

AN EXPLORATION OF HOW PROFESSIONAL ASSOCIATIONS  
ADVANCE INNOVATION AND PROMOTE INNOVATION PEDAGOGY

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A thesis submitted in partial fulfilment of the requirements of  
Nottingham Trent University for the degree of Doctor of Philosophy

December 2014

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## Abstract

*The purpose of this thesis is to explore the links between the educational work of the professions, and the Government's demands for an environment that fosters the world's best innovators. This is done by first considering the sociology of the professions, then looking at how they use professional knowledge and thirdly by considering the processes involved in creating new knowledge. Each step considers the different institutional and personal drivers that affect the processes that build professional practice, with particular reference to the role of their curricula.*

*The research goes on to use empirical case study methods to analyse document content and interview data from a sample of five professional associations working in the area of the built environment. It considers the individual cases and presents a cross case analysis of the institutional processes influencing the day to day activity of transferring theory and practice, and implied and explicit knowledge. It interprets the data at an institutional and personal level, and considers what different compelling and coercive powers affect professional education at the point where new knowledge might be created.*

*The findings from the case study data indicate the UK Government's desire for an innovative workforce is not translated into a driver for the mainstream work of professional associations. Instead, they protect their jurisdiction and they are largely locked into teaching traditional, or historic knowledge. They are isolated from their customers and clients, and this point presents a significant barrier to innovation. The findings identify a range of normative, institutional and personal barriers working against the Government's goals.*

*The findings confirm that innovation pedagogy, the practice of teaching innovation, is poorly understood by professional associations and, importantly, it is also poorly understood by the UK Government and universities. Despite this, there is some activity emerging in individual professions, or promoted by individual professionals and educators, to adapt activities to support ad-hoc contributions to it. There is a small but growing awareness of the need to incorporate strategies for innovation, to identify the necessary inputs to it, and measurements of it, in the work of the professions. There is an emerging pattern that an understanding of the processes supporting innovation pedagogy, including the structured inclusion of it in the professions' curricula, may lead to more coherent activity to advance it.*

## Acknowledgements

My thanks to all those who took part in my research –  
to my supervisors, Dr Andrew Knight and Professor Mike Hoxley  
and to my family, Helen, Holly and Sophie.

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## **Chapter 1 Introduction**

### **1.1 The professions and the creation of knowledge**

Freidson (2001:12) argues that professionalism is a 'third logic' to sit alongside the market and firms. That is to say the members of occupations, rather than consumers or managers, control the work undertaken. Each of these 'logics' holds a vast amount of knowledge to help Western society be a more civilised place, and each has been a topic of sociological study for the past 100 years. This thesis focuses on the work of the professions, they are well-established institutional forms in British society. The traditional area of sociological study has focused on how they use and control professional knowledge, but in the modern era there is pressure not just for the effective use of knowledge, but also the creation of new knowledge, an area normally associated with markets and firms. It is, therefore, the purpose of this thesis to study where the strands of professionalism and the creation of knowledge come together.

The link requires first an understanding of the role of the professions, then an understanding of the pedagogy of professional knowledge; how it is passed to individual professionals to use, and then finally it requires a need to understand why, and how, new knowledge is created. The requirements forming these different aspects can be overlaid on each other to see the resulting links, and so enable an exploration of one particular aspect, the teaching of innovation or, in its own terminology, innovation pedagogy.

An understanding of the links between the professions and the creation of new knowledge is important because the scale of the professions' work is vast – they 'dominate our world' (Abbott 1988:1) There are over 300 chartered and non-chartered professional associations based in the UK (Total Professions 2013) and a random sample suggests an average size of over 40,000 members per association. Crude scaling up of this data takes the total size of the UK professions' membership to about 12 million in a workforce of 30 million, albeit some people may be members of more than one body and a small, but significant, percentage will be working overseas. These are big numbers and they indicate the professions' importance in higher and adult education policy. Not all members will consider themselves learners, and the numbers in adult learning declines as people get older (NAICE 2013); only 38% of the adult population is involved with learning, but this

rate is doubled for professional groups. The professional institutions therefore have a significant influence on the content of higher, adult and continuing education which forms part of the overall educational base of the UK. They have an important role to play in setting the culture for that educational activity.

The UK government wants to be in the top eight countries in the world for skills, jobs and productivity and, for developed countries, that position is achieved through innovation (Porter 1990, World Economic Forum 2013). Porter's (1990) theory rests on the economic ideas of absolute and comparative advantage developed in Adam Smith's *Wealth of Nations* (1776) and by economist David Ricardo (1817). It also uses the theory of the firm from Coase's (1937) *The Nature of the Firm*. Each retains importance in current economic theory and Porter goes on to explain that competitive advantage depends on three economic requirements; factors, efficiencies and innovation built on 12 pillars; the first relating to institutions and the last to innovation. In between there are other economic factors influencing competitiveness and, importantly for this research project, higher education and training is identified as pillar five. This is shown in the diagram below taken from the World Economic Forum's Global competitiveness index (figure 1.1, WEF 2013).

