* (Warmington (1980), p.111)

Similarly, Hearn (2003) identifies a less than comfortable position for the female researcher in the academic setting, apparently neutral and intellectual as an environment but also incessantly classed, gendered and culturally specific, based on a masculine rationale and preponderance to procedural methods and traditional values!

It is, therefore of paramount importance to undertake a staged and systematic process, so that the transparency and purpose of the actions are evident and any challenge to the 'status quo' is understood within the context of a planned and data- driven development. I plan to present the research as a systematic process that is transparent and outcome focused. In addition, I recruited a 'critical friend' and made full use of the academic supervision.

The action research process plan

The schematic below (Figure 6) is adapted from Coughan & Brannick (2006) and shows how the action research process can be represented as a series of repeating cycles that generate knowledge at each stage. The initial action of framing the context and purpose of the study is repeated at every stage of the research process. The staged process is recognisable as an objective commitment to the management of data and the transfer of data within organization, with different parties in the organization participative in the

evaluation processes and the further contextualising of the knowledge in preparation for further action.

This renewal of the contextual frame at each stage is a check that the systematic action remains a critical perspective 'on' and 'in' the specific organizational context. The researcher, undertaking and guiding the process is subjectively present through the gathering and management of the data, in the context of the organization.

Figure 6 Action research design as a cycle(adapted Coghlan & Brannick 2006)
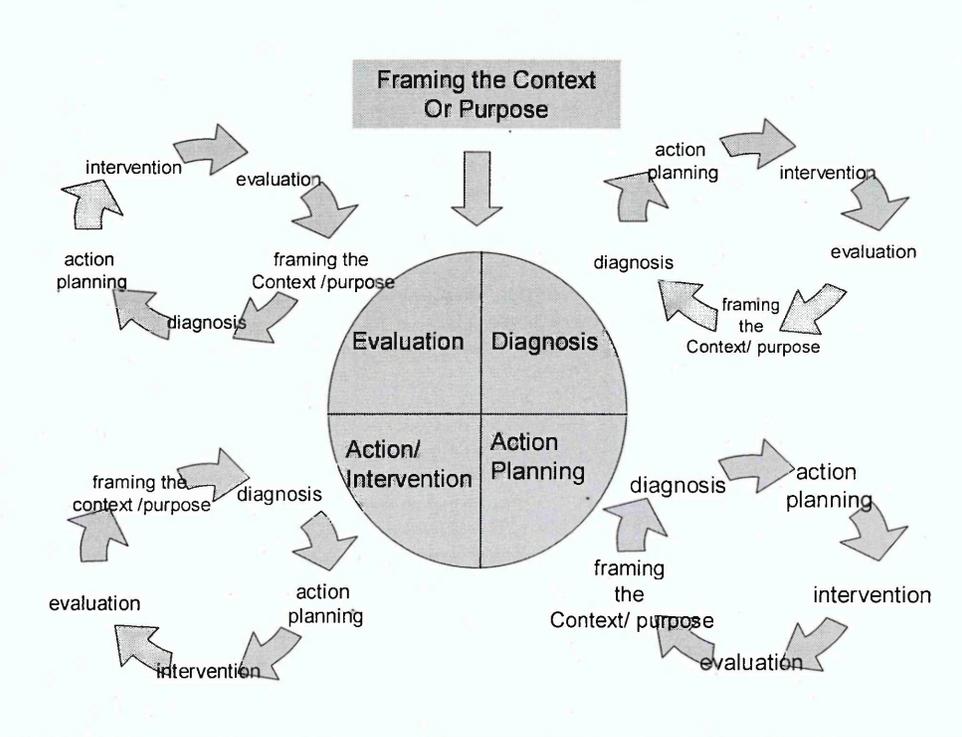
Data collection and analysis [7]

The following section will consider the overarching management of the data collection and data analysis within the study. In an action research process, the only limitations on the choice of methods for data collection and analysis are, ethical (see appendix 2 - YSJU ethics template), contractual i.e. within the agreed parameters of the negotiated agreement with the organization and timely, insofar as co-incidental factors superimpose limits on the way that the research can be conducted. For example,

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[7] Please note that specific details in relation to diagnosis- methods will be covered in a later section due to the level of specific detail and extensive use of data collection tools this could not be covered under the general issues related to data collection and analysis

The ethical approval was received in July 2007, and the data collection took place at a time of significant financial investment in the estate of the University. The first submission to the 'Research Assessment Exercise' (RAE) was prompting many at YSJU to consider the reputation risk of a low score. 'York St John Enterprises' was being dissolved and 'enterprise' and income generation, was now associated with knowledge exchange. The critical strategic challenge was to generate income from estates and additional knowledge exchange activity. This made the study more mainstream and less marginal than had been expected and this added additional constraints to the project.

Mixed methods and triangulation

Lewin (1948) described the three way triangulation of action, research and training, as reactive to the live process of action research and the need to pull meaning and relevance from the process of enquiry. He was concerned with the relevance of methods to enhance the participatory frame of the researcher.

"We should consider action, research and training as a triangle that should be kept together for the sake of any of its corners." (Lewin 1948 p.149)

His perspective on triangulation was based on an understanding of the impact of using action in one area, to generalise across into another; the use of data analysis in one field of enquiry to inform the actions and performance in another. Collaborative and participatory approaches raise unique issue with regard to knowledge claims. The researcher justifies how power and control over the research process [and outcomes] might be distributed (Herr and Anderson 2005). However, in keeping with the emancipatory ethos of the practice of action research, new knowledge about and for the benefit of the organization needs to be shared widely, using whatever mechanisms are available to the researcher.

A range of dilemmas arise in the collection and sharing of information across the organization and many of these are within the discretionary

powers of the researcher (Whitmore & McKee 2006). Examples are listed below;

- Sharing information from one participant with another
- Crafting of findings into categories
- Suggestion of 'best possible solutions'
- Use of / establishment of a team or group who have privileged knowledge.

The use of the term triangulation in this study adheres closely to the Lewin's meaning of building objective and subjective data into a complex picture that informs and promotes a critical participation within the field of inquiry.

The positivist meaning of 'triangulation' is the multiple uses of data collection methods, to elucidate a single issue. Triangulation is thought to improve the ability of researchers to draw conclusions from their studies (Scandura & Williams 2000) through the management of a number of data sources. This does not conflict with the intention to generate and share data across the organization. The examples in this study at YSJU would include:

- The collection of data in a learning journal of daily work conversations related to enterprise activity to compare with;
- The content analysis of minutes from a series of 'Research and Enterprise Committee' meetings,
- The informed responses from a focus group of enterprise engaged academic practice in the organization and
- The responses from participants at a staff development event.

The use of primary and secondary data, especially in the context of a single organization has significance because the separate elements, for example, the use of minutes and written records, have been produced for a specific purpose, other than that of the research. The ongoing and multilayered evaluation of how the data informs and is informed by the cultural context is specific to action research.

Ethics

A full ethics proposal was submitted, to YSJU Research Ethics Committee (REC) in January 2007, a copy of which is included in Appendix 2. The ethics committee was able to agree to the range of methods proposed and also to the validity of the inquiry in the context of the organization. I specifically invited them to seek further approval at later stages of the study and to remain engaged in the process as recommended by Herr & Anderson (2005).

Approval was gained on the basis that any contribution to the study would be anonymous. Where role identity compromised anonimity, the role would not be identified. Survey and focus group responses would only be available to those individuals who waived anonimity, in these cases all data would be shared with participating individuals, would receive information or be contacted directly by the researcher. All contact would be made with individuals, rather than to a circulation group, unless expressly agreed.

Ethics within the action research

The transparency of the research process and the democratic engagement of participants is a key requirement of action research. According to Rowen (2006) the researcher has a 'duty of care' towards participants in the research process: collaboration must be based on a balance between concern for the results and outputs of the study, and a concern for the well being of the participants. The researcher uses supervision and the nomination of a 'critical friend' (Rowen 2006) because the responsibility enshrined in this task is more demanding than it might be in other modes of research. The 'critical friend' role is to support the 'interpersonal experience' (Rowen 2006) ensuring that the research is enacted to benefit the organization and the participants.

The history of action research, the tradition of work in disempowered communities and with vulnerable people, has generated a rich and careful analysis of the dilemmas associated with the action orientated methodology (Herr & Anderson 2005). The principled ethical questions apply, as they would in all research with human subjects. But as suggested by Torbert (1991), action research necessitates a personal maturity to collaborate with

others and expose their thought process to public scrutiny. The interpersonal ethics of the insider may be considered political (Coghlan & Brannick (2005) identifying ten different quasi-political interactions that might occur with people in the organization. Participation in this study included peers, subordinates and superiors and also the potential for participation with 'outsiders'.

The use of a standard procedure to support and assure the quality of practice in relation to ethics was therefore important. Below are the questions adapted from Pritchard (2002) which allow the researcher to ask;

- What are the risks of participation in the proposed research?
- Are the risks deemed acceptable and minimal?
- Have the risks been minimised?
- Do the risks outweigh the benefits and the important knowledge to be generated?

A range of critical dilemmas are noted in the research ethics associated with this study. Again, using an action orientated approach, the following risks were identified and mitigating actions taken:

Risk 1-The main difficulty associated with in an action research study is considered to be ensuring confidentiality to individual participants. The risk is associated with unfairly representing participation, in a way that disadvantages the individual. Inadequate preparation would result in non participation or low response rate (Whitmore & McKee 2006)
Mitigating Action:

- An informed consent template was used with interviews of the senior executive (3 people) and senior management (3 people)
- Anonimity was assured to all survey participants (using a paper based response)
- Permission to report on participation of people in key roles was managed on a person by incident basis.
- Non participation would not be reported

Risk 2- The dilemma associated with publication of organizational data specifically naming YSJU. The risk is the unfair representation or invalid presentation of the organization, which may have further consequences in relation to reputation.

Mitigating action

- Diagnosing the specific character of YSJU in particular would make it likely that the University would be recognised and therefore anonymity for the organization could not be assured.
- A specific, named person from the senior management group, to approve the draft of draft materials before publication or conference presentation.

Risk 3- Ethical considerations, related to the use of resources and access arrangements. These considerations are paramount at the point of entry and influenced the choice of method. The risk in action research is that a significant resource associated with participation (an individual's time) may need to be negotiated. In some cases the permission to use time for the participative elements of the research may not be deemed to be justified by the chosen topic.

Mitigating actions

- All communication would be managed via existing e-mail and internal mail in the organization.
- Key personnel (already associated with knowledge exchange) would be invited to contribute.
- Confirmation (by contract negotiation) that the participation of senior management was warranted and justified.

Risk 4- Potential risk to the researcher, in presenting a challenging topic and inviting a whole systems analysis of performance of knowledge exchange. The risk was to personal reputation and credibility within the organization, should the project be deemed unsuccessful. The secondary risk was that the research was seen by virtue of position, as pursuing a particular agenda.

Mitigating Actions:

- Assurance of the contractual support of the VC,
- Further communications and early 'approval' from the Deans, the Head of the REO and the DVC (see e-mail below which received a response from all Deans and prompted a discussion with the REO),
- Confirmation that knowledge exchange practice was of strategic importance to YSJU,
- Internal, YSJU, ethical approval (as opposed to Sheffield Hallam University approval) to ensure local, organizational ethics associated with the project.

Participative methods necessitate a reflexive stance in relation to colleagues and peers and a willingness to manage a complex set of actions and relationships. Transparent permission and information was sent to senior managers and direct communication was sought wherever possible. (see appendix 3). The different modes of participation, suggested by Herr & Anderson (2005) (Figure 7) range from full collective action to, a simple, tokenistic co-option of individuals. The local involvement and relationship categories address the insider position of the action researcher in presenting and building the relationships to support the research participation. The ideal ethical position for this study was to seek cooperation and move to co-learning, to work with others, in a developmental process from within the organization.

Action orientated content analysis

Content analysis is a tool for use in qualitative and quantitative data management (Kohlbacher 2005) The aim of content analysis is to describe the discourses and narratives, so that the analysis builds a picture of the organization. These approaches are complimentary but the researcher actively seeks out and uses data, often produced for some other purpose, to show or highlight a particular cultural, social, economic or linguistic practice. The artefact, of data, is unchanged by the analysis (Robson 1999) but the action research process is informed by the meaning derived from the analysis. The intentional meaning-making process is based on data and information coming forward. The data is derived from the given context

and there is a recognition that the process of data collection will impact on the context.

Figure 7

Participatory achievement (adapted from Herr & Anderson 2005)

Participation	Local Involvement	Relationship to research
Co-option	Representatives chosen but input is minimised	Research done to people
Compliance	Tasks are assigned	Research done for people
Consultation	Local opinion is sought but external analysis undertaken	Research done for and with people
Co-operation	Local people work together but outsiders remain responsible for the process	Research done with people
Co-learning	Local people share knowledge and create new understanding to inform action	Research with and by people
Collective action	Local people set their own agenda and carry forward a change	Research undertaken by people

Journal keeping in action research is recognised to be a significant method for recording and building reflective skills (Coughlan & Coghlan 2002), and is an interpretive and self-evaluatory account of practice experience (McNiff 1996).

Content analysis was chosen as a method to control the different aspects of the primary data collection (interviews, focus groups) with further interpretations then taking place, informed by further analysis of the secondary data (minutes and local strategic planning documentation). This study uses qualitative data which includes the use of descriptive numerical data (including descriptive statistics) about knowledge exchange practices. Researchers using content analysis may 'establish a set of categories and then count the number of instances that fall into each category' (Silverman, 2001 p.123),

There are several methods of content analysis adopted in the course of the study but each falls into a process that is a basic procedure, formed from the following four steps (Bowling 2004):

- Collect data
- Code data (by theme or category)
- Analyse coded data
- Present results

The codification process used in qualitative data analysis is an inductive process that seeks to create a framework, to capture all elements of the material and seeks to stay, as close as possible, to the materials captured in the research process (Mayring 2000). The process of categorization is procedural and the set of categories aim to describe the variation in the phenomena being studied (Gill & Johnson 2003). Categorization is intended to illuminate the theoretical issue being studied, by providing a picture of the cultural processes that lead to different behaviours in the research setting (ibid).

Each category is named and defined and examples of the categories are offered in relation to the data (Mayring 2000). The coding demonstrates the researcher perspective in the choice and use of words picked out from the data. Whilst the method of content analysis is intended for use as rule-based system of dealing with complex material (Kohlbacher 2005) it takes a comprehensive approach to the situation in question. Each code, applied to the data can be seen as a fragment that links the individual text to the category or theme and applies to the concept (Coffrey & Atkinson 1996)

Coding is a core empirical activity which segments the text. However it is important that simple and deterministic labels are the first and not the only stage of the process (Coffrey & Atkinson 1996) The worked example below (Figure 8) using a section of data from the interview with a member of the executive, demonstrates (in blue text) the initial key codes attributed to the data. The activity is undertaken to generate theory and therefore the significance of key words and language used by the social actors is important (Coffrey and Atkinson 1996) The initial 'noticing' of phenomenon can lead to further combining of information into meaningful categories which leads to categories and new understanding about, in this case, the

strategic leadership of knowledge exchange, in the context of YSJU. The red text in the example below shows how the coding developed into some of the categories identified in the results of the diagnosis.

The choice of categories may also be influenced by the theoretical underpinning of the work (Kohlbacher 2006) so that category choice resonates with a theoretical position. In this case the approach is deductive. The category is based on a prior formulated, theoretically derived, set of criteria (Mayring 2000). However, the use of deduction, i.e. using the data to test an idea, may be useful to identify key subject matter or knowledge. In this case, I was aware that policy-orientated language may be used. I was also conscious of using a tool that would condense data into a usable form for the diagnosis.

Figure 8 Worked examples of coding and generating categories
Colour Key:

Initial coding of key words and ideas= blue type

Categories generated from the codes and context = red type

If we put aside the conference type work it is a slow burn, we don't have an instant win in biology or computer science, eureka products. In a sense our part of enterprise has a community bit to it and our partners will have a sense that we are linking as public sector bodies.	Context of YSJU Public service orientation
We don't what to under sell what we do, I don't think we will demonstrate huge surpluses it will help the university become part of "generally Universities undervalue and undersell"	STRATEGIC PURPOSE Income generation Costing
It is my experience ...If you are in an environment when something happens regularly you don't always realise that it doesn't happen elsewhere. I have seen a very talented lady commissioned by a large corporation doing a piece of work, I	DESIRE Context and local experience

could believe the price she was being paid which was too low by a factor of 10 below what it was worth, this is not always the case but "there is a tendency to understate"	Costing of knowledge based work
From YSJ it is not simply about developing income streams and surplus, we will be engaging with bodies, with a similar ethos and so we will be interacting and engaging and this is as valuable as the income coming from it, "this my feeling in the sort of institution that we are"	Collaborative opportunities CULTURE Engaged scholarship
It has to be self sustaining financially- we are not going to have the big building funded exclusively by that activity. HEFCE provides the vast majority plus tuition fees but the other 25% can be valuable if you can get money for things that HEFCE has already paid you for and it gives you money to play with to develop other things, the marginal money is quite valuable. Many universities sit at the 75% level of HEFCE funding and others at 50% and the odd one or 2 below 50	Strategic purpose Policy requirement POLICY Desire and purpose of engaging
"For York St John it is more the act of engagement, spreading our wings, showing what we do and understanding ourselves what we do, I don't think the income will be great but it is worth doing"	"Embryonic", culture Building a cultural based on value
"Its embryonic, there isn't a culture in the university and even in the big universities there are only pockets where it works"	CULTURE
There will be a value to YSJ but it won't be millions of pounds-we don't do millions of £ At Trent the senior management of "experion" programme was worth only£100k.- it ran for 4months with a cohort of 20, there were additional cohorts so it began to add up.	Limited aspiration Growing local capability

Or there are well known personalities doing consultancies, there was a guy who worked in the automotive industry and he was better known than Jeremy Clarkson- but they were only turning over 100s of thousands. 4 people working – it was quite exceptional.	Operational capability OPERAT-IONAL ASPECTS
It is like here- we don't do research bids, we need to start doing research bids just to find out that we can do them and it will grow"	Operational
We need to get people to start people thinking that they can do it and then they will find that it was not as painful as they had imagined.	capability

The example given above is not an exhaustive treatment of the data, but shows how the text 'links' the segments to whole and makes reference to the key conceptual frameworks of policy and key aspects of absorptive capacity.

The further interpretation of the codes and categories is then open to a more creative and reflexive process involving interpretation. The researcher undertakes this process in a more or less transparent way, with for example; counting the number of codes is a method which is 'open' to scrutiny because the means of combining data is evident. The alternative approaches involve the researcher justifying the grouping of codes into categories which can be explained and are based in the inspiration from the whole understanding of the data. Checking back or retrieving key segments of data then illustrate the categories. The key elements of the data need to show how they contribute to the generation of the 'whole picture'.

Combining data - analysis and interpretation

Action research may involve the collection of data, using multiple methods and a process of categorisation but the interpretation of the findings requires a further process. The combining, or condensation of data into a manageable form, demands both reflective and creative ability and some understanding of the context. The practitioner is formulating a mental

'model', the researcher a 'conceptual frame' (Cooperrider & Srivastva 1987) and in each case, the model is built on a range of data and interpretation of the elements. Triangulation often refers to the comparison of different outcomes of data, but in Lewin's (1951) understanding triangulation seeks to join data, as in, combining of data, so that the agent can act-it-out.

In this case the combination of data, gathered from the diagnosis, will promote some interpretation and assessment of the validity of the data to reveal the problems encountered in knowledge exchange practice. This process could be replicated with colleagues and the data, as separate items, could be presented to then recombine and to capture aspects of the social world, from the perspective of the actors (Gill & Johnson 2003). These insight promoting tools may be used within action research to engage participants and to build a conceptualization.

The condensation of data is critical to the process of induction and the individual or shared process of building theory, to support change and problem solving. Induction is a reasoning method for making a claim to a new knowledge that goes beyond the components from which it is drawn. Inference allows a researcher to generalise findings from particular information and data (Gill & Johnson 2009). The goal of the tool is to demonstrate the potential for change in the context of the action research, in this case to engage participants in the organizational issues, associated with knowledge exchange.

Conclusion

This chapter has sought to provide an overview and justification for the use of action research in the context of a university-based study. Acknowledging some of the criticisms of action research as a- theoretical, the functionalist approach is underpinned by a 'scientific' ambition that assumes (Willmott 1995) to explain an organizational situation. This study, undertaken from a practice perspective is not however seeking to maintain the status quo within the organization, but seeks to enhance the delivery of knowledge exchange. The diagnosis is functionalist (Burell & Morgan 1979) but ultimately the study aims to present a critical and integrative view and

to introduce theory as it emerges from the action and from the data. There is a need to identify and reinforce how a transparent and staged process, can be used to support systematic enquiry and systematic action. The nature of the critical and reflexive process also permits a specific focus on the theoretical outcomes at each stage.

The theoretical position is located within the action. In taking action, one is enabling participation on the basis of understanding the context, using data and planning a response. By framing an idea in such a way, there is some assurance that the meaning and purpose of the action can be translated to a wider audience and that there is a potential for consensus. The critical position of the researcher is one of agent, in achieving participation in the process of change and supporting a shared understanding of the action research process. A critical theory seeks to interpret and expose the underlying values within the organization, some of which are enabling and other limiting of the desired change and ultimately the individual participation.

The notion of triangulation is a response to the culturally embedded data 'artefact' and the meaning of specific language and actions are understood in the context of YSJU and only then, as an interpretation based on other local information. The insider knowledge base is a filter for all the information and understanding generated in the study. As suggested, this is an onerous aspect of action research, especially within HE.

The critics of action research are concerned about crude empiricism, implicit in working from a position informed *only* by the 'client' or *only* by the data. Others are critical for more overarching pragmatic rational with the researcher potentially unable to frame the problem situation in such a way that permits a wider investigation of the cultural and social context within the study. These concerns are useful because they have resulted in a more highly developed, critical discipline of action research and they remind a novice to manage the range of complexity, influencing a change process.

Praxis has been discussed, in respect of the critical, dialectical engagement used within the action research process. The ethical communication with a participant group has been considered in relation to risks and mitigating actions. Using mixed methods to gather data from a range of sources and present information back to the organization and to individuals is possible a change may come about as a result of the clear translation of data to context through meaningful action.

The set-up of the study was completed at YSJU in August 2007. The management of the study then progressed over the next eight months during which time a range of methods were adopted, to collect and share information with different participants and participant groups within YSJU. Further chapters will now present the specific process and findings of the study and the outcomes in relation to an effort to build capacity for academic knowledge exchange at YSJU.

Chapter 6 – Diagnosis- Method

Introduction

An organizational diagnosis can be seen as a planned entry into a 'problem situation' (Checkland & Holwell 1998), even where the organization is both the employer and a familiar setting to the researcher. Having 'framed the context and the purpose' (Coghlan & Brannick 2005) and established a 'conceptual frame' (Cooperrider & Srivastva 1987), the diagnosis is progressed as an ordered investigation. Absorptive capacity was a conceptual framework for the diagnosis in so far as a theory it highlights several key elements that enable the organization to generate products and services through knowledge use.

- The importance of prior 'related' knowledge within the organization
- The suggestion that knowledge exploitation depends on specific operational capability

The diagnosis should highlight awareness, of the current state of knowledge exchange capacity, for the purpose of seeking solutions to the systems-level problem.

The initial impression was that inadequate support existed for knowledge exchange and that policy and local strategy suggested that the internal mechanisms could enhance capacity.

This chapter presents the particular use of methods used at YSJU between October 2007 and January 2008 in order to describe and analyse phenomena, within a specific context (Hartley 2004).

The diagnosis is deductive because it seeks to clarify whether the researcher's ideas about knowledge exchange capacity at YSJU are valid. There is a need to substantiate the extent to which the organization's internal values, systems and processes support the external knowledge exchange practices

The exploratory nature of the first stage of an action research process has, in this case, some clear resonances with case studies. The first stage of the participant action research is to collect empirical data to understand the context of a particular problem, and mixed methods are adopted at all

stages and the data managed, so as to assemble and present coherent messages and categories to others. The purpose of gathering data in the diagnosis phase is intentionally to create a clear and critical understanding that engages and recognises participation as consultation (Herr& Anderson 2005).

At the end of a diagnosis the action research becomes more inductive, defined as:

"*a tentative conjecture about the world which is ultimately unverifiable by empirical evidence*" (p:28 Johnson & Duberley 2005)

The diagnosis is shared within the organization and developed through participation and discussion, using the diagnosis/data, so that ideas about knowledge exchange can be generated. The practice setting is the collection point for qualitative and quantitative data that is distilled and refined into a more critical understanding of the organization.

Methods

The case study approach, described by Yin (2003) is an empirical inquiry that investigates contemporary phenomena within a real context, where the context and the phenomena are not necessarily distinct. The case study seeks to provide an in depth understanding of organizational issues, based on a mixed methodology, adopting qualitative and quantitative data collection and a coherent and logical formulation (Yin 2003). The data is then linked to the propositions about the organization through content analysis (Kohlbacher 2005).

The diagnosis as a case study should demonstrate an understanding of complex social phenomena and retain a holistic view of organizational and managerial processes (Yin 2003). According to Yin (2003), there are five possible sources of data to use as evidence for case studies; documents, archival records, interviews, direct observation and physical artefacts which are typically combined to produce a lengthy narrative. Multiple sources of evidence are derived from organizational data. The data is converged

through careful induction to create new insights into the phenomena (Yin 2003). The analysis of the data needs to demonstrate an adherence to the empirical procedures of content analysis. However, the triangulation of data[8] to generate new meaning and insight is an interpretive process that depends on the researcher's ability to interpret and 'know' the organization, to formulate and support further action.

Planning the data collection was recognised as critically important and involved preparation to minimise the potential role conflict for the researcher and to promote credibility and to gain participation. For this reason, the following table was used to specify both the tasks associated with the diagnosis and the other considerations in maintaining a moral and procedural standard for the actions. In the table below (Figure 9), identifies 'diagnosis planning' as a staged process, based on the overall design cycle of the project.

Figure 9 Plan for the diagnosis

Diagnosis Planning	Actions/tasks	Practical and Theoretical considerations
1. Framing the context and purpose	a, Ethical approval b, Contractual agreement c, Agree critical 'friend' d, Scope the range of communication tools e, Storage and retrieval of data	a, Identify the time scale of the data gathering b, Cultural stock take on the organization c, Personal aspiration for the research
2. Researcher preparation and conceptual understanding	a, Rehearsal of consent discussion for formal and informal participation b, Development of tools for data gathering c, Research supervision d, Communication and diarizing of key data collection activity	a, Intellectual framework for the data to allow for early and later information. b, Model of reflection and ongoing action planning c, Ongoing reflection and analysis of new information and decisions about how to combine it
3. Action planning	a, Pilot survey and outcomes b, Invitations sent c, Methods shared d, Project management of the sequence of events and participation	a, Openness to criticism and signs indicating non participation b, Supervision and support c, Consideration of further risks d, Reflective tools and

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[8] See previous chapter for a justification of triangulation as a methods within action research

		frameworks
4.Intervention, data gathering and analysis	a, Desk research b, Audit of public documents c, Academic staff survey d, Focus Group e, Leadership interviews	a, Continuous collection and analysis though reflexive b, Generation of new conceptual framework for the topic c, Learning as a unbroken activity until significance is negligible (Weil 1998) d, Establish the 'set' of dilemmas (Weil 1998)
4. Evaluation of process	a, Review participation and action	a, Review epistemology

The following section explains how, following the ethical approval, a range of preparatory actions were undertaken and the diagnosis was framed and undertaken. However a critique of this linear planning process comes from Argyris & Schon (1989) reminding the action researcher not to feel compelled to act and define solutions to problems as they are presented, but rather, seek to build a wide, strategic understanding based on principles of dialectical enquiry and a critical learning theatre. Weil (1998) also argues that a diagnosis requires a continuous, quasi- hermeneutic approach, in which the significance of new data, is set against the existing data, until a 'set of dilemmas' is established for the organization.

Data collection

Secondary data - minutes and public documents

The secondary data is a range of information available to all staff on the YSJU intranet. These elements were chosen because they evidenced the range of overarching information about YSJU. The minutes were chosen to identify the strategic decision making processes linked to knowledge exchange. The data was drawn into the study as cultural artefacts (Yin 2003)

During the early part of 2007, documents were accessed from YSJU and the content analysed to ascertain the level of strategic discussion about knowledge exchange. The terminology was defined within the YSJU Enterprise Strategy (2006) as external activity for the purpose of generating income and enhancing partnership and external engagement. Whilst the focus of the investigation was on knowledge exchange, the more general term of 'enterprise' was also adopted at this time, an all-

encompassing term for external engagement, employer engagement and all knowledge related partnerships. Use of terminology was a factor in the planning of further action and so a range of terms, appropriate to the theme of this study, were used to examine the management of enterprise and knowledge exchange at YSJU. These included:

Knowledge transfer; knowledge exchange; external engagement; employer engagement; enterprise; knowledge management; systems and processes and financial management.

The following documents were scrutinized;
- Minutes of the Executive Committee meetings
- Agenda and minutes of the Research and Enterprise Committee
- Several background documents were also sourced and, in one case, offered, to provide a retrospective context to the issue of knowledge transfer and exchange capacity for the organization, they included:
- The Staff Survey 2006
- The Strategic Transformation TimeLine (2006)

In the first two cases a quantitative content analysis was undertaken and the results tabulated and this is presented in the following chapter.

In the case of the second two documents, the information was used to inform the researcher's understanding of the collective view of the workforce and also to position this study in a linear and historic time frame for the organization.

Executive committee meeting minutes (March to July 2007)
Meetings of the Executive Committee were attended by the following members; Vice Chancellor (Chair), Deputy Vice Chancellor (DVC), Pro Vice Chancellor (PVC), Registrar, Director of Finance (DoF), Director of Human Resources (DoHR). The minutes were formed from a report from each director and the report summarises were made available on the intranet. Minutes of the fifteen meetings were analysed for the purpose of auditing the following aspects of the organizational performance related to knowledge exchange:

- Assess the level of strategic discussion
- Appraise the level of debate and discussion related to new policy agenda
- Understand the leadership of this agenda at the highest level of the organization.

Analysis of research and enterprise committee meetings (October 2005- March 2007)

Eight meetings (held on a quarterly basis) were accessed and using agenda and minutes, a content analysis was undertaken with the purpose of understanding the following aspects of the organizational performance related to knowledge exchange;

- the level and scope of strategic discussion
- the amount of debate and discussion related to knowledge exchange activity
- the leadership of this agenda at the highest level of the organization.

Data collection - primary data

This section describes the data collection, specifically undertaken for the purpose of this research and based on participants engaging in interviews, focus group and survey. The use of mixed methods has already been justified but the choice of individuals was based on 'purposeful selection' (Maxwell 2005) in the organization, intended to provide information about settings and activity that could not be accessed from other sources.

Primary Data

Interviews- executive and senior management

Four members of executive and three senior managers were interviewed, each individually in their offices with prior sight of the questions. Interviews were chosen as a method to access the perception of actors but as Maxwell (2005) asserts, the interview is also an opportunity for direct observation. All participants agreed to the interviews being recorded, with an acknowledgement of the ethical agreement prior to interview and an explicit

permission to delete sections of interview. Transcripts were made within 24 hours, so as to collect and draw inferences from the experience of the interview (Maxwell 2005). Notes were not shared with the interviewees but in one case, where the interview was held opportunistically, verification was sought.

A core set of questions was asked to each participant as follows;

Please identify your role and range of responsibilities at YSJU.

Please outline your understanding of the 'enterprise agenda' and your vision of how this might be articulated at YSJU.

Do you prefer the term knowledge transfer or knowledge exchange, or another term; I would be interested in the reasons why?

The initial questions investigated the individual's awareness of knowledge exchange within the role and responsibility, for example the DVC had over aching strategic responsibility but the Director of Facilities (DofFa) had an interest in the wider use of the University estate. The initial questions sought to identify the knowledge and appraisal of government policy in the sector and the variation in commitment to the use of terminology, which was then, and remains, confused.

For each interview, a range of questions, designed to illicit a more specific role-and- person-centric response, were sent prior to interview. The following set of questions, were intended to garner information as well as generate greater comprehension of the strategic leadership of the organization. The purpose was to consult and engage participants.

A second set of specific questions was asked to each individual with a view to their specific role, i.e. the DVC handled the strategic leadership of enterprise and knowledge exchange; DofF, implications for the financial management of contracts and income; DofHR would be interested in the development of academic staff and contractual changes for the academic workforce. The questions were influenced by the concept of 'absorptive

capacity' (Levinthal & Cohen 2000) which suggests that 'gatekeepers' manage and control the flow of information across the organization, particularly in terms of appraising the external need and considering how knowledge may be exploited on the basis of the historically derived purpose of the institution. As a 'gatekeeper', the DVC used prior knowledge (tacit knowledge) to inform his appraisal of the current demands on universities and used his own external networks to generate an understanding of the flow of information into the senior team and other parts of the University. He chaired the Research and Enterprise Committee (REC) and line managed all of the Deans of Faculty and was thus a highly influential and key stakeholder in this study and in the change being proposed. The following questions were put to the DVC:

Please would you plot the historical development of a strategy to support enterprise over the last 3-5 years?

Do you have experience of enterprise and knowledge transfer/exchange activity in other institutions?

If so, could you offer some examples of the activity and identify outcomes and benefits?

What do you see as the main levers for change? In the development of an enterprising culture, with academics undertaking- knowledge exchange?

And finally
Do you plan to progress enterprise and knowledge transfer/exchange, in your role?

Transcription of taped interviews and an open coding was used (as previously described). The focus was on the generation of a core understanding of participants in the organization and on my own learning from others as they shared perceptions.

Academic workforce – consultation via focus group and survey

Addressing the interests and generating opinion about knowledge exchange, in the academic workforce, at YSJU, was undertaken through a series of data collection activities. There were a number of individuals, asked to form a focus group and the survey was intended to include all the academic staff, other than those in management roles, who were part of the senior management or executive team.

Questionnaire survey

In spite of a number of reservations about the use of questionnaires in action research, it can be useful to incorporate a questionnaire to expand the range of people consulted (Winter & Munn- Giddings 2001). The pilot questionnaire was undertaken as an on line tool and received a negative response and so a final version of the questionnaire was produced, in Oct 2008, as a four page booklet in paper form. It was printed and distributed via internal mail with each faculty received a different coloured paper booklet and each participant was requested to return the complete survey by internal mail. The black typeface was in 12 font, intended to encourage readability and the booklet format encouraged page turning (see appendix 4). The booklet also included information regarding consent and ethical procedures and offered the opportunity for participants to write in their name, with the offer of information regarding results. This was intended to allow for further invitation to participate in later stages of the study.

Distribution and management of the survey

Whilst the method of distribution allowed for anonimity, there was the option for academic staff to return the questionnaire with their name and the additional hope was that this might generate a list of participants for a focus group or further intervention. A questionnaire in action research is conducted in such a way as to promote the negotiation of practical developments (Winter & Munn- Giddings 2001) and this was a potential way of constructing participation with individuals not known for engaging in knowledge exchange. It was also a way as to easily manage the data from a total population. The questionnaire was distributed to 196 tenured full and part time academic staff within the four faculties of the University. The

researcher prepared the questionnaire to be analysed using simple normative and descriptive statistical analysis, to reveal content and trends. New data regarding knowledge exchange within the organization was compiled as normative, through a process of counting similar replies. This can be seen as somewhat contradictory to the reflection on particular experience (Winter & Munn- Giddings 2001), but the range of experience and knowledge was being sought to broaden the information across the organization.

Survey design

The survey questions were formulated and based on the local knowledge and a literature-based understanding of enterprise and knowledge exchange activity. Issues such as reputation and incentives for transfer of knowledge were considered to be significant (Lucas & dt Ogilive 2006) for inclusion, as were the issues of recruitment and career progression. The overall appreciation off the strategic intent of the University with respect 'enterprise' was significant (Harrison & Kessels 2004) and the questionnaire provided the opportunity to introduce the definitions of knowledge exchange as part of the action research process (Doherty & Manfredi 2006).

There were several variables which were considered relevant to the practice of enterprise and knowledge exchange, they included:
- Age
- Academic role
- Length of employment at YSJU
- Years in academic practice

These criteria were considered to be influential in the acceptance or otherwise of new policy initiatives for academic practice. The core demographic information acted as an introduction to the questionnaire to allow participants to respond positively before being asked to consider the questions and aspects of knowledge exchange which engaged them and consulted the ambiguity of the subject (Lucas & dt Ogilive 2006). Subject areas were specifically sought, to include in the diagnosis of the core discipline knowledge base of the organization. There is a suggestion that the knowledge base is a historical feature of an organization and a

dependent variable in relation to the likely level of absorptive capacity (Cohen and Levinthal 2000). The types and range of knowledge were not categorized for respondents and in keeping with suggestion from Winter & Munn-Giddings (2001) the open response and the variation in subjects and disciplines was itself, of interest. It was expected that a key outcome of the diagnosis, would be a categorization of the core knowledge base. In addition, the University's definitions of enterprise and knowledge exchange were included so that the possible misunderstanding of the terms could be alleviated and that a further distribution of this information was achieved through the questionnaire.

Questions in Section 2 (see appendix 4) ask about the knowledge and experience of engaging in knowledge exchange. The intension of this section was to identify some of the priorities for academic participation within the organization as it formalised or developed the operational systems and processes in relation to knowledge management. Experience of enterprise and knowledge exchange activity was invited, with opportunity to offer specific examples and for these to be codified into categories, for example; a spin out company, consultancy with the private sector and or professional networking within a specified task.

The final section, using a Likert scale was designed to assess the overview of perceptions related to the experience of knowledge exchange and enterprise. Participants responded using a 5 point scale; with strongly agree through to strongly disagree, on a series of statements. Further questions were intended to garner opinion about which key and critical issues would promote a better understanding of individual academics and their knowledge's, which might form the basis of further facilitated participation and intervention within the study.

Computer analysis of survey data
The questionnaire was written to allow for analysis by the Statistical Package for the Social Sciences (SPSS Version 14), which was freely available in YSJU. An initial training was undertaken to ensure the correct use of the IT package but support was also sought in the use of the

statistical tools with the data. SPSS (now PASW) is amongst the most widely used programs used by researchers, market researchers and others to undertake a range of statistical analysis and data management. The SPSS package was able to show how the range of demographic factors, from the responses to the 'Likert' scale preferences, collated as barriers and opportunities, identified in the questionnaire.

Focus group

The purpose of the focus group was to promote active participation, through group discussion (Silverman 2004). The advantage of this method is considered to be associated with the flexibility of its use (Silverman 2004) and the opportunity to undertake a single event or to continue with a range of focussed conversations, intended not only to gather data, but as in this case to generate further discussion and participation.

The six colleagues who were invited to attend the group, all fell into at least one of the following criteria:

- They were an existing 'Knowledge Transfer Champion' (based on a scheme that was set up by the Regional Development Agency)
- They were a past 'Knowledge Transfer Champion'
- They were known to have undertaken external contracted activity in their speciality area

The group were invited by e-mail and the format of the focus group was circulated ahead of the meeting. The group agreed to tape recording and were given an overview of the ethical agreement under which the research was agreed. (See appendix 5 – Invitation to the focus group)

Design

The focus group was planned on the basis of personal knowledge and an on going communication with the individuals who made up this group. The questions were informed by some of the initial data collection and the focus group was an opportunity to share some initial finding with interested individuals, this included:

- Anonymised outcomes of interview and survey data
- Prior relationship and familiarity (both harmonious and conflicting)

- Shared experience on projects and or 'experience' of the system
- Assumption that a group experience would 'empower' a shared appraisal

An important aspect of the focus group planning was that it presented an opportunity to build a collaborative group. The meeting was held in a small, familiar room were conversation and lunch would support the experience of sharing and 'diagnosis' of the experiences we all had in relation to external academic activity. I made an assumption that collaboration within a small organization would facilitate network building and working relationships across faculty and subject area. Geographical proximity, the 'community' ethos, and the track record of shared project activity were all advantageous factors. However, for some the focus group was a first introduction to other external facing academics across the University.

Analysis of focus group

The transcription and content analysis of the focus group was common to that used for the interviews. Silverman (2004) suggests that focus groups can be regarded as *'talk as action'* (ibid, p. 188) in which the dialogue reveals and builds a social construction of the issues concerned. He argues that the talk is action orientated in pursuit of a local goal. The interpretation was undertaken in the research journal and through the materials produced at the event which formed a record of the discussion. The content of the discussion was treated in the same way as the interview data using a content analysis approach. Reflection also focused on the other factors that were attributed in the critical reflection on the event. The data was both influential in the formulation of the diagnosis and used to inform the choice of interventions.