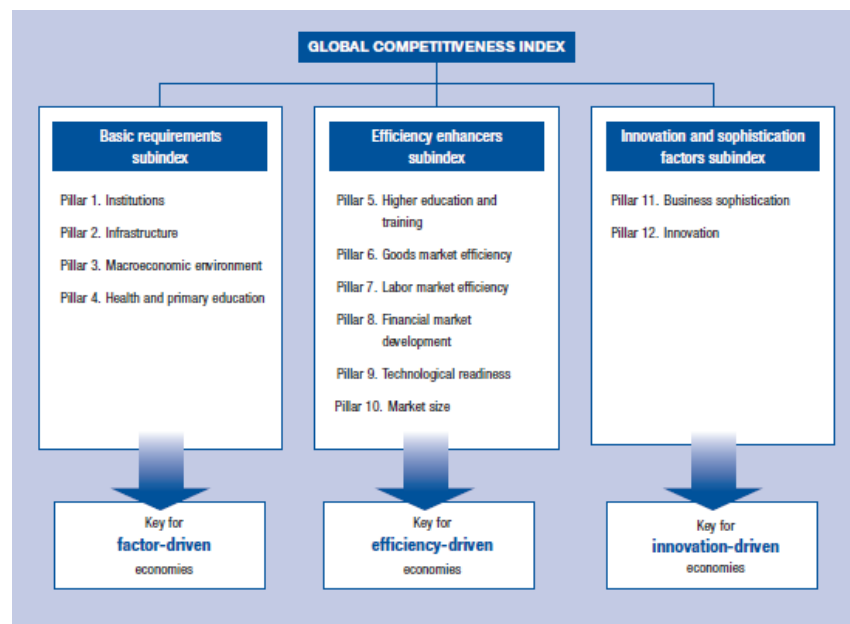


Figure 1.1 The Twelve Pillars of Competitive Advantage (WEF 2013)

This thesis, therefore, looks to explore the first and last of these pillars to see how they work together in the UK, specifically in relation to the professions. This exploration will be aided by particular reference to the curricula used by professional associations for the requirements of achieving professional qualification. Porter's (1990) theory suggests basic factors, including institutions, must be put in place before efficiencies can be developed and, in turn, efficiencies are required before innovations can be developed. Such developments are not limited to a linear chronology and so it is appropriate to see how institutions and innovation directly influence each other. Driven by the World Economic Forum agenda (2013) the UK government is looking to tackle economic growth and other important issues ranging from population growth, to avoiding catastrophic environmental damage.

*The way we respond to them will require greater levels of ingenuity and innovation. Our goal is for the Government to play its full part – in concert with business, academia and the public – to deliver an environment that fosters the world's best innovators and the world's best innovation (Business, Innovation and Skills 2012).*

Christensen (2011), writing in *The Economist*, suggested 'innovation is the new holy grail'. It is measured through market indices at a national level (Porter 1990, World Economic Forum 2013) and through the activities of firms. The markets and firms may be the natural home for inquiring into innovation activity because they are the vehicles of delivery for innovation in the UK (Business, Innovation and Skills 2011a), but if the government wants to foster the world's best innovators then the role of the professions should not be ignored.

It is nearly 30 years since Drucker (1985:33) said innovation was 'capable of being presented as a discipline, capable of being learned, capable of being practised', so it might be expected that innovation was a common part of everyday teaching activity in such a well-developed society as the UK. However, North (1990) concluded that institutions responsible for shaping our knowledge do not optimise it, and Eraut (1994:20) suggested that the swapping of professional knowledge with others was limited by the specialist nature of its content. He also said higher education needed to do more to teach how innovation works because neither the professions nor the academic institutions thought innovation was important (1994:57). Robinson (2011) adds that there are major weaknesses in the educational processes supporting creativity. When taken together these concerns suggest the UK's ability to encourage, teach and then harness innovation to support international competitiveness remains problematic.

Abbott (1988:323) concurs with Freidson (2001) that the professions institutionalise expertise in people, although they both recognise such expertise can be institutionalised in commodities (markets) and organisations (firms). The government considers that growth rests ultimately on innovating firms in a competing market (Business, Innovation and Skills 2011), supported by a range of institutions including the professions. Tellingly, North (1990:73) considers that organisations, whether mercantile or social, are formed to further the objectives of their creators, and that can lead to the building of protective structures. Freidson (2001) sees the professions as more than mere supporting actors, but while institutions contribute to competitiveness, they are not without weaknesses. All these ideas offer rich colours on which to paint a canvas for social study, but a key theme of this study is to inquire if the professions are acting to support the needs of society or pulling in a different direction; are they supporting innovation or getting in its way?

## **1.2 The matter to be explored**

This research emerged from an investigation into the theoretical framework of the professions to get a 'comparative grip' (Mills 1959:215) on the materials. It identified that professionalism focused on the competence and skills required for professional practice, and that professionalisation was the social process transforming an occupational sector into a profession. The research then evolved to focus on the professional use of knowledge and to then find out how creativity comes out of that knowledge. Such exploration demanded a wider horizon than the professions alone to add a social context to the evidence, and so the work was extended to the role of government and the role of educational institutions.

The aim of the thesis is set out in the title, 'An exploration of how professional associations advance innovation and promote innovation pedagogy'. It builds on the traditional sociological analyses of the professions undertaken over the past century, and focuses on the unexplored intersection of where professional practice meets innovation. It is a piece of critical social science which Brookfield (1987) said required the identification of, and the challenging of, assumptions; a recognition of the influence of history and culture, the imaging of alternative narratives and a requirement to be sceptical about what is portrayed as knowledge. The research work will focus on the professional association

as a unit of analysis. There are four objectives; to consider the work of the professions as institutions; to understand how they use professional knowledge; to see how the process of innovation fits with their professional activity and to consider the impact of these different activities on wider society. It will require a critique of the context of the research findings (Alvesson and Deetz 2000:17), and the emphasis here is on critique not criticism; taking a position that challenges rather than confirms the results of the thesis.

The research process follows a thread that has its roots in Parson's (1967) action frame of reference (Fulcher and Scott 2011:43), and to that end looks at the structures in society, the construction of the role of the professions as part of the division of labour (Durkheim 1963), and the 'ideal types' considered essential by Weber (1964). Durkheim's approach looked at social change driven by 'compelling and coercive power' (Durkheim 1963), and Weber's 'ideal types' were tools to help build and test conceptual models of social structures. These two strands were brought together by Parsons in a synthesis called 'analytic realism' suggesting social study should look at the actors, ends, means, conditions and norms (Fulcher and Scott 2011:43) and all these elements can be considered through the professional association as a single structure. Parson's approach was later adapted by Miles and Huberman (1994) who considered that analysis through settings, actors, events and processes would give a simpler interpretation, and these again can be readily overlaid on the activity of a professional association.

A diagrammatic representation of the flow of the thesis is noted on the next page, and more detailed explanations of each chapter are set out in order. The thread of the pattern of institutional development starts with a literature review, in chapter 2, that considers what forces drive and maintain the professional associations, what ends influence their behaviour and what norms result from it. It looks at the theoretical frameworks of both professionalism and professionalisation, and the ideologies and cultural influences that shape them. It is well established that professionals carry the tools of their trade around in their heads (Friedson 2001) and that professions are knowledge based occupations (Abbott 1988, Macdonald 1995).



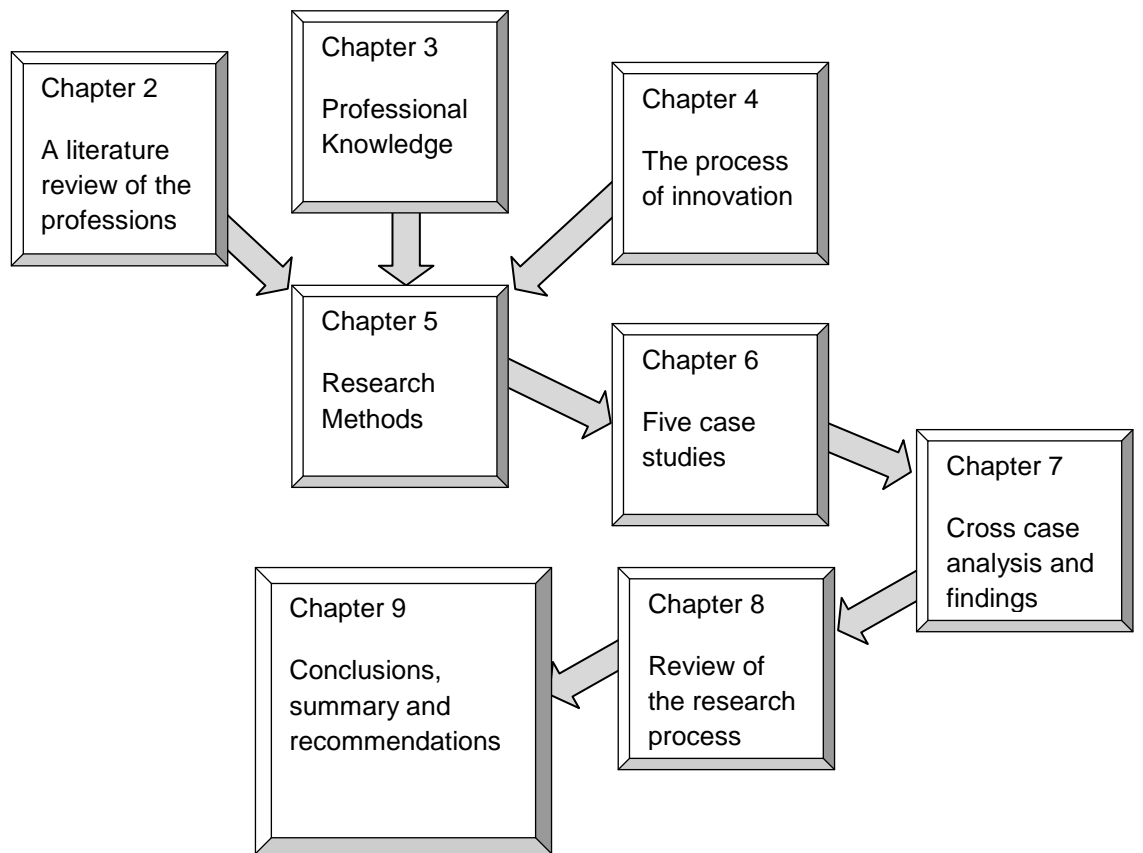


Figure 1.2 A diagrammatic representation of the flow of the thesis

This leads onto chapter 3 which reviews the theoretical framework of professional knowledge, highlighting the conditions and norms of professional education and pedagogy; the teaching of that professional knowledge. It is important to recognise at the outset that both the sociology of the professions and the use of professional knowledge are open to considerable interpretation, and both have been described as having 'definitional uncertainty'. As a result, clarification of the terms and their meanings is included to help with understanding how different interpretations influence the way people think about the topic, and this will also help to achieve some element of research consistency.