Summary

This chapter demonstrates how the diagnosis was planned, explaining the methods by which a range of data was systematically collected from academic staff participants across the organization. The case study approach (Yin 2003) framed the data collection but was also a commitment to gathering data in context. The ambition was to build a narrative (Yin 2003) about the organizational capacity to undertake further knowledge

exchange. In addition, the deductive element was to establish the extent to which the initial assumptions were born out by the data. The pre existing conceptual frameworks of a, action research and b, absorptive capacity were useful constructs on which to base the design and distribution of the various research tools.

I recognised that there is an indistinct boundary between the context and the phenomena (Yin 2003) with political, policy and demographic issues affecting the exchange between the organization and its context. None the less, each element of the data produced in the diagnosis is an empirical element of the whole picture that is ultimately unknowable but as a case-study, can be presented for others to critique and engage with. In this sense the diagnosis provides empirical evidence that can be understood in different ways; the data exists in the context of YSJU in particular and also in the context of the HE sector. This is an important element to return to when considering the generalization of findings from YSJU to the sector as a whole. The following chapter presents the findings of the diagnosis.

Chapter 7 – Results of the Diagnosis

Introduction

This chapter presents the findings of the diagnosis. There are six (numbered) sections representing different data gathering tasks, using different types of data. The first two are content analysis of secondary data and the further four are of primary data. All examples of secondary sources are unamended and are included below as they appear in the original documents

1. Content analysis of the executive minutes

Minutes of 15 meetings, all taking place during 2007, were reviewed. Categories reflect the content analysis as described previously, searching for references to key aspects of enterprise or knowledge exchange.

Category 1.1 - Employer Engagement

Employer engagement is a specific policy and sector strategy related to curriculum requirements in industry and small business (HEFCE 2006). Universities were invited to develop and deliver a work-related curriculum and diversify their undergraduate provision based on partnership activity with employers. This policy is referred to during the meetings and the following examples highlight the attention being paid to the employer engagement agenda.

The excerpts used are selected to reflect a range of interests and responses to the agenda.

6/3/07 191.2   Employer Engagement in learning at HE level (184.3): PVC would be involved in the preparation of a response to the pilot scheme together with DVC and HoHR due to their previous work on this subject.

o *20/3/07 204.3   Employer Engagement in learning in Higher Education (06/184.1): The group discussed possible future opportunities for employer engagement at YSJ within the Faculties. The Faculty of Business and Communication was highlighted as an excellent example of employer engagement with North Yorkshire Police*

o *20/3/07 230.2   PVC had requested that Head of REO should meet with DVC to discuss lines of responsibility for employer engagement in learning in higher education at YSJ.*

o *24/4/07 230.6   Vice Chancellor reported one of the key topics at the recent HEFCE meeting was employer engagement. The executive group agreed that YSJ needed to be more pro-active in its approach to employer engagement and try to increase engagement in this topic.*

o *26/5/07   259.2 259.2   Employer engagement (184.1): DVC agreed to consult with Head of Research and Enterprise Office REO and the Deans on this matter. PVC agreed to consult with [named Dean] who is leading the Foundation Degree Development Group and ask her to look at this issue.*

o *5/6/07 265.1   Employer engagement in learning in HE (06/184.1) DVC, PVC, HR would be meeting to prepare a paper on Employer Engagement in Learning in Higher Education for the SMT meeting on 12th July.*

Some references to 'employer engagement' relate to external opportunities but the focus is internal and on accountability and internal role delineation. The Deputy Vice Chancellor (DVC) responsible for enterprise and the REO, the Pro Vice Chancellor (PVC) for quality and curriculum.   No new activity is reported during the period. The executive team appears to be engaged in clarifying the line of accountability for the new work stream.

Category 1.2 Financial context

Minutes reveal that several issues confront the organization and create system- level challenges in the high-level management of University finance. The critical link between a diversified income and reporting of financial matters are general issues for the University, but are relevant to the development of knowledge exchange capacity across the organization. Further discussions at this time relate to the changing framework, permitting charities (YSJU being a charitable foundation) to generate income. This is significant with respect to generating a diversified income. The trading laws relating to companies of charitable status were changed and it was possible for the University (as a charity) to generate income. The following examples are indicative of these critical, high-level financial parameters;

27/3/07 212.5.1 The second key issue for the University relates to the financial management of the wholly owned trading subsidiary- York St John Enterprises, which is incurring VAT on its activity including the facilities which it owns. A learning Centre which the University may purchase from enterprises, thus owning the resource for Students'.

24/4/07 230.5   Director of Finance updated the group of his recent meeting with KPMG regarding Enterprise and VAT

3/7/07 286.5   Director of Finance... indicated that the outcome would probably be the transfer of all assets from Enterprises to the University with the possible winding up Enterprises and its replacement with a new trading company

Category 1.3 Operational management of external engagement-

Operational management of partnership activity is being introduced through a 'customer relations management' system. In addition, a new 'reward and incentive scheme' was being considered. This represents the development of new systems and processes across the University. The introduction of an Information Technology system was highly relevant to the knowledge management capacity, as capability to enable new methods of knowledge transfer and information sharing. The management of external engagement includes the development of a new post to undertake specific external projects and partnership activity but based in a five year contractual arrangement with a bank. The development of a new role sought to demonstrate a commitment, to external engagement and entrepreneurship.

Examples of specific activity are given below;

CRM system
8/5/07 244.1 DVC reported that the Client Relationship Management Software was being examined by [named staff including the Head of the Research and Enterprise Office]. The specifications coming through from the three of them will not be the same as that desired by [named person]. It was felt that there probably ought to be a technical person involved, and that when the specifications are ready they should be submitted to the Corporate Systems Board.

Reward and Incentive Policy
27/3/07 212.5.1   Reward and Incentive Policy (Paper No: Exec/06/215.1): The group discussed the paper and felt the following recommendations should be considered in the document: -
-the delivery rates should be considered in conjunction with VL rates.

-any work undertaken in addition to the 'normal scope of work' that would fall within this policy would have to be agreed with the faculty Dean or Head of Department prior to commencement.
-a pro rata payment of the delivery rate could be paid at the discretion of the Dean. The paper would be amended and returned to the Executive Group.

Professorial Appointment
3/7/07 279.6   Vice Chancellor reported on a recent meeting with [named person], newly appointed regional manager of Barclays Bank. She drew the attention of the Group to the tentative proposal of founding and funding a professorial Chair in Rural Enterprise that had been alluded to at the meeting [named person] had expressed Barclays desire to raise their profile in rural areas of North Yorkshire as part of a regional and national campaign.

The following comments were made:
o *the other partners within the Rural Academy would have to be approached with the proposal and it was suggested that Head of Research and Enterprise should do this after consultation with the VC;*
o *it was important to identify the pros and cons of the proposal for all three parties concerned (YSJ, the Rural Academy and Barclays);*
o *the level of funding required from Barclays – a figure of £75,000 for 5 years was suggested;*
o *how would a Professional Consultant in Enterprise assimilate into the Faculty of Business and Communication?;*
o *were there any ambiguities around ethical issues relating to Barclays Bank?*

The examples given here could not be tracked through the sequence of minutes. The random reporting of potential action is indicative of an incomplete strategy towards enterprise, so that any individual activity is difficult to place in the context of other organizational commitments. Random and apparently uncontested factors are listed and no decisions are recorded.

2. Content analysis of the research and enterprise committee

The Research and Enterprise Committee (R&EC), as a standing committee of the University had the core function of developing and managing the research and the enterprise development within YSJU. The agenda and minutes of eight meetings between October 2005 and June 2007 were analysed. Figure 10 captures the information as reported and any decisions made to inform the capacity building for knowledge exchange.

Figure 10 Findings from the review of 'enterprise' discussion - agenda and minutes of research and enterprise (R&EC)

AGENDA DATE	NUMBER OF ITEMS (TOTAL)	NUMBER RELATED TO KNOWLEDGE EXCHANGE	CONTENT OF MINUTES RELATED TO ENTERPRISE	CONTENT OF MINUTE
19th Oct 05	14 items	1	REO report*	
18th Jan 06	15 items	2	REO report and	**Report on HEIF fund**
15th March 06	14 items	2	REO report	
7th June 06	12 items	3	REO report	**Content management system and management review of REO**
18 Oct 06	13 items	1	REO report	
18th Jan 07	17 items	2	REO report with one AOB	**Report on HEIF funded activity**
14th March 07	14 items	1	Verbal report	**Enterprise strategy**
7th June 07	14 items	1	REO report	
Total	**113 items**	**13**		

* The standing item of the Research and Enterprise Report is produced by the Head of the REO and is an operational overview of activity of the office some of which related to enterprise projects and undertakings. Typically the reports are 'to note' and are not discussed.

Over two years and eight meetings of the R&E Committee of the University there were 113 items on the agenda. The agenda was managed by the DVC. Of these, only 13 items related to or named enterprise in the title. Of these, six were standing reports on the business of the REO, a further three a general discussion about the terms of reference for the R&E committee, two items to discuss HEIF proposals and, finally, two items related to the proposed enterprise strategy.

The agenda was dominated by research developments at time when the University was considering research capacity and assessment. This said, other critical issues related to enterprise, for example, the enterprise strategy (YSJU Enterprise Strategy 2007) and HEIF decisions were not discussed, but noted through a report from the REO.

Content analysis of the interview data

The interviews were undertaken to develop an understanding about the views and values of the senior team at the University. The interviews took place with executive directors and senior academic managers in the organization (Figure 11). This was to understand some of the views and values of the leadership team and to scope the engagement with knowledge exchange. I also sought to identify any barriers to knowledge exchange in relation to strategic or operational challenges (see research objectives, Introduction p.9) Analysis provides some explanation of the problems related to the slow development of enterprise and knowledge exchange activity.

Figure 11 Organizational chart of executive, senior management teams and corporate leads

Key- Executive team
Senior management team
Corporate leads
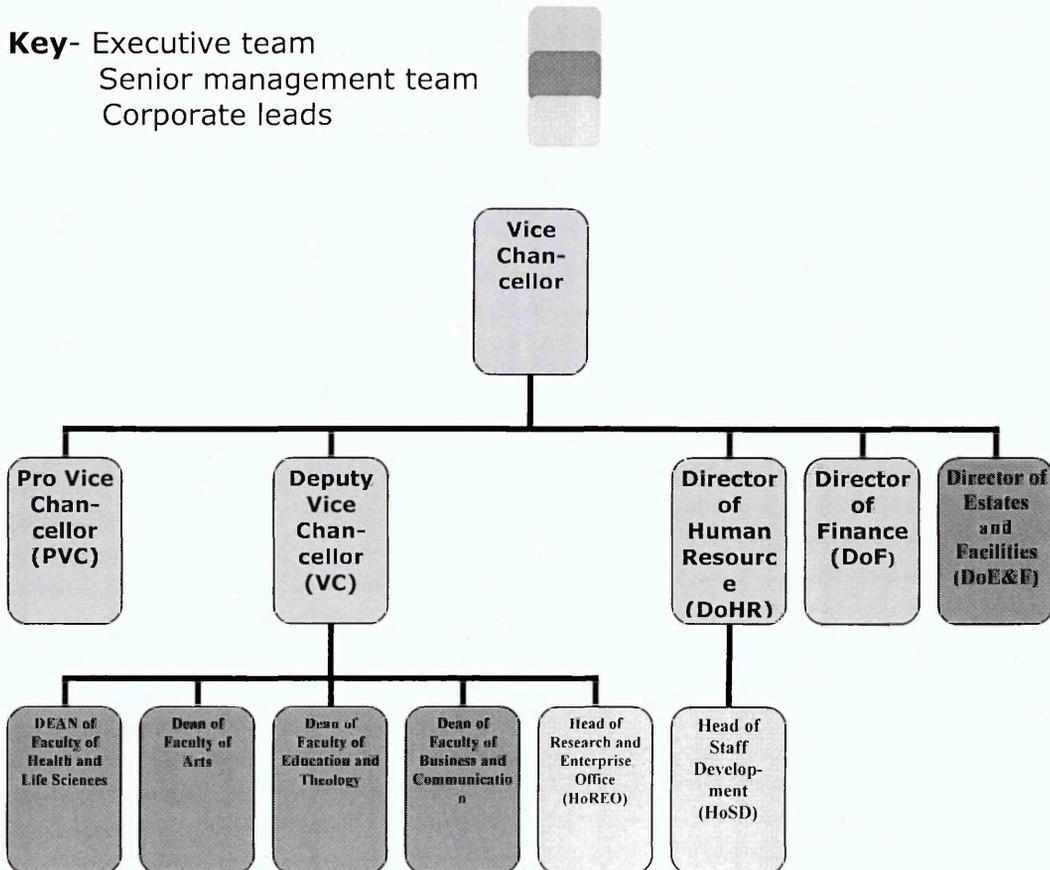
3. Content analysis - executive interviews

All interviewees had been in office for five years or more and had established relationships with both governors and with executive colleagues.

All interviewees had experience of working at other universities, both in the UK and abroad. All participants could articulate their role responsibility on the executive. The content analysis was undertaken on each interview and from that a set of categories emerged to explain the management focus on enterprise and knowledge exchange. The following ideas are apparent, with relevant quotes from three of the four participants.

Category 3.1 Strategic understanding of knowledge exchange;
The level of strategic understanding and assimilation of the policy and wider incentives moving the University towards knowledge exchange activity.

3.1.1 Awareness of Policy- awareness of the need to change related to policy.
The executive lead for research and enterprise activity at YSJU saw the main purpose as commercial and income generational;
"Enterprise agenda also known as 3rd leg, 3rd stream, because the first is teaching and the second is research and the 3rd is the outcome and it is logical in that enterprise is the practical application within commercial setting" (1)

He goes on to report,

"the move to enterprise and entrepreneurial comes about due to a world wide reduction in public funding for HE. It falls short of the need in terms of inflationary increase" (1)

This iteration of policy understanding is a relatively narrow reading of the demand for innovation and 3rd Stream activity in HE. Others had a more contextual view of the agenda and said;

"...it is a challenge, it is not the obvious route that the government had in mind but is not a closed door to us, we just have to think about it slightly differently" (3)

He identifies enterprise has a link with innovation and sees the potential of the University contributing to the regional economy and in particular, that we have to,

"play to our strengths, which are in the caring and creative areas.....the things that go around that that make life more colourful, theatre, history, art and the things that make life more bearable like caring , medicine community, these are the things that we can get involved in" (3)

3.1.2 Desire to engage in knowledge exchange

There was relatively little agreement about the purpose and methods of engaging in knowledge exchange among the executive group and only two suggested a strategic rationale for engaging in the area of activity.

"...there has been very little discussion related to enterprise activity and I have relatively little knowledge of the subject". (4)
and
"I don't feel well informed and that suggests that it is not a critical area" (4)

One subject refers to policy as a driver, but others used prior experience and example to demonstrate their knowledge base.

Category 3.2 Culture and knowledge exchange activity

The culture of the institution and the historical factors are considered by some to be significant in the development of a new area of academic practice.

"Its embryonic, there isn't a culture in the University [YSJU] and even in the big universities there are only pockets where it works." (3)

And, in relation to staff reward for participation
"incremental reward for particular roles wouldn't fit within the culture and might be divisive to target individuals in terms of their particular contribution"(4)

Specifically, in relation to the size of the institution:

"In a small institution, you have to look around and see who's interested in doing it and help them do it, and then you will change the culture." (3)

And also the development of a trading arm to manage the income of a charitable institution as an initiative instigated by the governing body.

"[I had] to confront high levels of negativity from academics but the governors had insisted on the setting up of YSJ Enterprises as a way of becoming more involved in the entrepreneurial activity" (2)

Clearly there are a range of values associated with entrepreneurial activity within the culture. The governors are reported as a driving influence towards enterprise.

Category 3.3 Building operational capability

3.3.1 Terminology

When asked about the use of the term 'knowledge transfer and exchange' there was general agreement that the term knowledge exchange was preferable as it represented the reciprocal nature of the relationship with external agencies and organizations. One person reflected that the term was not well known and did not describe the use of corporate and academic 'experience' and also a potential term for knowledge based partnerships.

'Employer engagement', (the most used term in the secondary data and minutes) was linked to knowledge exchange activity by one participant. He refers to the fact that employer engagement might create a 'pull' factor; employers in public and private sectors seeking specific curriculum or project management activity.

3.3.2 Academic contract / hours

Whilst there was some agreement about the necessity for knowledge exchange to become part of an academic delivery, there was no agreement about how this might be achieved. The specific agreed level of 440 hours of teaching was understood in different ways. The local agreement of 440 was seen as an immovable and self limiting factor in the development of 3rd

stream activity and, by all but one manager, was regarded as a barrier to the development of more flexible ways of working.

"We have had some pressure to look at workload models, which clearly has an impact here, but this is more about the way that staff contracts are managed holistically, what expectations there are of academic staff and how we work within the bounds of a professional contract"(4)

"People can be developed and it is incumbent on the university to take people through a process, encouraging the activity that it wants to take place" (3)

"The conflict for me is that the genuine need for academic staff now is to work in a flexible way, in a way that mixes a whole range of different types of activities more teaching or less research, more enterprise, less of something else ... it is not quite an individual workload but the removal of barriers,(4)

"Enable people to work to their strengths - 440 hours agreement is very restrictive and does not allow people to trade research time for teaching time"(1)

The national teaching contract (UCU- University and College Union 1990) had sought to enshrine the number of teaching hours at a supposed 550 per year in the 'post 1992 national contract' and this for some academics is a fixed indication of the single commitment to teach and provide curriculum input as their contribution to the university. Since 1992, the range of requirements on academics has changed and the potential conflict represented here is in engaging the academic workforce. The ambition might be to support new ways of working by negotiating academic workload to include enterprise and knowledge exchange.

3.2.3 Leadership responsibility for knowledge exchange
Perhaps controversially, one Interviewee did not think that anyone on the Executive team had responsibility for the development of organizational

knowledge exchange[9], suggesting that it becomes an additional activity in an increasing matrix of other responsibilities.

The area was generally regarded as underdeveloped, being described as "*embryonic*" and in need of considerable further support against a range of competing priorities for a new university.

"*There is no reason why YSJ can't be enterprising, but we need the frame work of where we would like to be.. and we need to start doing something*"(3)

3.3.4 Organizational structure

The development of the REO was commented on by several participants. The development of a bureaucratic function to manage enterprise and knowledge exchange was somewhat controversial. It would seem to have distanced some managers from the responsibility they may have otherwise taken for further knowledge exchange development.

Interviewee 2 recognised the aims of new, externally facing units to support employer engagement, such as YSJU Business School, but his view contrasted with interviewee 3 who was dubious that the creation of new structures would build demand for further participation with external partners. None of the subjects commented positively on the REO, as a new structure, to support knowledge exchange activity, nor did they identify how the REO was connected to or might support their current or future activity.

4. Content analysis- senior management

Two members of the senior management team (SMT) were interviewed, including a dean of faculty and a director lead. An understanding of the enterprise and knowledge exchange agenda was sought and it became evident that both participants were highly committed to an 'entrepreneurial' agenda. Once again a content analysis of the transcriptions resulted in broad categories and the relevant quotations under each theme are provided below.

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[9] The transcription of one interview with the executive team was corrupted and no records are available. The significance of the inclusion here is important but, cannot be verified.

Category 4.1 Entrepreneurship; using enterprise within academic practice

Both interviewees described themselves as holding a very broad portfolio of activity and both expressed a personal interest in the entrepreneurial and outward facing elements of the role. They each discussed how they had used their role to build strategic partnerships, which had been a rewarding element of the job and indeed, one interviewee saw this entrepreneurial aspect as a core activity. The notion of building external relationships was seen as explained best by the term, knowledge exchange.

"It (partnership working) has to be the way forward for institutions of our size and type." (5)

The personal commitment to the specific income related enterprise activity was added

"We have always been commercial; it is a part of the job I really enjoy."(5)

And the necessary ability was discussed as follows;

How do you align that skills base to the articulation of the regional development plan, what are the priorities out there? For the institution to understand that there may be some clear strategic alignments, and for others, we may have to come to a different strategic view where we can align more broadly."(6)

Category 4.2 Capacity to deliver knowledge exchange

The ability to assimilate new knowledge into the organization and to create systems and processes in support of ongoing delivery was a concern but was expressed indirectly. There were reservations expressed about the sustainability of activity in the context of the University:

"We have built some capital and experience - the next stage is... Where do we use that and to what extent can this be repackaged to be profit driven, to cover more than it's costs? But how can academics use experience and involvement in these projects to fulfil a research brief?", (6)

The senior managers were more critical about the lack of support from the REO. One manager saw a role for the REO in generating a 'dialogue' to support the shared use of resources and estates and the University knowledge base within the faculties. He expressed concern that these elements were not working towards the same ends (of building enterprise). More broadly, however, his comments relate specifically to the internal transfer of knowledge. He said:

"We need a structure to support us, that would allow those dialogues to occur, share best practice and feed those dialogues back in…..It is something to do with the quality of the dialogues that are had within those structures, which should make us able to make better decisions, so that things can happen on the ground", (5)

Category 4.3 Managing the academic workforce

Each manager had responsibility for a range of staff and recognised the potential of individuals and subject areas in meeting the external demand. Managers saw a problem in the limited resource supporting enterprise and external engagement and all cited examples of where this had led to conflict rather than to a coordinated response to a strategic learning opportunity. One interviewee commented:

"We have always been commercial, always had to take a business approach to the operation. We have to manage – that, at times, is viewed negatively by certain areas of academic activity. It is a key challenge – perception, a lack of understanding of the mission and objectives," (6)

All were aware that 'new' and potentially useful innovations were shaped against a highly adversarial backdrop, discussions tended to focus on the limitations and challenges of the 'new' compared to the status quo.

Category 4.4 Cultural and historical context

Both interviewees recognised that the new structure of the University was a positive development and that this had a specific impact on enterprise activity. This comment was considered to be a significant as a way of

describing the momentous transition from college to university. 'Cultural moment' seemed a useful way of describing the opportunity for the culture to develop and build on previous traditions:

"We are at a very specific cultural moment in which, suddenly, we will be at an acceleration of engagement with the external." (6)

Both interviewees considered themselves to be experienced in developing and delivering on projects that had entrepreneurial ambition and suggested that the coordination across the organization was consistently problematic, with respect to delivery to targets and in relation to income and other benefits.

Content analysis of the academic community

Having collated information from senior colleagues, a further range of data was sought from within the academic community. Two different forms of information were collated, one from a group of known enthusiasts and another from a survey of the whole academic staff population. The focus group was made up of 'enterprise-engaged' academic staff with informal and formal roles relating to knowledge exchange. A survey of the academic workforce was undertaken, with a questionnaire sent via internal mail to all academic staff in full or part time roles. The survey of YSJU was a unique opportunity, in so far as the size of the organization permitted a total population sample group.

5. Content analysis - the focus group

Four academic staff, including a reader, two Head of Programmes and the so called 'knowledge transfer champions'[10], participated from all four faculties, jointly representing five different subject areas. All participants were male and all participants were, or had been, engaged in formal knowledge exchange activity. They described this activity in different ways, as 'research', as project management, as curriculum development and external enterprise. A lack of consistency existed in the use of terminology

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[10] The 'knowledge transfer champions' scheme was a role attributed by the Regional Development Agency as a way of promoting 3rd stream activity and two individuals currently had this title.

in the group and it was evident that this configuration of a 'group' had not occurred previously, as there was a lack of familiarity among the individuals. As researcher and convener, I was the only known person to all participants although participants were aware of each other's names and titles. The key findings from the discussion are presented below:

Category 5.1 Career perception

All participants were committed to an academic career path whilst, at the same time, recognising that they were working to progress a 'professional' commitment to the subject area. There was also an understanding that few people want to engage with academic enterprise,

"People who want to do it will, like those who get a PhD, they will love to work entrepreneurially but the question is, are the university structures there to support it?"

The motivation to undertake external engagement was recognised as a type of academic development that would support a longer engagement in contemporary practices and would be linked to professional credibility:
 "...for new staff coming in we want people to stay vital and engaged in the outside, whilst recognising that creative engagement is more possible in this community."

Specifically one group member reported,
"I wanted to have a mission to change things in relation to professional engagement in the programme."

Category 5.2 Academic innovation

Several participants saw their external projects as providing wider opportunities within their subject area,

 "Students like projects where they can work within projects and international links….. I work across different countries so I don't separate international activity and enterprise - it is all there together"

All the knowledge exchange activity had been undertaken as additional to other academic commitments and when asked how opportunities were identified, there was a focus on reputation as well as income. All participants echoed the statement,

"I see a fantastic opportunity in lots of different ways, not just income generation but to profile the institution."

The suggestion is that knowledge exchange activity is linked with important concepts of knowledge management and the recognition that academic currency is based on the flow of knowledge and participation between the University and the outside world of professional practice.

Category 5.3 Perception of strategic leadership

There were different perceptions of the corporate support for enterprise with a focus on individual operational activity. One participant described it as a conflict between strategic and operational functioning,

"at a strategic level there is a will for it [enterprise/knowledge exchange developments] .. but on the ground it is a different story."

Whilst another was less confident that the organisation was managing the corporate intention to undertake innovative activity,

"There isn't the will to bring about to enable the problem of doing things differently."

One member of the group drew on external experience of other universities and expressed a view that the projects needed high level strategic sign up to become more enterprising,

*"There are **not** three streams [of activity] there is one river and they [leaders in other university] have understood that from day one......and there are universities who have grappled with the philosophical underpinning."*

Category 5.4 Project management support

There was a limited discussion about the shared competencies in undertaking knowledge exchange, but a common experience of feeling frustrated and 'alone' with the technical aspects of the activity came across;

"I have identified problems - for example, managing the IP [intellectual property issues] or drafting a contract - but where do I go with them?"

"There just isn't the will and there doesn't seem to be anyone up there to make this happen."

"If you want anything doing, you have to do it yourself."

The specialist sector knowledge was a factor in managing the knowledge exchange projects. Some of the frustration was focused on trying to report on this knowledge and it being contrary to other methods, particularly financial practices, in the University.

"I have used [the project] experience to identify a realistic pricing strategy for the sector..........., and, although I have written the paper to look at the work load model, and the University wants to charge £108 per hour, which the sector will not pay."

Personal reflection on the group experience
The highly unfamiliar context of a group discussion, tended to promote a rather negative conversation, participants first outlining their ideas and subject interest and then speaking about the lack of University support. The results were characterised by the peevish comment "if you want something doing you had better do it yourself".
The negativity related to the lack of administrative support that might be available, rather than any lack of confidence in the view that their project was going to have sustainable outcomes for the organization as a whole.

6. Content analysis –academic staff survey into enterprise and knowledge exchange

Of the 196 staff invited to participate, 53 responded, a response rate of just over a quarter of staff; 25 (47%) men and 28 (53%) women. The equal spread was of interest; however the total academic staff group were 75% women to 25% men. This indicated that proportionally the survey uptake was higher amongst male members of staff than amongst the women staff members.

Across the four faculties the responses varied with Health and Life Sciences 36% (n=19) and Business and Communication 32% (n-17) of the total responses. The Faculties of Arts and Education and Theology counted 17% and 15 % respectively. It is worth noting that the faculties are all of similar size with academic staff (approximately 85) and student numbers (approximately 1500). Proportionally, the uptake in two faculties was therefore twice that of the other two. There is no clear explanation about why this would be the case.

Of the respondents, 77% (41) were senior lecturers and 8% (4) readers or professors. At that time, the number of professorial appointments and readerships was small, and therefore this number is to be expected and not suggestive of an antipathy towards knowledge exchange. In fact many of the professorial appointments were based, not on the research criteria but on the contribution to scholarship and some were newly conferred as honorary appointments associated with role. The large proportion of senior lecturers was also to be expected, being the majority group of academics.

6.1 Demographic information

The survey was analysed using descriptive statistics. Examples of the simple descriptive comparisons are shown in the next few tables, i.e. Figure 12, gender and number of years at YSJU, demonstrating a relatively even gender distribution although a higher proportion in both groups coming from the more recently recruited. Further statistical analysis was undertaken with the support of an expert. The 'Pearson' test was used to consider the significance of any combination of data, particularly considering

the likelihood of a demographic factor being of significance. These tests showed no significance between any factors compared.

Figure 12 Gender and years at YSJU - cross tabulation

Gender	Years at YSJU				Total
	less than 5	more than 5	more than 10	more than 20	
male	12	5	4	4	**25**
female	15	5	8	0	**28**
Total	27	10	12	4	**53**

The length of academic practice was investigated further, to discover any trend towards the length of years in academic practice across the faculties. The distribution of responses (Figure 13) again, shows a fairly even spread of participation by those in the different categories to the four faculties. By was of interest, it appeared that newer staff in 'Education and Theology' made up the greatest number of those responding from this Faculty. This response may have been linked to a strategy of faculty recruitment i.e. to engage those with an external focus, or it may have been that the questionnaire simply appealed to those who were newly out of professional practice in schools and theology settings.

Figure 13 Number of years in academic practice faculty - cross tabulation

Number of Years in Academic Practice	Faculty				Total
	Health/Life Sciences	Business and Communication	Arts	Education & Theology	
less than 5	4	3	0	5	**12**
more than 5 less than 10	6	4	1	2	**13**
more than 10 less 20	7	4	4	1	**16**
more than 20	2	6	4	0	**12**
Total	19	17	9	8	**53**

6.2 Discipline knowledge

Initial questions, within the survey, related to discipline and knowledge area and then specialist knowledge and academic interest. The purpose of the

question was to log and identify the core knowledge groupings, not only within the faculties but also across faculties, to identify the knowledge base of the organization.

The following results (Figure 14) below, shows the range of academic discipline areas, in the vertical direction and the Faculty distribution, on the horizontal. This tabulation suggests that only the Faculty of Arts has an academic group who define their practice under a single heading. Other faculties have defined their discipline in relation to their academic, but also their professional qualification and interest. In the further listing, one can see how the profession-specific group, highlighted in bold, numbers 30 of the total 53 and extend across three faculty areas.

The faculties in a small organization are a wide combination of subject disciplines. The cross tabulation of the categories with the Faculty headings demonstrates the range of subjects that exist across the faculties. Whilst some subjects group as one might expect, i.e. art-related subjects in the Faculty of Arts and 'theology-related' in Education and Theology, the grouping 'profession–specific' spread across three faculties. This suggests that the professional-disciplines create a different picture of the expertise within the organization and suggests a range of 'shared' professional orientations across the organization.

Figure 14 Discipline area/faculty, cross tabulation

	Faculty				Total
Discipline Area	Health/life Sciences	Business and Communication	Arts	Education and Theology	
arts related	0	0	9	0	9
profession specific	**12**	**12**	**0**	**6**	**30**
sport related	2	0	0	0	2
health related	5	1	0	0	6
communication and management	0	1	0	0	1
theology related	0	0	0	2	2
other	0	3	0	0	3
Total	19	17	9	8	53

6.3 Knowledge base of the academic group

Participants were also asked to complete the sentence "My areas of knowledge are.... The cross tabulation of this 'knowledge area' list, revealed that no two academics within or across faculties gave their knowledge base the same header. The grey box below lists the 53 named topics which were cited as areas of knowledge. This example, demonstrates the difficulty in codifying knowledge and particularly the individual perception of knowledge.

Applied drama, art design, bible and lay studies, cardiac rehabilitation, cardiovascular, career choice, choreography, coach education, community psychology, composition, conversation, counselling, counselling, dance development, education/learning, EU, hand therapy, health professions, health care, innovation, language teaching, language studies, languages, leadership, learning and teaching, lighting design, literacy, Chronic illnesses, metrology, MSK Physiotherapy, music, neurology, old people, Occupational therapy, paediatrics, phonetics, practice based research, primary curriculum, primary pedagogy, primary teaching, programming, project management, psychology, public health, social science, theology, sport, tourism, visual perception.

Initial interpretation of findings

Having reduced the discipline groups to 'professional practice' areas, it became clear that no further categorization of knowledge was possible. The majority grouping of people across faculties hold professional registration and academic practice is a second career, often undertaken as a continued commitment to the vocational subject, with the teaching/ education of students in a professional area the core motivation. The suggestion from the literature, is that universities are struggling to capitalise on the individual knowledge of academics and furthermore the personal and professional competencies of academic practitioners (Woollard *et al.*2007).

The 'knowledge' areas identified, demonstrate that academic staff respond to questions about their expertise in a highly particular way. The invitation was to identify three separate areas of subject expertises. Knowledge based approaches to innovation such as absorptive capacity (Cohen & Levinthal

1990) suggests a complex, multi dimensional approach to knowledge. The organizational responsibility would be to share common knowledge through learning and development (Greenhalgh *et al.*2004), whilst continuing to endorse specialists in highly diverse fields.

6.4 Knowledge exchange experience

In continuing to analyse the questionnaire data, it became clear that the staff experience of knowledge exchange was very limited. Several staff responded to the question; "Please tick any or all of the activities that you have undertaken in the context of academic employment at YSJU", indicating that they considered knowledge exchange to be (for example) "external examining". Some also named learning and teaching activity and other responsibilities, not particularly associated with enterprise or typical of university-industry partnerships. External consultancy was perhaps the widest definition and so was perhaps, indicative of the general understanding and experience of knowledge exchange. Figure 15, demonstrates a simple yes/ no response to the question regarding involvement in 'external consultancy'.

Figure 15 External consultancy/ faculty, cross tabulation

		Faculty				Total
		Health/Life Sciences	Business and Communication	Arts	Education and Theology	
External Consultancy	yes	7	7	4	2	20
	no	12	10	5	6	33
Total		19	17	9	8	53

20 people reported experience of external consultancy, but in contrast only 14 of the 53 participants were engaged in planning and delivering continuing professional development (CPD) (Figure 16). The local definition of knowledge exchange includes the participation in new external facing curriculum, and this format of knowledge exchange may be very attractive to learning and teaching organization and a genuine offer to the local community and region.

CPD activity is facilitated within the faculties but only two of the four have a designated lead for CPD curriculum, (Health and Life Sciences and Education and Theology) In the former, the curriculum development and delivery is planned and co-ordinated and the result indicates that the coordination and local leadership has had some impact on the level of academic engagement (n=11) (Figure 16).

Figure 16 Speciality or bespoke CPD /faculty cross tabulation

		Faculty				Total
Speciality or Bespoke CPD Development		Health and Life Sciences	Business and Communication	Arts	Education and Theology	
	yes	**11**	3	0	0	14
	no	8	14	9	8	39
Total						
		19	17	9	8	53

This CPD activity is based on an established Strategic Health Authority (SHA) contractual basis and an expectation from the senior manager (Dean) that all academic staff will participate in a range of CPD delivery. The administrative structure and external network is maintained to coordinate the planning, development and monitoring of new CPD products. However, the work attracts no acknowledgement as 'employer engagement', in spite of achieving a financial surplus and a positive evaluation from students and other stakeholders.

Academic staff in the faculty of health and life sciences were invited to participate in CPD on the basis of the following criteria;

1. Academic expertise or research in a relevant area,
2. Availability, against a backdrop of their other workload,
3. Individual motivation to contribute to health services and workforce development, and
4. Ability to manage the learning expectations of the post graduate / post experience practitioner

This set of criteria has been generated in practice and results in a significantly higher number of participants in CPD activity as knowledge exchange.

6.5 Other areas of knowledge contribution

The highest positive response from staff regarding their engagement in knowledge exchange activity was via a 'specialist contribution to a project' (see Figure 17, below). Many academic staff clearly see themselves contributing to project activity and whilst this is not easy to qualify, due to the limitations of the questionnaire format, it is notable that 28 responded positively.

Figure 17 Specialist contributions to a project

	Frequency	Percent
yes	28	52.8
no	25	47.2
Total	53	100.0

Furthermore, in response to the question "Please identify any current knowledge transfer/exchange activities by name", the following information was offered.

The following list of projects This list of knowledge exchange projects (above), are reported by individuals as an element of their academic workload. Some of the project will be recognised by the faculty management, but most are 'hidden' from the executive due to the lack of reporting mechanisms. There are no means for capturing the outcomes of these projects within the University, nor transforming and exploiting (Zahra & George 2002) knowledge gains within the organization. Many of them will simply appear as a 'special project' budget line within the faculty, 'hosting' the work. The range and scope of activity is highly diverse and sector specific. It demonstrates the use of the various knowledges, vocational, professional and subject specific, used to undertake external facing knowledge exchange.   The perceptions of academic staff undertaking these projects were the further element of inquiry within the survey.

- Business advice and mentoring to local entrepreneurs and voluntary sector
- Bologna Process and conference
- Short courses on leadership
- BBC Learning English website
- Establishing a business advisory group
- Comenis- National centre for languages
- National activity with UKPHA
- Mozart Collaboration
- CPP project
- Community arts project
- National railway museum collaborative
- Tanka poetry exhibition
- collaboration with York City Council- Dance

- 'Instant Dissidence' 2008 tour
- Falls management, CPD event
- Northern Ballet Physiotherapy consultancy
- DVD production on seated exercise
- Card sort project
- North Lincolnshire integrated learning project
- Trustee of special educational centre
- Summer school activity
- Product evaluation for educational publishers
- English institute for sport
- Sport Science support with Newcastle United
- Woodlands Respite Home – snoozeleen project
- Assist UK capacity building project

6.6 Perception of benefits of knowledge exchange at YSJU

The final questions on the survey addressed the barriers and benefits of engaging in knowledge exchange. I was interested in how academic reputation and currency might incentivise participation. Literature suggests that reputation is mainly important to those who also value their ability to network and engage (Wright & Wright 2000, Brew 2002)

The question asked; *'What benefits did you individually experience directly as a result of the knowledge exchange activity?'*

The following section of the survey tackled the range of perceptions in relation to direct or indirect benefits of knowledge exchange. The survey

invited academics to select the benefits from a list of possible responses. These were analysed by entering 1 for a positive response and 2 for a negative response or no response. The following data represents a range of perceptions across the academic workforce. The suggestion, is that staff are able to recognise a lack of formal incentives in knowledge exchange activity, but, do see advantages in relation to personal satisfaction and professional networking (Figure 18).

Figure 18

Personal and organizational benefits to knowledge exchange

	Yes	No
Personal benefits		
Financial reward	4 people (7.5%)	49 people (92.5)
Personal satisfaction	34 people (64%)	19 people (36%)
Personal/professional network	30 people (57%)	23 people (43%)
Personal reputation	24 people (43%)	29 people (51%)
Organizational benefits		
Authorship or publication (related to knowledge exchange)	18 people (34%)	35 (66%)
RAE submission	11 (21%)	42 (79%)
Surplus income	13 (25%)	39 (75%)

Initial discussion of benefits

The Research Assessment Exercise (RAE) assesses the quality of publication and 11 people said that their knowledge exchange had resulted in a publication, suggesting that a third of the individuals responding were engaged in writing up their project activity. There were no further questions to report how or where this publication may be used within academic practice and there is nothing to suggest that the quality would meet the standard of the RAE. It does suggest however, that several academics were undertaking knowledge exchange for benefits other than personal satisfaction and professional networking. The suggestion is that some subjects, particularly those in professional areas, including those associated with applied research and engagement in sport, business and management

studies, valued their inclusion and participation in external facing activity. Many (30 individuals) reported participation in professional and other networks as a result of ongoing knowledge exchange.

Only four academic respondents reported knowledge exchange had generated surplus income for YSJU. This low number might be regarded as problematic, in the context of the University strategy that seeks to generate income from knowledge exchange (key strategic aim 7- YSJU Corporate Plan 2007-12). Knowledge exchange, as defined by higher education policy is intended to create a new and diversified income for the sector (Lambert 2003) and the '3rd mission', might contribute to the viability of the sector as a whole. The concern with this finding might be that academics, are undertaking a range of knowledge exchange as defined by projects and consultancy, but, are not able or willing to manage the costing of the work. This data raises a range of concerns in relation to the outputs of knowledge exchange work. More standardised operating procedures could support the negotiation and contractual processes and ensure that academic knowledge exchange is appropriately valued and rewarded. In addition and, in keeping with the views of the Director of Finance, (see interviews) the University should protect itself from over-selling or undervaluing its resources and knowledge assets.

6.7 Perceived barriers to knowledge exchange

The final section of the questionnaire dealt with the perceived barriers to the development or continuation of knowledge exchange. As discussed, this area of analysis was a key outcome of the diagnosis. Thirteen statements were rated by respondents to rate on the basis of a Likert scale using 1 to indicate a strong agreement and 5 to indicate a strong disagreement with the statement.

The findings presented (Figures 19- 22 overleaf) represent the responses, by frequency, in each category. Presented as a histogram, the responses are distributed across the mean. The results indicate the distribution of views that exists to nine of the thirteen questions and can be considered a

baseline perception about barriers to knowledge exchange. The central bar represents that there is no strong preference and that people neither agree nor disagree. In the responses to these questions, the mid response was the greatest in nearly all cases and this provided an interesting perspective on the issues insofar as, the most academics responded but had no strong preferences about knowledge exchange. The distributions in Figure 19 suggest that participants in the survey were not lacking in interest about knowledge exchange per se. The responses to the second statement indicate that there has been a lack of opportunity (Figure 20) for about half of the academic workforce.

Figure 19 'Lack of interest in knowledge exchange'.

Mean =3.52
Std. Dev. =1.229
N =44

Lack of interest in enterprise and KE
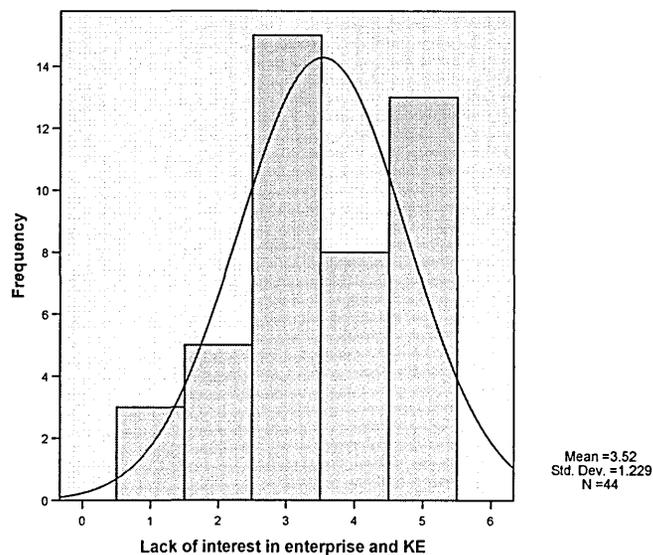
Furthermore, an interest in learning and teaching (Figure 21, overleaf) is an indication that academics within YSJU, learning and teaching organization, do align their knowledge to a traditional view of professional and vocational education. The preparation of undergraduates for professional careers may be considered a motivation and perceived priority in the minds of academic practitioners.

Figure 20 Lack of opportunity for project involvement

Lack of opportunity for project involvement

Mean =2.93
Std. Dev. =1.156
N =45

Lack of opportunity for project involvement
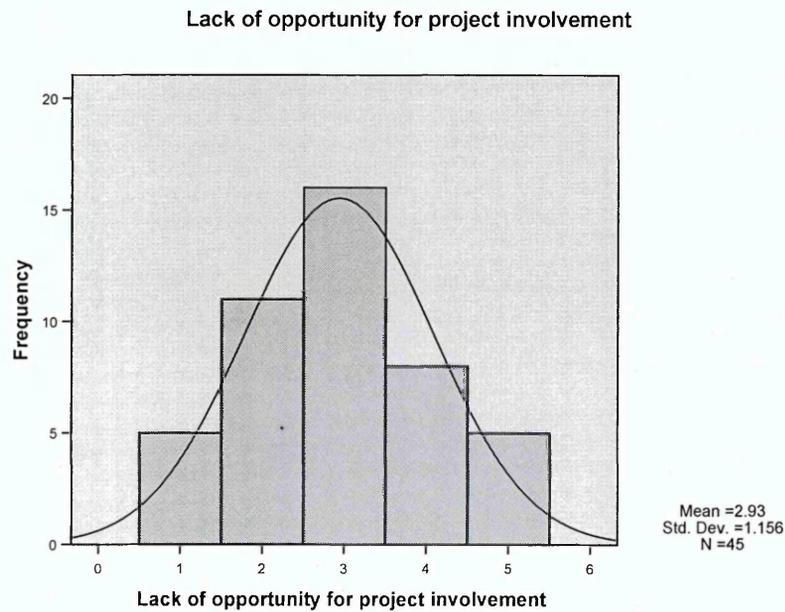
Figure 21 Priority interest in learning and teaching.

Mean =2.96
Std. Dev. =1.398
N =46

More interested in learning and teaching
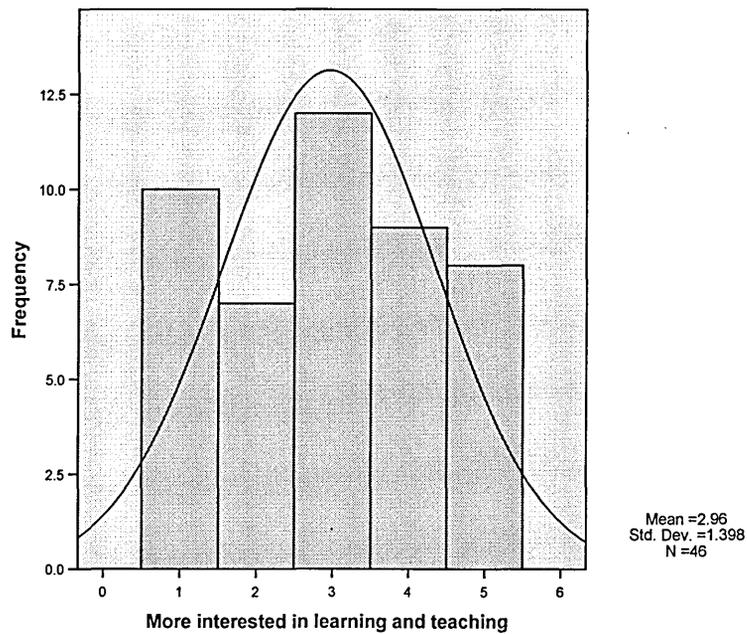
The final diagram (Figure 22) suggests an inconclusive response to the suggestion that research is a stronger interest to academics and separate from knowledge exchange. All of these questions presupposed that knowledge exchange was a new and additional to current practices, within the academic contract.

Figure 22 More interested in research

Mean =3.09
Std. Dev. =1.363
N =46

More interested in research
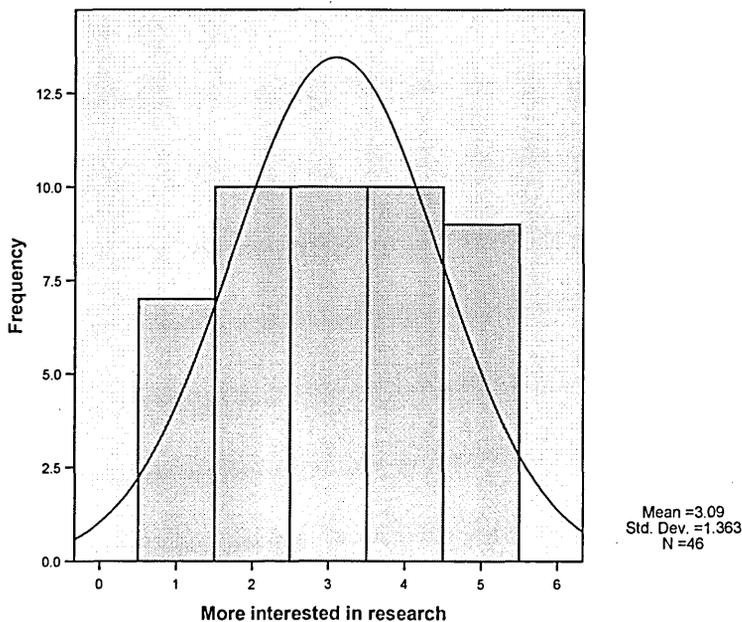
The following set of responses may indicate that the academic community shows recognition of the lack of factors to incentivise new academic activity. Career rewards (Figure 23) and other rewards and incentives (Figure 24)

are among the barriers identified. The lack of time (Figure 25) to manage an additional range of activity was a concern articulated by several senior managers. They felt that the workload model for the University restricted the further development of academic enterprise through knowledge exchange (see results of executive interviews). There was greater recognition that there was no reward, (financial or otherwise) *and* a spread of views about the limited time, as a factor influencing academic involvement in knowledge exchange.

Figure 23 Lack of career incentives

Mean =2.45
Std. Dev. =1.066
N =44
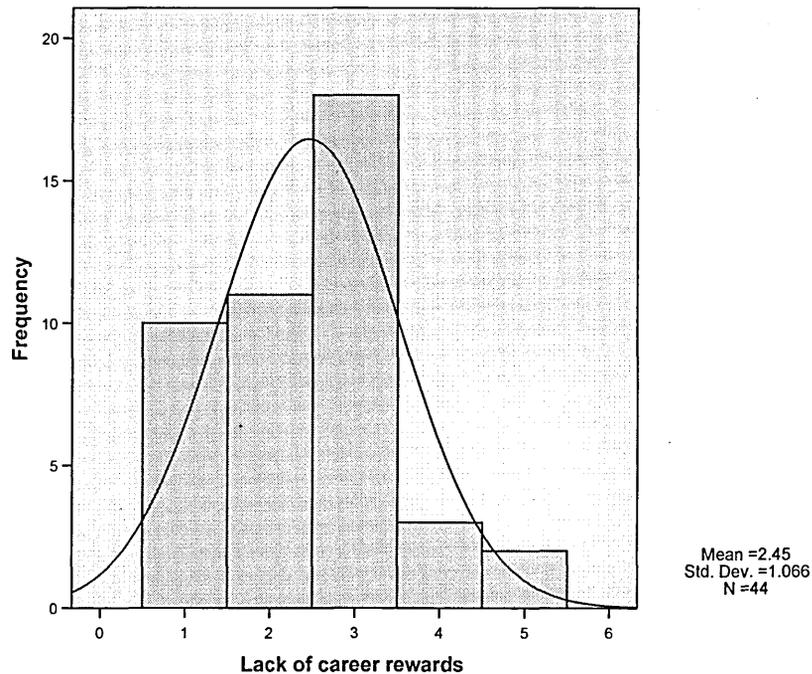
Figure 24 Lack of reward and incentive

Mean =2.61
Std. Dev. =1.224
N =44

Lack of reward and incentive
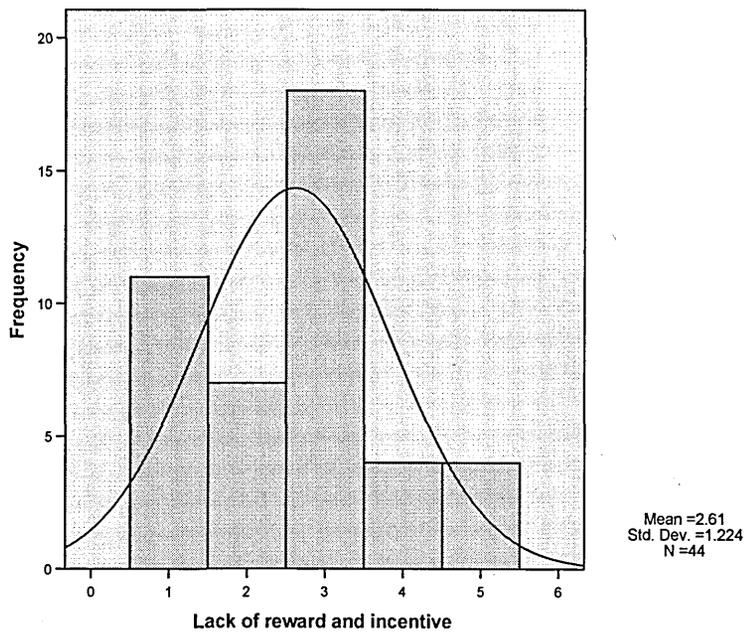
Figure 25 'No Time'- the distribution was a response to the statement - '*I would be interested but have no time for knowledge exchange'*

No time

Mean =2.93
Std. Dev. =0.879
N =46

No time
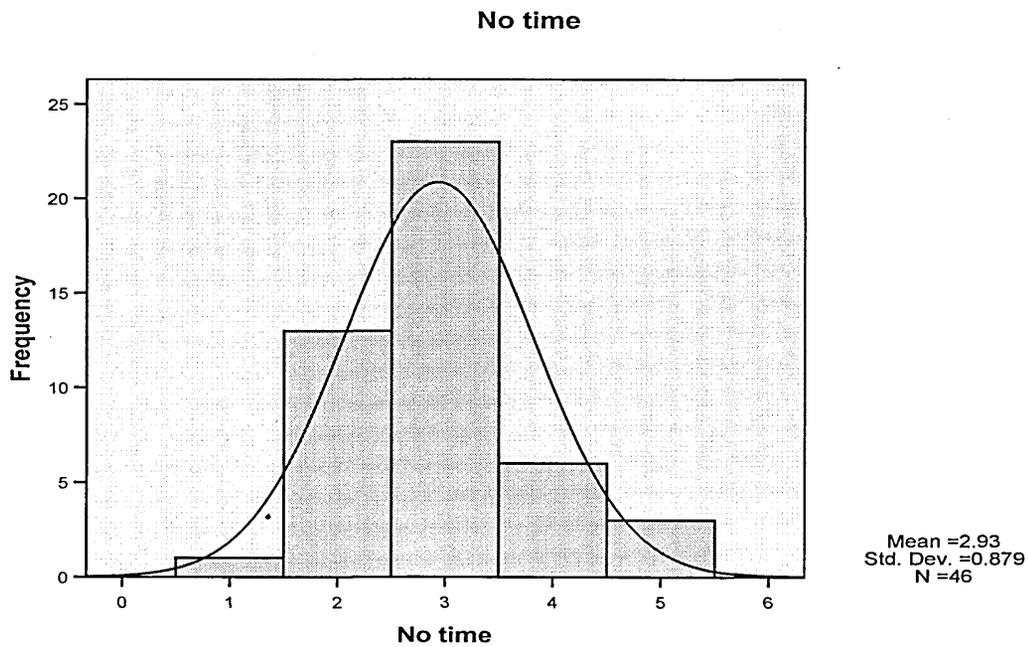
Income generation is a possible and desired outcome of academic enterprise and knowledge exchange at YSJU. I was aware that the academic workforce may find the financial requirement a major barrier to

participation. The following results show that 20 of 53 respondents disagree or strongly disagree with the statement: *'commercial activity is **not** consistent with academic practices'* (Figure 26)

Figure 26 'Commercial activity is not consistent with academia'

Commercial activity not consistent with academia

Commercial activity not consistent with academia
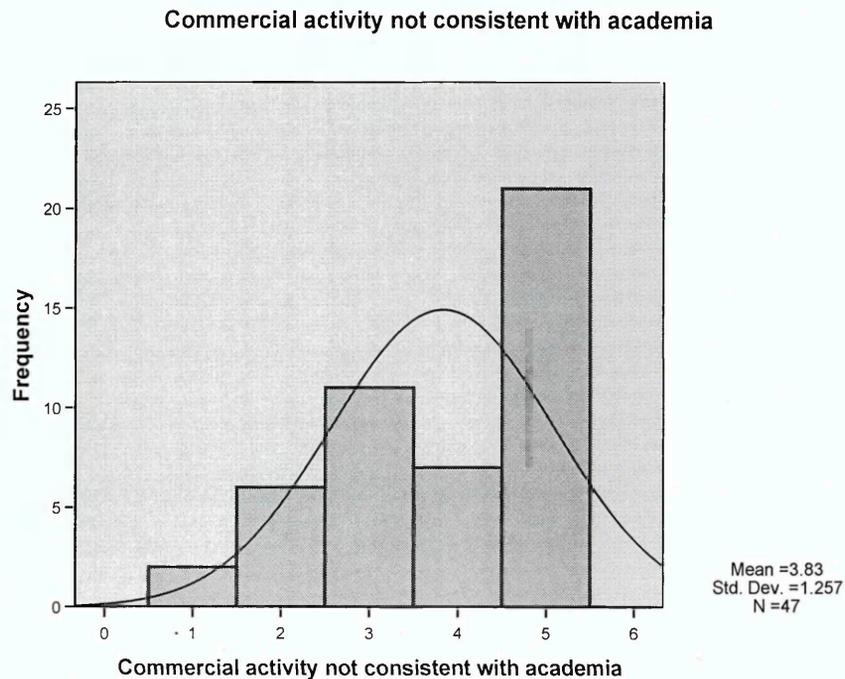
The aim of the survey was to gather opinion about the operational issues in the management of knowledge exchange. The statements below reflect the opinion about management, administration and 'infrastructure' of the existing organizational support but the survey does not attempt to specify what was meant by this term infrastructure. Because of the lack of general understanding in knowledge exchange practice, it could be said that academics responded to this element of the questionnaire rhetorically. Only those with direct project management experience would recognise the limited systems and processes to support contracting, financial planning and administrative support.   The impact of the REO activity was however, not recognised as an element of the infrastructure to support academic activity. The survey attempted to raise the issue of academic or administrative capability, including marketing and financial support, required for the effective management of knowledge exchange. The operational aspects of

knowledge exchange: professional administration, business development administration, project management expertise and a commitment to knowledge productivity are important factors in the delivery of an increased capacity for knowledge exchange. In response to the statement (Figure 27 below), there is strong agreement, indicating dissatisfaction with the infrastructure to support academic participation.

Figure 27 'There is no infrastructure to support for knowledge exchange'

Mean =2.56
Std. Dev. =0.965
N =48

No infrastructure for enterprise and KE
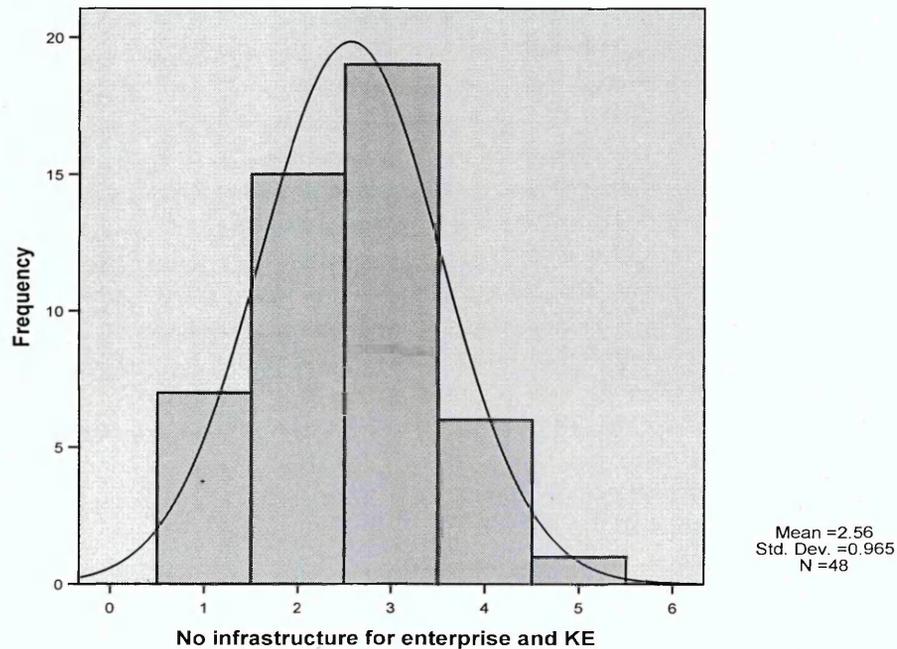
6.8 Additional comments and contributions

The questionnaire offered the opportunity for academics to offer any additional comments. This prompted very few responses, but the following two, represent the contrasting views, and some insights into the critical dimensions of identity (Alvesson 2001) and values, underpinning knowledge exchange at YSJU:

"Why does everything have to be about money, what is wrong with allowing people to just get on with their research."

This comment suggests that the title of the booklet 'Enterprise and Knowledge Exchange Questionnaire' had identified the strong relationship

between knowledge exchange and income generation, through enterprise. Perhaps this individual had a better than usual knowledge of the University strategic aims, and saw entrepreneurial activity as a threat to academic autonomy.

In another cases, minor frustration with the perceived lack of support for external facing activity was expressed. The second of the two selected comments was,

"I see the demand from the real world as really important and universities, like all businesses need to respond to that demand"

This comment demonstrates that there are those in the academic community who wish to develop a form of engaged knowledge practice at YSJU and who consider their academic participation as associated with and responsive to the knowledge demands in the local and regional context.

Discussion

In this section I summarise the key findings from the data collected during the diagnosis and comment on the data in relation to the concept of absorptive capacity (Cohen & Levinthal 2000) and suggest how this concept might be useful in identifying the organizational 'problem'. I will then draw some initial conclusions to support the action research process.

The content analysis of the secondary data (minutes of executive and senior management teams meetings) generates three categories: **employer engagement, financial context, and operational management of external engagement.** There was no evidence of specific discussion about knowledge exchange or 'enterprise' linked to local strategy, financial management or income generation. A suggestion can be made that the executive hold a disparate range of dialogues, that pick up on a variety of issues related to externality. This acquisition of information, can be regarded as a 'potential absorptive capacity' (Zahra & George 2002) with 'Gatekeepers' identified as a role (Jones 2005) supporting the acquisition of new information into the organization. The senior team were clearly

appraising the extension of 'employer engagement' policy and its possible impact on the learning and teaching portfolio, although their focus appears to be mainly on the internal role responsibility for managing the change. One could argue that they focus on the more operational necessities of a change agent (Jones 2005) and less on the strategic leadership and communication of a new imperative across the organization.

The Research and Enterprise Committee (R&EC) focus on the research capacity, particularly in the light of the submission to the RAE and demonstrate a similar a lack of focus on knowledge exchange.   The suggestion at an early stage, (Jan 07), was that enterprise and knowledge exchange should be developed separately from research. This idea was not a strategic plan but was rather played out in the actions of those within the institution. There is no evidence of a strategic discussion and the discourse was characterised by operational and practical concerns. The relatively low level, problem-oriented discussion at these meetings suggests a lack of strategic dialogue, as an overarching finding. It is possible that this, notable lack of strategic discussion, limited the acquisition and assimilation (Zahra & George 2002) of the changing sector context. Furthermore Jansen *et al* (2005) suggests capabilities for the development of absorptive capacity (Jansen *et al*.2005), allowing the assimilation of new knowledge and perspectives into the Organization. This was not evident within the minutes of executive staff and discussion regarding the external corporate partnership opportunities.

Discussion about 'employer engagement' prioritised issues of internal management of an external agenda, and did not result in any significant change over the six month period. The workforce engagement and HR processes required to respond to the critical changes in culture, were not considered and the 'reward and incentive' proposal was not discussed in relation to an overall strategy. The information was processed in relation to current activity i.e., to increase student numbers on existing programmes. This was a misunderstanding of the wider implications of the policy. Absorptive capacity is enhanced were the assimilation is undertaken through a specific codification of the demand and this is achieved via a

process of negotiation and dialogue. (Zahra & George 2002, Jansen *et al.*2005, Lane *et al.*2006)

Against this backdrop, the executive interviews were undertaken to build a specific understanding about enterprise and knowledge exchange. Three further categories were developed: **strategic understanding of knowledge exchange, culture and knowledge exchange activity, and building operational capability for knowledge exchange.** The three areas all identify conflicting priorities and a lack of organizational consensus around a strategy. A shared ambivalence is evident. Reference to cultural norms and historical precedents, help to explain how, key events and previous actions (i.e. the formation of YSJ 'Enterprises') were associated with the scepticism about entrepreneurial activity. The leadership sought to defend or otherwise limit the spread of this initiative, by creating a separate entity. The rationale for this was the limitations of the charitable status, but there is no consistent desire to pursue an entrepreneurial goal in relation to the knowledge productivity of the organization. Again the pattern here is of a senior team who have extended the potential absorptive capacity through acquisition but who are inadequately assimilating knowledge through the organization.

Four sub categories appear under the header of operational management. The executive focus tended to be on functional issues, including: **terminology, academic contracted hours, leadership responsibility and organizational structure.** There was no dissent about the use of the terminology – knowledge exchange, but in other respects there was limited clarity about the adoption of new operational structure, made possible through the HEIF. The organizational structure to accommodate the new, potential activity of knowledge exchange was under discussed and views about developments were undeclared. The conflicting range of views may have led to a low desire to prioritize 'knowledge exchange' and enterprise as a topic (Argyris 1990) The overriding suggestion is that factors such as the agreed teaching hours and the faculty structure were immovable features, enshrined in a history and culture that leaders felt unable to challenge or to change. The need for operational experience and learning was noted by

one member of the executive although others alluded to a lack of strategic prioritization and enterprise was described as 'embryonic'. There appeared to be a limited desire to make any change to the structure, to reflect new knowledge participation.

In contrast to the executive group, the interviews with senior managers, revealed an inclination to support academic knowledge exchange but also an assortment of challenges to the organizational structure and capacity to engage in a new area of activity. Their responses were categorized under the following categories: **Entrepreneurship, capacity to deliver knowledge exchange, managing the academic workforce and cultural and historical context.** These managers demonstrated a far greater desire to pursue an entrepreneurial goal, and to undertake organizational improvements. They sought to capitalise on the potential of the professionally-orientated academic workforce. The academic 'community' were cited as having potential to learn from the pockets of individually motivated participants in knowledge exchange. These senior managers were critical of the lack of coordination of external facing and enterprise type activity. There was also agreement that academic participation and co-ordination was limited by local work load agreements apparently restricting the ability to manage workloads more flexibly, to take account of the type of knowledge that exists within YSJU.

Overall the senior management, including Dean and Corporate Director level roles, were critical of the lack of cohesion in the strategic direction of the organization. Enterprise and knowledge exchange appeared to be only one of a number of areas were strategic prioritization was required. As organizational gatekeepers, particularly focused on the subject configurations within Faculty and Directorates, these leaders demonstrated an understanding of the potential knowledge exchange. They required a systems level redesign to progress the work that they considered possible, with a responsiveness from a number of key functions within the organization, including IT, finance and marketing. This was not forthcoming in part because of the absence of 'boundary spanning' a role (Jones 2005) and capability that achieves the cross functional dialogue to spread and

disseminate new knowledge and achieve the improvements to processes and systems. The complaints of the senior management were echoed in the focus group discussion.

The focus group discussion fell into four categories; **perception of strategic leadership, career perception, academic innovation, and project management.** There were clear entrepreneurial ambitions in this group of individuals and also some inhibition caused by the lack of reward, and recognition of a limited legitimacy to pursue this element of their work. Entrepreneurship is widely recognised as a new and under-developed phenomenon (Tidd *et al.* 2005, Brennan & McGowan 2006) with most academics still retaining their discipline specialities. In this case all the participants recognised that their personal and professional aspirations fell outside the typical domains of individual mode one knowledge production (Gibbons *et al.*1994) and this created practical and conceptual difficulties for them. The desire to innovate and create new, academic outcomes for their subject disciplines and academic fields necessitated a different management from that which they currently experience. The dialogue of this group was characterised by comments about leadership and rewards. Overall the data tells can be read as a narrative from a group of academic staff, with an understanding of knowledge exchange as a self generated mode of academic activity. Discipline knowledge, and subject expertise was important to them and whilst the entrepreneurial activity was the link to profession or sector. All the focus group participants cited conflict with their respective senior manager and regarded their frustration as an individual 'problem', not as a shared or common perspective on the organizational limitations. Predominantly, a group of middle ranking academics, they undertook a range of responsibilities alongside their interest in knowledge exchange. Their comments fell into a category of '**Perception of senior management**', and this specifically took the form of a series of complaints about the dearth of organizational methods, to take forward their entrepreneurial ideas! All criticisms appeared to focus on limitations created by the hierarchy and the lack of support for knowledge exchange. Capability in problem solving and organizational change were conspicuously lacking and therefore, the change agency required to achieve a higher level

of assimilation of new knowledge (Zahra & George 2002) was not being achieved. This said, there was a strong sense of ownership within the local practice of knowledge exchange and senior managers were not being invited into a discussion about new networks and practices thus limiting the potential for ideas and innovation to transform the knowledge exchange practice into a new and valued product or outcome. Rather, these individuals expected unquestioned support and their perception of senior management was based on an absence of knowledge about the opportunities and risks associated with the knowledge exchange plan and delivery. There was a request for the senior management to notice and support the inspiration and to understand the contribution in the context of a professional and developmental orientation. The absence of structure and leadership to support this small but potentially critical workforce group was evident from the discussion.

Summary of views expressed across the academic workforce
The range of responses showed a 26% (n=53) response rate from the total academic population of YSJU, with a slightly large group of male respondents and a proportionally larger group of respondents from those who have been in academic practice and at the University for less than 5 years.

A professional and subject orientation
The self categorization of discipline-specific knowledge was categorised under a number of subject-related headers, namely; arts related, profession-specific, sport- related, health-related, communication and management, theology-related and 'other', suggesting the range of core knowledge within the organization. Profession specific knowledge was by far the largest grouping, relating to public sector workforce, teaching, and health care.

Recognized potential for development
The academic community show they have no principled objection to the development of knowledge exchange as a commercial activity and reported

organizational public relations opportunities and student opportunity as part of the opportunity of participation. Respondents appeared to recognise potential individual and organizational reputational gains from engaging in knowledge exchange in professional networks partnerships. 18 participants reported publications from knowledge exchange work but the greatest reported benefit was personal satisfaction.

Diversity of activity and experience

A range of experience of knowledge exchange activity was reported by academic staff. The majority of reported experience was in 'consultancy' and 'specific contribution to projects'. These activities are named and, in some cases, reflect a misunderstanding about the term knowledge exchange. Most projects are not costed and undertaken as individual academic engagement

Low commercial interest

Only 25% of knowledge exchange activity reported was planned to generate income surplus. This is an important finding, given that the overt policy aspiration is to build learning and diversify income generation for the organization.

Recognition of competing priorities

Barriers to knowledge exchange would appear to be connected to a lack of career rewards and direct incentivisation of the activity, with academic practitioners well aware of the more consistent rewards in research and in learning and teaching. Further issues are suggested by the responses: lack of time, of specific management and of opportunity, (taken to mean here), the invitation to participate.

Barriers to knowledge exchange

Barriers were linked to operational infrastructure and to administration which at the time of the survey were located in the REO. The roles of the Head of REO and the Business Development Officer were under developed, and academics were uninformed of the role of this office. The results also suggested a highly individualised academic experience in relation to

knowledge exchange, with many simply managing their external (and internal projects) as part of their workload.

Conclusion

YSJU is a new university with a history of vocational and professional education. As a small organization, with degree awarding powers and independent status in the sector, the challenge was to consider the potential capacity for enterprise and knowledge exchange activity against a range of other organizational priorities and academic practices. Desire to develop knowledge exchange practice was limited by a range of strategic priorities competing for attention so enterprise activity was seldom the focus of discussion in meetings.

Overall, there was no established view of the targeted benefits from knowledge exchange for income generation or reputational gain and there was no evidence of strategic discussion or decision making at YSJU or the opportunities of participating in the knowledge economy of the region. The focus on commercialization of knowledge and the notion of entrepreneurial potential was restricted and needed more active stimulation, as suggested in the policy critiques (OST 2001, Wedgewood 2007) in Chapter 2.

A range of knowledge exchange activity was undertaken, predominantly by individuals who, at every level of seniority, persisted in developing new products or services, in spite of a lack of system-level support. These activities were not called 'knowledge exchange' by the individuals concerned. As such, the academic entrepreneurship was a marginal activity, which was motivated by individual advantage or 'novelty' seeking (Brennan & McGowan 2006). It was likely to be individually motivated rather than organizationally driven.

The academic workforce and community enjoy good terms and conditions relative to the sector, and a 440 hour teaching contract, which has come to be seen by some, as a permanent obstruction to further discussions about workforce development. New demands on academics and a more flexible articulation of the academic contract is required and may be used to

support the more external facing academic to gain recognition and achieve career reward. The senior managers are unwilling to engage in debate about the contractual arrangements and how these might incentivise or reward participation in a wider range of academic activity.

As a functionalist perspective, (Burrell& Morgan 1979), the diagnosis seeks to describe the observable, causal relationship between the evidence and the theory, in this case, the knowledge exchange practices and the level of absorptive capacity. The concept can be used to suggest a clear relationship between the Organization's ability to learn and gain from new activity, based on the extension of this prior knowledge. Cohen & Levinthal (2000) proposed that the ultimate purpose of absorptive capacity was to ensure competitive advantage through the exploitation of knowledge into products and services, allowing an organization to capitalise of existing knowledge. Therefore the following propositions are based on key elements of the absorptive capacity process (Zahra & George 2002), within a University context.

The data generated from the diagnosis can be summarised into a series of propositions to be shared with the Organization. The following statements were used within a presentation that was made to the senior management team in such a way as to demonstrate and engage others with the critical problem. The further outcomes of this intervention will be discussed in the next chapter.

Proposition 1.

YSJU is a unique organizational context

- It is a small organization in relation to size of the academic workforce, with a highly diverse range of subjects and disciplines
- The corporate plan defines ambitions in the context of the new university status, naming development of research and knowledge exchange
- The reputation and orientation of the University reflect a history of vocational learning and professional practice.

Proposition 2.

Knowledge exchange is currently supported (or lacks support) through

- Administrative offices of the Head of Research and Enterprise and the Business Development Office, co-ordinating Knowledge Transfer Officers in each Faculty
- Faculty income targets based on promoting research and knowledge exchange activity
- The University strategy for knowledge exchange that has not been formally launched or shared with the wider academic community.
- Processes and mechanisms that support knowledge exchange have not been progressed. i.e. Intellectual Property (IP)arrangements and customer management system.

Proposition 3.

Academic staff are not systematically engaged in knowledge exchange-

- The local academic contract is based on the national academic contract, national standards that do not include any reference to knowledge transfer or exchange
- A low staff turnover and reported satisfaction with terms and conditions are not used to promote new academic practices
- Academic staff have highly vocational focus on learning and teaching of undergraduates
- There are no career progression opportunities based on knowledge exchange practices.

Proposition 4.

Enterprise and knowledge exchange is not a highly developed area of activity within the organization

- Knowledge exchange activity is not linked strategically to other corporate priorities. (e.g. employer engagement, student enterprise)
- There is no organization wide understanding or prioritization of knowledge exchange strategy
- Knowledge exchange is seldom discussed as a significant activity in meetings

- There are no quality assurance nor governance processes associated with reporting knowledge exchange.

Proposition 5.

Academic staff report using knowledge exchange as a scholarly practice
- There are examples of knowledge exchange academic activity in every Faculty
- Staff engagement is not based on direct reward other than recognition for self or Faculty.
- Corporate areas also see themselves as potentially offering external activity

The diagnosis results in a number of key prepositions about the scope and outcomes of knowledge exchange at YSJU. The diagnosis combined qualitative and quantitative data to evidence a low absorptive capacity at YSJU, leading to specific limitations in the likelihood of the organization undertaking knowledge transfer therefore inhibiting the exploitation of knowledge and the development of new products and services. YSJU appeared to have a low capacity to acquire and assimilate new knowledge and therefore a similarly limited capacity to manage the transformation and exploitation of knowledge to commercial ends. Of particular note is the limited strategic leadership of knowledge and a weakness in the assimilation stage (Zahra & George 2002) that required specific attention. This can be regarded as an outcome of a limited dialogue across the organization with those who might assimilate new knowledge, i.e. Deans, Directorate leads and academic entrepreneurs

A lack of knowledge 'assimilation' (Zahra& George 2002) suggested an inability to capitalise on external knowledge because 'Learning' from the external environment was curtailed by the failure to use socialization competencies (Jansen 2005). Formal and informal processes were underutilised so that the external demand for knowledge (consultancy opportunities, partnership working, organizational collaboration) was separated from the pre-existing, related, individual knowledge resource within the university, what Cohen & Levinthal call 'prior related knowledge'.

There were little or no incentives or opportunities for academics to engage with the senior executive staff and any shared collective learning from experience and new information known to the executive was not transformed and exploited by the academic community. Assimilation of knowledge is regarded as a profoundly collective activity by Zahra & George (2002) and this collective experience is curiously missing from the hierarchical relationships, even though a community ethos is reported in the staff survey as a common experience in the University as a whole.

The basis of the presentation was to report on the findings of the diagnosis and problematise the situation in an attempt to raise awareness about the limited achievement in knowledge exchange practice. Low absorptive capacity, specifically in relation to assimilating new knowledge would suggest that leadership might focus on the flow of information across and through the organization.

Within the functionalist approach (Burrell & Morgan 1979) the observable evidence is presented as a representation of the true organizational situation. This evidence is then shared with the organization as a commitment to the action research process, to verify the 'truth' of the data and to prioritise further action. In participative action research the action planning stage is significantly associated with the researcher's participation and collaboration with others in the organization, in the shared analysis and use of the data collected. The next chapter reports on how the propositions and the understanding of absorptive capacity at YSJU was reported to the organization and how, through action planning and interventions the action research progressed. Action planning was undertaken to confirm the preferred interventions at YSJU. The initial interventions are presented and discussed to indicate how the diagnosis data was received and acted upon by those with an interest in or responsibility for knowledge exchange at YSJU.

This chapter has presented the results of a diagnosis using a simple content analysis within a case study (Yin 2003). Action research is concerned with

the use of knowledge in situ, that Somekh calls 'actionable knowledge' (Somekh 2006). Implicit in the diagnosis is a need to find a 'point of entry' (Coughlan & Brannick 2006) whereby the data becomes useful and purposeful for the next stage of the process. The investigation sought to establish multiple positions in relationship with collaborators (Herr and Anderson 2005) with the aim of describing and subsequently sharing data across the organization.

Chapter 8 - Action Planning and Interventions

Introduction

Following the diagnosis, the goal of action planning is to, "peel the causal onion by one more layer" (Argyris & Schon 1989 p.620) and to build the relationships and shared understanding of the Organization. As an action researcher I aimed to establish key issues, roles, and interests that formed the entry point into further dialogue and action. The diagnostic data becomes useful when shared with the organization, with the goal of building a collaborative approach to managing an improvement in knowledge exchange. Ultimately, my ambition was to generate a consensus and a shared conceptual framework about knowledge exchange, on which to base further action. This chapter describes my action planning including;

- Presentation to the senior management team
- The academic development initiative
- Meeting with the Dean of YSJU Business School
- Other external engagement

I will further discuss the outcomes in relation to building knowledge exchange capacity, demonstrating how the range of possible actions/interventions became very limited due to the power relationships within the Organization.

Further to the action planning, I then describe and discuss three interventions within YSJU, two of which were undertaken directly, as part of the research and another that had wider implications for the organization but had consequences linked to this research. These were,

- Knowledge exchange event
- Final report to an executive lead
- University Activity Review (UAR)

As the propositions used in the diagnosis were to be shared within the organization, I assessed the likelihood of the data being received as a

timely intervention, to support further action. I considered the following evidence from the diagnosis as positive indications;

- Commercial and external partnership activity was **not** rejected as an area of academic development,
- The apparent problem in relation to absorptive capacity was the lack of 'assimilation' (Zahra &George 2002) that could be effected by further networking and strategic engagement from the academic community
- The sponsorship of the VC remained intact and enabled legitimate opportunity to plan and make further intervention.

Finally, this chapter includes a discussion regarding the shift in perspective and the move from a functionalist approach to a more interpretive stance. I will explain how, after undertaking the planning interventions, it became clear that the change process was more problematic than expected and required a more reflexive approach.

Use of absorptive capacity in action planning

Using absorptive capacity as a concept, the following examples are offered; suggesting how the different stages of the process (Zahra& George 2002) could enhance knowledge transfer at YSJU.

- Enhanced *acquisition* – Recognition and negotiation of new knowledge (Jensen 2005) against the prior related knowledge and professional expertise
- Enhanced *assimilation* - Knowledge application and management by change agents (Jones 2005) who have private or public sector knowledge and undertake academic engagement
- Enhanced *transformation*- Use of research and external engagement across faculties and disciplines to generate new courses (products) or refresh existing programmes or engage in further external knowledge exchange
- Enhanced *exploitation* –Report on the impact of knowledge transfer in terms of recruitment, income, research impact or completed activity with key partners.

It was however clear that the most senior managers were less engaged and somewhat unclear about the operational requirements of knowledge exchange practices. The concept of absorptive capacity could be introduced but was not part of any discourse or discussion related to research or enterprise activity. The organization had a minimal experience of sustaining knowledge exchange practices and did not associate this work with the potential of exploiting knowledge into new products and services.