Chapter 4 goes beyond the use of professional knowledge into the realm of knowledge creation for innovation. This topic is again seen as being subjective and open to different interpretations. Innovation needs investment and the targeting of that investment requires measurement, and this falls into two areas: the first looks at measures of the outputs of innovation, such as implementing changes, with its consequent effects on organisational structure, staffing, strategies or systems, and the second looks at the inputs necessary to achieve results which, for the creative process to work, requires the provision of time, space, resources, collaboration, interaction and a conscious intention to innovate. A study of the advancement of innovation by professional associations requires not only an understanding of their own interests for supporting such activity, but also an understanding of how they work in partnership with universities to support professional education. This, in turn, demands an explanation of how that fits within a policy context of a national government wanting to remain internationally competitive.

The thesis then goes on to consider, in chapter 5, how best to undertake research into the topic. It looks to set out the ontological and epistemological issues to be addressed, what exists and what we know, and how to carry out meaningful research in the face of these strong elements of definitional uncertainty. Oleson and Whittaker (1970) questioned the conceptual adequacy of studies of professional socialisation when they considered their study into occupations, social institutions and the impact on individuals. Therefore, this chapter looks to frame the topic in the sociological work of Durkheim, Weber, Parsons and others, and looks to clarify how conceptual adequacy can be addressed. Users of expert knowledge in the professions have a role in supporting innovation, but the interests of the professional associations and the interests of government or society do not necessarily align. There may be shared interests, but there may also be different, and possibly even opposing, interests. This research project explores those interests and looks at whether the professions are indeed rising to the Government's challenge. An assessment of what research strategy to use, and consideration of what methods might be best employed then follows, and this chapter identifies the benefits of using a multiple case study approach.

Mills noted that:

*the purpose of empirical inquiry is to settle disagreements and doubts about facts and thus make arguments more fruitful by basing all sides more substantively* (Mills 1959:205).

He went on to say that such work must have implications for theoretical constructions. Indeed, his own work looked at the status, power and occupation of the elites, and there is some relevance to those topics in this project.

Chapter 6 sets out a series of case studies from individual professional associations from the built environment; specifically the Chartered Institute of Housing, Royal Institution of Chartered Surveyors, Royal Town Planning Institute, Royal Institute of British Architects and Institute of Residential Property Management. These are all organisations where the researcher has an awareness of their internal structures.

The findings of the individual case studies are brought together in chapter 7 where cross case study analysis can identify certain patterns that do not emerge from single case studies. It allows the patterns to be better considered through a cross-case synthesis which, in turn, helps test both the evidence and the process for trustworthiness (Lincoln and Guba 1985), internal and external validity and reliability (Yin 2009). This chapter also reviews the evidence of the cross-case analysis against the theoretical frameworks identified in chapters 2, 3 and 4.

Chapter 8 assesses the worth of the findings against the validity of the research methods and the sociological uncertainty identified in chapter 5. A concluding chapter, chapter 9, then summarises the key learning resulting from the research, and assesses the implications of the findings for both professional bodies and wider society, and it highlights what further research might be initiated.

The findings of this research are interesting, revealing and occasionally surprising, as well as identifying a valuable contribution to knowledge. The research asks if the professions are supporting the government's aims 'to deliver an environment that fosters the world's best innovators and the world's best innovation' (Business, Innovation and Skills 2011a:3) and a clear and consistent pattern emerges from the data.

## Chapter 2 A literature review of the professions

### 2.1 The evolution of the professions as a social study

This thesis seeks to consider how professional associations advance innovation. Such an exploration requires an understanding of the work of professional associations and, at a superficial level, this does not seem a complicated question. A more critical analysis, however, demands clarification, and not least, to the question 'What is a professional association?' This literature review starts the exploration of that topic and, as indicated in the introduction, it is the first step (highlighted in colour below) of the research project overall.