The action research process is a shared experience and participation necessitates a significant trust in colleagues and co-participants in the study. The shared goal is to bring about an exploration of a critical subject and make an analysis of the actions associated with the topic. As an insider in an organization, there are structures and systems that set the parameters for operating within the organizational context. The methods adopted for action planning and further interventions continued to acknowledge these realities, in spite of the emerging realization that the structures were not necessarily conducive to supporting knowledge exchange practice.

The following section describes the process of sharing the diagnosis with the VC and subsequently the senior management team.

1. Action Planning - Presentation to the senior management team

As sponsor of the action research, the initial presentation was to the VC, following a two way conversation, based on some recommendations drawn from the diagnosis (Appendix 6 - Initial Report on Action Research to the VC) asked that I prepare a presentation to the senior management team in March 2008. I was aware that this meeting would provide only limited opportunity for debate about the strategic priorities, and that this was simply an opportunity to report findings (i.e. not an opportunity to actively engage participants into further discussion and capacity building).

The senior management meeting took place in April 2008 and a slightly reduced version of the presentation can be found in Appendix 7- (Presentation of Diagnosis to the Senior Management Team). The

presentation included an overview of the progress towards the development of knowledge exchange capacity, making reference to the concept of absorptive capacity. Absorptive capacity concept was presented to reinforce the focus on knowledge productivity, contextual to the particular history and type of organization (Du Gay 2004, Cohen & Levinthal 2000). The propositions from the diagnosis were also included, based on data and analysis of interviews, survey and focus group.

Consistent with my ambition to deliver on an action research process, the presentation included a proposal for early intervention and to further discussion about knowledge transfer and knowledge exchange activity. The presentation suggested a strategic intervention associated with raising the level of absorptive capacity across the organization. However, I also recommended a range of local improvements that might be based on staff development and engaging of academic practitioners – 'to plan interventions and share a framework of ideas and methods across the University.

Ideas for improvement are an important and necessary part of the action research process. The following suggestions were included to demonstrate a functional approach to the research and a strategic commitment to building knowledge exchange capacity

- **Organizational Learning Event**- build knowledge exchange within the University by undertaking a range of activity to showcase 'known' leaders across the region and profile YSJU knowledge exchange activity.

- **Develop the 'customer management system'** – driver the further development of the IT system to support greater knowledge and engagement with external partners and potential partners,

- **Strategic Integration Exercise**- further consideration of the operational strategy for knowledge exchange making links to other targeted activity, to derive outcomes in terms of research outputs,

learning and teaching quality enhancement and develop employer engagement

- **Introduction of Knowledge Exchange Targets**- Introduce a reporting and acknowledge achievement of knowledge exchange across Faculty and corporate areas, whilst holding areas to account for income and external collaborations achieved.

Alternatively a more locally driven operational improvement might be agreed with a range of measures to engage and support academic practitioners in their involvement and offering benefits to the external partner in so far as the activity is organizationally maintained. This was presented as further suggestion for improvement' in which could be incorporated into the action planning process of the research.

- **Review and evaluate the learning** from a range of knowledge exchange activity across the faculties, with a reporting mechanism for academic and team activity and outcomes.
- **Build capability through collaborative learning** and sharing knowledge of applied research activity, external consultancy and other external engagement
- **Map the procedural aspects of knowledge exchange activity**, including support areas, finance and human resource support needed to undertake knowledge exchange activity.

At the senior manager's meeting, I presented the findings and potential interventions as top-down' or 'bottom- up' (see Appendix 7) The VC invited questions and commentary, and there were a number of exchanges, commending the initiative. The discussion then deflected from the presentation, and a question was raised about the financial costing of external activities. It was directed at the Director of Finance and related to the ability of 'stakeholders' from different sectors to pay, for University engagement. The minutes do not record the subsequent dialogue, which was antagonistic and accusatory. The focus was on the Director of Finance who was perceived to have failed to promote a realistic costing mechanism

for external activity. The dialogue was unresolved, and suggested that there was considerable frustration with the lack of a common system to support knowledge exchange, among senior managers. This supported the finding from the interview data that senior managers (deans and directorate leads) regarded themselves as entrepreneurial, but without support and mechanism to deliver on external activity. Senior managers appeared frustrated at not being allowed to plan and resolve problems and remained focused in operational considerations, unable to discuss strategic plans for knowledge exchange

In contrast with this discussion, the executive lead for Research and Enterprise focussed on the limitations of my study, that *"simply used individual perspectives"* (personal communication 6/3/08) of the current state of affairs. This individual appeared to distance himself from the issues raised, apparently defensive about this area of his direct responsibility. The following section of the minute, is used with the express permission of the VC, and captures the approach from senior leadership. The senior management team might have promoted a strategic discussion about the issues raised but, instead, focused on operational issues. The minute of the relevant Senior Management Team (SMT) meeting were as follows:

SENIOR MANAGEMENT TEAM
Thursday, 6th March 2008

Present: Vice Chancellor (Chair)
       Deputy Vice Chancellor (Chair)
       Dean of Business & Communication
       Dean of Arts
       Dean of Health & Life Sciences
       Registrar
       Director of Institutional Advancement
       Director of Facilities
       Director of Finance
       Director of Marketing
       Deputy Director of Human Resources

In Attendance: Sally Fowler-Davis

There were no declarations of Interest

Items on the agenda were moved forward as a matter of expediency.

07/141   Building Capacity for Enterprises Activity
Presentation from Sally Fowler-Davis (SFD)

SFD explained that this research was related to her doctoral work at Sheffield Hallam University, focusing on organisational development and organisational learning at YSJU, and that this was a presentation on the preliminary results of the first phase of this work. Her research had revealed that people tend to compartmentalise what they do: learning and teaching first, then research - and enterprise and external engagement if there is time. She had an action planning phase, to plan interventions and share a framework of ideas and methods within the University through bottom-up and top-down improvements for building absorptive capacity (competence in organisational learning and exchange). It was noted that much knowledge exchange was invisible (both internal and external); it does occur, but is not obvious. SFD wondered if targets might make it more visible.

The VC thanked her for a most interesting presentation and noted that dialogue would continue. [Meeting Secretary] will circulate the presentation to members.

The lack of any discussion about the strategic purpose of knowledge exchange was evident. The power dynamic between departments was highly relevant, and demonstrated a potential block to this research. Coghlan & Brannick (2005), present this factor as highly problematic for the action researcher.

2. Action Planning - Academic development initiative

With no further actions specified at the senior management meeting and no further response from the VC, I took forward an initiative to support academic development in knowledge exchange practice. This was based on the research requirement to re-engage with the academic community, following the diagnosis. Meeting with the Head of Staff Development (19/5/08) I reported on the findings of the survey and diagnosis, with respect to 'capacity building for academic enterprise', and to took the opportunity to build an intervention into the University staff development programme.

My proposal was to include a workshop session, related to knowledge exchange, into the induction process for new staff. I also sought to include existing and 'enterprise-active' academic staff in this workshop, aiming to build a group of interested and engaged academics.

The discussion was facilitated by a prior relationship, familiarity, and a shared history of successful joint initiatives. The inclusion of new activity within the University induction programme was well conceived, as this was a key outcome for the HR department and had evaluated well as a co-ordinated method of including all staff in corporate training, relevant to their needs and job role.

The meeting was pragmatic and planning-orientated, with data from the diagnosis supporting the proposal to introduce a relatively new knowledge to the new staff of the university and to offer a learning opportunity to encourage the development of academic knowledge exchange.

Outcomes of the meeting included;
- An agreement to deliver a half day educational event as part of the staff development programme; namely, 'an introduction to enterprise and knowledge exchange'.
- An agreement to evaluate the outcomes, with the Head of Research and Enterprise Office and the Business Development Officer.

The pragmatic purpose was achieved and a plan, based on a system-wide knowledge improvement, was made. Middle management collaboration within YSJU, appeared to offer a good opportunity for change (Clegg & McAuley 2005), and further collaboration was sought to spread the outcomes.

3. Action Planning - Meeting with the Dean of the YSJU Business School

This meeting was opportunistically arranged, to discuss the initial findings of the diagnosis and to discuss the goal of the action research 'to build enterprise and knowledge exchange capacity at YSJU'. The meeting lasted

one hour and was not transcribed. However, a retrospective account of the discussion was sent and, in this way, the ethical requirements of the study were met and validated by the Dean.

The purpose was to offer a report of the diagnosis and to invite collaboration in the development of further interventions. The record of the meeting (based on an email exchange on 17/05/08) lists the following outcomes:

- The Dean was open to the idea of system wide improvement in knowledge exchange capacity but saw it as faculty based in the first instance.
- The Dean thought that the level of staff engagement in her faculty was much improved and suggested that a group of 'associates' had already been formed to support and further business school activity.
- Existing staff had been critical of the business school development but the Dean recognised the need for the induction of new academic staff to focus on external activity.
- The Dean noted that barriers to development of external activity are based on perception of workload by others/ between faculty members.
- Particular barriers come from managing projects within parameters set by Director of Finance and HR. The Dean was particularly concerned about the sustainability of academic posts on short term projects.

A specific proposal was presented; - an internal learning symposium aimed at spreading good practice in external activity, including issues related to academic contract outcomes and objectives:

- The Dean was reluctant to link this activity to the business school, citing a financial loss as a risk related to running the event.
- She wanted knowledge exchange to be developed in faculties and not as a collaborative improvement across the University as a whole.

This meeting had a disappointing outcome, with no agreement for the proposed intervention and no opportunity for collaboration. Instead, the plan that we discussed was based on the strategy for the Business School; to devolve knowledge exchange to local teams and business units. The issue of financial risk demonstrated that local cost centres were a dominant concern for the Dean.

4. Action Planning - External engagement

Several external measures were used to generate wider and ongoing connections for the potential developments at YSJU and these included a range of regional academic engagement during this period. Effectively, this was an exploration of infrastructural developments at other universities. A visit to Jordonstown University in Belfast provided an external marker for the action planning initiative, to hear outsider perspectives on the infrastructural issues at YSJU.

'UUTech department'-A system for managing knowledge exchange (initially based on a technology transfer initiative), was reported by Dr Suzanne Martin – a colleague at Jordonstown University Belfast- (personal communication 17/05/08). UUTech traded as a subsidiary of Jordonstown University, it provided a cost centre plus the support and advice on the management of the intellectual property. In addition the unit supported some elements of contracting for external facing projects. The success of the unit was in the practical utility with academics in receipt of external funding, to manage the resources of their projects, via the simple cost centre method.

The Jordonstown's example provided an image of possible administrative practices to support knowledge exchange that had evaluated well in their local context. The purpose of the visit and the intended outcome was to share effective practice within YSJU. UUTech was discussed with the Director of Finance, a critical friend who may have been influenced by an image of a pragmatic operational unit to manage academic participation for academics at YSJU.

Regional networking for academic knowledge exchange practitioners- A high-level network emerged and was funded by the regional development agency (RDA) to develop and support academics who lead knowledge exchange. The group was formed in October 2008 and ran through until May 2009. I agreed this participation with the DVC and noted that the invitation had come from an external organization seeking to support knowledge 'transfer'[11] practitioners. As I understood the situation, an invitation had been sent to the REO and had been withheld.

5. Action Planning – Defending academic engagement in knowledge exchange

The following sequence of communication was around the development of an 'enterprise forum', set up by the REO, to demonstrate the activity of the knowledge transfer officers (KTO) across the university[12]. For the purpose of learning analysis, I have presented the conversation as suggested by Argyris (2004) to identify the learning and defensive patterns for the organization (ibid). Figure 29, reports on an email exchange between REO and myself, and demonstrates a communication with the REO, as the administrative support unit in the academic management within the Faculty.

Figure 28 Content analysis of the communication with REO

Reported Communication	Response	Analysis
From the BDO - email 13/5/08 "Staff Enterprise Forum to update members of staff on the activities of the Knowledge Transfer Officers (KTO's) over the past year and their plans for the future"		Information received and based on REO initiative to inform others of their activity
	SFD response 13/5/08 "I am keen to see academic knowledge exchange developed in the University. The current risk is that the	Suggestion to manage an event more collaboratively and across the organization, demonstrating team

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[11] The term knowledge transfer is used here synonymously with knowledge exchange.
[12] Knowledge transfer officers (curiously not knowledge exchange officers!) were fixed term appointments based on HEIF 3 and 4 funding.

	work will appear to be led by BDO/KTO's rather than a mixed effort with different staff involved, but necessarily academic in nature"	participation and academic input based on the government policy indicators
BDO 14.5.08 "This has been arranged by the REO as part of their commitment to update staff on all knowledge exchange activity and also to ensure dissemination as part of the HEIF 3 funding."		A response indicating that the event is somewhat procedural and the REO wish to focus on attainments of the new administrative appointments in the university as indicated to justify HEIF funding
Head of REO 14.5.08 "This meeting is intended to disseminate the work of the KTOs and update on their earlier presentations with a view to enhancing their profile within Faculties and demonstrating the good work that they have undertaken".		A reiteration of the procedural nature of the activity and the event and a demonstration of the potential separation of the administrative and academic function of enterprise capacity building.
	SFD response 16.5.08 I now think it is critical and based on evidence, that a small organization such as YSJ uses the HEIF4 initiative to make a significant step forward in knowledge exchange activity….. To do this, this Faculty will be using the HEIF post to *support* academic enterprise participation and make a step change in the guidance needed by academics to facilitate and publicise the good outputs and income generated.	The response indicated the strategic intention to use the local support systems infrastructure. This was somewhat in contradiction to the REO vision for the planned activity of the university. The use of the KTO's as part of a team infrastructure is based on the notion of absorptive capacity and the need to transform the core knowledge of the organization into products and service to meet external demand.

Drawing on research and practice evidence, the KTO, as an administrative post, was vital to the knowledge exchange programmes, but was also being asked to undertake and showcase their own activity.

Testing the assumptions behind the planned event reinforced the concern that the administrative function was being encouraged to showcase the knowledge exchange practice as though generated independently of the academic workforce. I sought to fully support the role of the KTO, but as a collaborator in the development of cross organizational activity, as development of the boundary spanner role (Jones 2006). The event, which did not invite academic participation other than the senior managers and executive, was suggestive of the REO taking an administrative lead, as opposed to facilitating the new capacity for academic external engagement.

Analysis and Discussion- Action Planning

The outcomes of the five interventions add to the learning from the diagnosis and suggest the likely success of further improvement interventions. The outcomes narrow the range of possibilities for interventions and provide further insight into the unknown elements of the context of the action. The following issues had become evident;

- Senior managers were unable to resolve the lack of strategic direction for enterprise activity
- The Business School and the REO were protective of their separate roles in developing knowledge exchange
- Local, internal development initiatives on a small scale may be opportunistic if within the scope of HR structures

It was evident that a number of people within the organization were more noticeably antagonistic to the action research initiative as a systems-wide collaborative change process. Action planning confirmed that the only potential action, at that time, was to pursue a learning intervention, supported by the Head of Staff Development. Action research is situational and played out in praxis (Coughlan & Coghlan 2002), and, therefore, the reality of what is possible is true to the time, place and person undertaking the research (ibid).

The failure to achieve a genuinely collaborative dialogue at this stage was a problematic outcome. Whilst experienced and 'known' in the organization, I had been unable to generate a full participation from colleagues and so co-learning was limited (Herr & Anderson 2006) with key staff who might contribute to the development of a collaborative approach to the data; actions and discussions had failed to convince colleagues of the need for further action. A novice action researcher has to be confident in the management of feedback with the 'unfolding' story within the organization (Coughlan & Coghlan 2002). Conscious that an action research process, on this scale, requires further system-wide strategic agreement, it had become clear that the lack of consensus about collaborative achievements and a limited operational strategy were key inhibitory factors.

These dynamic, relationship-orientated planning interventions provided a useful insight into the nature of the leadership and reinforcing factors (Hiatt 2004). The Organization appeared to be committed to building capacity for knowledge exchange via individual participation and local faculty based interventions, supported via local administrative capacity, (enabled by short term HEIF funding). The organization provided no incentives to build a wider collaborative approach and to effectively mirror the external sector context that was demonstrating significant steer, in relation to collaborative approaches to knowledge exchange (see planning intervention 4). Local (faculty) cost centre accounting methods, reinforced a faculty based approach to budgets and income from knowledge exchange. This is in contrast to the 'UUTech' model (see Chapter 4) that promotes individual, and university wide management of the processes, associated with external engagement. The need to benchmark practices across faculties, universities and discipline areas, was not being considered. Rather, the procedural and administrative nature of internal functions was highly dominant and was reflected at all levels of the discourse (see outcomes of the research and enterprise committee minutes, executive minutes and senior manager content analysis related to capacity building for knowledge exchange). By virtue of experience and connectivity with academic knowledge exchange

networks, external to the University, I was aware of the potential to operate a more proactive system to promote knowledge exchange practice.

As planned within the method, the stages of the action research cycle (Coughlan & Brannick 2006) (Fig 5 p 90) identify the evaluation of action. The early evaluation of the action planning outomes extended my understanding of the range of constraints the (Cooperider & Srivastva 1987) Coughlan & Coghlan (2002) identify that action research is an exploratory and shared diagnostic of the critical issues. The action planning revealed that the focus on operational and technical rational ideas was dominant. It had become apparent, that cultural factors associated with hierarchical structures, leadership and the 'management' of the structure of the university had the potential to limit the action research process. Figure 30 is a summary of the various responses to the action research process.

As researcher I was engaging in actions and collecting data that developed further possible meaning and therefore actions could be planned as a consequence This learning led me to consider that the research had become a 'Confrontive inquiry' (Coughlan & Coghlan 2002). A 'Confrontive inquiry' has much in common with other learning approaches to organizational development in which interventions are based on evaluation and challenge to individuals' to stimulate a personal change and re-appraisal of the current practice (Young 2009). I was sharing my own ideas and challenges with others, seeks to create a new perspective within the organization (ibid) The functional propositions that were presented in the diagnosis were significantly effected by the power relationships within the organization and the evidence suggested that senior staff were unable to support a systems wide collaboration in relation to building knowledge exchange.

My own learning through a continuous appraisal of the feedback, suggested that the organization did not readily seek to use the information presented in the diagnosis and there were limited opportunities for formal presentation of the findings to other groups or individuals. I.e. different faculty and corporate areas held internal meetings and these were closed to external

participation. The senior management and executive group were exclusive in their ability to discuss specific information that affected the University as a whole, or the impact of wider issues related to policy, quality and strategic improvement

The appraisal of the power relations that I observed and experienced are summarised in Fig 30 and the issue of power as a stimulus to a more critical understanding of organizational context will be discussed more fully in a later chapter.

Figure 29 Power Relations for the Action Research (Coghlan & Brannick 2005)

Senior Academic Role	Demonstration of Power Relationship
Vice Chancellor	Benign but resistant to planning and to further strategic dialogue. Unable to manage open conflict in the senior team
Deputy Vice Chancellor	Apparently dismissive and initially unresponsive
Senior management including Dean of the Business School	Seeking local and (personal) authority and advantage through business unit (faculty)
Organizational departments	Variable focus, predominantly interested in development of their internal system i.e. REO, although Staff Development demonstrating a coordinated approach whilst promoting their own function

Participant action research interventions are designed to manage a process of change, based on a collaborative engagement. Systematic engagement had not yet been achieved and the assumption of a purposeful engagement with colleagues was less probable, than had been assumed. The action research process, based on a continual reflection on the context of the action (Coghlan & Brannick 2005) demonstrated that a more critical

approach was required in the YSJU context as there was apparently system inhibitors to the introduction of a new discourse, based on the information from the diagnosis.

Critical issues in the context of action research

As an academic practitioner, confrontation had characterised the engagement within the organization and my original assumptions, that a systematic improvement might take place, had been replaced by a concern about the lack of strategy, the limited problem solving capacity within leadership and the individualised uptake of power. The options for the action research are therefore more limited than had previously been assumed and I considered that I was unable to effect the situation. This suggested a lack of strategic, senior management support for the research, but also suggested, by default, that a staff development intervention may yet be possible.

The following section reports on the actions taken within YSJU

Action Research Intervention 1- Knowledge Exchange Event

The first intervention was in part based on the external engagement and was intended to provide a workshop 'learning' opportunity for those interested in knowledge exchange as an academic practice. I continued to invite and engage the internal managers, whilst also making contact with all those who had participated in the diagnosis[13]. As a result of engagement with the RDA and the 'KT Practitioners Forum' in the region, I was able to bring forward an offer to extend the remit of this activity beyond the boundaries of the University and to gain high level support and, potentially, funding from the regional lead for knowledge transfer at the RDA.

I therefore proposed an event to *generate a knowledgeable and engaged academic network who could undertake a collaborative co-learning process across YSJU.*

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[13] 15 colleagues had added their name to the questionnaire and were contacted regarding the knowledge exchange event

The event was posted on the staff development web site and sent to interested parties who had identified themselves from the survey.

Email communication to all Deans and the Head of the REO, was sent on 14/5/08 with a follow up to a group of academic entrepreneurs; those who had previously attended the focus group. I received one positive response from a colleague in the business school; however, unfortunately, neither of the emails received a response.

Dear Colleague

RE: Enterprise and Knowledge Exchange – Opportunities to Engage 15 July 2008, 9.30am to 11.30am (venue to be confirmed)

Staff Development would like to invite you to a presentation and open discussion around enterprise and knowledge exchange.

By the end of the session participants will be able to:
☐ Understand the relationship between research, learning and teaching and knowledge exchange
☐ Appreciate the ways that they might engage with external partners
☐ Consider the policy and practice framework for enterprise and knowledge exchange from university

To book a place, please contact **staff.development@yorksj.ac.uk**

Kind regards
Staff Development Administrator
YSJU

Outcomes of intervention 1

The session recruited nine members of academic staff and one business development officer and took place on 15th July 2008. All participants came from two faculties, Health and Life Science, (direct colleagues and people I line-managed) and the Faculty of Arts. A number of participants from the Business School failed to attend. The presentation related the outcomes of the diagnosis and a brief introduction to the concept of absorptive capacity.

The small scale intervention had achieved the desired outcome, in relation to the learning outcomes and had evaluated positively. Staff reported the following;

"I wish we had discussed these issues before I undertook [the work]"

"The learning pack / reading materials were useful and extensive"

My own critical reflection on the event recognised the following features in relation to the current organizational support for knowledge exchange:

- The majority of interest was from people with whom I already worked, where the Faculty had made a local commitment to knowledge exchange practices.
- I was unconvinced that the improvement in knowledge exchange practice would be achieved without the support of senior managers.
- The continuity of the events would be based on my availability and, thus, were unsustainable in the medium term.
- Given the lack of response from the academic community to the learning and development event, there was a significant risk that the ambition to develop and recognise academic engagement in knowledge exchange would not be achieved through the research.
- The limited academic participation was perhaps due to activists being too busy or they considered the offer to collaborate, marginal to their academic practice.

In addition to the participant outcomes, I was indirectly challenged by the REO, (reported by the head of staff development) with a concern, that the initiatives had not significantly recognised their role or administrative function, in developing academic knowledge exchange practices.

The learning intervention had limited outcomes and was unsustainable as a continuing offer. The interventions had been undertaken to create a horizontal communication tier of academics, who were knowledgeable and engaged in knowledge exchange enabled to manage the knowledge outputs from their various projects and make use of the support from the HEIF business officers, however this had not been the outcome and the initial group of 'local entrepreneurs' had failed to re-engage, following the focus group.

Discussion

Clearly the conceptualization used to inform the interventions to date was based on an over idealised thesis. The corporate aims and objectives associated with knowledge exchange and indeed the wider policy imperatives might have generated participation from colleagues and a subsequent plan for implementation. The antithesis to this argument was that individual practitioners and managers, without the resources to participate, and communicate across the organization, were unable/ unwilling to engage in a dialogue and challenge their own ways of working and so had not engaged in a learning process to build capability to support knowledge exchange.

A few individuals, by virtue of their personal motivation, have sought to pursue alternative academic practices but, by and large, this is regarded as their own aspiration and was unsupported by the organization. In addition, academic performance was under-supported by the REO, which sought to pursue an administratively managed process. Consequently the familiar role for academics was to drive their own individual projects from the perspective of their personal interest with little support or interest from the wider organization as to the methods and processes being adopted.

Revised concepts emerge from a combination of data gathered in real time across the organization (Eden & Huxham 1996) as a conceptualization of the particular experience and of the change process in action (Checkland & Howells 1998). The original assumptions, based on the diagnosis, had been refined and the outcome was that the organization had very limited internal capability or capacity. Further consensus about the validity of the findings, the usefulness of the data and further deductions as to the causes of the situation were not possible, based on the limited participation achieved and an inability to gain collaboration around the issues presented.

As a result of the limited response to the learning initiatives and the wider potential for further ill feeling with the senior management and, in particular with the REO, I sought to undertake a second cycle of action research intervention. This was consistent with the model proposed by Coghlan &

Brannick (2005), who suggest that action research initiatives can be undertaken in parallel and that cycles can co-exist or be repeated, until it is clear that an outcome has been achieved or is impossible.

Action Intervention 2 – Final Report to an executive lead
To report on knowledge exchange practice at YSJU to the executive lead and and recommend improvements informed by further planning.

This intervention was based on the limited success in engaging colleagues and managers across the organization, and sought to 'problematise' a number of issues and present a range of data to support further planning. The aim was to promote a shared concern for the absence of any clear strategic outcomes, reported or achieved against a key element of the corporate plan.

A report was formulated and the executive summary was sent to the executive lead, prior to an arranged meeting. The full report was then prepared, the executive summary is herein included as Appendix 8 (Report to the executive lead for knowledge exchange, June 2008). This report, essential re-presented the diagnosis and the initial findings, adding some detail about the extent to which I had been able to engage key internal collaborators in the discussion about knowledge exchange.

The report contained the diagnosis and outcomes of further action planning. recognising that the research had not achieved the expected step change in the performance capacity in knowledge exchange at YSJU, against the backdrop of the ambition within the Corporate Plan (2007-12). The report (Appendix 8) was also intended to present a positive opportunity, suggesting that the academic staff at YSJU could be better positioned to take forward and participate in this strategy implementation, and to undertake further knowledge exchange type activity.

Outcomes of intervention 2

The following paragraphs indicate that the exchanges, both face-to-face and by email, were highly emotive and I engaged with the Executive lead in a difficult dialogue, characterised by conflict and misunderstanding in relation to organizational ambition.

At the first meeting with the executive lead, it was clear that the executive summary had antagonised the executive lead, who considered the report highly challenging of his leadership. As a result of a difficult and, at some points highly charged discussion, I responded to queries about the validity of the proposal in writing with the following message on 27th November 2008.

Following this meeting, an email exchange ensued, and a section of my response to the individual is below. It aimed to clarify the intention to build a collaborative group to coordinate knowledge exchange developments.

E-mail sent to an executive lead
Further interventions and action planning for research;
I am now in a position to generate further discussion across the University and to share some of the indications for further capacity building in academic enterprise. The basis of the action research is to seek collaboration from colleagues and further define a preferred way of coordinating and learning from existing academic knowledge exchange activity - in all its forms.

I am clear that any initiative should support further dialogue relating to academic engagement in knowledge exchange and I have secured the support of [Head of Knowledge Transfer at the RDA] who would be happy to contribute a regional perspective to an early meeting. I am also aware that 'finding the time' to think about these issues is clearly not priority, so I need (and would want) to seek your support with a further initiative.

I would like to bring a strategically interested group together from across the University, perhaps including the enterprise leads from each faculty and

others with direct experience of 'entrepreneurial projects', who are currently Heads of programme or enterprise centres [named academic entrepreneurs]. I would also like to invite [Head of Finance] and [Head of HR and Staff Development] as their knowledge of systems and processes would be important. I would be looking at setting up a meeting in early February and on this basis the new HEIF4 posts may well have been appointed and these people would also be included in the invitation.

The opportunity also exists to seek REO involvement and also to ask [new post- strategic development manager] to be a participant but I would want to seek your advice and approval as to their participation. Their key area of responsibility would be under discussion but I would want to assure them and you that the focus would be on a preferred and desired 'future state' and incremental improvement in our capacity to undertake knowledge exchange activity.

The meeting would perhaps consider the following:
What range of activity we would want to constitute enterprise/ or knowledge exchange?
Alternatively and perhaps more importantly…..
What is our potential contribution to the knowledge agenda from YSJU, based on existing knowledge exchange and future demand?
What do we need to do to plan and coordinate that activity effectively and make necessary improvements?

I would appreciate your further consideration of my report and the additional explanation and proposals in this (rather long) message. I look forward to hearing from you.

This email (I felt) intended to demonstrate the potential of drawing on a cross-section of knowledge and expertise across the organization and sought to establish a 'horizontal' networking type discussion as indicated in the evidence for increasing knowledge transfer and absorptive capacity as a key systems capability (Jansen *et al.*2005).

There was a considerable delay in getting a further response, which in January 2009 – two months later, had effectively removed the opportunity to include the external partner. The response from the executive lead (appendix 9) demonstrated a thorough interrogation of every aspect of the report, and it faulted the method, the presentation and the findings. The senior manager concerned, had dissected the information presented and had refuted most elements of the content, finally rejecting the intention and recommending that no further action was supported in the University[14].

The following method of analysis is adopted as indicated by Argyris (2004) who recommended the use of a reflective tool to manage and understand the defensive routines (Argyris 1990) within organizations. Whilst this approach instigated a further, potentially defensive response from the manager concerned, it was undertaken to support further communication, to demonstrate a reflection on the action and to evaluate the outcomes of the exchange.

Figure 30 Analysis and reflection on communication about the final report

E-mail commentary	Analysis and Reflection
….Your revised draft is much less discourteous to your reader than the earlier draft you sent me. Some trouble has clearly been taken to eliminate many of the more glaring spelling, punctuation and grammar mistakes – but it could still do with a good deal more by way of proofreading.	The expression and criticism of the senior manager and academic leader is evident in the email. A clear hierarchy of knowledge is being established here with written reporting falling short of an exacting and personally attributed standard of English language. The initial comment suggests that the whole thesis is, therefore, of lesser value and has been perceived as discourteous.
…I still have considerable difficulty with your methodology and many of the conclusions you have drawn, but I would obviously need to declare an interest in respect of the latter in that the area you are so critical of falls within my remit	An acknowledgement of the personal position and experience in relation to a perceived and actual criticism of the lack of development of knowledge exchange. The defensive (personal) reaction is legitimated by additional criticism of the action research and the conclusions made following the diagnosis stage.

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[14] Permission to use the email data in the publication of the thesis was received from the executive leader concerned

.... While some of your findings have merit, as I indicated in my email of 16th November, some parts of your methodology seem clearly flawed and other parts are insufficiently explained and argued.	The selection of specific findings within the report is identified in the email referred to here. There is a suggestion of a failure to create a collaborative context for the action research whereby participants "inhabiting different castles" (Somekh 1994) The values and criteria for truth testing have not been shared to enable a shared perspective on the organization. The engagement, through research, is therefore criticized as 'flawed'.
...The result is that I do not think this paper, overall, presents a rigorous or balanced account of the situation with regard to what you interchangeably refer to as "knowledge exchange", "enterprise" and "innovation" at York St John.	The argument against the continuation of the study is justified with a criticism of the use of terminology and methodology. The use of a legitimate power is used to control the further use of data and knowledge.
...The preliminary findings of your research, particularly the concept of absorptive capacity and your highlighting of the ongoing need for evaluation of enterprise activity, will certainly inform discussions in the UAR, but I would be inclined to think that it would be better to wait until March to proceed if you are going to take this further.	The theoretical underpinning of the study is acknowledged and the UAR refers to the 'University Activity Review' - a 6 month analysis undertaken in the light of significant financial and organizational pressures, which began in Jan 2009.

The data and knowledge shared within the research would be taken into account in discussions undertaken by the senior management of the university. |
| ...the University Activity Review, which will look at all central services, including REO, has been initiated; and the bringing together of the "strategically interested group" in early February to discuss the key area of responsibility of [REO managers] with or without them present would not seem to me to be a good idea at this particular juncture. | There is an indication here that the REO function is to be subject to some scrutiny in the UAR process, and that further inclusion and discussion related to the issue of enterprise capacity and knowledge transfer development was not timely. |
| ....Given my reservations about the findings of your research to date, as enumerated in the attached memo, I will recommend to the Vice Chancellor that your conclusions should not have formal York St John endorsement. That may, of course, not be an essential requirement for you to proceed with your research. | Finally - the justification for an end to the process, which was agreed and contracted with the VC. His assertion of the low value of the work and decision making processes made evident, the only option was to withdraw the offer of further action.

The emphatic decision to withdraw any endorsement was both legitimate and hierarchical in the face of an alternative horizontal development for the organization. |

The email exchange brought to an end the permission to engage internally as a participant action researcher, and effectively terminated the contractual arrangement with the VC.

Discussion about the initial two interventions

This, personal and emotive response, is to be expected within action research (Mc Niff 1996; Coghlan & Brannick 2001; Reason 2006) but is none-the-less difficult for a novice researcher. The exchange presents an impasse, in relation to the research outcome *and* the organizational change process. Problematising issues in knowledge exchange, and the suggestion of a wider cross-functional debate, was deemed deeply unwelcome to the executive lead concerned, and he sought to justify, in a number of different ways, the inhibition of further activity. It is noteworthy that, following the early presentation to the senior management team (see interventions) the VC as the ultimate 'sponsor' of the research, had absented herself from any further discussion regarding the research topic. As 'client' her early endorsement was abdicated to the senior manager, who had failed to generate a significant development in knowledge exchange within the organization. Her continued engagement with the research and a continued sponsorship in the later stages of the research may have afforded a different result.

Reflection on the process: The use of power to limit the research combined with the inadequate level of participation from colleagues was difficult for me as researcher. The contribution I had sought to manage within the research process was not forthcoming and so I experienced a significant challenge to my assumptions about collaborative practice. Fewer than expected academics were prepared to participate in knowledge sharing within the organization. I found myself limited by hierarchical management and a reductionist critical appraisal of my research. The withdrawal of 'permission' to lead a change process and perhaps most significantly the conditioning process and institutionalization (Holm 1995) that affected my own performance as a 'change agent', was a personal limitation. The environment was effectively 'dictating' the parameters of the change in

practice and my ability to move through the resistance. In part, I was responsible for the less than successful intervention, because in misreading the culture, I had misjudged the most effective ways to lead the change. This offered a range of critical reflection points in my own learning process.

The executive lead had used legitimate power, through the apparently devolved authority, and chose to withdraw permission for the research. It was apparent to me, that in spite of the data, presented to clarify the position through a range of perspectives, executive lead could not tolerate the potential conflict that may emerge. Non the less, to hold up a range of new knowledge about an area of uncertainty in the organization was, I believed, a powerful means of influencing and potentially managing the situation.

Within my relatively senior role within the academic community, I had felt compelled to support the organization in its realignment of operational activity to meet strategic goals. As an academic practitioner, seeking to make an organizational change, I had not perceived myself as marginal to the process of the change itself and, in keeping with McAuley et al.(2000), I had seen a contribution 'embedded within the activity'. I had however, overestimated the,

"*degree of fluidity that takes place within bureaucratic order and within an environment in which there is a legitimate power accorded by status and role*" (McAuley et al.2000 p.108).

McAuley et al's (2000) comment supports my retrospective insight. Regrettably, my effort to lead an organizational improvement was (probably) perceived as an act of insurgence and, the diagnosis, a possible threat to the legitimate hierarchical processes.

I had, possibly naively, presented evidence of an organizational failure to promote and coordinate knowledge exchange, as an academic activity. The suggestion of failure in my report (also see appendix 8) was particularly pertinent because of the current imperatives to 'measure' the economic

benefits, efficiency and effectiveness of HE outputs (Lomas 2004). From an organizational perspective, the report and the outcomes of the research pointed out the risk of failing to meet strategic requirements and policy driven imperatives necessary to deliver a more externally facing academic output. My report may have reinforced the need to reshape the organization in order to enhance its 'exchange value' (Wilmott 1995), a term used to denote the changing relationship between the university and the state.

Significantly, the agency and participation, implicit within participative action research (Ottosson 2003), and the further engagement with the strategic ambition of the organization, was denied to me. In responding to the diagnosis, the academic participation, professional orientation and opportunity for collaboration with others were also refuted. In other words, the method for developing a change process was not consistent with the normal and normative operating practices of the organization. The resistance to the actionable outcomes of the final report (Appendix 8) are outlined below:

- A perception that the risks of dialogue with others across the organization would not be timely and coincided with the University Activity Review undertaken by senior managers in 2009.
- The legitimacy of the researcher to participate across the system and work towards the goal of developing capacity for knowledge exchange was considered inappropriate and outside of the legitimate sphere of role and influence.
- The findings of the report were not justified or sufficiently argued (according to the executive lead).

The report to the VC and the DVC was intended to influence the strategic agenda of the University and identify the problems and potential solutions as they related to knowledge exchange. It had, necessarily, criticised the lack of systems and processes for supporting knowledge exchange and indeed, the strategic prioritisation of knowledge exchange by the executive team. This act was probably too challenging to those in positional power

and with a mindset associated with positional and hierarchical accountability. The executive lead could not refute the relative lack of organizational effectiveness in enterprising academic activity and knowledge exchange but was able to criticise the way in which the research was conducted and findings presented..

The culture of community and the supposed relationship network at YSJU, as evidenced in the YSJU Staff Survey (2006), was assumed to be an advantage to the culture and a potential factor in building engagement and capability in knowledge exchange. One of the senior managers at YSJU also referred to 'the cultural moment' for the organization, to generate a specific drive towards knowledge exchange.

Beliefs about the culture are influential in generating participation (McNiff 2008a) and cultural issues play a pivotal role in the success of knowledge management issues (Crawford et al.2009). The openness experienced whilst generating a diagnosis, did not translate into a shared planning of strategy, or the cooperative engagement with a cross section of the workforce. It would, therefore, seem that the perception of the senior academic leaders, was that they held sole responsibility for the design of a strategy that would govern the behaviours of all those working within the organization. This fundamental lack of will to engage people in the knowledge transformation is an unfortunate use of control, which is an inappropriate leadership style in knowledge participation.

'Intervention 3' – University Activity Review (UAR)
 The third intervention cannot be directly attributed to the research (hence the use of parentheses) Following the removal of permission to proceed with further action research, I did not seek further dialogue with the VC as organizational sponsor. I was aware that any initiative to investigate the barriers to proceeding with the study may have been perceived as a direct challenge. As an insider action researcher, this range of factors and specifically my own unwillingness to undertake further interventions without the sponsorship of the organization shifted the perspective of the study.

In late 2008, the withdrawal of the support for the continued process of research marked an end to the action / intervention element of the study and the research was discontinued. My goal had been to create capacity for knowledge exchange but I had effectively been unable to engage with colleagues or managers in any sustainable way to bring about a change process. In making sense of the findings, as an academic practitioner and also as an action researcher, I had somewhat under estimated the impact of the tacit engagement with the organization and the potential of simply raising the problems of knowledge exchange as a critical issue.

.However, my withdrawal from the field of enquiry (Zuber-Skerritt 2002) was a deliberately enacted stage of the research process and it coincided with the beginning of the 'University Activity Review' (UAR) – a process, initiated by the VC and undertaken by the senior management, intended to drive efficiencies in curriculum delivery and effectiveness of corporate processes in the development of the University. Not incidentally, the process was undertaken two years after YSJU was awarded University status, at a time when financial sustainability was a critical challenge. The review process engaged governors and the four faculties, and included a specific investigation into the value of the REO. It was clear that the DVC had known that this process was to be undertaken when he curtailed my attempts to develop a wider strategic group related to building enterprise[15] and knowledge exchange capacity.

The results of the UAR were implemented in September 2009, during the period of write up of the doctoral study. The impact of the action research on the change process in the organization is a subject of some conjecture, but can be seen as a contribution to the following key changes in the organization:

- External engagement was a terminology adopted to encompass all entrepreneurial and knowledge exchange work.

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[15] The term enterprise refers to the use of the term within the Research and Enterprise Office

- The REO was closed resulting in several redundancies including the Head of the REO and the Business Development Manager
- The appointment of a PVC for external engagement, a role that effectively removed the strategic leadership of enterprise, and knowledge exchange from the DVC.

The devolution of knowledge exchange activity to faculties, demonstrated the furthering of knowledge exchange activity within the University. These developments to the internal structure of the University cannot be directly attributed to the current research and, at no point, have any of the changes been attributed to the researcher. It is, however, curious that a number of the key recommendations made in the formal paper to the VC in September 2008, have been achieved (see Appendix 6). In particular, the UAR has instituted a structure that reflects the strategic intention to undertake further external engagement and knowledge-based, collaborative activity.