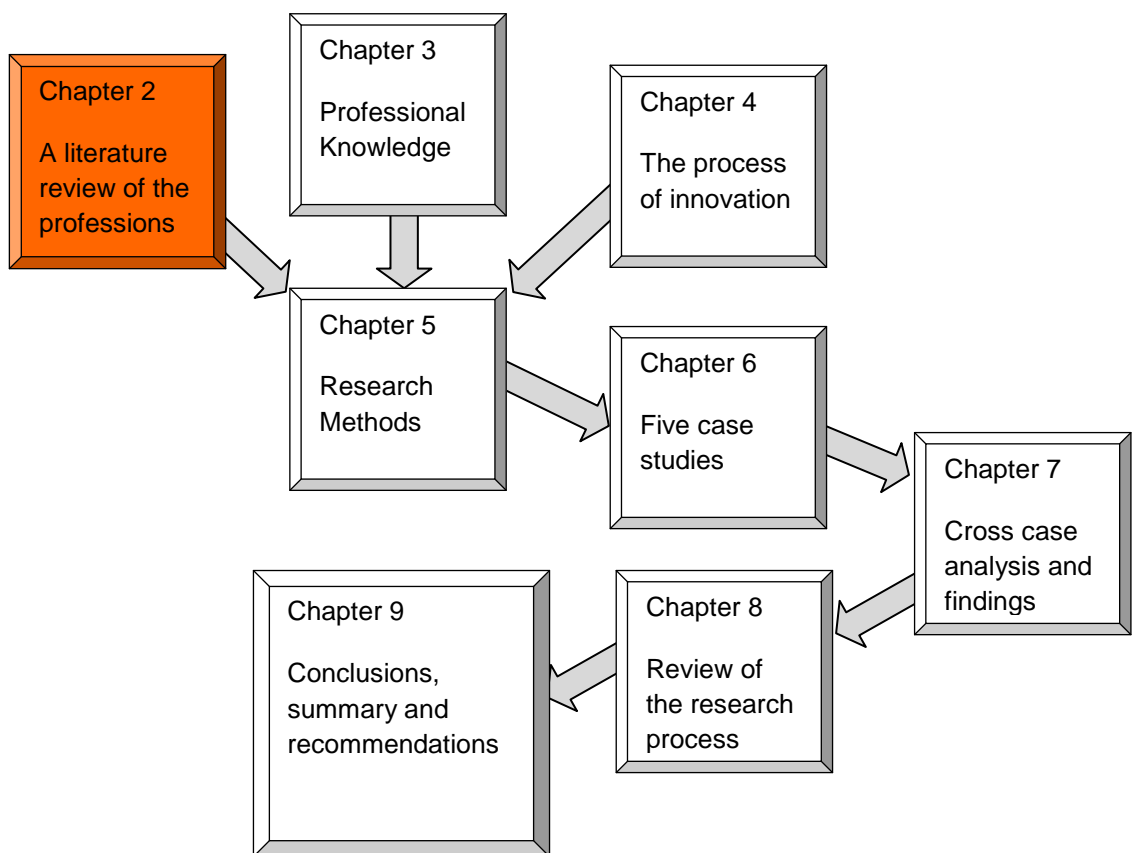


Figure 2.1 A diagrammatic representation of the flow of the thesis highlighting chapter 2.

This chapter first looks to explain the theories underpinning professional development and it starts from a historical perspective. It is possible to just focus on current thinking, but

there are benefits to going back in time and, although most sociological analysis has been done in the past century, the groundwork was done much earlier. Ancient Greek or Roman philosophers might lay claim to the foundations of political and management theories even if their work has been recast by later authors. Hobbes (1972, first published in 1651) highlighted the link between the state and the individual with his 'natural laws' based upon man's 'appetites and passions' allowing him to explain rules that guided their behaviour (Hobbes 1651/1972:10). He was perhaps the first of the modern enlightenment figures to consider how institutions worked and his analysis came from the causes of quarrels among men: competition, mistrust and glory (Hobbes 1651/1972:23). He argued that society needed control systems to keep the quarrels in check because without law or government 'there is the war of all against all' (Hobbes 1651/1972:24). He proposed a Leviathan, described as:

*a commonwealth or state, an artificial man, though of greater stature and strength than a natural man. It influences the wealth of its members, but also protects the people's safety* (Hobbes 1651/1972:24).

Leviathan created the nation as a force for governance of individuals within that society. It made clear the role for state action in the affairs of society noting "the agreement... of men is ...artificial and (the state must) direct their actions to the common benefit" (Hobbes 1651/1972:176). Apart from the use of the masculine gender going unquestioned, his comments remain relevant to contemporary study of the professions because, as will be explained, much of their reputation has been built on the description of 'common benefit'.

Mill (1859/1974), writing 200 years later, continued this theme refining the role of power between the state and the individual by noting:

*The only purpose for which power can be rightfully exercised over any member of a civilised community, against his will, is to prevent harm to others* (Mill 1859/1974:28).

The early writings of Hobbes and Mill therefore forge a social link between the state and the individual, but the role of groups within society remained unexplored. Behrens (1972) writing on the *ancien régime* in France, before the 1789 revolution, tells of the working of agricultural communities in a way that is difficult to grasp for those experienced with the modern era. He notes that privilege was a legal right that came from royal consent, irrespective of any deserving contribution. He adds that disputes in Britain were for the

rights of individuals, but on the continent, disputes were between the monarch and groups. His comments give some insight into the way power was used, giving important historical reference for how the elite worked. He notes, with not a hint of political partisanship, that:

*at every level of social life, the people with the greatest wealth and influence twisted or evaded the law to their own advantage* (Behrens 1972:41).

It was not, however, until the start of the 20<sup>th</sup> century that social groups were analysed. Weber (1922/1964) was the first to see the contribution of status groups to the workings of the society and the economy, and he viewed the roles of class, power and status as being of equal value. His work did not focus on the professions as an explicit topic, but he saw status groups as a basis of power in the workplace.

From the time of Weber's early research social groups became increasingly important in the study of how society worked. Durkheim (1933/1984) referred to sociology as the science of institutions, and Abbott (1988:4) considered this a particularly perceptive insight given that Durkheim was French, and that English and American institutions were even more culturally embedded than in France. Barnes (1966) added that Durkheim brought the role of social groupings and occupational groups to the fore, and introduced ideas about the influences of both individual and collectivist behaviours.