The figure below is a schematic of the re-design of the executive and senior management roles. The changes appear relatively minor, with the removal of the Head of Research and Enterprise (compared to Fig. 11) and the changed title for the PVC External Engagement

Figure 31: Organizational re structure following the 'UAR'
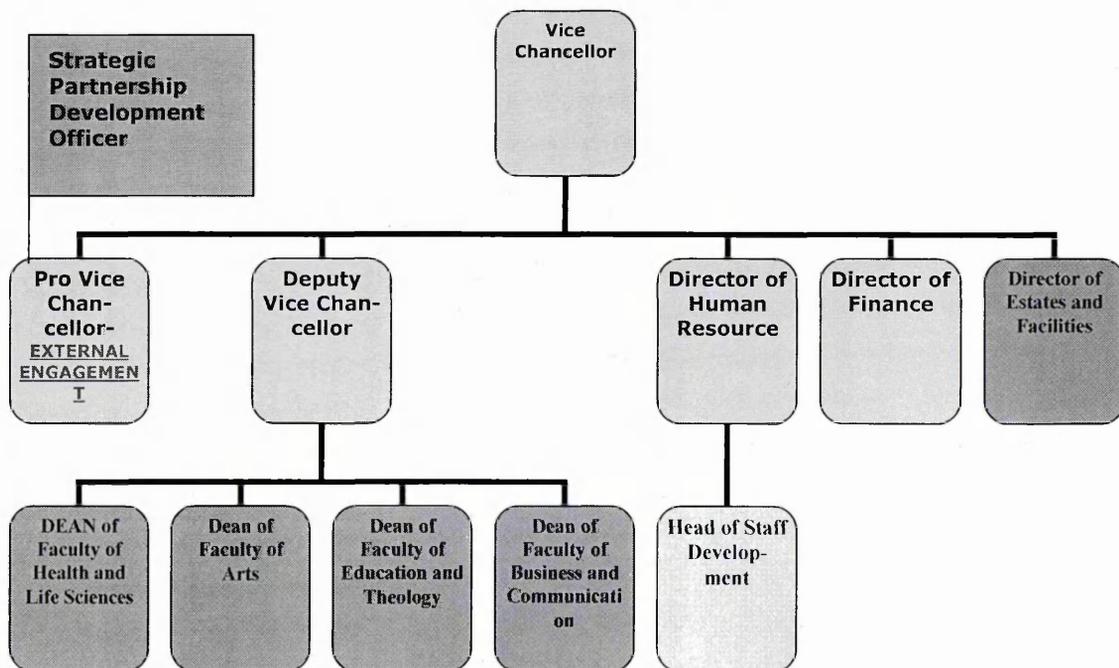
The most notable structural change was the establishment of a 'strategic partnerships officer' as a clear indication of the intention to participate in the regional knowledge economy and engage in further 3rd stream activity,

In addition, during this period, I achieved the first knowledge transfer partnership (Technology Strategy Board 2009) for YSJU in July 2009 between the Faculty of Health and Life Sciences and a local authority partner. Using the Faculty's academic and administrative expertise, the KTP initiative was a symbolic, as well as a strategic outcome for YSJU, demonstrating a commitment to knowledge exchange practices. The cultural importance of the initiative has still to be recognised, but it is significant that the new PVC for external engagement, was able to guide the initiative through the Executive Committee and the Strategic Partnership Officer was able to provide the University-level endorsement to the Faculty and, significantly to the regional bodies managing KTP activity.

In an email to the executive committee, seeking endorsement for the initiative, the new PVC for external engagement includes the following section:

"I would just like to stress that I see this as an important step for the University and one that I fully and wholeheartedly support in terms of our partnership and external engagement agenda as well as our commitment to use the knowledge, skills and expertise in the University to address important social, economic, cultural, business and other issues of public concern and interest, especially locally and more widely in our region". (PVC communication August 2009)

This very recent turn of events has entirely altered the context and there were signs that the University now seeks to take seriously the potential role that it might play in developing knowledge exchange. The development of an organizational structure to support further external facing activity was an important development for YSJU. The re-design of the organization was a macro level intervention, a 'top down' initiative which ostensibly creates a leadership position to promote further knowledge exchange. This action is

in keeping with the strategic aim at YSJU and represents a 'Radical Structuralist' approach (Burrell & Morgan 1979) to the organizational change by the executive leaders because it is based on making (radical) change based on the assumption of objective outcomes.

Discussion about the final outcome of the research

Checkland (1999) identified action research as a way of managing a problem situation through a process of sense-making, with the intention of acting purposefully to make a change. The following section represents a shift in standpoint and a fuller consideration of the impact of the action research on YSJU and on my own individual perspective. Further interpretation was necessary and warranted to explain the outcomes of the research from an individual and subjective viewpoint.

Becoming Critical- Taking a interpretive stance

The power dynamic was more fundamental to this study than had been anticipated, with positional power (French & Raven 1960) playing a primary role in managing the knowledge sharing across the organization. I had aligned the action research closely with the sector and organizational strategy and (as discussed in chapter 5) had assumed a functionalist position (Burrell & Morgan 1979) in relation to the organization. I was now questioning the relevance of my work as internal agent of improvement and the power relations I had experienced. This suggested that the objective, transparent method to manage a change had not achieved the intended outcome and I was unable to explain the situation without using an alternative paradigm. The more subjective reflection on power relations was a critical 'turning point' in the research process and necessitated an interpretive stance (Burrell & Morgan 1979). I will further explain my critical understanding of the situation, recognising that the subjectivity of the explanation contrasts with the previous methods and yet aims to support the overall improvement in knowledge exchange capacity building at YSJU

From a critical perspective, any 'failure' to achieve the intended outcome of research could be construed as a positivist terminology that inadequately

describes the problem situation. The ambition of the action research was to achieve an effective structure for knowledge exchange and, as an actor in the organization my focus was based on a more critical range of managerial perceptions (Werkman 2009). As a change agent, I had construed size, access to key personnel and access to the academic community as contextual characteristics that might make an effective change process more likely (Werkman 2009). Action research was employed to identify the data from a 'problem situation' to then, report and further negotiate a range of improvements across the organization. The research approach was intended to facilitate a change, but this was thwarted by a 'pocketed veto' a term to express the hidden limitations on an agency within the organization (Lukes 1974).

A critical understanding of power in universities

Whilst the senior manager had a legitimate role to permit or inhibit 'timely' improvement at YSJU, the control exerted over my research was indicative of a more complex and hierarchical activity by the executive lead. The claim that low trust, politicising, and organizational defensiveness are counterproductive to organizational learning is a continuing theme from Argyris (Argyris 1970, Argryris 1990, Argryris 2004). I had neither legitimate role nor sufficient influencing 'sphere' (Levine 1972) in the Organization to challenge this decision and I was subject to, what Lukes (1974) considers to be, a 'latent' conflict', in which the potential issues are kept out of the agenda. In this case, the conflict is evident at a personal level, but the senior manager was able to exclude my ideas from the system-level discussion and was supported in doing so by others, including the VC. Lukes (1974) writes about 'non-decisions', where the dominant group may be aware, or unaware, of their role in protecting and promoting their own dominance; thus re-enforcing the 'control' over the agenda. The issues of legitimacy and seniority in decision-making seem all the more significant within a low absorptive setting. Ultimately, there were no opportunities to bring forward an alternative debate. The knowledge outcomes of my research and the methods by which they were produced failed to fit with the procedural and mechanistic image of the organization from the senior management (Morgan 1997).

Mercer (2009) suggests that academic managers have been severely disadvantaged by 'new managerialism', which she defines as the application of private sector practices to the public sector, to improve accountability. This definition focuses attention on the way that public and policy accountability has been regarded by senior academic managers, as a cultural influence. Mercer (2009) regards government policy as a major imperative on the sector and cites Simkins (2000, p.330) identifying the 'cultural starting point' for an organization, in relation to managing the relative position and accountability of its role in the sector.

It is clear that the major change in the sector of the last ten years has been the increasing pressure on academic leaders to deliver high quality performance (Jackson 1999). However, this external pressure has created significant role ambiguity (Jackson 1999) and has not resulted in a more devolved leadership or a cultural shift towards a more shared accountability for the delivery of knowledge outputs(ibid). In real terms, the insider researcher role has supported the data collection and further action planning within the research process, but had not permitted the active generation of further capacity building. Although the responsibility for the co-learning initiative and other 'actions' were construed as the prerogative of key personnel in the senior management roles, the access to persons and to information was not problematic. Assembling a case for change was possible because permission was given and contact was welcomed. In terms of absorptive capacity prevented; the assimilation and transformation of this knowledge was 'not permitted' and the shared or devolved accountability for further action was rejected by the executive lead. This suggests that the problem associated with absorptive capacity, i.e. a limited 'assimilation' (Zahra & George 2002) might also be true of strategic development. The improvement in performance might happen if the strategic picture was more widely shared and the workforce was informed about the factors underpinning organizational change.

Governance of knowledge management processes may be nonexistent (as they are at YSJU) and individuals in boundary spanning and change agent

roles are both 'at risk' *and* restricted in their potential, even though they might be offered rewards and incentives (Wright *et al*.2001). There is a need for a framework to reflect the particular role delineations identified by Jones (2006) and to consider how leadership capability is associated with the organizational development of absorptive capacity.

Bell *et al*.(2000) discuss the distribution of power in organizations and the underestimation of the unevenly distribution of control. They maintain that as uncertainty increases, the door is opened for subordinates to exercise greater and greater influence over subordinate actors. Conditions that block mobility, promote power decentralization, leading to opportunities for interested parties and influential actors to present knowledge, to enhance or constrain power and influence processes.

Contrary to this, my human response to the complexity of the situation and the personal nature of the criticism caused me, to question the value of the work and my own 'legitimacy' in taking forward the work. Unfortunately, I questioned my entitlement to challenge and to participate in the strategic planning processes. The action research had allowed me some mobility in hierarchies of the organization, but, when challenged, it was difficult not to revert to a status-orientated perception and allow some domination and obedience (Bell *et al*.2000).

Seo & Creed (2002) would suggest a dialectical understanding of the situation. They build on theoretical insights of Giddens (1984) that emphasise the relationship between organizational structure and individual agency. They regard structural change as an 'inevitable' (p229) precursor to developments in academic praxis, especially as knowledge production (and productivity) becomes an orientation for the organization. Their conceptual focus based on the dialect between the organization and the response to the reconstruction of the organization with an academic praxis responding to the changing structure of the institution. According to Seo & Creed (2002) practices in the universities are embedded in a historical tradition of 'community' which enable individuals to operate as though a consistent grouping around discipline or as in the case at YSJU, professional group.

However individuals are rarely operating as a group and the notion of individual 'voice' and a right to be heard is less collective than is attributed by managers and academic leaders. Seo and Creed describe a phenomenon of;

"political action embedded in a historical system of interconnected yet incompatible institutional arrangements" (Seo and Creed 2002) p-223

In other words, individuals may find a way to enact a response to the changes they perceive in structure of the organization. This theory suggests that academic staff in Faculties would recognised that YSJU was trying to respond to a challenging demand for organizational development to become more knowledge productive and the change in leadership and the removal of the REO denoted a re design in terms of strategic intention.

In contrast, The 'design school' (Mintzberg *et al.* 1998) presents a view that structural change is entirely based on the conception and agreement by key individuals and not on participative engagement or on learning. For Mintzberg (1998) the UAR and consequent actions could be indicative of the 'design school' of strategy which is a common in public and private sector organizations. The organization formulates a strategy based on an internal analysis of organizational competencies and these perceptions, whilst historically defined, create a strategy which should then be open to testing and experience. Mintzberg (1998) sees the weakness of the design school as the promotion of thought over action and certainly there are risks to making a structural change without testing assumptions. Creating the appearance of activity through re structure would reduce the risking of 'failing' to meet the challenge of employer engagement and knowledge exchange, but may not significantly increase the capacity for knowledge exchange. Conversely, the PVC and the co-ordination of knowledge exchange at faculty level might result in a more expedient method of building knowledge exchange capacity but this is entirely untested.

Based on the experience of power and leadership within the planning and action phase of the research, a more critical consideration of the re-design

was required. Individual participation was noticeably missing from the restructure of the University executive and the individual academic, within the knowledge exchange process was not regarded a s critical contributor to the level and scope of new externally focussed activity.

Designing the workplace for knowledge exchange practice

Sparrow *et al.*(2009) reports on knowledge exchange initiative that is discussed in relation to the generation of new theories to support and develop academic practice to facilitate academic innovation. This knowledge exchange initiative is not discussed in relation to the impact of the knowledge exchange in the small firms concerned, but rather it presents a strategy to develop academic practice as a direct consequence of a university seeking to build further university-industry interaction. This literature is new and useful for the report on methods of participation related to academic knowledge participation.

Sparrow *et al.*(2009) postulate that a participative enquiry process can enhance the evolution of a capacity to use internal knowledge transfer practices in a university setting. They advocate for a reflective approach to the evaluation of impact, but also question whether using other methods might accelerate the necessary changes. Their paper, in common with my own, seeks to reveal the 'problem' associated with undertaking new academic practices within a traditional and bureaucratic culture. They see practitioner inquiry as a process to:

" *reveal how individuals, systems and processes have had to adapt to support the endeavour [and] will surface the individual and organizational learning that are necessary for a university to play its role as a knowledge co-producer"* (Sparrow *et al.* 2009 p.659)

Sparrow *et al.*(2009) argue that the human and social methods of knowledge exchange should be made overt by the university, when undertaking knowledge exchange processes. Sparrow *et al.*(2009) also suggest that the intention to build absorptive capacity between partners should be made explicit and that partners in the knowledge sharing process

should understand and recognise the 'co-evolution' (Van de Bosch *et al.*1999) in the production of new knowledge based products.

Furthermore, there is evidence to suggest that any initiation and drive towards dynamic organizational learning must come from the 'top management' (Law & Gunasekaran 2009). There would seem to be a strong case for strategic leadership of absorptive capacity and for the 'top' leaders to create an environment where the talent and commitment in the workforce can be fully realised (Harrison & Kessels 2004, Hessels & Van Lente 2008). All leaders are subject to but, are also protagonists of the corporate environment: senior leaders are perhaps particularly responsible for the strategic prioritization and the 'orchestration'[16] of the general opportunities for participation, within the university environment. As activists in the promotion of knowledge systems, these leadership roles are informing and shaping the culture and impacting on other employees undertaking a range of leadership tasks in the context of their ascribed role.

From an historic perspective, Drucker's (1994a) vision of the university's participation in a knowledge economy was critically predicated on personal knowledge and a commitment to individual intellectual participation and to learning. Also, Nonaka & Takeuchi (1995) adopt a process understanding of how knowledge is communicated and translated from tacit to codified knowledge. Nonaka & Takeuchi (1995) conclude that the tacit knowledge of key individuals needs to be made explicit within the organization, when undertaking the incorporation of new knowledge and projects. These key contributions both present an appreciation of tacit knowledge becoming accessible to the organization through knowledge transfer. Sarabia (2007) uses the original contribution of Nonaka & Takeuchi (1995) and again focuses on the way that knowledge and innovation could be stimulated through specific leadership competencies and communications to promote knowledge transfer and most recently, work in this arena (Liyanage *et al.* 2009), also regards internal knowledge transfer and translation as a function of enhanced communication from leaders, rather than a process

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[16] A continuation of the musical metaphor used by Sarabia (2009) previously cited, and who writes about the amplification of knowledges to respond to demand.

and procedural improvement through new structures (Liyanage *et al.* 2009). According to the evidence, a university therefore needs robust strategic leadership to support and build a culture that promotes knowledge productivity (Senge 1990, Senge *et al.*1994, Wright *et al.*2001, Garvey & Williamson 2002).

Building knowledge exchange capacity

McGreevy (2009) researched the process of changing knowledge organizations, providing further insight into leadership and suggested a strongly participative approach alongside a consistent message about the process and applied project management was necessary to enhance management. The relationship between the individual and the group or team is clearly an important element of knowledge exchange and one which is insufficiently understood. This individual participation and knowledge contribution is critical to the institutional challenge of undertaking entrepreneurial knowledge exchange (Moravec 2008) and the sector, as a whole, is going to need a wider debate about the academic participation of the practitioner in the knowledge economy. Brown (2008) suggests that leadership within an enterprising university requires understanding and values associated with a high social 'capital', and a skill set to promote collaboration and engagement as individuals and teams. This view is consistent with the view that universities are intensive, knowledge-based organisations, seeking to function as learning organisations but also to capitalize on their human assets as academic 'knowledge workers' (Drucker 1999).

Hammersley (2004) recognises that the praxis of the academic worker, 'the knowledge worker', is based on a loose interconnectedness with others. Madsen *et al.*(2008) also claims that the focus on the 'human capital',- defined broadly as 'the abilities of individuals' (Madsen *et al.*2008 p. 72) is a major prerequisite for 'knowledge intensive' operations. The construct described by Madsen *et al.*(2008) as social capital is considered to be an elusive concept within knowledge management (ibid), but has been well explored in the sociology and psychology literature associated with innovation and development (Giddens 1984, Fletcher 1998, Conway &

Steward 1998). Madsen describes social capital as '*a compound of a number of variables including the network*' (Madsen *et al.* 2008, p.74) and is strongly associated with the identity, social skills and tacit knowledge of the actor.

Clark & Kelly (2005), identify the person associated with knowledge stimulation as specifically important in respect to research (and knowledge) utilization. Promoting inventive alliances of appropriately skilled people to make more efficient use of resources is at the heart of the role, "*moved tacit knowledge into utilitarian output*". (Clark & Kelly 2005 p.4). For example, the promotional criteria which are a powerful message to staff, to indicate where they should direct their efforts, if they seek recognition and reward (Rowley 1997). Rowley (1997) also suggests that individual institutions should interpret the concept of leadership within their academic community to match the particular mission of the university.

Why the structural change may not succeed at YSJU

Ward *et al.*(2009) sees knowledge processes in health care settings as 'interactive and multidirectional' (Ward *et al.*p.163). Her early modelling of a process, to apply new knowledge to practice, allows for the separate components of a change process to occur simultaneously or in any given order. In this case, as in mine, the theory is not drawn from a 'neutral territory' giving the impression of rationality. The theory is an active fit with a situation and the individual perspective (Van de Ven 2007). These suggestions are consistent with the idea that knowledge acquisition is dependent on the tacit dimension (Nonaka & Takeuchi 1995) and that individual volition and not organizational process is critical in the application of new knowledge to current practices.

The focus on workload dominates the dialogue about knowledge exchange at YSJU, and the assumption continues within the university that enterprise and 3rd stream activity represents added responsibility and is additional to teaching, administration and research (Corbyn 2009). The knowledge exchange practitioners are necessarily making a 'discretionary' offer. Discretionary behaviours are personally motivated and demonstrate the

relationship between the individual and the organization, specifically indicating the organization's ability to draw on individual competencies. Discretionary behaviour can, of course, have positive or negative consequences on performance (Wright *et al.*2001) but, to harness discretionary capabilities to a new strategic direction, may be more innovative and improvement-orientated, than management of change through prescribed organizational processes and roles (Wright *et al.* 2001). The performance of specific knowledge transferring activity is currently 'discretionary', and it is therefore impossible to take advantage and formalise the benefits within the organization.

Darwin *et al.*(2002) identify a paradox experienced by an individual encountering a structural change. They propose that personal ideology is enacted in a context and that individuals attempt to construct processes to support the existing systems. They suggest that;

"*the mindset is geared toward setting the processes by which the knowledge production [context] can be understood*" (Darwin *et al.*2002 p.75)

The paradox arises where new knowledge fails to be supported by existing processes. Argyris (2004) discusses the tolerance of knowledge inconsistency within practice, with the concept of 'theory in use'. He identifies how, as a consequence of learning, (often through a difficult and challenging experience) individuals can act consistently with their 'espoused theory'.

In a culture of professional practitioners, typically familiar with collaborative and team practices (Madsen *et al.*2008, Middlehurst & Kenny 1997), the social network and the genuine engagement with the academic practitioners at YSJU was peripheral to the structural change. In addition, the core activity of delivering the main disciplinary activity and the ascribed workload was structurally enshrined and the changing ethos of knowledge exchange activity as an academic practice would not be likely to radically change as a result of a structural change alone. The findings of this research support

the idea that 'perception of senior management' (Diagnosis –Results Chapter 7) was a theme for middle-ranking and senior academics, leading to acquiescence to the hierarchical structure and the 'managerial' construct at YSJU. Significant further engagement between the executive, senior management and the academic workforce would be required if knowledge exchange capacity was to be achieved.

Conclusion

In this chapter I have reported a range of interventions and discussed how their outcomes informed the development of capacity for knowledge exchange. The staff development activity, whilst opportunitistic was of limited value due to the lack of sustainability and poor uptake from academic participants. The final report was offered to the executive lead for research and knowledge exchange, formalising the previous verbal report to the senior managers and other planning actions. This final report resulted in a difficult dialogue and curtailed the action research. As a consequence very limited organizational achievement against the corporate plan was achieved for knowledge exchange. This intervention did not result in further University wide dialogue as was expected and a final intervention, the withdrawal from the University coincided with a high level 'University Activity Review' UAR. This resulted in a significant change to the structure of the organization and a re-prioritization of external facing activity and a PVC for external engagement, a separation of research and knowledge exchange and a closure of the research and enterprise office. The research outcomes had been limited by the power and influence of the senior staff but the outcome of the participation suggested that the research had influenced the outcome, albeit, non collaborative in nature.

A functionalist action research approach to building knowledge exchange capacity had produced limited outcomes for YSJU. Taking my own experience of creating change within YSJU as an example of building a new institutional capacity, I witnessed the isolation and personal risk associated with leading knowledge based initiative. I had aimed to assist others to recognise the benefits of adopting new ways of working which can be undertaken as a series of practical interventions (Jones 2006); to promote

knowledge exchange. This strategic role for the autonomous academic or other individual was perceived as an opportunity to reduce the insularity of the manager Jones (2006) but had reconfirmed the limited participation.

The functional approach, using action research had not built the successful collaboration with colleagues and further reading of these outcomes suggested that a more critical review of the data was required.

The discussion in this chapter presupposes that the legitimate role of senior management was to restructure and build strategy in response to external policy *and* that the legitimate role of an academic practitioner is to develop and extend academic praxis in knowledge exchange. The agency perspective (Werkman 2009) is used to justify the action research initiative, and effectively sidestep the subsequent limitations created by the hierarchical and managerial response to the action research process. There are emancipatory consequences to interventions that actively seek to openly enquire and re-evaluate the status quo, especially where participants in the organization seek to amend their own views in the light of their experience of the action (Geuss 1981). Habermas saw the opportunity to investigate phenomena, as though in conditions of 'complete freedom' (ibid) based on the hope that knowledge can lead to emancipation and to development. The aspiration to gain 'consensus' was intended to mitigate the risks of distorted communication and to avoid extreme relativism (Van de Ven 2007) with the suggestion that through open dialogue, participants could attain a participation in the strategy to take forward a change in the way that internal knowledge exchange processes supported the external practice.

YSJU is a small university in a rapidly changing higher education sector with the same requirement to meet policy demands and achieve financial balance as its much larger competitors (Deem 2004). My contribution to YSJU through concepts such as knowledge and leadership are important to manage a response to the national policy and the strategic context of the sector. The following chapter proposes a critical focus based on a further interpretation of the critical challenge presented within the research.

Incorporating some further knowledge and understanding of leadership within the university, I will go on to present a new perspective on leadership of knowledge exchange, based on different mindsets in high and low absorptive capacity settings.

Chapter 9. Building Theory in Action Research –Knowledge Exchange Leadership in High and Low Absorptive Capacity Settings

Introduction

At the beginning of this study, I captured a range of government policy and HE strategy (DfES 2003, Lambert 2004, HEFCE 2007, RAE 2008) presenting a sector-wide context for the HE institution.   The government drive towards external engagement has remained a constant feature of the sector strategy. Most recently the introduction of the impact assessment in the research excellence framework (HEFCE 2009) confirms the intention to hold universities account for their 'productivity', based on the sustainable knowledge-based participation in society.

York St John University is viewed historically as a vocational educational college, but was newly establishing itself as a university in the region. The University identified a key strategic aim, to promote and income generate from knowledge exchange (YSJU Corporate Plan 2007-12). The action research sought to contribute to the planning and implementation of this corporate aim. A diagnosis identified the organization as having low absorptive capacity, where assimilation of knowledge was restricted by inadequate communication and problem solving across the organization. This outcome supported by assumptions, based on practice experience of academic knowledge exchange. The diagnosis had tested this assumption and confirmed the low levels of knowledge exchange as well as the lack of operational strategy to support the work. Through sharing the data with some colleagues a number of other critical issues had also been identified, with leadership weaknesses associated with academic engagement and knowledge assimilation. Managerialism and a lack of participation in strategic planning led to uncoordinated knowledge exchange practice. Low assimilation and the use of power also contribute to a resistance to a change initiative. In effect, my concerns about the internal working practices to support knowledge exchange had been confirmed. This deduction had however failed to support any further improvement.

YSJU, as a knowledge intensive and publicly funded organization continued to espouse a strategic aim in relation to knowledge exchange and my view was that it might improve absorptive capacity, thereby enabling further knowledge exchange, order to meet its espoused mission and civic purpose (Shaperio 2002).

Checkland (1999) suggests that organizational redesign can be achieved as a systematic process based on re-conceptualization. In terms of action research, there was a need to distil the outcomes of the project into actionable knowledge (Somekh 2006). A knowledge contribution around the leadership of organizational knowledge was conceived, with the ambition of describing some of the knowledge exchange limiting factors within the research as a result of low absorptive capacity. This was an inductive process through the continuous practice of observing the organization from within and the systematic collection of data; I had made some further tentative assumptions about the nature of the internal structure, systems and processes to support knowledge exchange. It became clear that the concept of absorptive capacity, to explain knowledge productivity could be useful but this did not explain the barriers that I had experienced.

Given the systems-level problems and the response to the change initiative, this, more critical perspective, was adopted in order to explain the individual experience of agency in the organization and rather than enacting a further change, the research was focused on the production of a simple framework to introduce absorptive capacity as a useful concept for planning knowledge exchange across the organization. Furthermore, my observation of leaders in senior and less senior roles had resulted in a consideration of the human power orientated exchanges that had occurred, and this led to a further understanding of how the leadership mindsets influence the use of knowledge. Further research literature (included in this chapter) suggests how to achieve organizational development in HE (Maqsood *et al.*2007, Moravec 2008, Madsen *et al.* 2008, Sanchez 2009, Ternouth & Garner 2009) and confirms how a renewed commitment to academic leadership

(Jamali 2005, Tsai 2007, Lomas 2007 and Mc Tavish & Miller 2009) would make a difference to the way that knowledge exchange could be achieved.

Through a process that Van de Ven (2007) identifies as 'abduction', the use of literature and field experience suggests how the mindsets of leaders in high absorptive capacity environments might contrast with the experience at YSJU; a low absorptive capacity environment. This tentative process of drawing together several elements from an organizational situation is a precursor to a fuller induction process that gives rise to a theory. Abductive (Van de Ven 2007) and inductive reasoning, lead to a wider and more generalizable knowledge based on the components of the research but using all the experiences and learning in combination. The inference undertaken by the researcher serves to draw salient details together from the findings, to produce a theory, using particular information and data (Gill & Johnson 2009).The impact of leadership, particularly were it was limiting and created barriers to further participation in knowledge sharing, was my main concern. This had occurred in relation to senior leaders and also from observations and some interpretation of the resistances and capabilities of focus group members and the academic workforce. These ideas are presented as a framework for 'Knowledge Exchange Leadership in High and Low Absorptive Capacity Settings'.

A research framework is an instrument for linking theory with data in terms of function, representation and learning (Van de Ven 2007). A framework's dependability (Gummerson 1991) is based on the uptake and use of the formulation in other context. Other universities, with limited ability to transform knowledge into new products or different forms of knowledge-based services may be considered to have low absorptive capacity and may want to use the framework in support of a re-engagement with the academic workforce and a proactive use of knowledge leadership within and beyond the university. I look forward to the further verification of the framework, which will need to be robust to withstand evaluation by the academic, as well as the sector establishment. Its success depends, on the ability of HE leadership to critically appraise the limitations in their working environment and make purposeful and committed changes consistent with

desired improvement in knowledge use. (Ternouth & Garner 2009, Sparrow *et al.* 2009, Fowler Davis 2009).

The critical question arising in the understanding of this action research is; 'how might academic managers, at all levels, influence or inhibit the success of the strategic redesign of the organization, to build capacity for knowledge exchange?' I have assumed that, whilst the actions and initiatives I proposed were resisted, there remains a suggestion that the redesign of the organization was ultimately consistent with some of the suggestions made in the report. As an agent of change in the organization, I had 'sown seeds' (Moss Kanter 1983) and had highlighted the misalignment between strategy and operational activity. Whilst this was not welcomed by senior managers, and further action was inhibited, a further exploration of the process and consequences is warranted (Perry 2002).

A further reflection and critique of the action research process is implicit to this chapter but a fuller critique of the action research process will be made explicit in Chapter 10.

Leadership capability

Leadership practice is the central concern in a university, if middle and senior academic managers are going to achieve the results expected and presented in government policy for academic outputs (HEFCE 2007). Leadership is defined in innumerable ways, perhaps most pertinently as agents of change. Leaders are seen as those who take actions that affect the context of the group (Bass 1990). Perhaps most pertinently,

"Leadership occurs when one group member modifies the motivation or competencies of others in the group" (Bass 1990 p. 20)

Bass (1990) identifies motivation and competency in the pursuit of a course of action that intends to 'bring others along' and meet specific goals for an organization. Schryer-Roy (2005) identifies a role for leaders in the implementation of new knowledge and the creating of systems that actively seek to promote knowledge adoption.

Leaders would seem to have two clear roles in designing the workplace for knowledge transfer (and ultimately for knowledge exchange). The first is to heighten understanding of organizational purpose and to signal to the workforce a change in strategic prioritization and external need. Sarabia (2007), describing leadership in the context of knowledge productivity, calls this the 'amplification' of knowledge and she suggests that leaders need to raise awareness of the strategic knowledge need. Conversely, she describes how a leader might 'modulate' other knowledge in line with new opportunities and knowledge cycles and projects. This organic approach to knowledge leadership is based on the ability of a leader to manage the interplay between knowledge, learning and culture; the leader is a conductor, shaping of the strategic cycles of change and the use of the knowledge within the organization, and 'stretching' (Sarabia 2007 p. 11) the knowledge to create an impact in response to the wider context (Sarabia 2007).

This understanding has some resonances with other notions of knowledge leadership, included earlier (in Chapter 3). Harrison & Kessels' (2004) understand the strategic planning and analysis behind engaged and innovative (learning) cultures, as a major leadership commitment. They coined the term 'strategic capability' as the ability of individuals, teams and leaders at all collective levels of the organization to plan their work, in relation to the economic performance and knowledge productivity of the organization. This orientation to enterprise is based on the fundamental and theoretical position for the organization to promote the learning capability of all managers and leaders.

The second role of the leader in designing a workplace is to create a 'climate' conducive to innovation and partnership working (Lidewey & Van der Sluis 2004). Climate, often used synonymously with culture, is taken to mean the pervasive features that set up the work environment (Lidewey & Van der Sluis 2004). For example; Ekvall & Ryhammer (1999) found that the climate and resources exerted the strongest influences on learning and innovation outcomes for university teachers. Climate conditions for

knowledge sharing and learning include many of the features of transformational leadership (Bass 1990), including support, psychological safety and the quality of leader-worker exchange (Tierney *et al.*1999). Other leadership capability associated with knowledge transfer, within an organization, indicate the promotion of teams and specifically group exchange (Paulus & Yang 2000). The adoption of a devolved pattern of responsibility (Mercer 2009) serves to allow middle ranking and junior academics to manage a range of different demands and tasks within their workload. The development of local problem solving and improvement is also cited as a micro level initiative (Stinson *et al.* 2006); where in health care, the drive to manage change within clinical leadership is well established.

Only recently have researchers begun to focus on the links between leadership and knowledge management (Lakshman 2007), where the leadership responsibility is focused on the strategic renewal of processes *and* on the role of the leader in information acquisition and use in practice (Lakshman 2009). Lomas (2004) identifies the importance of transformative leadership as a major indicator of success in the creation of quality processes to support institutional improvement in HE. Furthermore, leadership needs to be seen as a contributing factor in the culture and organization of learning (Harrison & Kessels 2004, Sarabia 2007, Lakshman 2009)

Lakshman's (2009) empirical examination of knowledge management practices by top executives sought to establish how the cause and effect of knowledge leadership impacts on the performance of an organization. He defines knowledge management as "*the process through which data and information are converted to knowledge and subsequently disseminated*" (Lakshman 2009, p. 342) and, in common with Nonaka & Takeuchi (1995), sees this as a means of achieving competitive advantage. His investigation uses structured content analysis of published interviews against four, predetermined scales, which include:

Scale A - 'Cause and effect beliefs' i.e., "the CEO has a good understanding of the factors that influence the employee".

Scale B - Knowledge management i.e., "the CEO uses teams and committees to share information with people throughout the organization"

Scale C – Customer focused knowledge management, i.e., "the processes for obtaining information from customers is continuous"

And Scale D – Leadership perceptions, i.e., "the values held by this CEO provide leadership to the organization".

In spite of a range of recognised methodological limitations to the analysis, Lakshman's research, involving thirty-seven chief executives, highlights a significant relationship between leadership perception and knowledge management. It suggests that information and knowledge management plays an important role and shows that certain behaviours and priorities for knowledge transfer practices enable an organization to perform strongly (using an earnings per share measurement).

Linking this theory with data

I will use the scales to consider the situation at YSJU, to represent a range of leadership dilemmas that were identified as barriers to further knowledge exchange capacity within the University. Using further data from the diagnosis and action planning stage, I have grouped these dilemmas as responsibilities of leaders at different levels of the organization, beginning with the executive and senior managers. I have then suggested the scale referred to by Lakshman (2009) to indicate the relationship between leadership capability and knowledge exchange.

The Executive and senior management team have:

- De prioritised *enterprise* (3rd stream) activity after research and learning and teaching. (Scale D)
- Identified income generation as the desired from 'increased knowledge exchange' (YSJU Corporate Plan 2006). (Scale A)
- Refuted the need to reward or incentivise knowledge exchange participation. (Scale A)
- Demonstrated ambivalence towards reporting and celebrating achievement in knowledge exchange. (Scale A and B)

- Failed to fully exploit the outcomes of any project based initiative. (Scale D)
- Neglected to provide the opportunity for the reporting, of knowledge exchange activity as a contribution to the University. (Scale B)
- Neglected governance and quality monitoring of knowledge exchange. (Scale B)
- 'Employer engagement' initiatives cited in minutes that do not result in any financial or knowledge asset. (Scale D)

Lakshman (2009) has identified the importance of senior and executive leadership of knowledge and the range of behaviours cited as important are those identified as lacking within YSJU. YSJU leaders are not creating mechanisms for sharing knowledge across the organization, nor are they acknowledging the potential advantage a 'knowledge creating' orientation might present by way of competitive advantage to the organization. Perhaps most significant, culturally, is the clear ambivalence that exists in recognising knowledge products and rewarding teams and individuals who produce them. There would appear to be a limited aptitude in the executive and senior management to lead the transformation and exploitation of the current knowledge and experience within the organization. It is however useful to recognise, once again, that none of the critical points refer to Lakshman's- Scale C, and that the senior team appear to use external, 'customer-facing' knowledge.

In my own experience, the attempts to capitalise on collaborative knowledge projects have been inhibited by a managerial approach that segments rather than looks for opportunity to assimilate activity across the organization. Based on the results of the meeting with the Dean of the Business School (see results chapter), a highly devolved leadership practice was demonstrated, characterised by the management of cost centres (Gunn 1995) and control applied to innovation. The Dean demonstrated, during the interview, that the collegiate hierarchy meant that her perspective on the development would remain focused on academic developing local initiatives to generate income, and using her positional power as Dean to control of financial and human resources. Her view was consistent with that

of the executive lead for knowledge exchange, who also rejected further involvement from internal or external parties to support the organizational development at YSJU. Meister (1998) maintains that a sustained top management commitment to the corporate development of university organizations, is a critical factor in achieving a sustainable change in the workforce, and that this needs to be characterised by role modelling and 'championing' of knowledge systems and processes to generate greater knowledge productivity.

Ternouth &Garner (2009) recognise a need to generate organizational competence in internally disseminating information. Further absorption of the knowledge that the organization has acquired or jointly developed, is seen as critical to developing knowledge exchange (Ternouth & Garner 2009). Their initial paper sets out an initial model for different types of knowledge exchange, recognising that different institutions will make different contributions, depending on their core knowledge and specialisations. They also identify the ways in which university leaders will want to consider how best to manage the new demand for co-production of new knowledge in their local communities and regions focusing on three key areas:

- Choice of strategic partners and local relationships
- Identifying and empowering individuals who can work externally and multi disciplinarily and,
- How the administrative function to support knowledge exchange can add value, rather than control academic performance, (Ternouth & Garner 2009)

Further reference to this work and the underpinning focus on absorptive capacity as a guiding concept for leaders will be considered in the next section, which will reintroduce the concept of absorptive capacity. However, the dominance of the senior leadership as managers of knowledge across key directorates is clear within this study. They manage the 'human capital' by utilising academic knowledge as though a fixed and finite resource.

With reference to individual academic leaders and managers, Bass (1990) defined transformational leadership in terms of individuals who align their own and others' interests with the good of the group and the organization and seek to direct activity towards the collective goals of the organization (Bass 2000)

YSJU has an academic establishment that is over 60% professionally qualified practitioners. This finding, alongside other data from focus groups and interviews across the organization, suggested that 'engaged scholarship' and 'enterprise type activity' would be a more acceptable part of academic practice at YSJU, than may be the case at other, larger universities or those with a research focus. Academic practitioners report that a perceived benefit of knowledge exchange was the enhanced professional and faculty reputation, and that one of the barriers to knowledge exchange was, in the lack of transparent career and promotional opportunities compared to traditional research. The current perception among academic practitioners is that there are no rewards for engaging in enterprise activity.

At YSJU, the academic was recognised to have:
- A relatively low level strategic participation in knowledge exchange.
- A reported lack of opportunity or invitation to become involved in operational knowledge exchange activity.
- A view that externally facing academic practice is currently of lesser value than the commitment to the education of undergraduates.
- A view that individual effort, the entrepreneurial effort, was not integrated with other work streams, for example, research or employer engagement.
- An understanding that enterprise or knowledge exchange activity would have nowhere to report, share or celebrate the outcomes of the activity.
- Was not assessed for quality, evaluated for financial or reputational achievement and sometimes continues, unchallenged, as though university sponsored activity.

- Concern that their personal effort and vision that sustains new innovation would not be acknowledged.
- Some frustration with the lack of support or structure for the enterprise activity.
- A lack of incentive for any showcase of knowledge exchange achievement that resulted in learning, knowledge contribution or reputational gains.

The confusion and conflicting systems surrounding project-based academic knowledge exchange, cited by one Dean, and the academic entrepreneurs (see diagnosis findings), were a continual disincentive to additional knowledge exchange type activity. Gunn (1995) explains that the pyramidal structure of management in HE promotes a compliant behaviour among academics. However, there would appear to be a raft of factors preventing a consistent approach to the individual leadership of knowledge exchange. Overall, the lack of strategic awareness or questioning related to the changing role of HE in society (Shaperio 2002) has been confirmed at YSJU, with academics prioritising their local academic teaching over other forms of engagement.

The faculty-centric approach by the senior academic leader may appear to have conviction and her assertion that the knowledge exchange for the Business School should be managed by the faculty, may indeed be based on sound corporate reasoning. However this may also be construed as highly risky: in promoting insularity with respect to knowledge transfer, she is effectively limiting the leadership potential of the academic practitioners. Moravec (2008) suggests that the use positional power to manage the academic resource as a group tends to inhibit individual performance because individual effort is disposed of as though a material resource. He suggests that the discretionary power of the autonomous academic practitioner is an organizational asset and needs to be managed as such, and that this is especially important if the capacity to deliver on greater knowledge exchange is to be achieved. Gunn (1995) warned about the impact of coercive authority structures in HE, which he foresaw, would severely restrict the complexities of knowledge transfer and exchange.