*A nation can be maintained only if, between the State and the individual, there is interposed a whole series of secondary groups near enough to the individuals to attract them strongly in their sphere of action and drag them, in this way, into the general torrent of social life...Occupational groups are suited to fill this role, and that is their destiny* (Durkheim 1933/1984:291).

Carr-Saunders and Wilson (1933) made the first attempt to map the phenomenon of the professions as an occupational grouping. Connecting these sociological threads is not straightforward because Durkheim's original text was written in 1893, and only translated in 1933 so it is unlikely the two 1933 texts were connected. Indeed, the work of Weber was not translated into English until after Carr-Saunders and Wilson's work was published so, as a result, it is reasonable to assume they arrived at independent conclusions.

Carr-Saunders and Wilson (1933) started by analysing the various established professions such as lawyers, doctors, engineers and scientists and identified the significant role of the state in their development. Their research tracked developments

back to the 12<sup>th</sup> century starting with 'pleaders' undertaking work before the Court of Common Pleas, before moving onto London surgeons who formed unincorporated guilds in 1435, with Henry VIII establishing a college for them in 1518. At first the state acted through the church and this reinforced the theme that the professions acted for the social good, but it later went through the Privy Council, and it still does. Formal recognition of public service was through Royal Charter, emphasising the quality of the work undertaken and the extent of public support for the activity (Carr-Saunders and Wilson 1933, Millerson 1964). The purpose of the incorporation was originally to give some economic monopoly, though, later on, the professions sought recognition in an effort to enhance their occupational status. Many of the early professions provided services to support public health, medicine and the law and many modern professions can trace their roots back to improving the safety and security of the population. Carr Saunders and Wilson (1933) tapped heavily into the theme of common benefit and they present a somewhat gushing admiration of professionalisation of England.

Millerson (1964) also considered the professions beneficial stating "our society profits by their presence" (Millerson 1964:220). The procession of supporting scripts went largely unchallenged until Larson (1977) took a look at the same historical picture and concluded that the process of professionalisation was one that controlled market forces with the express purpose of restricting supply of practitioners, and so disproportionately increasing the elite status of the group (Larson 1977, Friedson 2001). Johnson (1972:10) studied the professions to understand their formation as part of the division of labour, a theme that was later developed by Abbott (1988). Support for significant sociological analysis of the professions did not ebb away in the light of Larson's criticism, on the contrary, later authors such as Perkin (1988) and Freidson (2001) suggested expansive activity for them. Perkin identified professionalism as a fourth class to add to the aristocratic, entrepreneurial and working classes of the Victorian social structure. Friedson (2001), as already noted, argued that professionalism was the third logic to add to Weber's rational-legal bureaucracy, represented through managerialism and the firm; and Adam Smith's (1776/1886) free market, represented through consumerism or the market. He saw the third 'logic', professionalism, as the occupational control of work.

All these analysts sought to establish the special social factors that result in the formation of the professions (Johnson 1972:10). Carr-Saunders and Wilson (1933) questioned how

far professionalism would spread into business and found that wherever a technique is specialised, through the division of labour, the rise of a profession was 'unescapable'. Wilensky (1964) asked if the whole labour force was being professionalised and Etzioni (1969) fragmented the areas of study with the introduction of semi-professions, although Eraut (1994) said this did not add much clarity to any categorisation. This short overview shows that the professions form a specific aspect of sociological study and there is continuing discussion about how they are influenced by power, the division of labour, the use of monopoly practices to gain status, and how they contribute to the common good. These points are now considered in more detail through the theoretical constructs that have been put forward to explain their position.

## **2.2 Theories of professional development**

The history of professional development identifies some enlightening anecdotes. The Institute of Chartered Accountants was formed in 1880 in response to the "large number of incompetent, unscrupulous, untrained moneygrubbers (sic) who openly practised as accountants" (Millerson 1964). Physiotherapy was forced to organise in 1894 so that "trained masseurs could combat their reputation of working in houses of ill-fame", more commonly known as brothels (Millerson 1964). Whilst funny, these anecdotes do not provide much support for the sociological theories of professional development. They do, however, highlight the question of the professions' activity; they ask 'what do they do?' even if they do not address the question 'how were they created?' which is a separate analysis. Johnson (1972) found it was not always easy to separate the role of the professions from the theories of professional development, but the following chronological explanation sets out the theories of development which, in turn, help to build conceptual frameworks on which the data collection for this research is based. The analysis starts with considering the traits and functions and develops to consider how power, institutional and post-modern theories have addressed the topic.

### **2.2.1 Trait theory**

Carr-Saunders and Wilson (1933) describe the professions as organised bodies of experts who applied knowledge. They listed the traits that professions exhibited at that time including:



- systems of instruction and training
- entry by examination
- a code of ethics or behaviour.

Such traits remain at the core of the activities of the professions today and are still useful to describe their activity.

Wilensky (1964) working in America, and Millerson (1964:4) working at the same time in Britain, both defined a profession as one where knowledge was acquired through training and delivered through a set of professional norms. They both refined Carr-Saunders and Wilson's (1933) criteria and, for the first time, both identified elements of collective activity that suggested the professions were more than just a group of knowledgeable individuals. The combined traits from both authors produce a list of professional activity that demands:

- full-time activity
- training and education
- demonstration of competence by passing a test
- professional association
- agitation to support protection of territory
- integrity through adherence to a code of ethics.