The dominance of the corporate agenda in a university, (Prince & Beaver 2001) and the development of external, income related, academic activity is a new demand on many academic staff. In relation to the evidence base associated with knowledge productivity within a university, a far greater appreciation of collective knowledge transfer is required (Crawford *et al.* 2009). The relationship between the individual and the group or team is clearly an important element of knowledge exchange and one which is insufficiently understood. This individual participation and knowledge contribution is critical to the institutional challenge of undertaking entrepreneurial knowledge exchange (Moravec 2008) and the sector, as a whole, is going to need a wider debate about the academic participation of the practitioner in the knowledge economy.

According to Hersey & Blanchard (1988), leaders should first evaluate the competence and commitment of participants (staff) and then adjust how they direct or support, using leadership behaviours to define the 'problem' and consider the range of behaviours to engage people in the delivery of a solution. Situational leadership (Hersey & Blanchard 1988) has become a well recognised mental model in the management of change and organizational improvement, and in this case, is a useful indication of contextual competency for engaging people in building capacity for knowledge exchange. The suggestion from this model would have been to identify the lack of participation as an indication of low commitment and low knowledge. Situational leadership supports the use of a 'low direction, high support' approach, using listening and praise for any approximation of, for example, knowledge transferring behaviours. In addition, the approach would indicate a need to ask for input, and to give feedback, so that people not only recognise and solve their own problems, related to knowledge exchange practice, but also begin to appreciate the need to engage in direct negotiation regarding the systems and processes that limit their performance.

The region-wide network of 'knowledge transfer practitioners' led by the Regional Development Agency (RDA) would have been an opportunity to

debate this issue and could have been an example of a regional initiative to promote a new discourse that would reinforce the participation across and through the university sector, *and* show benefit at YSJU. The collapse of the initiative to bring this group to YSJU was based on an institutional unwillingness to promote individual participation over faculty structure, with a resistance to regional participation based on a preference for local control over the University processes for change. The RDA forum was entirely based on discretionary participation, social networking, dialogue and academic autonomy, and thus represented a risk to the conventions of an individual academic within a faculty structure.

Reintroduction to the concept of absorptive capacity and its relevance in HE

To further introduce the new framework and the particular contribution to practice generated by this research, I will now return to absorptive capacity; as a system-orientated method of managing and capitalising on acquired knowledge. The diagram (Figure 32 p.130) was previously presented as a schematic (Figure 4, chapter 3) to demonstrate the synthesis of three aspects of absorptive capacity. It aimed to represent the concept and provide a synthesis of the theoretical underpinning to the action research process. The schematic (Figure 32) was a useful tool to underpin the research design.

Absorptive capacity is a multi-factorial process that incorporates a wide range of human and social factors alongside the process and procedural dimensions. Lane *et al.*(2006) substantiates this perception of absorptive capacity and warns against the concept being used as an objective, structural tool, supporting the original view that absorptive capacity is the general application of acquired knowledge (Cohen & Levinthal 1990). Lane *et al's* (2006) 'rejuvenation' of absorptive capacity presents a context-specific set of combined capabilities, and that the roles and critical engagement within the absorptive capacity process are as important to the outcome as the movement through acquisition, assimilation, transformation and exploitation, the stages of the internal knowledge transfer process (Zahra & George 2002).

In the light of the data analysis and new observations and experience from the study, the conceptual frame seems over prescriptive. It has however, allowed me to undertake the further formulation of a framework to show how leadership influences and is influenced by absorptive capacity. The process of questioning and challenging the initial construct and developing alternative concepts is what Van de Ven (2007)calls abduction. He describes the process that allows adaptation of the initial construct as a 'creative form of reasoning, triggered by encountering anomalies' in the practice setting (Van de Ven 2007 p.141).

Figure 32 Roles associated with Absorptive Capacity in the Organization
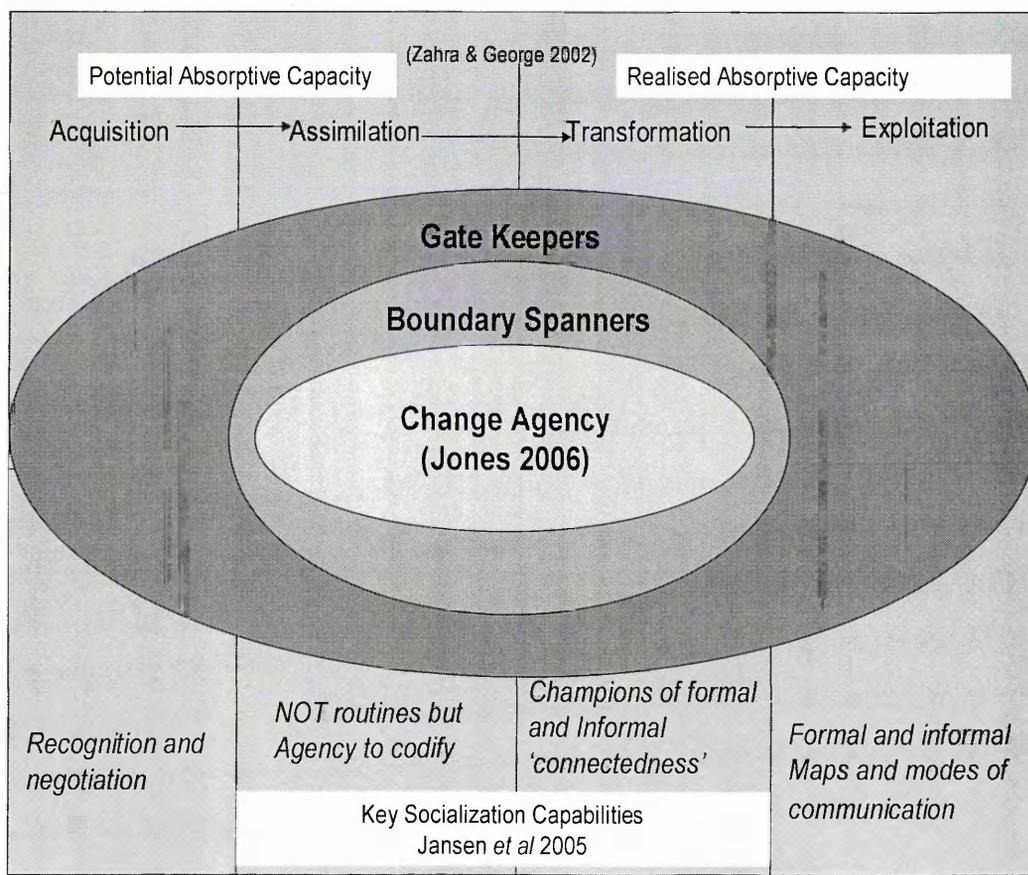
The diagram in figure 32 depicted the roles, identified as 'gatekeeper', 'boundary spanner' and 'change agent' (Jones 2006) as having a 'spheres of influence' over the absorptive capacity process. One of the key findings of

this study was that senior managers were unwilling to develop a more sophisticated understanding of the academic participation and roles in the University and, as a consequence, the only ascribed and recognised roles are those accepted as within the national academic contract (UCU- National Academic Contract 1990). It was broadly acknowledged, by participants, that this means of overseeing a standard working practice, insufficiently describes the work of the academic knowledge exchange practitioner. The national contract may no longer reflect the range of roles that may be required to achieve absorptive capacity.

The focus on workload dominates the dialogue about knowledge exchange at YSJU, and the assumption continues (within the University) that enterprise and 3rd stream activity represents added responsibility and is additional to teaching, administration and research (Corbyn 2009). I am now conscious that current academic roles insufficiently articulate the leadership function, within the different respective activities. Gate-keeping, boundary spanning and change agency are useful names given to roles that frame the competencies of individuals committed to knowledge exchange practices. But, in most cases, individuals work within the parameters of the 'legitimate' roles (i.e., senior lecturer).

The knowledge exchange practitioners are necessarily making a 'discretionary' offer. Discretionary behaviours are personally motivated and demonstrate the relationship between the individual and the organization, specifically indicating the organization's ability to draw on individual competencies. Discretionary behaviour can, of course, have positive or negative consequences on performance (Wright *et al.*2001) but, to harness discretionary capabilities to a new strategic direction, may be more innovative and improvement-orientated than management of change through prescribed organizational processes and roles (Wright *et al.* 2001). The performance of specific knowledge transferring activity is currently 'discretionary', and is not apparently supported or rewarded and so it is impossible to take advantage and formalise the benefits within the organization.

Governance of knowledge management processes may be nonexistent (as they are at YSJU) and individuals in boundary spanning and change agent roles are both 'at risk' *and* restricted in their potential, even though they might be offered rewards and incentives (Wright *et al.*2001). There is a need for a framework to reflect the particular role delineations identified by Jones (2006) and to consider how leadership capability is associated with the organizational development of absorptive capacity.

For example, academic practitioners, in the focus group at YSJU, reported that change agency and leadership were unacknowledged elements of their roles and a discretionary capability; seeing themselves as assets that could share further knowledge and networks across the organization. These individuals recognised that their knowledges and networks were in their possession and that sharing and contributing their knowledge depended on the 'cultural conditions', and the supportive nature of senior managers in helping them achieve their entrepreneurial aspirations. Wright *et al.*(2001) note, that some employee groups are more instrumental to building competitive advantage, through knowledge participation, than others and that some are likely to need different styles of management.

Introduction to the conceptual framework

The framework was built on the basis of an original idea and set of prepositions in the diagnosis and then enumerated with the initial engagement with the organization, deriving further empirical data to clarify and focus on leadership capability of knowledge exchange practice, in this one setting. The generation of a concept is important, to explain the complex, real-world phenomenon and contribute to knowledge based on a continuous refinement of the ideas as they were tested within the organization. In this case, the conceptual framework generated, is to understand the variations in leadership mindsets, dependent on absorptive capacity. This framework is the core knowledge contribution of the thesis and is based on the findings and outcomes of the action research process at YSJU along with an understanding of the barriers and opportunities to knowledge leadership in the literature.

Leadership of knowledge exchange in high and low absorptive capacity settings (Figure 33)

This framework presents a new perspective on the ways that leaders in two different functional roles are able to manage knowledge exchange. The concept describes how individual and corporate leaders are influenced by the level of absorptive capacity; specifically as the ability to transfer knowledge in the organization.

The leadership 'mindsets' are a means of describing the dialectical processes enacted in the specific context in the service of change (Darwin *et al*.2002). The mindset provides a frame for a range of complex and sometimes contradictory ideas, which appear in the academic practice associated with knowledge leadership. Mindsets are implicitly predetermined by the context and performance conditions that exist within the institution. The individual academic leader will be accountable to the organization and as such will perform within the parameters set, whilst also operating as an individual within the scope of their own practice.

The leadership mindsets are named and discussed as different approaches and there are four quadrants, two that describe the high absorptive capacity settings; 'Agency' and 'Empowerment', and two further quadrants namely 'Individualism' and 'Control' in the context of low absorptive capacity setting (see Figure 33). The explicit understanding of the working environment and the learning that takes place within the organization influences the individual academic. It is also influenced by them, but as suggested below, the ability of an individual to influence is greater within a high absorptive capacity setting where socially networked knowledge transfer aids assimililation and transformation of new information directly into new products or services, as would be the explicit outcome of higher absorptive capacity settings (Cohen & Levinthal 2000).

Figure 33 Understanding Knowledge Exchange Leadership in High and Low Absorptive Capacity Settings

	High Absorptive Capacity-	
AGENCY Individuals and groups interact within the organization seeking opportunity to participate in the strategically driven improvement of products and systems and respond to external demand. As leaders, academics actively engage in networks and relationship development to enhance the meaning of the information being 'transferred', focusing on assimilation as well as transformation of knowledge. Individuals recognise their value and are recognised by the organization for their contribution to the interdisciplinary dialogue and for transforming current practices. These individuals are managed with recognition that the participation is, in part discretionary.		**EMPOWERMENT** Senior leaders seek to participate in the knowledge economy to sustain and build competitive advantage and to make a contribution to wider society from the academy. Strategic transformation through knowledge is the intergrating factor ongoing concern. Engage with the workforce is to this end, gathering and appraising learning and building systems to accommodate to new circumstances. Leadership is always focused on sharing strategic knowledge and prioritizing and building communication networks to share understanding of new information with those who will support and develop a range of knowledge projects and productivity.
Personal Leadership		**Corporate Leadership**
INDIVIDUALISM Individuals work towards personally enshrined career goals; pre defined corporate targets, establishing and maintaining their personal relationships and assimilating personal credibility which can be used to 'trade' for career or financial reward. Little or no incentive for sharing knowledge, based on a limited relationship base for gaining and sharing understanding of new knowledge. Individuals are managed under the traditional definitions of the academic contract, with discrete personal trade off.		**CONTROL** Executive control of networks and gate keeping of new external knowledge; the organization participates in the knowledge economy through a hierarchical system of brokerage and 'strategic partnership' groupings. Leaders 'feed' information into the system on a top down, need to know basis, which maintains and regulates the degree of transformation and communication required, over and above the existing activity. Academics are the human capital but as a community are commodified to respond to demand.
	Low Absorptive Capacity -	

Sally Fowler Davis DBA Sheffield Hallam University, December 2010

Individualism

Individualism is the mindset of the personal / individual leader in a low absorptive capacity context. This quadrant is familiar and indicative of the situation I had experienced at YSJU. My experience as an individual 'knowledge worker' (Drucker 1999, Deem 2004) in a new university is clearly to be differentiated from a research-orientated, larger organization, but provides some critical learning related to the challenges, roles and identity, as an academic and a leader of knowledge exchange. The policy context provides a relative position for an individual within the scope of academic practices and, for me knowledge exchange provided an opportunity to move from a 'dysfunctional bureaucracy' to 'useful knowledge-participation' of the university in cultural and social progress. For YSJU, in a competitive market, the 'cultural starting point' for the change process and the leadership structure are factors in the experience of the junior academic manager (Mercer 2009). Like others in the organization, I manoeuvred an individual career path, relative to the options that appear in the organizational context. One choice for the academic is to engage in entrepreneurial academic participation, with the purpose of generating income, and I took this option.

The structure of the organization substantially impacts on the ways that an individual can operate and the experience of an individual is dependent on the way the system manages knowledge. Maqsood *et al.* (2007) describes this as the 'pull' factor on academics and is based on their knowledge of structures, systems and processes, evident to them in the context of their work. For the most part, knowledge exchange is absent from the experience of academics at YSJU. The professional sectors of health and education might be seen as having a high potential knowledge exchange, with individual links and networks across the sectors. However the links are commonly associated with work placements. Ternouth & Garner (2009) see work placement as typical of very low absorptive capacity; they are unlikely to develop into a more entrepreneurial activity where a demand for new knowledge would follow.

The mindset of individualism is also a product of low absorptive capacity environments because of the lack of opportunity to directly engage in external facing consultancy. Qiao (2009), researching the North American corporate university, reports that the novice academics rarely see themselves as leaders and so adopt an identity that is somewhat compliant to the apparent demands and rewards within the context. For those coming from a traditional academic route, gaining entry into academic practice via a PhD and a career in research and teaching, there are significant personal barriers and knowledge gaps to successful knowledge exchange. Academic participants in consultancy with other sectors were recognized to be "*quite young and lacking frontline working experience*" (Qiao p.170). Whilst in some cases, they will retain a professional ethos, and seek to retain the ideas of service and engagement, the individual either does not know of alternative academic practices or more simply struggles to work in the context of additional complexity (Qiao 2009). Tsai & Beverton (2007) also see a potential conflict with engaging academics in what he calls external 'market- driven' projects. Based on the approaches to Taiwanese academic development and the more traditional top-down management culture, the increasingly market-driven university sector causes academics associated with knowledge exchange to see the undertaking as potentially inhibiting to their development as scholars. The academic isolation, valued as an element of academic autonomy and knowledge exchange, is a socially constructed academic participation that meets different criteria of academic performance.

The traditional hierarchical progression through an academic career is atypical at YSJU, with many staff having professional experience in public and private sector roles prior to coming to the University. Often, the motivation to become an academic is to teach a practice-acquired knowledge. With teaching as a core purpose of the institution, academics at YSJU regard themselves primarily as educators and research is undertaken as per the national contract guidance, as a 'scholarly engagement' and an additional contribution. In this context, the significant conflict created by the demand to undertake knowledge productive activity is not ideological but rather relates to workload management. A strategic commitment to

community engagement and increasing the income from knowledge exchange, therefore depends, on the ability to present a strategically coherent picture of the professional purpose.   In contrast to this, colleagues at YSJU adopted a relatively passive view of knowledge exchange, and approached the practice as an individual choice. Several entrepreneurial academics experienced a severe frustration in their role; having made a commitment to external activity, had found it difficult to generate anything more than mild concern about the issue in others. In the individualism mindset, there is little evidence of shared concern for the change and rarely is this translated into an organizational tension to create a change. In terms of absorptive capacity, organizational knowledge rarely crosses the boundaries of the organization and remains an individual concern.

Explicit to the low absorptive capacity leadership is the belief that knowledge assets are a commodity. Knowledge and information use is 'controlled' by the organization and 'human capital' equates to the 'unit' by which it can be measured by the institution (Bessant 2002). This metaphorical device has been strongly criticised as a cohersive method of understanding the relationship between government investment and economic growth (ibid), and used to categorise the participation of academics in the institution. Based on the assumption that individuals respond to this direct business model, it follows that academics trade their knowledge for power, influence and specifically, for career advantage. The individual may seek reward, by way of intrinsic or extrinsic reinforcement and hence, individuals who consciously engage in ''new ways of working' and willing to share their knowledge and vary their routines, needs incentive, with tangible benefits to both self and organization.

Individualism would suggest that financial reward would be the most effective incentive but in this study, the reported reward was through reputational advantage and professional networking, as demonstrated by their concern for personal **and** faculty reputation. At YSJU, individualism in knowledge exchange leadership is perpetuated by the lack of systematic reward. At YSJU, the idea of specific reward or recognition for a particular

contribution is considered un-community-like and any specific reward for knowledge exchange is unlikely to occur, and so the institution may fail to generate new routines and academic skills.

The fundamental lack of distribution in relation to participation in strategy, values and routines of the organization fail to support the system and knowledge participation. Pascale (1995) sees this as promoting an inward looking culture and therefore reinforces the competencies that serve the increasingly obsolete demands. The creative potential of academic participation is often lost as a result of a lack of participation and this lack of local engagement will be discussed in greater detail in critical appraisal of my study. Osseo-Asare, (2003) presents an alternative argument without intending to justify 'control'. He suggests that most academics resent a formal hierarchical style of leadership, and, where this is coupled with a strong desire to maintain the status quo, management and leadership practices meant to empower staff are simply not effective. This control justification is supported by Tsai & Beverton (2007) who identify several advantages to the so called *"benevolent exercise of power"* (Tsai & Beverton (2007 p. 13). They suggest that HE has been subject to considerable policy reform and intervention and that academics prefer to reduce the tension they experience, by allowing top-management to exist. Power interests 'protect' staff from the changing external environments. Insights into the changing demands on academic practices are seen as a distraction from academic practice and they de-emphasis the problems associated with top down management.

Acquisition of knowledge is shaped by strategy and organizational structure (Harrison & Kessels 2004) and the core curriculum of the organization (Harrison & Kessels 2004, Garvey & Williamson 2002) seeks to build core knowledge participation within the organization. This idea is fundamentally predicated on the participation of individuals who are able to participate in learning conversations and in knowledge management. Individualism in academic practice has no such ambition and rewards individuals for generating and owning knowledge that may be audited through the various national mechanisms that exist to holds the university to account, for

example the RAE. 'Individualism' ties academic participation to the funding mechanisms and performance management of the sector and so, individual academics are used to deliver the contracted range of activity and to use their discretion in choosing the range of other scholarly challenges. The system currently places unequal emphasis on the functionality of their knowledge and comments only on the degree of pressure associated with additional workload (Corbyn 2009). Strategic human resource development has not yet been deployed to consider the range of challenges on academic staff and to provide development opportunities. Individualism is a product of a system where different types of participation are not explicitly stated and where there are no learning opportunities to establish participation or to share good practices. For the genuine entrepreneurial academic to become a competent practitioners, there is a need to *manage their talent and their temperaments'* (Thompson & Downing 2007). The suggestion here is that advising, counselling and enabling are more suitable development activities than training programmes, in 'knowledge exchange' practice. From my own study at YSJU, it is clear that academic practitioners are in need of an increased critical awareness of the policy relating to the newer demands on higher education and their own university's strategy, for the organization.

Individualism recognises the role of the internal academic agent as protagonist in knowledge creation but not as an individual who 'champions' (Sallis & Jones 2002) knowledge based structural change. In the low absorptive capacity environment, senior management fails to recognise a socially configured change process and therefore sees limited success in the ways that knowledge is shared and managed across the organization. At YSJU, the introduction of a 'customer management system' began in 2008 and implementation continues without success, in spite of the initial investment in the software and IT licence. The development has been closely managed by the executive as indicated in early minutes (Results chapter) and the new technology and structural change implied were intended to create a change in the coordination of external relationships. Sanchez *et al.*(2009) sees this form of organizational developments as typical of the tradition; deeply embedded with costs and the return on

investment of the institution. Developments associated with practice are more closely managed than ever (Sanchez *et al.* 2009, Deem 2004) and the responsibilities are seldom shared across the organization.

The individuals in the academic focus group were clearly interested in, and concerned about, their personal reputation, but perceived the wider organizational achievement through their work as significant, and potentially rewarding. The strain was felt in pursuing a project, for which there was no overt reward, and potentially, many frustrating operational challenges. The individuals were not comfortable, or willing, to expand on their perceptions of the potential of knowledge exchange. They appeared to be willing, at least in the short term, to switch between the two modes of knowledge productivity (Brennan & McGowan 2006), of the more recognisable 'mode 1' subject-specific academic management. They were all academic project- managers who sought to achieve a product or project outcome, potential with a commercial end product, whilst at the same time, heads of subject and heads of discipline departments. The development of a more specific management system is a complex problem and Brennan & McGowan (2006) report on the need for the university sector to take account of a shared perception of difficulties encountered by entrepreneurial individuals, in the redesign process.

Transformation of the higher education sector, based on theoretical insights into knowledge productivity and the multifunctional role of the university in knowledge transmission is ongoing (Sanchez *et al.*2009). But the need to engage individual academics in the solution and the wider mission for the institution seem no further developed. To contribute more fully to academic practice, the individual needs to develop 'strategic capability' (Harrison & Kessels 2004) and a context understanding of their own organization and of the sector where they would seek to contribute. In a low absorptive capacity setting, there is little opportunity to engage strategic leaders and discussions at senior level are mostly beyond the scope of practice for individual academics. They experience the corporate environment from the perspective of their segmented unit, faculty or department and may,

identify less with the needs of the knowledge economy beyond the institution.

This quadrant represents a reasonably typical picture of academic performance were the competencies of networking and enhanced *'Cross functional or interdisciplinary teams'* (Jansen *et al.* 2005) are particularly lacking. Processes that promote high absorptive capacity are de-emphasised, and team practice, shared networks and multi disciplinary scientific alliances are difficult to introduce, as they do not represent a good use of time or are difficult to prioritise by the individual academic. Collective, group orientated interventions were consistently rejected within my research at YSJU confirming that individuals can work as knowledge exchange practitioners, but should not attempt to generate a shared understanding or systems level change!

Control

This domain is descriptive of the mindset of the senior academic leader in a low absorptive capacity environment. Universities have become publicly accountable, via the strategic body HEFCE and hence, driven to manage a transformation in a highly traditional HE sector. The mindset in the domain of *Control* is representative of corporate leadership seeking to systematically enshrine knowledge exchange capability as a part of the traditional bureaucracy.

Political intervention in the HE sector has historically been rhetorical and political power used to 'reform' the practice, (Bessant 2002). The management of knowledge 'performance' (Deem 2004) may have destabilised and undermined the traditional notions of excellence, and self direction that have been evident in academic leadership (Rowley 1997). The leadership capabilities within *Control*, are a product of a sector-wide strategy to undertake knowledge transfer as a simple transaction. The consequence of developing an administrative workforce for knowledge transfer has resulted in the academic practitioners wholly unprepared for the challenge of competitive and financial conditions in HE. In addition, the historical basis of the sector has resulted in investment in a highly educated

and highly qualified workforce, who expect high levels of autonomy, due to their work identity (Alvesson 2001) and need to manage the new 'commercial' discourse.

I have discussed new managerialism as a process by which private sector values and practices are applied to public sector institutions, in order to manage efficiencies and effectiveness (Mercer 2009). These are often based on an increasing marketisation and management accountability (Deem 2004). New managerialism has taken different forms in the public sector over the last 10 years, and a 'cultural' starting point' at YSJU it's role as a Christian, teacher training institution defining the development of the University and its performance across the region and within the sector. The cultural shift from university-college to 'publicly' accountable organization seems to have resulted in the dominance of managerialism. Senior leaders seemed ambivalent about the strategic opportunities for a small organization with a professionally orientated workforce and have not yet identified a clear remit as a knowledge exchange organization that might extend knowledge exchange practices to the existing professional capability.

Much more could be said about this aspect of the topic which has a highly evolved and polarised literature associated with the nature of the rise of the enterprise culture in the university (du Gay 1996, Fournier & Grey 1999, Du Gay 2004). The concern that this literature raises; is that the process of re-design is set against the politico-strategic backdrop, and that there is an absence of leaders and an academic workforce to complement the redesign challenge (Fournier & Grey 1999). The control mindset is not focused on knowledge productivity per se, but rather the long held view that academic practice and freedom is detached from the influences of industry (Brigman 2007). The focus on 'employer engagement' by the executive group at YSJU (see results of executive minutes and interviews) was a concrete example of a drive to realise the government driven measures and to link YSJU to local and regional employers. It is curious then, that the discussion about employer engagement was not held with the faculties, who as business units were providing a professional workforce to three public sector industries. The evidence of highly evolved employer engagement in health,

education and other public sector partners, albeit, associated with the undergraduate and post graduate curriculum, could have been developed to provide evidence of organizational accountability towards 'employer-driven' activity and curriculum.   The executive simply failed to engage with senior managers, academic entrepreneurs or academic staff in relation to this ambition

For a small and new university seeking to manage existing activity in a culture of increasing accountability and responsiveness to government policy, and it is clear that those already engaged in, for example, health and education sectors are potential candidates for the further development of 'employer engagement'. The innovation is therefore, more likely to be shared and generate learning, rather than, at present, default to a few un-coordinated activities that appear to need 'control'. Overall, the senior manager in a 'control' mindset is at risk of alienating and limiting the additional 'discretionary' participation of a relatively willing and professionally engaged workforce.

The control mindset is evident where leaders are 'gatekeepers' of the knowledge and where external contacts are managed hierarchically. Gatekeepers (Jones 2006) are used to hold in check the range of relationships and partnerships that exist between the university and the external environment, rather than to promote the assimilation of knowledge via a codification of demand. The challenge to senior managers in low absorptive capacity settings is to identify, moderate the internal knowledge of academics (Sanchez *et al.* 2009) and hence act as gatekeepers to requests from external partners. Sanchez *et al.*(2009) describes the critical engagement of leaders, discussing the need to 'amplify' key knowledge and to engage academics with external stakeholders. In addition, they suggest that the external engagement needs to be strategically focused on partners who are most likely to benefit from the engagement. The argument she uses is similar to that of Van de Ven (2007), who suggests that adoption of new knowledge and the theory building is a knowledge intensive process. Validity in engaged scholarship (Van de Ven 2007 is a process of collaborating and justifying a shared theory on which to base further

solution finding. The senior managers in control mindsets tend to be gatekeepers, or are now generating an administrative workforce to gate keep on their behalf. The current HEIF initiative at YSJU is to develop a non academic workforce (Business Development Officers) to formalise a professional culture around knowledge productivity. It is a control orientated intervention, which is insufficiently supported by the academic leadership. The investment in an administrative function is based on a functional perspective on organizational development. It emphasises an objective understanding of knowledge production as the REO had done but has placed the accountability in faculties.

The changing structure at YSJU simply re-confirms the functional approach to knowledge productivity, with senior staff prioritising control over the area of concern, rather than facilitating knowledge productivity. The area of *Control* demonstrate how 'espoused theory' for enterprise development in a university, is at significant odds with 'theory in use' (Argyris 1999). As senior managers need to be seen to be responding to policy rhetoric, but are unable or unwilling to demonstrate the capabilities which support the whole system. My experience and analysis of YSJU demonstrates how hierarchical structures dominate and how opportunities for 'horizontal knowledge sharing' are not exploited. University institutions are bureaucratic with rules, norms and routines as mechanism for individuals in different roles to guide performance (Seo & Creed 2002) Thus, if the demand is to alter the range of academic activity, then the academic leader's behaviour will change, as will the mechanisms to embed the new activity. The strategic management of knowledge exchange in a low absorptive capacity setting involves the redesign, or control of the structure of the offices and functions. This action often 'fails' to sufficiently codify the change for academic staff to recognise it and, in low absorptive capacity settings, there are seldom the formal communication mechanisms to transfer the new information.

The following two domains are intended to indicate how YSJU might improve the absorptive capacity to become more knowledge productive. The leadership mindsets are suggestive of an enhanced ability to undertake

knowledge exchange that capitalises on the procedural recommendations and capabilities for the improved assimililation and transformation of knowledge.

Empowerment

Knowledge leadership is increasingly being seen as the management of absorptive capacity (Rickards & Clark 2006). Leadership in HE defined as a personal and professional ethical relationship between those in leadership positions and their subordinate staff; needed in order to appreciate and call forth their full potential (Novak 2002). Empowerment represents a mindset that makes full use of the historical perspective and seeks to provide a critical viewpoint on the leadership of the HE institution. The suggestion in this domain is that leaders of the 'corporate' structure of the university organizations are accountable to external stakeholders, students and strategic bodies but also for the co-ordination of organizational knowledge productivity. At the core of the University mission should be a commitment characterised in terms of Mode 2 knowledge production, with leadership as a core requirement of knowledge participation and empowerment (Argyris 2004).

Moravec (2008) suggests that this aspiration is not unfamiliar to future orientated thought leaders in education. The concept of absorptive capacity has the potential to support a critical perspective on the processes of assimilation and transformation, and allows a renewed dialogue within the academic community. All academic activity depends, to a degree, on the global, national and regional role of the academy, and as such, the re organization and co-ordination of knowledge exchange methods. Empowerment, as a leadership mindset is of critical importance at a time when a new response and range of activity is being demanded by HEFCE and a tradition of 'new managerialism' effects most institutions. Many (Qiao 2009, Crawford et al.2009, Karlsson et al 2008,) now endorse a shift in the understanding of the role of academic leadership and suggest a paradigm change in relation to organizational knowledge in higher education. Defining characteristics of an empowering corporate leadership include flatter hierarchies, de-centralised decision making and a tolerance for

ambiguity across the 'semi permeable boundaries of organizations' (Crawford *et al.* 2009). In addition, Qiao (2009) re-affirms the importance of people as a source of competitive advantage and for individuals to be empowered. Crawford *et al.* (2009) suggests that academics should be allowed to form 'self organizing capabilities' that lead to new levels of knowledge awareness. Finally, notions of partnership are presented as a way of generating practical, useful outcomes from empowered practices (Karlsson *et al.*2008).

Empowerment specifically alludes to strategic structure of 'informal formality' (Lomas 2007a); with a social and communication network to support the sharing of knowledge and methods in practice. "Formalised informality" is recognisable as a method used by change agents, with the suggestion that systems and processes are of less importance than the ability to build up a social capital; networks of people achieving mutual goals across organizations. The complex social construction of knowledge across the boundaries of organizations, suggests that the network of knowledge, is of greater relevance than the ownership and specific value of the knowledge.

This conflicts with the traditionally valued academic output, but does support externally-facing knowledge exchange. The challenge of the research excellence framework (HEFCE 2009), and the redoubled effort to manage the transmission and acceleration of research impact, remains current. In addition, the leadership of any significant shift in focus would need to be based on an ability to demonstrate enterprise and the importance of external engagement and responsiveness. Lomas (2007a) identifies a key component of leadership as knowledge brokerage, a term that resonates well with the 'boundary spanner' role, thus effectively describing a new set of competencies for those who seek to lead knowledge and innovation in academic practice.

The set of characteristics, consistent with spreading innovation are found in 'knowledge broker' leaders who are;

- Entrepreneurial (networking , problem-solving and innovating)
- Trusted and credible
- Clear communicators
- Understand the cultures of both the evaluation and decision making environment
- Be able to find and assess relevant innovation reported in a variety of formats
- Facilitate, mediate and negotiate
- Understand the principles of adult learning

Lomas (2007a) reinforces the need for a commitment to innovation from senior leadership. This mindset contrasts with that of 'control' in so far as it promotes connectivity and networking over structural redesign and systems development. His focus is on the human interaction and the adoption of a relational method of building innovation through team work. Lomas (2007a) discusses this in the following quote;

"team work with decentralised decision-making, functionally differentiated units, some slack resources, reflective time and the opportunity to adapt and modify generic principles in the face of local conditions" (Lomas 2007a p.6)

It is not an original contribution to suggest that empowering leadership might contribute to knowledge participation and productivity; however, the suggestion here is that a capacity for knowledge exchange and the necessary improvement in internal knowledge transfer may impact on all elements of academic practice. The critical engagement in enterprise and knowledge exchange has to be a commitment from the senior leader to a partnership approach to knowledge, and this should be shared across and beyond the organization as an investment in a 'desired future state' for the sector. Entrepreneurship depends on the creative transfer of ideas, methods and systems to support relational network building.

The empowered leader, is mindful of the range of advantages in a high absorptive setting, I propose that these are;

- A knowledgeable, highly engaged academic workforce with strategic capability alongside their subject excellence.
- A range of mechanisms to manage the communication and 'connectivity' of people, both inside and beyond the boundary of the organization.
- A structure that suggests the high level of participation in assimilating new knowledge, as well as exploiting the opportunity of current knowledge
- A strategic prioritization of knowledge brokerage to underpin all types of knowledge production and academic engagement.

Finally, I consider the individual academic leadership participation in this high absorptive capacity environment.

Agency

Agency is here defined as the mindset for an individual, academic leader in the context of a high absorptive capacity context. Agency is described as a set of individual competencies, but also as a commitment to the full range of academic practice that an empowered environment supports. I return first to the concept of agency, presented by Bhaskar (2004) as a rationale for dialectical engagement, which is helpful in understanding the engagement in knowledge exchange practices.

In the unification of action and theory, defined by Bhaskar as 'agency', there is a potential to manage a difficult and complex situations by acting out a profound engagement and participation within the practice context. According to Bhaskar (2004), agency is the process of professional engagement, of a kind that leads to dialectic practices. It is based on specific kinds of beliefs and values being shared and the emancipation of the individual through shared knowledge. The goal of critical praxis is in the identification of a range of new practices, which may be progressive and personally liberating as well as challenging. Bhaskar (2004) argues that an engagement with a dialectical process allows one to question how action may be tracked backwards or forwards to the point at which personal theory is evident.

More specifically referring to knowledge leadership, the 'agency' perspective (Werkman 2009) influences the use of the knowledge-base of the organization. To sustain a new way of practicing, such as engaging in external academic knowledge exchange, there is a clear need to demonstrate a strong affinity with strategic and corporate aims, as well as those of the sector. In some cases, an agency perspective is used to persuade peers (academic colleagues) of the value of the knowledge exchange. In other cases, were persuasion is less necessary, agency is needed to amplify the problems associated with practice, to demonstrate them to senior managers.   Agency may be required to showcase the efficacy of a project before the outcomes of the 'knowledge exploitation' can be fully realised or to satisfy the academic leader who is more bureaucratic than entrepreneurial, but for whom the commitment to local and regional knowledge requirements is strategically relevant. Agency includes the evidencing of outcomes and impact of knowledge exchange, not only in relation to university systems of quality management, but also to external bodies and the public.

As participant researcher, I aimed to influence the University and sought to appraise the organizational mechanisms that increased its dynamic capacity for responsive knowledge management. It became evident to me, that an agent has an important function within a local context, and can make a range of improvements at a micro-level. As an academic and leader creating local improvement, there are a range of structures, systems and processes that can be made and clearly prioritised on the basis of organizational strategy. However, transformation and the 'stickiness' (Szulanski 2000), of the new way of working are unlikely to spread to other areas without the engagement of corporate management and a shared strategic perspective.

Therefore, a key capability in 'agency 'is the management of the powerful and hierarchical structures and processes within the organization. Wolfe (2002) takes a 'pragmatic approach' to power, drawing on the empirical and social constructions of power, proposed by Lukes (1974). He endorses the definition of power as the 'origins, modes, locations and results of making a

difference in the world (Lukes 1986) but understands that agency within the situation is a specific 'transaction'. Power is the ability to make a difference to the transaction and thereby changing the way the environment enables the agent. In this way the agent is implicated within the environment and is enabled to use the power to reconstruct the problem situation. In Wolfe's words;

"applying intelligent inquiry to the control of power- the substantive practices through which individuals draw upon their knowledge of connections to change the present course of events in order to effect its future impact on them- provides the means for improving the quality of future events" (Wolfe 2002 p. 324)

A pragmatist view (Wolfe 2002) has much in common with an action research approach, where the re conceptualisation of the problem situation leads to a solution of the problem (Checkland *et al*.1998). The shared participation in the creation of the resolution is a legitimate power of the leader and a very different transaction to that characterised by 'control'. The situational- specific solution is a knowledge intensive process that draws on individual creativity and resolve, as well as discipline-based technical information. To a professional culture, the pragmatic approach to leadership and the use of power to bring about change and problem solving is the change agent. The pragmatic notion answers many of the problematic issues, associated with the dialectical processes and acknowledges the tension in the working practice of a knowledge exchange practitioner.

The agency mindset acknowledges the role of the individual in effecting a change in the organization. The explanation of the power exerted by the actor is consistent with the pragmatic understanding proposed by Wolfe (2002), where legitimate action undertaken as a participative initiative is a means of expanding indirect power. This is more effective than consolidating direct power as the means to achieve the desired outcome. The change undertaken at YSJU was an example of the agency described here. The action research resulted in a change as a result of indirect

influencing through; the generation of data (some of which was shared), some local insights into the critical barriers and structural inhibitors within the organization and then the engagement with a few key individuals to influence a wider change process. Lukes (1974) describes power, or perhaps the enactment of power, as an enabling force, but the wider understanding of power as a tool of agency is reinforced by Wolfe (2002), where the agent is bound to the environmental context and makes conscious use of 'past and present' to influence the dynamic exchanges in dealing with the 'problematic situation.

The ability to manage change, is the critical capacity linked to knowledge production (Alvesson 2001). A further understanding about how agency can be enabled and change agents empowered within HE is a current and future need. According to Alvesson (2001), the agency mindset is associated with the propensity to see knowledge work as associated with the self identity of the individual. Strategic leadership of HE may benefit from the professional empowerment of the academic change agent as there is some evidence to suggest that the absence of specific management and empowerment will result in a lack of enterprise and knowledge exchange (Ternouth & Garner 2009).

Conclusions

Knowledge exchange in HE is now recognised as a discrete area of university practice that promotes the partnership processes in transferring and translating knowledge (Ternouth & Garner 2009). Absorptive capacity (Cohen & Levinthal 2000), as the conceptual tool, is used to understand the performance of knowledge exchange. It has been recognised as a means to progress the participation of the university sector in the productive use of knowledge (Ternouth & Garner 2009). The critical concern to those in strategic and policy positions is to demonstrate how to enhance absorptive capacity in HE. The leadership of a productive HE sector through the understanding of mindsets in different organizational context, is a highly contemporary issue. The new organizational structure at YSJU, with senior leadership supporting external engagement, makes this an ideal time to

enact the strategy to undertake the desired increase in knowledge exchange.

In relation to organizational culture; academic staff identified reputation and career progression as legitimate rewards for the engagement in enterprise and knowledge exchange and without this transparent opportunity for recognition there was no incentive to attend development sessions and undertake further activity. Having said this, the fact that staff in the survey identified their professional affiliations, supports a view that the workforce of the University may be more open to a 'service' orientation of scholarship, alongside their learning and teaching focus. The intellectual capital of the organization is critical knowledge for the corporate leadership of a knowledge creating organization (Sallis & Jones 2002) and the data suggested that no co-ordinated approach was in place to codify and realise the potential value of intellectual assets.

Cohen & Levinthal (1990) sought to present a concept that allowed organizations to take a whole- system perspective and thereby improve the management of organizational knowledge transfer. The conceptual framework presented here, allows an academic leader to consider the context of their practice in relation to absorptive capacity. Hence, the participation in new forms of academic practice can be facilitated and the university organization can fulfil its policy driven imperatives.