Most of these traits are self-explanatory, but the introduction by both Wilensky and Millerson of conscious agitation to support protection of territory is important, and this theme is picked up later in discussion of power theory.

The matter of professional norms cited by Wilensky also requires further explanation. Norms are described as 'rules of behaviour' (Fulcher and Scott 2011:830). Haralambos (1985:5) added that a norm is a guide to action which defines acceptable behaviour in particular situations. It is not just rules, but the compliant acts surrounding them that build norms. They are associated with 'values' based on the cultural beliefs of what is good, or what ought to happen (Fulcher and Scott 2011:835) so the idea of a profession, indeed its very concept, has values associated with it. Weber (1964) noted that values were created by those that produced the organisational frameworks, and so it is a reinforcing process, a reflexivity, and the norms created by professional bodies influence how the profession is perceived, internally and externally. Working for the common good is not highlighted as a trait by either Wilensky or Millerson, but there is an implication of it through the use of a

code of ethics. Such a code, therefore, needs further scrutiny to identify how it influences the norms. This point is considered in more detail in section 2.5 below.

The role of education is important to all commentators. A trait identified by Carr-Saunders and Wilson's early work (1933) and then Collins (1979) suggested that training and certification led to credentialism, an overemphasis on qualifications, and Wilensky (1964) noted that the educational process was itself a barrier to entry. Millerson (1964) thought the link between the professions and formal university education was tenuous because traditional pupilage gave the necessary grounding for the older professions of law and medicine, but he recognised that, after the 1850s, exams became accepted and universal. The problem of accessing both elite education and the elite professions still exists and the current government recently produced a Fair Access to Professional Careers report (Milburn 2012).

### **2.2.2 Functionalist theory**

Functionalist theories started with Adam Smith's (1776) division of labour and formed part of Comte's early work on sociology. Weber (1964) built on this through his bureaucratic model and it formed a significant part of Taylor's (1947) scientific management, which was also called functional management (Kennedy 1991:161). Early ideas in institutional theory considered the need for structures to perform certain functions (Merton 1968), and it was the dominant theoretical perspective in sociology in the 1940s and 1950s that supported Durkheim's views that there were social 'facts' that influenced individual behaviour (Haralambos 1985). Parsons (1951) used it to extend the ideas of social stratification to include social groups that became more specialised, developed an interdependence with other groups and, in turn, created the greater complexity associated with modern social frameworks (Haralambos 1985:9 and 31). In the sociological debate on functionalism, professions exist because they serve a purpose. This links to Parsons' ends, actors and means (Fulcher and Scott 2011:43), where the 'end' can be considered as either the desired result of serving the common good, or the creation of a high-status professional body, and the 'actors' operate through some created, identifiable form using 'means' to achieve that functional end.

There is no clear dividing line between trait theory and functionalist theory although the latter aimed to dig deeper and look beyond a simple description of activity into the underlying purpose of the professions (Silverman 1971). Millerson's (1964) review of the professions suggested they were based on prestige, study, qualifying, and occupation, but he recognised the difficulties of defining them, suggesting a combination of traits and functions as:

*a type of higher, non-manual occupation with both subjectively and objectively recognised occupational status, possessing a well-defined area of study or concern and providing a definite service, after advanced training and education* (Millerson 1964:10).

Abbott confirmed the client-professional role as central, noting it was a “means to control the asymmetric expert-client relation” (Abbott 1988:15). Generally, however, the functionalist theories used to frame the professions came from patterns that crossed over from bureaucratic analysts systematising and standardising knowledge as part of management (Macdonald 1995:4). This might suggest the professions grew as an unintended consequence on the back of management developments, but the generally agreed function was a collective response to service and client needs that was built on an ancient pattern of education, and a dependence on recognition by the state. All these authors have interpreted the functional social framework coming from the division of labour. Carr-Saunders and Wilson (1933), Wilensky (1964) and Millerson (1964) included the public good and a code of ethics as a critical ingredient to professional status. Millerson (1964) and Wilensky (1964) went on to add their concern that the preponderance of different professions led to alienation from the public. They recognised the potential conflict with both clients and business, and so introduced ideas that the functions created underlying tensions. Although Millerson saw these conflicts as simply unresolved at that time, Wilensky (1964), saw clear threats to professionalism from pre-existing structures of bureaucracy and a strong client orientation, a theme that will be considered in the next section. Nevertheless, the wider view held that the professions still had a functional dominance over bureaucracy (Toffler 1970). The ideas of traits and functions blended both structures and activities and implied that the development of the professions required favourable conditions, but their approach did not consider the role of power in their development, and that topic is considered next.

### 2.2.3 Power theory

Pareto introduced the term 'elite' into language to explain how autonomous power operated as a social force (Fulcher and Scott 2011). Both Parsons (1951) and Weber (1964) suggested that specialist social groups used power in their dealings with other groups and this idea led Millerson (1964:7) to add a series of secondary purposes for the professions, building on their original traits, including:

- raising professional status
- controlling entry to the profession
- protecting the profession and the public
- acting as an interest or pressure group
- encouraging social activity and co-operation between professionals
- providing welfare benefits.