Leadership of the changing academic environment represents a break with the traditional modalities of organizational management in higher education (Movravec 2008). The requirement is for a leader to sustain a value-based, knowledge productive workforce. In knowledge exchange practice, the partnership dimension demands that academics work across disciplinary boundaries and a socially distributed knowledge is configured that absorbs public and lay knowledge, professional expertise and traditional sciences (Nowotny 1993). By adopting a new conceptual framework, based on an understanding of absorptive capacity in the university context, the different responsibilities for knowledge exchange practice can be considered.

New managerialism reflects an increased focus on staff / line management of academics, through HR and financial accountability (Deem 2004), but 'empowerment' of individuals and a renewal of the concern for participation and professional autonomy are important considerations, for the development of an institutional capacity for knowledge exchange. An alternative focus is apparent at YSJU and elsewhere, that being, the continued management and 'control' of knowledge workers (Deem 2004, Drucker 1999), and the considerable risk of limited absorptive capacity.

The purpose of higher education has radically shifted in the public perception over the last 20 years (Deem 2004) with public and political scrutiny resulting in a need to manage the organizational 'outputs'. I have suggested that senior and corporate management are struggling with this challenge, but academic staff may be able to use an identity related to professional leadership to manage the new demand. Autonomy is valued by academics but so is the opportunity to serve and engage with society.

As stated previously, the initial motivation to undertake an action research process was to enhance my strategic participation in knowledge exchange at YSJU, a small, somewhat unique, new university setting. The initial belief, influenced by Gibbons *et al.* (1994) that the HE sector might play a role in the development of knowledge based society remains a strong motivation, as does the view that academic practitioners might learn new discourses and move into new arenas of knowledge production (Gibson 2006).

The final chapter identifies some of the limitations of the study as an action research process, and brings together a discussion about the potential for action research to create new organizational behaviours.

Chapter 10 - Critical appraisal of the action research

This chapter is a critical reflection on the research and on the 'lessons learnt' though participation, within YSJU. In the following sections I will critique the action research process and focus on the outcomes of the study as a reflexive critical process (Zuber-Sherritt 2002). In subordinating the change management process and focusing on the inquiry process, as recommended by Hammersley (2004), I will reinforce the contribution to practice and demonstrate a contextual critical inquiry into the HE setting. Zuber Sherritt & Perry (2002). I will argue that action research is more appropriate than traditional research for improving practice, through professional and organizational learning, but that some difficulties are associated with challenging powerful, structurally- enshrined arrangements for managing the institution.

For many action researchers (Reason & Bradbury 2006, Reason & Torbert 2001) the emancipatory element of action research is the full participative engagement with the organization. The "The Action Turn" (Reason & Torbert 2001) represents a critical and participatory role for the professional practitioner in the context of their organization. This understanding has a resonance with another, perhaps more pragmatic notion in which the academic practitioner (among others) defines themselves as a 'knowledge worker' (Drucker1994), one who undertakes their role as an autonomous contributor to the knowledge-society and uses an organizational context to make use of and transfer knowledge. This emancipatory conception of my role and my critical engagement as an academic leader is an outcome of the action researcher.

As an academic practitioner, I am currently seconded to the Department of Health (DH) where as an 'engaged scholar' (Van de Ven 2007) where I lead a project to make service improvements across the health sector. I use my knowledge of action research and of service /organizational change to lead the project and the more recent critical perspective acquired through the research at YSJU. The secondment presented a worthwhile opportunity to temporarily, move out of the University, and fully reflect on the action research at YSJU. It is interesting, that this role provides a temporary 'fix'

for the limited career pathway for a 'knowledge exchange academic' in HE, and particularly at YSJU. From the perspective created by this geographical separation, I review the critical learning and generalise some of the findings and principles for my return to academic practice.

I will draw together some thoughts on the sustainability of academic knowledge exchange practice and plan further academic participation in the light of the doctorate. There is a paucity of literature on how organizational change is achieved through participation in action research, although a range of studies (unpublished) allude to researcher learning and conscious self-analysis of their position. I include one example below.

The shift to inductive research

In 1990, Radford completed his MBA thesis, a hermeneutic inquiry into culture and innovation at a further education college (Radford 1990, unpublished thesis) His work concludes with a reflection on the need to heighten awareness about innovation prior to the implementation of institutional change. His research identifies how the process of innovation was threatening to those who enjoyed the segmented, role-orientated status quo of the educational setting. His comments on the need for active management and participative leadership, personalised reward, and conscious adoption and learning echo my own findings twenty years later.

Radford's (1990) attempt to raise awareness and 'radicalise' (Brownlie et al.2008) was built on a critical understanding of innovation in educational practice. My action research, in contrast, was to participate and gain institutional support to improve capacity for knowledge exchange. Consistent with the pragmatic ambition of action research I sought to gain participation from across the organization and garner the resources and support to manage an 'upward influencing' process (Thorne McAlister & Darling 2005). At the start, I was strongly aware of the need to engage academic colleagues in the process, although less aware of the potential for the project to deviate from the espoused purpose of creating the improvement. There are two features that I am now conscious of as critical factors in a change process:

- The power of senior managers and departments to negate new information and data and use their legitimate role to limit an 'improvement'
- The potential for research to be 'absorbed', so that the organization is somewhat reconstructed as a result of the participation.

These outcomes are recognised by others as an important aspect of the action research process and are part of critical action learning (Alvesson & Wilmott 1996). The growing appreciation of and sensitivity towards, 'darker' aspects of organizational life, is a product of the research process. Action learning is a personal learning process (Alvesson & Wilmott 1996, Young 2005, Argyris & Schon 1989) based on a deepened critical appreciation of theories and models, applied to a practice context. Alvesson & Wilmott (1996) describe action learning as a process of maturation, in which;

"*Ignorance, confusion and uncertainty is acknowledged and shared.... And used to support further organizational change*" (Alvesson & Wilmott 1996 p209)

Radford (1990) may have had similar experience. Other middle- ranking academics, struggle to find an identity in academic practice (Alvesson 2001). This may be because our contribution to the strategic planning and engagement limits our participation by delineating the roles and responsibilities of academics and senior managers. Chandler (2008) supports this argument and reports on the increasing ambivalence of academics towards their role in the academy. As discussed, managerialism in the HE sector attributes and maintains the view that the academic workforce is 'ambivalent' to change (McAuley *et al.*2000, Chandler 2008) and this further limits the possibility of engaging academics in strategic planning and organizational development. As discussed previously, the debates about the use of 'human capital' can enhance participation although participation is misrepresented as a commercial transaction. The further engagement of academic practitioners in local organizational change is a priority, if the HE sector is to achieve the outcomes required by government

policy. A far clearer understanding of knowledge as a product and outcome of academic activity is necessary in operational and strategic leadership.

Further commentary addresses the critical challenge at every level.

Becoming critical (Carr & Kemmis 1986)

Carr & Kemmis' (1986) wrote a formative work, addressing the pervasive practitioner dilemma:

"the widespread disposition to draw a sharp distinction between theoretical matters concerning what is the case and practical matters concerning what ought to be done" (Carr & Kemmis 1986 p.3)

Kemmis (2009) continues to consider the notion of 'praxis' as a means of developing the critical engagement in HE. He defines praxis as linking back to Aristotle:

"action that is morally-committed, and orientated and informed by traditions within the field" (Kemmis 2009 p12).

An academic practice should be concerned with the moral question about what can be done and what *should* be done, in the context of a sector that continues to be subject to major policy reform. Kemmis (2009) continues to support professional practice by seeing 'praxis' as the critical process of producing rich data and valuable conceptual tools for understanding the practice context. For example, using the definition, praxis for the knowledge exchange practitioner, would be closely associated with critical thinking about the *'the primacy of power'* (Alvesson & Willmott 2000 p.209); the awareness of the cultural issues and traditions enshrined in the structures and values of the academy.

Kemmis (2009) has recently conceptualized academic practice as a series of meta-practices[17] that through systems-connectivity produce an 'ecology of

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[17] Meta-practices represent the different sub functions that take place within the different domains of the overall educational sector. They include, policy and administrative practices, initial or continuing

practice'. Kemmis (2009) is beginning to address the practitioner's need to appraise the environmental 'architecture', which are the conditions of individual practice. The ecological concept does much to clarify the view of academic practice as a participation in the transformation of HE. Kemmis (2009) sees the concept of practice from the 'inside' as the most important version of practice-truth and justifies this with examples of where public sector initiatives to amend academic practice have often failed to create the desired change. The action research process, with the insider as a self-aware participant, therefore represents a new presence in the organization. My research was undertaken within a professional academic practice and symbolises a new engagement with the living features of the environment.

According to Bhaskar (2004), critical realism in the process of professional engagement, leads to a dialectic based on specific kinds of beliefs and values being shared. The goal is the emancipation of shared knowledge and the identification of a range of new practices, which may be progressive and personally liberating as well as challenging. Bhaskar(2004) argues that an engagement with a dialectical process allows one to question how action may be tracked backwards or forwards to the point at which personal theory is evident. In the unification of action and theory, defined by Bhaskar as 'agency', there is a potential to manage a difficult and complex situation by acting out a profound engagement and participation with the practice context. This dialectical engagement (Bhaskar 2004) provides the over-arching epistemological framework of action research, and its associated methodological and political dilemmas (Herr & Anderson 2005).

The Habermasian concept of an ideal, unconstrained dialectic forms the basis of participant awareness, making the subject a self reflective and, therefore, 'enlightening' being (Geuss 1981). This understanding of critical realism describes the later, less functionalist approach to the action research, resulting from the apparent 'failure' to make a change within the University. The more problematic and complex engagement with power and

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education of practitioners, research and evaluation practices used within the educational domain. I am using the notion of meta-practices to understand the wider concept of an ecology of practice as a reflective tool for this study

the reality of a low absorptive capacity, brought about a greater critical awareness of change and of knowledge productivity with the University.

Using action research

Quality criteria in the action research process are strongly associated with outcomes-driven research (Herr & Anderson 2005), and this places action research squarely in the empirical tradition. The overarching action research principle is that, knowledge is generated and is immediately usable and malleable in the local context (Somekh 2009). Whilst I would argue that I generated useful knowledge about the organizational context within the diagnosis, it is less easy to argue that the data provided knowledge that could be used within the environment. Knowledge-in-use meets the demands of organizational science (Argyris & Schon 1989a) but this action research could be criticised for being overly defined by the immediate need in a single organization (Sinclair & Hogan 1996). The functionalist tradition supports the use of qualitative data collection but seeks to take an objective stance in order to generalise some principles for use in other contexts. It was only when becoming more interpretive and reflective on my practitioner role and that of others in the same context, that the more critical approach could be achieved.

The outcome of the study has been the development of a conceptual framework for HE, built through an inductive process and based on findings of the action research and on additional literature. As previously, induction is a reasoning method for making a claim to a new knowledge that goes beyond the components from which it is drawn. Inference allows a researcher to generalise findings from particular information and data (Gill & Johnson 2009). This induction serves to present a more complex but untested theory about the nature of leadership in HE and specifically at YSJU and this is important because there is a significant problem associated with the distribution of leadership and knowledge management (Greenhalgh 2008) in some knowledge –based organizations. Lakshman (2009) claims that insufficient research has been carried out into the leadership of knowledge productivity at macro-level and calls for further empirical work to substantiate claims made in grounded theory to identify leadership

competencies in more middle and junior management roles would make case examples.

In addition, the use of the concept of absorptive capacity to appraise the findings of the diagnosis was relatively deductive as I used the concept to formulate the key problems in the internal processes. This concept became more significant over the period of the research and this was in part because of the development of further literature (2008 onwards) that referred to absorptive capacity in the context of improving the knowledge participation of universities. To underpin action research with an initial concept was helpful to the research process but ultimately distanced me, the researcher, from the field of inquiry. In addition, I found the terminology, for example; 'assimilation', 'exploitation' unhelpful in sharing ideas across the organization, to support the further engagement and action.

Evaluation of the process against objectives

The stated objectives of the action research represent a simple process of organizational consultation and change to promote a new capacity at YSJU, and this final section considers to what degree I was successful in achieving these objectives. My assumption was that empirical data would convince others and generate participation in a wider engagement with planning and capacity building for knowledge exchange. Used correctly, empirical data can explain and engender confidence in a planning process (McGreevy 2009). By directly asking all relevant individuals about their knowledge exchange activity and about their perceptions of the potential improvement in knowledge exchange activity I sought to appraise the scope of activity as a first stage in a change process. I also revealed a variety of particular information about the views and values of senior leaders at YSJU that were specific to the environment. This supported the conceptualization of the change process for YSJU and identified the problematic nature of the power relationships and limited opportunity for dialogue around key strategic aims and outcomes for the organization.

I was aware that some academic practitioners held a range of highly tangible and pragmatic views about their engagement with knowledge exchange, and these factors suggested to me that academic participation would not be too difficult to achieve, if supported by strategic understanding and leadership of knowledge productivity. Notably, the finding that the academic workforce were **not** resistant to commercial activity as part of academic practice supported my view. However a lack of leadership and the risks and barriers to further knowledge exchange were perceived by the academic workforce. The first element is completely novel as a finding whereas the second element will be recognized in other university settings where the academic workforces are widely regarded as being highly resistant to knowledge exchange. Some would argue that the view about resistance to new ways of working is a common reason and justification given for the 'managerialism' and a 'control' approach to academic management (McAuley *et al.*2000).

Sparrow *et al.*(2009) postulate that a participative enquiry process can however, enhance the evolution of a capacity to use knowledge transfer /exchange practices in a university setting. They advocate for a reflective approach to the evaluation of impact, but also question whether using other methods might accelerate the necessary changes. Their paper, in common with my own, seeks to reveal the 'problem' associated with undertaking new academic practices within a traditional and bureaucratic culture. They see practitioner inquiry as a process to:

" *reveal how individuals, systems and processes have had to adapt to support the endeavour [and] will surface the individual and organizational learning that are necessary for a university to play its role as a knowledge co-producer*" (Sparrow *et al.* 2009 p.659)

I pursued the goal of operational and strategic change very rigorously, in spite of data suggesting that neither the mechanisms nor the social infrastructure existed to support the change. The idealization of this goal and the functionalist approach were, perhaps, a personal limitation in the study. A bias that should be recognised was an over zealous appraisal and

implementation of the ideology, of government policy. In later stages of the research, specifically, after the final report, my commitment to a functional outcome was challenged and I became more concerned with the problematic nature of making organizational improvement and sought, through the use of more inductive reasoning to explain the organizational situation. The 'praxis' (Kemmis 2006) of engaging in action research, reinforces the critical reflection and I identified some of the leadership challenges into the final framework. I had presented a radically different approach to the organizational agenda in the face of a dominant power group (Lukes 1974). My experience and further interventions demonstrated that my engagement would be passively rejected using a technique recognized by Lukes (1974) as a 'pocketed veto'. The actions proposed by the change agent within the organization were therefore limited.

The focus within the action research at YSJU was not designed to address leadership competencies but, due to the surprising levels of resistance and limited knowledge of leaders in relation to knowledge exchange, it became evident that a theoretical proposition regarding leadership was possible and that the insights provided by this engagement with the organization, may be the most useful contribution made by the study. The inductive process of generating a framework was to contribute to the academic debate about the nature and scope of academic leadership. The traditional mode of individual, academic achievement is by far the most dominant model for promotion and requires all academics to demonstrate a commitment to formal academic practices. Until knowledge exchange is recognised as a formal and valued leadership practice, it is unlikely that organizations will be able to enhance their knowledge productivity.

Critical evaluation of the research process and method
Organizational work and partnership with colleagues in the research seemed congruent with the culture at YSJU and consistent with the organization's mission. In spite of all these factors, and perhaps as a result of naivety as a change agent, I made several errors in relation to the management of the study. The university, as a backdrop to the study, both afforded and limited opportunities for engaged methods. I was making choices in a sequence of

events and needed to balance the needs of the research with the choices that could be operationalised at YSJU. My ambition was to work alongside local agents (Somekh 2009) and build into the cultural norms, some methodological processes that would support change management.

There were several key factors that were advantageous in a change-orientated study:

- The academic commitment to professional engagement
- Familiarity and long service commitment within the organization.
- Personal relationship and shared project activity, shared production history.
- External network and knowledge brokering with partners

Other factors have been a disadvantage and these have caused personal angst and uncertainty;

- Loss of faith in strategic management
- Being perceived as untrustworthy
- Handling the 'pocketed veto'[18]
- Limited authority to push forward and lead the innovations at a university level
- Defensiveness, presented as criticism

The experience of engaging in participant action research in my own organization has helped me to identify personal and academic abilities, including; observing, interviewing and other data collection and reporting techniques. Cognitive and reflective ability allowed me to interpret and construct causal explanations for the state of affairs, the 'total situation' (Lewin 1951) and the interrelatedness of person-and-person to person-and-environment.

None the less, further experience as a researcher may have improved the study by the better management of key methods and an earlier understanding of the possible responses in an organizational context.

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[18] Term used by Lukes (1974) to describe the latent dissent from on attendance at meetings and overt delayed response to requests from senior colleagues

Participant validation of interviews

The most significant opportunity to seek clarification and validation on a transcript was following the first interview with the executive lead. The failure of the recording equipment, the use of email to discuss significant issues and the overt defensiveness, resulted in very limited recovery of a working dialogue, with this significant leader. As a novice researcher, I recognised the interpersonal experience as 'problematic' and responded by attempting to limit the exchange with the senior, traditional and male academic. At a procedural level, I complied with the terms of ethical arrangements and received consent for participation. However, I experienced fear and personal insult in my exchanges with this executive lead. The data collection and validation were critical elements of the study, and the research was focused on a 'problem' situated within the domain of executive responsibility. The encounter served as a warning of the risks associated with further challenge (Kaiser & Kaplan 2006) and rather than managing a methodology to validate the interview data, I drew back from further contact.

Participation in interviews was known to be a method of influencing the change process (Doherty & Manfredi 2006). A more vigilant approach would have been to seek written validation on the interview transcript. I didn't do so because of the power and relational aspects of the social encounter and my subjective sensitivities limited the procedural correction. These sensitivities are part of the reflexive experience of the study in which the research is:

"Complicated by the organizational micro politics which is rarely discussed, but may be revealing" (Herr and Anderson 2005)

It also alerted me to the risks associated with engaging in a 'new way' across the management hierarchy of the University.

Contracting and reporting processes

The relational aspects may be one factor, but others may include; professional jealousy, age, gender, culture and organizational hierarchy.

Significantly, I had a negotiated power to undertake this study with the VC and as such presented a potential challenge to the dynamic of the power relationships within YSJU. As action researcher, I, perhaps unwittingly, flouted the traditional role behaviours of a principal lecturer and 'played out' a non-traditional exchange and interestingly the VC initially supported this agency. The 'insider' inquiry, involves the scientific observer as a part of the world he/she observes, not separate from it (Midgley 2008). Conscious intervention aims to make a positively valued change. The nature of the inquiry necessitated an emersion into the field and a corresponding reflective analysis of self-in-practice and this could create anxiety and resistance to the proposed interventions.

The researcher acknowledges the experience of conflict, taking a more abstract and detached position, contrary to the aspiration for 'participation' through relationships and engagement (Buber 2004). This challenge to the subjective experience is significant in action research (Somekh 2006, McNiff 2008). The internal world view is altered by a critical reflection on the relativist 'space' that exists when one is open to learning to enhance practice, but this is a process that is multi-dimensional and highly context dependent.

Organizational learning within action research

The lessons learnt during the action research were to use a more systematic method for establishing participation (Fowler Davis 2009a) and to generate a clearer sense of the purpose, with potential participants. The participative action research process is a critical group interaction that seeks to achieve a 'shared understanding or mutual adjustment' (Crossan *et al.*1999). The workshop intervention used in this study was a well conceived intervention to inform colleagues about the research outcomes. There were pragmatic reasons for choosing to meet and share learning with others. However, in retrospect, the ambition to meet with academic colleagues was based more on the practitioner's need to achieve the 'suspension of doubt' (Fendt *et al.*2008), rather than a researcher's need to build a conceptual understanding of the organization. I may have achieved a greater participation following the focus group, if I had used a more reflexive set of

questions to engage colleagues and to demonstrate a commitment to a more critical inquiry process.

I have therefore generated a set of questions that I would use in a further study. I could equally argue that they represent a specific outcome of this study and would be useful as a basis of the further discussion, to enable academics to consider further engagement in knowledge exchange practice. Given the suggestion that genuine participation and leadership is a challenging undertaking (Gunn 1995, Usher 2002, Macfarlane B 2005,) the following questions are presented to enable academics to further their thinking about participation in the organization as knowledge workers. Figure 35 may provide a useful starting point for those academic leaders seeking to engage colleagues in negotiated change in academic practices.

The questions above arise from the study through a process of 'epistemological reflexivity' (Gill & Johnson 2009). They can be compared with appendix 5, which was the introduction to the focus group. The questions now focus less on the practical and technical aspects of the activity and refer to the conceptual relationship between knowledge and participation. The questions seek to build insight into social and collective processes of developing knowledge exchange and are guided by the concept of absorptive capacity (Jensen 2005, Cohen & Levinthal 2000).

Asking better questions that engage colleagues in a conceptual understanding of the strategic issues is the action researcher's role. In seeking to change practice knowledge and engagement it would seem essential to construct opportunities to draw on the epistemology that brings forth complex ways of knowing. It is this epistemological legitimacy and complexity that I have found so difficult to represent and communicate within the organization.

Figure 34 Developing a capacity for knowledge exchange

- To what extent do I influence the organization as a practice context?
- What knowledge, experience and outcomes do I want to bring forward?
- How do I need to engage with other academics across the boundaries of the faculties and departments?
- What holds me/you back from managing and sustaining a dialogue related to my academic practices?
- What risks and benefits do you/I experience as we share knowledge and experience across the organization?
- How is my/our knowledge changed by strategic perspectives and an external engagement in my role?

The questions presented above, are built on a different set of paradigmatic assumptions than those which appear to exist within YSJU as an organization and are associated with subjectivist approaches to social and organizational science (Hassard 1991). In this way the research becomes more subjective and addresses the critical engagement that would be needed if the change process is to be more successful. The reflection develops insights that focus the leader on the various aspects and stages of absorptive capacity.

Although learning processes can create anxiety and role ambiguity, action learning and action research may produce a greater appreciation of a 'truth' within the complex and change situation, characteristic of the HE organization. Gronhaug & Olson (1999) argue that this is the 'real challenge' presented by action research. My experience is a legitimate part of the data and these perspectives contribute to the knowledge outcomes of the research. The single case example is a legitimate perspective.

Retaining an insider perspective in action research

The description of the 'Confrontive inquiry' (Coughan & Coghlan 2002) as discussed in Chapter 8, is an 'outsider' perspective whereby the researcher, having completed an initial 'diagnosis' pursues the researcher's agenda and

seeks to get participation for a particular purpose. The change manager may be frustrated by the lack of 'shared understanding' of the issues and to formulate conceptual tools for the management of the problem (Checkland 1981). A conceptual view of the issues is based on the language and cognitive map of the participant informants (Loxley & Seery 2008) with the aim of generating a shared representation of the views of those individuals, who were interested in knowledge exchange.

In this case, many of the values I held were not common to all the participants and my beliefs, based on my own moral and professional stance, could be differentiated from colleagues. Problematic situations which require knowledge pull (Maqsood *et al.*2007), and the researcher strives to learn from the different perceptions of actors in the context of the problematic situation (Andrews 2000). . For Loxley & Seery (2008) the potential to align with a group and represent their views is problematic, and they question the notion of 'insider' action research. Rather, they propose that the trustworthiness and credibility of the research must therefore, be regarded as a function of explicit 'outsiderness', based on expertise in the field but also, importantly the absence of authority over participants. The researcher, works to generate new conceptual tools with participants and, fundamentally 'contaminates' the views and values held by participants (Loxley & Seery 2008).

Herr & Anderson (2005) argue that the position of the researcher, whether insider or outsider to the research environment, is determined by the epistemology, methodology and ethics of the study. Herr & Anderson (2005) suggest that collaborative relationships and knowledge building, present real problems for a doctoral dissertation although some of the tensions are overcome with a genuine commitment from the researcher to work in a transparent way within the research process. However, Midgley (2008), points out that it is *not* possible to neutralise the effects of power in the research context and in addition, Reason & Bradbury (2006) regard the *"norm of disinterest...and values in the status quo"* (preface vii) as a limiting contextual factor in the outcomes of study into HE.

Refection on paradigms

Organizational behaviour and science are hugely complex and emerging fields of enquiry that do not lend themselves to novice scholarly enquiry, due to the 'multiplicity of the paradigms' (Eden 2008 p.733). The codifications of outcomes for an action research project are critical in methodological terms, but Moravec (2008) goes further to suggest that in HE, the issue of knowledge productivity requires a 'new paradigm' for the sector. Of equal significance is the identification of an internal contextual landscape, which is open to change, if the researcher is prepared to learn and use the learning in practice. Kuhn (1970) recognised that the emerging paradigms underlying organizational design were complex, and organic, with multiple cause and effects, and with multiple relationships between managers and workers. He was critical of the mechanistic and simplistic understanding of organizational design. The values underpinning organizational studies continue to endorse the rational and normative factors often based on evaluation of costs and benefits that will be the outcome for management (Wright & Wright 2000).

The role of a knowledge leader in the public sector and specifically in HE, is a significant new challenge to the individual and to the organization. Eden (2008) suggests that a researcher creates a 'niche' and becomes 'one piece of the patchwork' or joins a community that publishes the descriptions and insights from their practice. As a practitioner, becoming aware of the paradigmatic assumptions within the organization prompted further critical reflection and a realisation that my own context permitted a limited engagement as a knowledge leader. There would be a case for publishing the outcomes of the study to highlight the unsatisfactory organizational 'individualism' that limits the transferability and sustainability of academic knowledge productivity.

Further research arising from the study

This study points to the significant opportunity for future research into knowledge leadership within HE. The use of the conceptual tool, '*knowledge exchange leadership in higher and low absorptive capacity settings*' (see Figure 33 p.238), would be useful to 'test' in further practice context.

Particularly were a fuller conceptualization of the quadrants of 'empowerment' and 'agency' may be a new contribution to knowledge.

The outcomes of these studies would serve to replicate and demonstrate the diversity of truth judgements in practitioner enquiry (Midgley 2008), and reveal more of what interrupts the leadership participation across HE. As an action research process, this study allows for the idiosyncratic culture of an organization to be manifest in the research. The pragmatic approach would use the framework to predict a range of occurrences in the next unique organizational context (Fendt *et al*.2008) and to draw out the generalizable features into a formal theory (Gill & Johnson 2009).

There is a need to further examine the perceptions of leadership of intensive knowledge producing organizations and, with this knowledge, to consider how to build a more proactive and participative culture that absorbs and assimilates new knowledge in a non hierarchical manner (Moravec 2008). Ternouth & Garner (2009) use absorptive capacity as a concept to underpin their research and to consider how productivity will be enhanced in the sector. Workforce capability, and the key role of leadership delivering knowledge productivity, remains an under-researched area.

Conclusion

Hamersley (2004) suggests that a critical knowledge of my own praxis is a significant outcome of practitioner based inquiry. I have critically evaluated the outcomes of the study with respect of my own practice and within the organization. This final chapter presents some further contributions to the theory and practice of action research, confirming the 'problematic' nature of the insider role and through 'epistemological reflexivity' (Johnson & Cassells 2001) I have presented a set of questions (Figure 35) for the academic leader to use to understand the nature of the relationship between knowledge and participation in academic practice. The intention is to support a less technical rational understanding of the nature of knowledge exchange and to promote an integrated group level understanding of this new academic practice through action research.

I was, and remain interested in the ways that academic practice will develop and how 'engaged scholarship' (Boyer 1996, Van de Ven 2007) continues to influence policy and practice in HE. I more fully appreciate my role and the competencies required to lead knowledge work, but also recognise how the environment, influences the practice of 'knowledge workers'. The structural and systematic arrangements at YSJU, as in other universities, continue to create a context of limited engagement it is imperative that the academic is re-engaged in the strategic planning for further knowledge productivity.

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http://books.google.com/books?id=GU55MJOp1OcC&dq=Karl+E+Weick&printsec=frontcover&source=an&hl=en&ei=2wjASdGHKITHi AfR5Kg2&sa=X&oi=book_result&resnum=4&ct=result (accessed 19/3/09)

Appendices

Appendix 1- York St John University (YSJU) –Profile 2006

Students	%
% mature (21+ years)	48%
% international students	4%
% male/female	28% / 72%
% from minority ethnic groups	7%
% with disabilities	7%

Student Profile

	Full-time	Part-time	Total
Undergraduate	3706	1292	4998
Postgraduate	209	519	728
TOTAL	3915	1811	5726

Staff
In January 2006, the staff of York St John numbered 564:
- 14 executive, including three professors
- 227 academic, including six professors and four readers
- 248 administrative
- 75 ancillary

Mission Statement
York St John is committed to the provision of excellent, open and progressive higher education that embraces difference, challenges prejudice and promotes justice, and is shaped by York St John's Church foundation.

Building on this foundation, we will:
- Provide widely-accessible opportunities for life-long learning, underpinned by scholarship and research;
- Extend and deepen YSJ's external contribution regionally, nationally and globally; and
- Foster a supportive, creative, critical and reflective community which promotes personal and professional development for both students and staff.

Strategic Aims
Every three years York St John submits its Corporate Plan for the next planning cycle to its main funding body, the Higher Education Funding Council for England. The Corporate Plan for 2004-07 contains seven key strategic aims that inform both the planning and ways of working for each Faculty and Department. Accordingly, York St John aims:
- To provide a student-centred curriculum which is underpinned by research and/or scholarship, fosters independent learning, and equips and inspires students for learning throughout their working lives.
- To open the doors of Higher Education to all students with academic ability and add value through an excellent on-campus student experience alongside innovation in off-campus learning.
- To be an employer of choice for staff who constitute a learning community recruited, developed, rewarded and retained through best employment practice.
- To make a significant contribution to an understanding of global issues, national policy and the cultural, social, economic and environmental life of our region.

- To strengthen York St John's existing partnerships, most notably Higher York, and to explore collaboration as a vehicle for the realisation of our mission.
- To be an independent, learning-led University with taught degree awarding powers and a reputation for excellent management and governance.
- To be a financially robust and sustainable University, growing less dependent on public funding, which represents an attractive investment option for a wide range of funding bodies.

Future developments at York St John
Over the last few years, we've invested £35m in our campus and we are planning another 13.5m investment over the next four years. The next development will be to build a highly accessible and state-of-the-art facility which will house new learning environments including:
New facilities for Health and Life Sciences
State-of-the-art lecture theatre
Seminar rooms
Seminar breakout rooms
Specialist and general teaching environments
New postgraduate student support and advancement unit

The development is forecast for completion for the 2008/2009 academic year and takes our 2000 – 2008 capital investment to approximately £50 million.

Our relationship with the University of Leeds dates back to 1920. In 1990 we became a full College of the University.   During the summer of 2001 College signed a new accreditation agreement with the University which allowed the maximum level of devolved responsibility that the University can give whilst retaining responsibility for the award of degrees.
In 1999 the College's Board of Governors decided to relocate all taught courses to the York campus - and by the end of 2001 all students and staff had transferred across to York. In view of the change of location a new name was chosen, York St John.

In September 2005 York St John was granted Taught Degree Awarding Powers. Following this, YSJ received approval from the Privy Council of the United Kingdom to become a University College and adopted the full title of York St John University College on the 1 February 2006.
Our application for university status meant undergoing a further stage of assessment and scrutiny, however, we are now delighted to announce that as of 1 October 2006, York St John University College has changed its name and identity to become York St John University. This tremendous achievement takes place in York St John's 165th year. We can look back proudly over our long and successful history, but it is also with great excitement and anticipation that we look forward to our future as York St John University.

Appendix 2
Ethics Submission to YSJU Ethics Committee and Approval

SUBMISSION OF PROPOSED RESEARCH PROJECT TO THE ETHICS COMMITTEE
Name of researcher(s) **Sally Fowler Davis**

Title of research **Enterprise Activity at York St John University; Developing Scholarship as knowledge exchange**

Name of Research Supervisor (if applicable) Professor Liz Doherty and Professor Bob Garvey both within the Faculty of Organization and Management at Sheffield Hallam University

Objectives:
This study uses action research and the objectives reflect the stages of engagement in the research process along with the multiple methods which will be used. The first few stages will be more specifically outlined in a later section to identify risks and benefits to participants in a later section. The later stages of the process will not be fully outlined as they will be planned in a collaborative way as part of the process. It is legitimate in an action research study to resubmit the project for ethical consideration at a later stage in the process[1] and this may be a condition the committee would wish to adopt.

-to analyse the current level and scope of enterprise and knowledge transfer/exchange activity being undertaken with an appraisal of the external participant activity, undertaken within the academic university contract and within the academic role, (HERA definition of academic role) *(methods; survey staff, identify exemplar contracts, interview academic participants)*

-to identify and understand the barriers to knowledge transfer/exchange in the context of York St John University both strategic and operational and in relation to higher education policy. *(methods; critical appraisal of policy in relation to higher education, analyse minutes and strategy documents, interview senior staff,)*

- to plan interventions and share a framework of ideas[2] and method within the University *(methods; monitor the results of KT/E activity, share knowledge and experience of knowledge transfer/exchange, evidence outcomes for HEIF3 and other activity, consider environment and a cultural norms)*

- to take part in a change process and seek to capitalise on the knowledge, skills and experience and identify barriers to participation. *(methods ;implement learning meetings, 'KT/E associates programme'? investigate workload management methods, contribute to policy and procedure to replicate good practice, focus groups and interviews asking what practical support and guidance to sustain knowledge transfer/exchange)*

- to reflect on the involvement and appraise the impact on the organization and formulate outcomes and recommendations. *(methods; organizational learning framework and tools for transferring and exchanging knowledge, critical friend*

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[1] Coghan D Brannick T (2005) Doing Action Research in your own organization second edition Sage
[2] Checkland P Holwell S (1998) Action Research : Its nature and validity, Systemic Practice and Action Research Vol 11 No 1

conversations and appraisal of local enterprise strategy and of procedure and policy i.e. Reward and incentive scheme, recommendation to human resources i.e., academic staff development and appraisal process)

- to appraise personal and professional learning and identify wider relevance of new knowledge. *(Methods; evaluation workshop, critical inquiry into the cultural needs of academics and others to engage in enterprise, consideration of competencies and knowledge transfer/exchange skill,)*

Please give a brief justification of your proposed research project:
The aim of the study is to challenge the culture of the higher education institution (HEI) and the nature of academic work by changing the level of understanding and engagement in enterprise by the academic practitioners or 'knowledge worker'[3]. Working alongside a committed group of academic staff, recruited to the implementation process of the study, the research project will critically appraise the policy drivers related to the role of higher education and support the creation of an innovative environment where knowledge exchange activity is recognized and rewarded as a relevant contribution to knowledge and to scholarship. The study will result in an increased capacity to engage in knowledge exchange and collaborative initiatives which lead to reputation and financial gains to the university. The process will also be self/organizationally reflexive, which will be evidenced by an increase in organizational learning and internal knowledge transfer, the spread of both procedural good practice methods and specific knowledge and skills. These methods and ways of working may be specific know-how for the university (potentially resulting in intellectual property agreement) and will support policy and practice amendments in relation to knowledge exchange.

The change process will take account of the Enterprise and Knowledge Exchange (EKE) Strategy of the university and contribute to the mission and implementation of the strategy as an iterative process. Ongoing action and evaluation will lead to organizational learning about the contribution the University will make to the local and regional economy and community as a response to HEFCE and other policy drivers. Working within the academic community and across the university system I will find out how we currently value and engage in enterprise, knowledge transfer/exchange an example of this might be a consideration of the criteria for academic promotion at different levels. I will then consider the implementation of the EKE strategy and consider how the external activity is complimented by the internal levels of organizational learning and the sharing and communication of knowledge.

My proposal assumes that an action research process would make a contribution to organizational learning and categorize the range of issues associated with the development of capability and capacity to develop an enterprise culture. This may include for an example a profile of academic skills related to the roles of lecturer, senior lecturer and principal lecturer. I would be engaging in a study across the University which is essentially a complex knowledge based organization, in which a systematic process would produce a plan for 'insightful action'[4]. The study is essentially contextual to York St John University but there may be knowledge of relevance to a wider academic community. The academic environment is seen a culturally different from other organizations, presenting as

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[3] Druker P (1993) *Post Capitalist Society* Harper Business
[4] Weil S (1998) Rhetorics and Realities in Public Service Organizations: Systemic Practice and Organizational Learning as Critically Reflexive Action Research (CRAR) Systemic Practice and Action Research Vol 11 No 1

neutral and intellectual but commonly male, rational, procedural and traditional[5]. An ongoing reflexive account will track the impact of the dominant discourse in relation to the action research process.

As chief executive of the University, the Vice Chancellor has endorsed the field element, or the 'core action research project' [6] and a change process has been clearly identified as part of the research process. This 'contract' arrangement will be formalized in writing and will be available to participants. The thesis will be undertaken for the dual purpose of contributing to knowledge in the field and evaluation of the progress made in situ, as well as submission for the award. In addition the executive group and the Deans of Faculty have been made aware of the project and have had the opportunity to comment on the proposal, one Dean responded positively to the initiative and others did not comment. Mike Troke, Head of Research and Enterprise has been consulted and is fully aware of the research proposal.

Please outline the proposed sample group, including any specific criteria:

There a range of different forms of action research and my study would recognise my 'insider' position, creating the opportunity for 'participative action research.[7] In research terms the focus is on participation rather than on any one subject and all individuals are regarded as actors within a social system.[8] The study is a process of defining and articulating the characteristics of the potential and desired state with and for academics, in relation to the policy and practice of enterprise. In this case the process is collaborative and intentionally engaging (within the action phase), intending to create better structures and processes to benefit this form of academic engagement. As researcher, I assume the role of facilitator and hope to demonstrate appropriate care and concerned about the welfare of all participants.

Data Collection during diagnosis;
Interview 5 senior staff to identify the values, knowledge interests and sign up/concerns related to the EKE activity. Interviews will be 40 minutes in length and taped (with consent) with pre seen questions and analysed for content.

A Staff Survey sent to all academic staff to identify the level and range of enterprise and knowledge exchange activity within and across faculty and the benefits identified for individual and organization. The questionnaire will be sent by e-mail with print off (to allow for anonymity) and complete format and analysed using SPSS.

Secondary data sources will be gathered and assessed for their relevance to the EKE. Documentary evidence including Staff Survey, agenda and minutes of Research and Enterprise Committee and records of Governor Meetings will be reviewed for information relating to EKE policy and practice. Financial information relating to special project accounts and Enterprise Ltd will evidence income generation activity in relation to EKE. Records of academic promotions

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[5] Hearn J (2003) Organizational Violations in Practice; a case study in a university setting *Culture and Organization Vol 9 (4) 253-273*
[6] Zuber-Sherritt O, Perry C (2002) Action research within organizations and university thesis writing *The Learning Organization Vol 9 Number 4 p;171-179*
[7] Herr K Anderson G (2004) *The Action Research Dissertation, a guide for Students and Faculty* Sage
[8] Rowan J (2006) *A Humanist Approach to Action Research* in Reason P Bradbury H (2006) A Handbook of Action Research Sage

and exemplar contracts will evidence the range of academic promotions and any enterprise activity in support of this career progression.

During the action planning stage;
To share the data collected and the analysis and to investigate the shared meaning and relevance of the information with a group of academic staff. This group is likely to be invited and invitation based on their pre existing role related to knowledge transfer and exchange activity. Invitation will be extended and the selection criteria will be made evident to participants. Consent will be sought in relation to use of information shared and extended within the discussion. Participants' names will not be used within the study nor will their individual contributions be identified, or identifiable.

During the action phase; To be agreed with participants
To plan a series of workshop events based on the knowledge needs of academic staff based on good practice and the range of knowledge transfer and exchange activities in the sector. Case studies of EKE will be presented and participants asked to review and reflect on the university contribution to the process.

To reflect on and consider the tensions related to policy and procedure within the organization which supports and interrupts innovative initiatives and the ways that these can be evidenced and for learning to occur.

Describe how the proposed sample group will be formulated:

Participant will be selected for interview and invited to participate. They will predominately be on executive and will be informed as to their right to anonimity and withdrawal. Interview questions will be sent in advance of the interview. Survey questionnaire will be sent to all academic staff via e-mail and their response will be invited by internal post. The questionnaire draft is included below.

Further activity will relate to the academic staff, opting into the study, by volunteering participation or by selection of a workshop event for their personal development. Confidentiality will be maintained as to the range of staff participating and all 'learning' arising from the process will be processed under general themes to avoid implicating individuals.[9]

Indicate clearly what the involvement of the sample group will be in the research process:

An action research study is characterised by the following; carried out in a single organization, is concerned with solutions to practical problems, based on devising and planning changes in practice, makes use of varied methodology and results in new learning.[10] This project will enact a change process with the intention of changing or improving the organization[11] using a systems approach[12], participants from across the organization (HR, marketing, facilities) being invited to participate and join in drawing theory from the cyclical and incremental

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[9] Whitmore E McKee C (2006) Six Street Kids who could.....in Reason P Bradbury H (2006) A Handbook of Action Research Sage
[10] Warmington A (1980)Action Research: Its Method and its Implications *Journal of Applied Systems Analysis 7 23-39*
[11] Eden C, Huxham C (1996) Action Research for the Study of Organizations. In Clegg S Hardy S and Nord W (eds) *The Handbook of Organizational Studies* Beverly Hills
[12] Checkland P Holwell S (1998) Action Research : Its nature and validity, Systemic Practice and Action Research Vol 11 No 1

analysis of data and context. There a range of different forms of action research and my study would recognise my 'insider' position, creating the opportunity for 'participative action research[13]. The study is therefore a process of defining the current state, framing the problem and articulating and taking part in 'action' and reflection on that involvement. The method enables us in the organization to move towards a broader conceptual understanding of knowledge transfer and organizational learning and recommends further actions or potential solutions.

During the diagnostic phase, all staff involvement will be voluntary and based on their knowledge and opinion about the issue of knowledge transfer and exchange.

The questionnaire will seek self identification for anyone interested in further involvement.

The focus group will be based on those staff identifying themselves within the questionnaire. Their involvement will be through the discussion of the survey and interview data, presented by the researcher and the discussion collated and analyzed for content and meaning.

The workshop activity will be arranged and offered to the academic staff as a collaborative learning opportunity. The groups will be recruited by invitation through staff development in the university and by including those volunteering their participation. Their involvement in these learning events will be through action learning and discussion.

Ongoing data collection and action orientated research will be planned as part of the ongoing study and the involvement will be organized within the set of principals outlined by the University ethic committee.

Specify how the consent of subjects will be obtained. Please include within this a description of any information with which you intend to provide the subjects:

The relationships with 'subjects' within an action research process is less clear than in other methodology. The distinction between subject and researcher may be blurred in the course of what is a lengthy and collaborative relationship.[14] This process will to a degree mirror some of the pre existing relationships with colleagues and will continue the ongoing conversations related to the research topic.

This will apply in relation to all activity and it is hoped that the questionnaire will inform all academic staff about the study and the research process being carried out. The timescale of the project is Sept 2007 to July 2008

Informed consent will be revisited at each stage of the process and will be particularly relevant in relation to planning action and the action phase of the project.

1.Diagnosis phase – Interview- Invitation by e-mail to request participation and at the interview process the following statement will be used;

This interview is undertake as a primary stage in an action research project. The project is taken within a doctoral programme and is;

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[13] Herr K Anderson G (2005) *The Action Research Dissertation, A guide for students and faculty* Sage
[14] Reason P, Bradbury H (2006) The Handbook of Action Research Sage

Enterprise Activity at York St John University; Developing Scholarship as knowledge exchange.

The focus, as identified in the questions sent previously is to garner your opinion and views in relation to the current and potential for knowledge transfer and exchange.

The information you provide will be shared within the academic staff at York St John University in such a way as to anonymise your specific contribution and information you provide will be used to contribute to organizational learning and development in relation to this area of activity.

If at any time there is a statement or comment you would prefer to remove or not used or shared within the study, I would like you to identify it and the statement or comment will be deleted.

If at any time you would prefer to voluntarily withdraw, you are entitled to do so without giving an explanation.

*Should you at any time feel inclined to complain about my conduct as a researcher I would refer you to my academic supervisor at Sheffield Hallam University- Professor Liz Doherty- **l.doherty@shu.ac.uk***

The standard consent form below will be used within the interview process

2. Diagnosis phase- questionnaire
E-mail request will be sent with attachment with the following message;

Please find a questionnaire related to my doctoral research;

Enterprise Activity at York St John University; Developing Scholarship as knowledge exchange.

I am currently aiming to find out the level of experience, interest and information academic staff have about the Enterprise and knowledge transfer and exchange.

I would be grateful if you would complete the attached questionnaire.

The request to PRINT OFF< COMPLETE and RETURN BY INTERNAL MAIL is to offer you anonimity.

If you prefer to complete the form and return by email, please do so but be aware that I will see your user name.

3. Action Planning phase- planning group
The group will be invited participants and volunteers from a group of staff with academic roles associated with enterprise activity, within the university. The e-mail will be copied to the Dean of Faculty

The following e-mail will be sent.

Dear name

As you know, I am currently undertaking an action research project within York St John University which has been agreed with the organization as contributing to organizational learning in relating to knowledge transfer/exchange and to enterprise activity.

It is entitled; **Enterprise Activity at York St John University; Developing Scholarship as knowledge exchange**

I would like your participation on a short term working group, to collaborate on the study and contribute to the planning of ongoing activity to promote academic participation in knowledge transfer and exchange.

Your contribution would be valuable because of the role you hold within the faculty and your experience of engaging in external, partnership, commercial activity.

If you agree to participate, I will invite you to a focus group and will identify the process and the project in further detail.   The focus group will elaborate on the information collected so far and identify further evidence related to current incentives and barriers to knowledge transfer and exchange within the university.

If you decide to participate, I can assure you that no specific contribution to the discussion will be identified to a person and that your participation will be valued at a personal and organizational level. You will be kept informed as to the ongoing progress of the project and the outcomes of subsequent activity. The aim of the project is to facilitate academic involvement in enterprise and knowledge exchange and to improve the organization's ability to respond to partnership activity of this kind.

Should you wish to decline this invitation or to withdraw from the process at any stage you are entitled to do so without explanation.

I look forward to hearing from you

SFD

The ongoing articulation of the project with and for participants is articulated as one of reciprocity[15] and participants need to see the 'fairness of the bargain'[16]

Indicate any potential risks to subjects and how you propose to minimise these:
The transparency of the research process and the democratic engagement of participants is a key requirement of action research and all participants/collaborators would be advised of the purpose and outcomes of the study. Anonymity of individual participants and their contributions to the research would be assured.

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[15] Herr K, Anderson G (2005) The Action Research Dissertation Sage Publications

The risk of coersion exists in relation to those staff managed by the researcher. Whilst it might be clearer to exclude these people from the study, due to potential embarrassment or invasion of privacy, the benefits of their inclusion may out weigh the risks and therefore the project will offer them the same opportunity to be involved as other academic staff.

Diagnosing the specific character of the particular university would make it likely that the University would be recognised and therefore anonymity for the organization could not be assured. This exposure is clearly understood by the VC and access and consent have been agreed on this basis.

In the light of the inability to keep the identity of the organization and key individuals named by role, confidential and agreement has been made to identify and seek approval for publications from the VC and supervisory team.

The principle of beneficence is strongly articulated within action research[17] as having the intention to 'improve' both organizational circumstances and to cause no harm either by emotional, physical, reputation or financial circumstances

Interview participants being identified by virtue of their specific knowledge- for example estates, human resource, or finance information; data from interviews will concentrate on content analysis and specific references to individuals will be avoided.

The researcher seeks to engage academic staffs in workshop activity were the discussion will be related to the content and topic, and may have ambition to share knowledge and information, as in a training session. These events will be recorded using subsequent reflection and evaluation sheets by researcher and participants. Comments and other participation will not be associated or acknowledged as the contribution of any one person or group.

Describe the procedures you intend to follow in order to maintain the anonymity and confidentiality of the subjects:

As previously identified. Confidentiality will be preserved by the removal of identifying features and the use of themes of conversation as opposed to specific commentary

Summary

This proposal outlines the relationship requirements and procedural expectations in relation to a participant action research project. It aims to identify and resolve a number of the issues which relate to planned and expected participation and how individual staff contributions may be protected from abuse but enables the engagement with the outlined change process within the research.

The project has been negotiated with senior managers as legitimate and timely in relation to the proposed role for academic staff and academic/university institutions. Further negotiation will be ongoing as participation will be voluntary at all stages of the process.

Further engagement with the ethics committee may be sought in the event of specific planning and the ongoing progress of the action research process.

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[17] Herr K, Anderson G (2005) The Action Research Dissertation Sage Publications

Appendix 3- Transparent communication within the action research process

E-Mail to Deans
-----Original Message-----
From: Sally Fowler-Davis (s.fowler-davis)
Sent: 26 March 2007 17:13
To: DEANS OF FACULTIES (DIRECT E-MAIL)
Cc: DVC (NAMED)
Subject: DBA Action Research Proposal

Dear DEANS OF FACULTIES (NAMED)
Following a meeting with (name) this morning I would be grateful for
your feedback and approval of the proposal attached here.
I am seeking to undertake the research for my DBA across the
University, first scoping (diagnosing) our understanding of enterprise
and knowledge exchange (E&KE) and then undertake a selected
range of actions to support an 'improvement' to the way that we
understand and carry out E&KE. The scale and scope of enterprise
activity is very much unknown at the current time and this initiative is
intended to compliment the research and enterprise strategy and the
work in the Faculties. I am curious about how we might remove
barriers to enterprise activity within current academic practice.
I would be happy to discuss any concerns or objections that you may
have prior to seeking a formal approval to proceed with this work over
the next 18 months.
Best wishes
Sally
Sally Fowler Davis
Principal Lecturer,Head of Business Development and Innovation
Faculty of Health and Life Sciences
York St John University

Appendix 4– Example of the survey questionnaire.
(in hard copy)

Appendix 5   Introduction to the focus group

FOCUS GROUP 14th November 2007- 11am

Discussion to take place between Sally Fowler Davis (researcher) G M, A P, J F, M N in Skell 1

Plan

Introduction

- Action research
- Enterprise and KT/E at YSJU
- Diagnosis- senior managers/ staff survey/

Outcomes of Focus Group

- Identify the enterprise activity you are involved with
- Consider the sustainability of this activity/projects
- SWOT to Enterprise at YSJU
- Analysis of key levers and change potential

Consent

- No comments from the conversation will be individually attributed
- Your permission to record the discussion.
- Permission to withdraw without providing reason or to amend recorded materials

Focus Questions

- Role and range of responsibilities including enterprise and KT possibly linked with research? (each in turn)
- How have the projects progressed, where have the stumbling blocks been and what has moved the activity forward?
- SWOT (with flip chart)
- Potential for Organizational Improvement- What needs to improve and how can that happen?
Lunch
End no later than 1-15pm

Appendix 6
Initial Report on Action Research to the VC, January 2008

Building Capacity in Enterprise and Knowledge Exchange

Initial Recommendations

This study makes use of the concept of '**absorptive capacity**'. The term refers to the fundamental ability to identify, assimilate, and exploit knowledge from the environment[18]. When absorptive capacity is effective it appears to indicate a competitive advantage based on the reinforcement and successful refocus of the organization's knowledge base. Partnership success and income generation is correlated with the ability of the organization to activity acquire new knowledge from external environment[19], assimilate the demand and then seek to exploit the internal knowledge base and grow the expertise and knowledge base to respond.

Using a framework suggested by Levinthal and Cohen[20] absorptive capacity as defined as "an iterative process of exchange"[21]. An organization's ability to capitalise on its internal resources (here recognised as a University's knowledge base and 'knowledge workers') is directly dependent on the processes and systems required to acquire and assimilate external information. The appraisal of global trends, national policy, regional strategic drivers and local demand and competition are all examples of '**knowledge acquisition**'. Externally focussed agents may seek out the important information but without the ability to convert and manage the information it remains unused and the organization is unable to exploit the benefits.

In order to achieve an absorptive capacity and build an 'enterprising culture to underpin other development activity it is necessary to consider the following recommendations.

1 Strategy- The University needs to re define and build a more integrated strategy which clearly underpins a range of activity including research, learning and teaching (CPD) and knowledge exchange and consultancy. With the decision to pursue RDAP in 2012 and to clearly respond to the employer engagement agenda it is important that strategic goals become more integrated and engaged and entrepreneurial scholarship underpins the different strategic ambitions and that this is underpinned by a 'learning organization'.

2. Leadership- *"builds enduring greatness through a paradoxical blend of personal humility and professional will"* [22]

The University executive team do not have a clear aspiration in relation to enterprise and knowledge exchange. Leadership in the area is ambivalent to working up a capacity for enterprise. The appointment of a senior leader to add direction and energy to the current activity is difficult to consider in the current financial climate but it is imperative that a member of executive seeks to generate

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[18] Lane P, Koka B, Pathak S, (2006) The Reification of Absorptive Capacity; a critical review and rejuvenation of the construct, Academy of management Review Vol 21 Non 4
[19] Cohen Levintal
[20] Leventhal
[21] Dyer J.H, Singh H (1998) The relational view; Cooperative strategy and sources of interorganizational competitive advantage Academy of Management Review 23 660-679
[22] Collins J (2005) Good to Great and the Social Sectors,

an inclusive group who can improve enterprise activity across faculties and directorates. Specific targets would be senior academics, who, are able to respond to the external partnership and potential collaborations with CPD, employer engagement and knowledge exchange.

3. Collaboration,
Many of the efforts to build partnerships and to translate these into productive and lucrative contracts are stymied by a lack of organizational competencies in relation to 'assimilation' (a term used within absorptive capacity to indicate the early management of new and acquired information). The HEIF allocation to faculties is an important opportunity and has been widely discussed in the University. The KTO posts need to specifically target a renewal and capability for,

Internal networking – skills related to a shared understanding of common areas of interest and opportunity[23]
Boundary spanning – role behaviours associated with creating and innovating in relationship with others[24]

3. Communication,
There are few opportunities to share the learning and report on the outcomes of knowledge exchange and enterprise and whilst the new IT system may have a positive impact and facilitate the co-ordination of activity, there is still a need to celebrate and compare methods across faculty and between people within the organization. To achieve a competitive advantage of the organization, both skills and knowledge in the workforce are needed, to allow the organization to perform new functions, based on the changing demands on HE, for example, employer engagement.

4. Systems and Processes,
The assimilation of new and 'useful' knowledge is based on the organizational structure and the alignment of appropriate methods to share and build expertise and experience of knowledge exchange and consultancy. The use of research methods and the dissemination process, is an important opportunity as is the need to respond to the new knowledge needs in partner organizations. Quality enhancement methods are necessary to support the improvement of knowledge exchange and this can be achieved via better reporting and evaluation of outcomes of projects and consultancy.

Enterprise Forum are being developed in two faculties and the need now exists for other input, to support financial and HR profiling. There is a need to a, specifically identify the financial management of knowledge exchange projects and to allocate a devolved resource management. And b, the avoidance of direct payment for reward has been widely agreed, but the financial situation supports the establishment of income targets for the faculties and directorates, to allow people to manage their income and create surplus, whilst also being awarded the responsibility for the management of the income.

5. Capability building within the whole academic staff,
Innovation is a skill and a method of using creativity to envisage new solutions to current dilemma through research and development and consultancy. These entrepreneurial behaviours are the basis of being able to exploit and build a competitive advantage from enterprise. Innovation in the academic practitioner

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[23] Cross A, Parker R, Walsh D (2001) Improving Collaboration with Social Network Analysis, leveraging knowledge in the informal organization Knowledge Management Review Vol 4 Issue 2 May/June
[24] Zahar and George

community is being considered by Yorkshire Universities and by Yorkshire Forward in an attempt to support and capture innovation from contracting to patenting. Competencies in exploitation include,

-Strategic planning – creating a long term vision of how enterprise and knowledge exchange activity might contribute to curriculum and build a strong brand reputation.
-Organizational learning – communication mechanisms and skills related to constructing learning communities and the sharing of new knowledge with individual actors internal and external to the community.
-Product development – commercial outcomes and knowledge outcomes achieved through improved operational performance

Conclusion
The results of this investigation to date have shown that, whilst YSJU does have a stated strategic ambition in relation to knowledge exchange (as stated in its key strategic aims), academic involvement and performance is not promoted or coordinated within the organisation. In common with other universities in the sector (Woollard et al 2007), the University has hardly begun to develop a culture, systems and processes-to support an increased participation in the knowledge economy. The data confirmed that there were a number of academics who were interested in knowledge exchange activity and that most academic staff did not see a conflict between research, teaching and entrepreneurial/commercial activity.

For public sector and charity organizations, the measure of 'greatness' is not financial success[25], but rather the achievement of sustainability. The opportunity to create surplus, with which to invest in other activity, is to be valued and would transparently demonstrate the non- profit motive, which is generally supported by academics. The regional development agencies recognise that the Universities may sustain a better degree of control and management of its knowledge assets and external performance if the academic resource is fully engaged in the development of a knowledge economy where the University a partner in regional economic development.

January 2008 SFD

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[25] Collins J (2005) Good to Great and the Social Sectors,

Enterprise and Knowledge Exchange-Building Capacity

- Action research as part of DBA (Sheffield Hallam University (O&M)
- Topic grounded in organizational development and knowledge management
- Literature review related to knowledge leadership, organizational learning and 'knowledge transfer'
- Policy review of higher educational aspiration
- First stage of study is an 'organizational diagnosis'
- The purpose is to identify and enact an 'improvement' in our organisational activity

- **To day's presentation is designed to update you as to the preliminary results of the first phase of this work/research**

Action research objectives- to analyse, identify and plan interventions

1. to analyse the current level and scope of enterprise and knowledge transfer/exchange activity being undertaken with an appraisal of the external participant activity, undertaken within the academic university contract and within the academic role, (HERA definition of academic role) *(methods; survey staff, identify exemplar contracts, interview academic participants)*
2. to identify and understand the barriers to knowledge transfer/exchange in the context of York St John University both strategic and operational and in relation to higher education policy. *(methods; critical appraisal of policy in relation to higher education, analyse minutes and strategy documents, interview senior staff,)*
3. to plan interventions and share a framework of ideas[1] and method within the University *(methods; monitor the results of KT/E activity, share knowledge and experience of knowledge transfer/exchange, evidence outcomes for HEIF3 and other activity, consider environment and a cultural norms)*

[1] Checkland P Holwell S (1998) Action Research : Its nature and validity, Systemic Practice and Action Research Vol 11 No 1

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Overview of enterprise context;
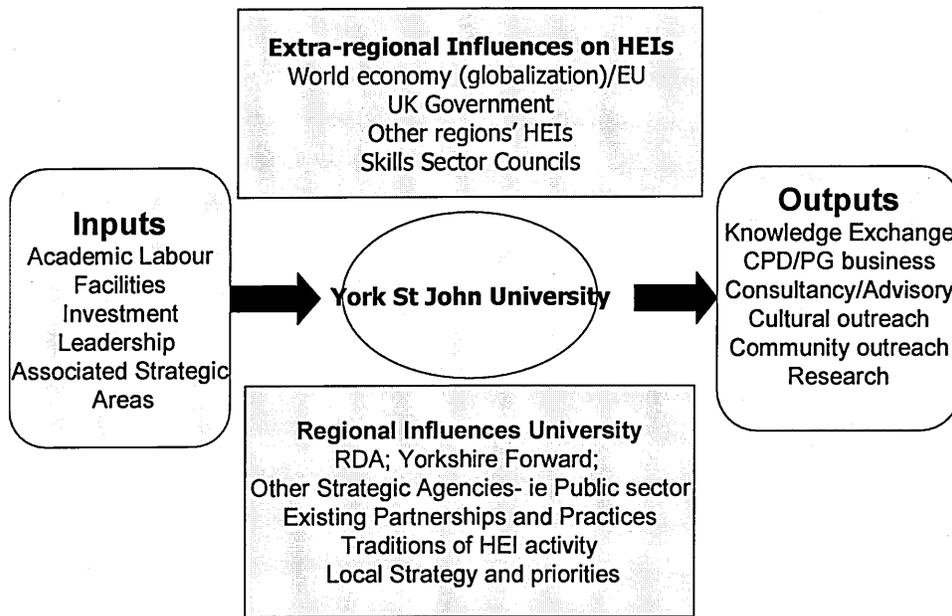
# Knowledge transfer and exchange models...

- Traditional Mode 1 is a direct translation of research into 'tangible' output e.g. new scientific based product, spin out company, commercial rationale. (Knowledge Transfer)

- Non traditional Mode 2 is a scholarly engagement with the external community by virtue of knowledge or experience transferring via educational or other means. (Knowledge Exchange)

....at YSJU

- **Enterprise at York St John University is defined as;**
  The beneficial development or application of new knowledge created by research or advanced scholarship, or of existing knowledge or expertise residing in the University and its staff.
- **Knowledge Exchange at York St John University is defined as;**
  Transfer of new or existing knowledge or expertise (additional to existing taught undergraduate or postgraduate provision) between University staff and external organizations, institutions or businesses or visa versa

Absorptive capacity: a new perspective on learning and innovation

Defined as the ability of an organization to recognize the value of new, external information, assimilate it, and apply it to commercial ends is critical to its innovative capabilities.

Internal Knowledge base

Systems and Process To transfer/ exchange External Demand
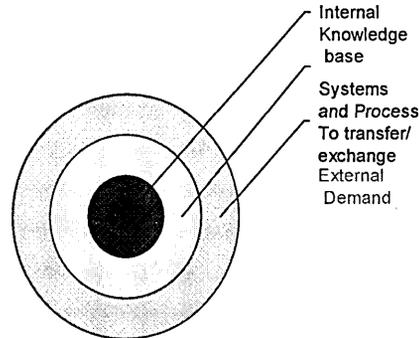
Organizational Competencies related to absorptive capacity;

- Partnerships and networked resources (strategic network)
- Analysis of policy and the changing environment and knowledge demands
- Demand for knowledge products (pull from local economy

- Infrastructure and processes to transfer knowledge (quality processes, communication mechanisms, ICT)
- People management appropriate to a knowledge based organization (boundary spanning roles, reward for sharing knowledge, workforce planning and workload planning, differentiated activity and management accountability)
- Goals and outcome measures specifically relevant to the organizations and their partners

- Specific range and depth of knowledge (range of expertise and experienced players)
- Generic capability (strategic emphasis on staff knowledge i.e project management, research methods)
- Social capital (informal web of contacts and 'actors', places for ideas to arise!)

# Enterprise Activity is rarely discussed or reported.

- **Research and Enterprise Committee meeting**
- Limited discussion about enterprise (6 items in 2 years)

- **Academic Standards**
- specific request for information especially in relation for governors (SMT minutes June 07)

- **Financial Review**
- Income now reported via R&E committee/ REO report

- **Faculties and Research and Enterprise Office (REO)**
- No specific mechanism- informal and responsive
- Varied systems for managing activity in terms of systems and processes

A barrier is perceived as a lack of opportunity and (to a degree) time

Lack of opportunity for project involvement

Mean =2.930
Std. Dev. =1.1560
N =45

No time

Mean =2.930
Std. Dev. =0.8790
N =46
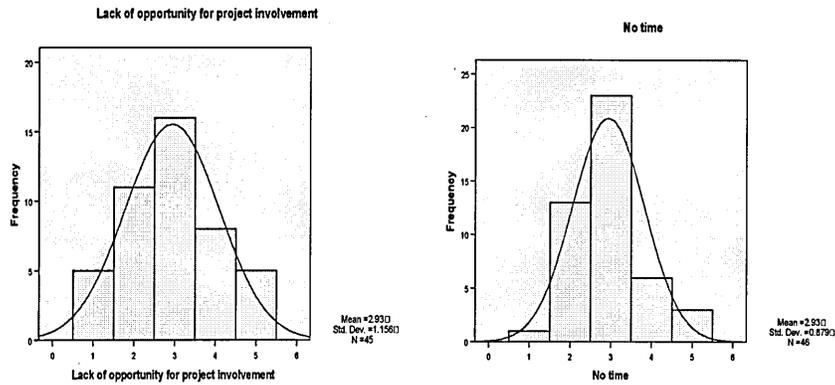
Enterprise is clearly seen as a scholarly activity and commercial partnerships as consistent with academic practice

Enterprise as inconsistent with scholarship

Mean =4.020
Std. Dev. =1.0350
N =43

Commercial activity not consistent with academia

Mean =3.830
Std. Dev. =1.2570
N =47
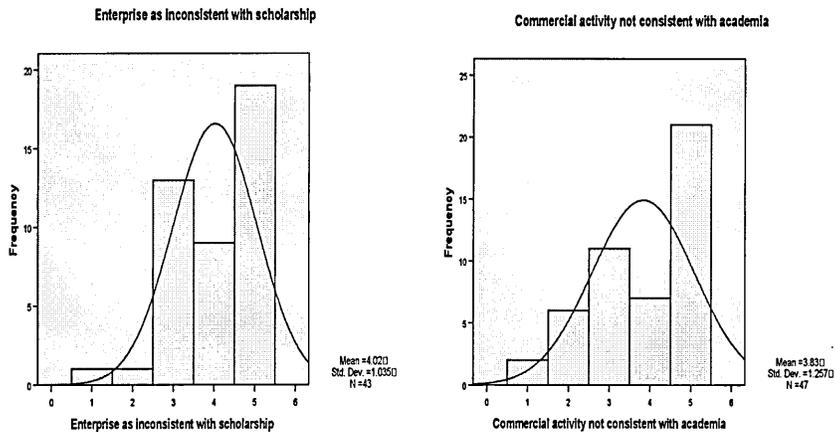
Academic staff identify a lack of reward and career incentives within enterprise

Lack of reward and incentive

Mean =2.61
Std. Dev. =1.224
N =44

Lack of career rewards

Mean =2.45
Std. Dev. =1.066
N =44
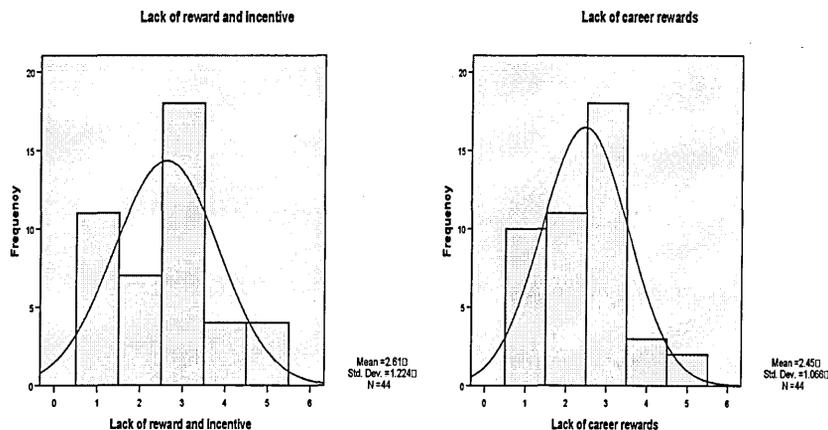
Staff Survey Results;

Type of knowledge exchange experience by academic staff N=53 (26% of total)

External Consultancy 20 (38%)

Collaborative Project 25 (47%)

Specialist Contribution to a project 28 (53%)

Spin Out Company 1 (2%)

Work with an SME/ commercial company 6 (11%)

Consultancy work with public sector14 (26%)

Work with 3rd sector or other 9 (17%)

Speciality or bespoke CPD 14 (26%)

Strategic network or partnership18 (34%)

Other enterprise opportunity 6 (11%)

About us as an organization

- **Small organization** in relation to spread of staff/ range of activity/ income (***highly diversified***)
- **Redefining ambitions** in relation to university status, past experience in vocational learning (*entrepreneurship is a challenge to 'the way we do things around here'*)
- **Strategic planning and prioritization-** many competing goals, R&E implementation segmented across REO *and* faculties.
- **Operational Infrastructure** –policy and processes still being developed, IP, R&I, Customer management system, financial mechanisms, no targets or monitoring process, no QA process for project management activity.
- **Academic staff issues-** workforce model, national academic contract, low staff turnover. Some interesting examples of career progression but not systematic.

Overview

- Enterprise and knowledge exchange is not a highly developed area of activity within the organization

- Enterprise and knowledge exchange activity is not currently linked strategically to other corporate priorities. (E.g. employer engagement, student enterprise)

- There are a range of strategic priorities that compete for attention and enterprise activity is seldom the focus of discussion in meetings

- There is a limited capacity based on current management of the workload model

- There are small pockets of successful activity led by academic staff with an interest in external project based activity, this is managed by faculty and informal networking.

- Academic staff who have experience report some enthusiasm for knowledge exchange as a scholarly practice

- There appears to be a general preference for gradual, bottom up development and growth of the area, based on staff willingness and engagement but not on direct reward or strategic planning .

- Corporate areas see themselves as potentially offering external activity

- There is no reported evidence of an emphasis on internal partnership project manage external activity

Action Planning Phase- to plan interventions and share a framework of ideas and methods within the University

Bottom Up 'Improvement'

- Review and evaluate the learning from a range of knowledge exchange activity across the faculties and identify a role for enterprising academics

- Create a systems wide method to share this organizational learning (mentoring, knowledge exchange 'associates programme' or other forum)

- Make recommendations as to a reporting process for knowledge exchange projects, including 'publicising successes'

- Include systems perspective; support areas, finance and HR and facilities at an early stage of the discussion

Building absorptive capacity?
- competence in organizational learning and exchange

'Top Down' Improvement-

- Learning Event- Build knowledge and awareness of enterprising activity within the sector, supported by other 'known' leaders with cross sector of participants.

- Evaluate the range and priorities of external partners and potential partners, using a 'management system'- looking at workforce planning and HR mechanisms to respond (Heif 4)

or

- **Strategic Integration Exercise-** build a plan for enterprise which specifically links to other targeted activity, including research, learning and teaching and external engagement

- Negotiate targets for different areas and accountability related to internal collaboration and other learning and outcomes including sustainable funding and income.

Appendix 8
Full report to the executive lead for knowledge exchange June 2008

Analysis of Factors Affecting the Academic Enterprise Capacity at York St John University and a Plan for Intervention

Sally Fowler Davis
June 2008

1. Executive Summary

1.1 This report is based on action research undertaken as a reflexive process of uncovering and exploring the way that academics within the University have begun to consider academic enterprise. The intention is to identify how enterprise and knowledge exchange might be developed in the University and how the academic community can be more consistently involved in 'employer engagement', in life long learning and in enterprise activity.

1.2. During 2007, a 'diagnosis' of the organisation was undertaken using desk research, secondary data and primary data, collected directly from the York St John University academic workforce. The purpose was to identify the organisational 'climate',[26] defined as an observable and surface level perspective that is open to improvement initiatives. The results of the 'diagnosis' were then presented to the senior management team in March 2008.

1.3 Based on an initial appraisal of workforce learning requirements, a series of interventions took place between April and September 08. The actions taken included; an induction session for new staff, a series of initiatives to consider further continuing professional development (CPD) opportunities, a greater attention to cross faculty working and more informal communication with colleagues who have interest and ability in knowledge exchange. These activities have aimed to build expertise and interest in academic enterprise as cross faculty initiatives. Theses early actions have been based on a commitment from the researcher but the impact has been relatively limited. The analysis of these interventions is briefly presented and evaluated from a personal and professional perspective.

1.4 The results of this investigation to date have shown that whilst York St John University does have strategic ambition in the area of enterprise, enterprise and knowledge exchange are not promoted or co-ordinated within the organisation. In common with other universities[27] in the sector, the University has hardly begun to develop a culture, or even systems and processes, that might support an increased participation in the knowledge economy. There are several groups of academics who may be interested in enterprising activity but there are few internal mechanisms to support their work. Most academic staff do not see a conflict between research, teaching and entrepreneurial/commercial activity.

1.5 A range of leadership dilemmas are identified as barriers to further enterprise and knowledge exchange capacity within the University. Most significantly is the range and scope of responsibilities of the senior team, who see *enterprise* as a 3rd stream and income generation activity, after research and learning and teaching,

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[26] Bessant J, Tidd J (2007) Innovation and Entrepreneurship Wiley and Sons
[27] Wollard D, Zhang M, Jones O (2007) Academic enterprise and regional economic growth Industry and Higher Education Dec 07

rather than a priority. The corporate plan identifies enterprise as a key strategic aim, identifying the income targets, whilst neglecting any learning or reputational achievement made possible through enterprise and knowledge exchange. Strategically, the entrepreneurial effort is separate from other work streams, for example, research and employer engagement.

1.6 The evidence from the secondary data suggests that a reporting structure, evaluation and organisational learning process are almost entirely lacking, and that those undertaking enterprise or knowledge exchange activity have nowhere to report, share or celebrate the activity. This is particularly noticeable in the area of CPD activity, with fewer than expected academic staff participating in this area of work. Academic entrepreneurs have voiced concern that it is their personal effort and vision that sustains new innovation, and that this is sometimes lost, as a result of frustration and a lack of support or structure for the enterprise activity. Others in the survey report a simple lack of opportunity or invitation to be involved.

1.7 There is some evidence that high social capital and a value-driven[28] skill set are required to support the academic manager within an enterprising university. This view is consistent with the view that universities are intensive, knowledge-based organisations, seeking to function as learning organisations but also to capitalize on their human assets as academic 'knowledge workers'[29]. York St John University has an academic establishment that is over 60% professionally qualified and, therefore, sees 'engagement' as a part of its working practice. Academic Practitioners report that the benefit of knowledge transfer is the enhancement of professional and faculty reputation and that they see a barrier in the lack of transparent promotional opportunities for enterprise, versus traditional research. The current perception is that no rewards for engaging in enterprise activity exist.

1.8 A change of management tool[30] is used to understand the potential to build enterprise capacity in the University's academic workforce in the four groups used within the diagnosis: the executives, the senior management team, the academic entrepreneurs and the academic staff. This is undertaken as an analysis of *"how we can tempt each other towards knowledge productivity[31]"*. The result supports further intervention, which will be undertaken as a collaborative event that aims to promote **innovation** as a core competence within the organisation. The capacity for innovation through strategic learning and development is, perhaps, critical to the achievement of a range of strategic ambitions and is dependent on the prior knowledge and expertise within the organisation. Yorkshire Universities has been supportive of the planned initiative; an internal event is to be held at Easter in 2009.

1.9 Further recommendations are made as to how to enable the two further workforce groups, senior managers and academic entrepreneurs to undertake enterprise and knowledge exchange. The concept of absorptive capacity[32], the ability to assimilate information and apply it to new and potentially commercial ends, is introduced for this purpose as there are dimensions to absorptive

[28] Brown R (2008) <u>What will successful organisations look like? In Leadership in an Age of Super complexity</u> published by Council for Industry and Higher Education (CIHE)
[29] Druker P (1999) <u>Management Challenges for the 21st Century</u> Harper Business
[30] Hiatt J (2003) Best Practices in Change Management Prosci Research
[31] Kessells J (2002) You cannot be smart against your will in Garvey B, Williamson B, <u>Beyond Knowledge Management</u> Prentice Hall
[32] Cohen, W, M. & Levinthal, Daniel A. Absorptive Capacity: A New Perspective on Learning and Innovation, <u>ASQ,</u> 35 (1990), 128-152.

capacity[33] that are helpful in planning how to become more innovative and, thus, increase competitive advantage. The history and historical knowledge base of an organisation are important factors in building capacity[34] because the ability to understand the value of new knowledge is partly related to the existing (academic) knowledge base and to the networking ability of the human resource; absorptive capacity is dependent on individuals communicating across boundaries and transferring learning from one task to another.

1.10 The current fragmentation of enterprise and knowledge exchange is, perhaps, less of a concern than the lack of evaluation and learning from the activity. A reporting mechanism is needed that has a 'celebration' potential but also a realistic method to identify the sustainability of the activity. The 'less-than-rigorous' approach to evaluation belittles enterprise and knowledge exchange in contrast to research, which is subject to rigorous peer review. The Head of the Research and Enterprise Office, who himself engages in a range strategic partnerships, would be in a good position to lead on the development of an evaluation method to share and learn from enterprise and knowledge exchange. This would also support a greater co-ordination across Faculties and the Research and Enterprise Office (REO).

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[33] Zahra S.A. George G,(2002) Absorptive Capacity; A Review, Reconceptulization and Extension, Academy of management Review 27:2 p-185-203

[34] Cohen, W, M. & Levinthal, Daniel A. Absorptive Capacity: A New Perspective on Learning and Innovation, ASQ, 35 (1990), 128-152.

Appendix 9 - Email exchange with executive lead regarding report

January 2009

1. Dear Sally

I am sorry I have not been able to find time before this weekend to read through your paper again and get back to you about it. Thank you for the explanations and documentation you have sent in the interim.

Your revised draft is much less discourteous to your reader than the earlier draft you sent me. Some trouble has clearly been taken to eliminate many of the more glaring spelling, punctuation and grammar mistakes – but it could still do with a good deal more by way of proof-reading.

I still have considerable difficulty with your methodology and many of the conclusions you have drawn, but I would obviously need to declare an interest in respect of the latter in that the area you are so critical of falls within my remit. Where your conclusions are concerned the main difficulty arises from its not being clear how some of the central findings of your research have been arrived at. While some of your findings have merit, as I indicated in my email of 16th November, some parts of your methodology seem clearly flawed and other parts are insufficiently explained and argued. The result is that I do not think this paper overall presents a rigorous or balanced account of the situation with regard to what you interchangeably refer to as "knowledge exchange", "enterprise" and "innovation" at York St John.

I am attaching a memo outlining my reservations, divided into two sections. The first enumerates my major reservations about the methodology; the second lists some of the more incidental queries and quibbles I made notes of as I went along. I don't know if these will be helpful but I hope so, given that this is, as I understand it, a component of a doctoral project.

Events have moved on very rapidly since November (which is partly why I have not been able to find time to get back to you on this). Yorkshire Universities has undergone a dramatic downsizing and Ceri Williams has left; the University Activity Review, which will look at all central services including REO has been initiated; and the bringing together of the "strategically interested group" in early February to discuss the key area of responsibility of Mike and Anna with or without them present would not seem to me to be a good idea at this particular juncture. The preliminary findings of your research, particularly the concept of absorptive capacity and your highlighting of the ongoing need for evaluation of enterprise activity, will certainly inform discussions in the UAR, but I would be inclined to think that it would be better to wait until March to proceed if you are going to take this further.

Given my reservations about the findings of your research to date, as enumerated in the attached memo, I will recommend to the Vice Chancellor that your conclusions should not have formal York St John endorsement. That may, of course, not be an essential requirement for you to proceed with your research.

Yours sincerely,

Appendix 10 . Email to approve the use of direct exchange in the context of the action research

January 2010

Dear Sally

Happy New Year to you too. I hope you had a good break over Christmas and that the secondment is going well.

It is difficult to know how to respond to your request. At one level it is a matter of very little concern to me what you include in your thesis. At another level the way you choose to interpret what I said in my emails should be a concern: firstly in terms of the inferences being drawn about me as a person and about my responses; secondly in terms of the validity of your interpretations in a context in which research is ultimately a process of trying to arrive at "truth".

To take just the first "Evaluation and Reflection" box: correct punctuation, spelling and grammar are not a matter of personal attribution. Nor is it being particularly "exacting" to point out, for example, that the first sentence in your fourth "reflection and evaluation" box doesn't make sense as it stands:"The argument against the continuation of the study is justified with a criticism of the use of terminology and methodological." Your supervisor may not care about whether your thesis is ungrammatical and contains punctuation (you need a full-stop at the end of the first sentence of your third box) and spelling mistakes; your examiners almost certainly will and are likely to judge the whole thesis as being "of lesser value" in consequence.

Your second "evaluation and reflection" box conveniently attributes my reservations about methodology (for example incorrectly recording what was said from memory) to a "defensive (personal) reaction" and thereby legitimates your own non-engagement with the methodological issues raised.

Your third "evaluation and reflection" box does not make sense to me – not that that particularly matters provided it makes sense to your examiners. But they might have the same difficulty I have along the way as a result of the quotation not being properly integrated into the syntax of the rest of the second sentence. Here the "hierarchy of knowledge" you referred to earlier would tend to favour the writer who has knowledge of what she intended to say over the reader who cannot have that knowledge and has to struggle to achieve it. My earlier point was that it is a discourtesy to readers to expect them to engage in a struggle for meaning which could and should have been conveyed without the need for a struggle.

I was not the only senior manager who read parts of your earlier draft and was less than impressed by the quality of the writing – I just happened to be the one who spent time responding, as I am still doing.

But if you want to include these anonymised extracts from our email correspondence in your thesis please feel entirely free to do so.

All the best
XXXX