These themes include several self-serving elements indicating the explicit use of group or institutional power for purposes that cannot be reconciled by simply serving the common good. Early work by Mills (1956) linked political, economic and military hierarchies, and whilst Davis and Moore (1967) stated how functional importance influenced social stratification, Tumin (1967) restated that elite theory incorporated many barriers to recruitment and motivation. Wilensky (1964) saw professionals operating exclusive jurisdiction with the client to perpetuate elitism, and Johnson (1972:45) argued that a profession was not an occupation, but a means of controlling an occupation, which meant professions use their power and resources to influence their position in society.

Bordieu (1985) called the networking of like-minded individuals 'social capital' and he defined this as the aggregate of the actual, or potential, resources acting as part of a network or similar institutionalised relationships. Putnam thought social capital was critical to a thriving and inclusive society, it depended on:

*networks of civic engagement [which] embody past success at collaboration [and] serve as a cultural template for future collaboration (Putnam 1993:35).*

That the professions contribute to this is clear, but whether they contribute such benefit proportionately to other social groupings such as the trades unions, women's institutes or even the church or scouts is open to interpretation (Putnam 2000). That interpretation

centres on whether a superficial network of institutionalised relationships develops secondary activity and whether those secondary activities are beneficial.

Millerson (1964) thought that the professions controlled entry for the purpose of maintaining standards, but Larson (1977) said it was to secure monopoly power and control market forces. She argued that restricting the supply of practitioners enabled the group to increase its elite status disproportionately. Her critique closely followed Marxist literature (referencing Gramsci and frequently using terms such as 'bourgeois' and 'aristocratic') and found that the privileged position of the professions exists not because of their functional role in society, but because they secured status through monopoly practices of exclusion and social closure; concepts first identified as economic tools by Weber (Larson 1977:9, McDonald 1995). Such brash behaviour might be frowned on in today's consumer savvy climate, but the earlier comment from Behrens (1972) on the *ancien regime*, noted in section 2.1, illustrates how holders of knowledge could behave autonomously where society had higher levels of deference, and lower levels of literacy. Larson's work was a classic critical study because her empirical evidence did not take established ideas at face value, instead she ends her introduction by noting that professions in modern society moved from a functional model to an ideological one "justifying inequality of status and closure of access" (Larson 1977:xvii). This alternative assessment broke with traditional theoretical interpretations and her comprehensive demolition of the idea that the professions contribute to the public good means there is now much reluctance amongst commentators to take professional ideologies on trust. Subsequent commentators could not ignore her views although there have been efforts to challenge her monopoly interpretation.

Freidson (1986:6) argued that the professions use power by the very act of using knowledge, thereby side stepping the discussion on the control of the occupation. Abbott (1988:86) saw their power acting structurally at different levels, at the level of the individual, with power over the client, and organisationally, to achieve wealth and status. He defined professional power as the ability to retain jurisdiction when forces imply that a profession ought to have lost it (Abbott 1988:136 and see neo-institutionalist theories below).

Later analysis sought to counterbalance the monopoly power debate with further evidence of the professions' beneficial contribution and, looking at the medical professions, Saks (1995) identified a strong public ethos, even giving a chapter of his book the title 'A Conception of the Public Interest'. Saks (1995) also recognised that professional groups have unethical operators, not just in the uncaring (private service) professions of the accountants and lawyers, but also in the caring (public) services. If such a public/private boundary ever existed it is now blurred by a good deal of self-interest exhibited in the public services. The use of power remains at the seat of social theory even if later ideas appear more sophisticated. The next theoretical development considered the workings of the institutional structures themselves, but this still rests heavily on the use of power.

#### **2.2.4 Neo-institutionalist theories**

Traditional organisational theory identifies the normative pressures that guide an individual's acceptable and appropriate behaviour and influences the culture of the organisation. Neo-institutionalist theory goes further to look at the way organisations, and not just individuals behave, and it considers how institutions interact with and affect society (March and Olsen 1989). March and Olsen (1984,1989) and Porter (1990) suggest that modern society is built on institutions, but they go further than the functionalist view, suggesting organisations need good conditions to survive, and they argue that institutions actually act to create those conditions.

Durkheim was one of the early sociologists to develop institutional theories and he did so whilst working on other social developments because he wanted to challenge the individualism promoted by Herbert Spencer's view of Darwin's evolutionary theory (Barnes 1966). The influence of institutions was just too big to ignore. Building on the basis that norms were the 'rules of behaviour'; March and Olsen defined institutions as:

*collections of interrelated rules and routines that define appropriate actions in terms of relations between roles and situations* (March and Olsen 1989:160).

North (1990:3) suggested they were simply the "rules of the game in a society" and much of the research within new institutionalism deals with an institution's pervasive influence on human behaviour through these rules and norms. It is not individuals working alone or together that drive the rules, but the interrelationship between individuals, groups and institutions.

Powell and DiMaggio (1983) reflected on the bureaucratic model that Weber labelled 'an iron cage to imprison humanity until the last ton of fossilised coal had been burnt' (Weber 1962) and they identified the pressures on organisations to copy other successful organisations. This led to a series of hypotheses to test the homogeneity of organisations, and they concluded organisations tend to isomorphism, that is, they take the same shape. They saw organisational development as a constraining process that forced a single unit, in a Darwinian population, to resemble other units, because they responded to the same set of environmental conditions. Organisations replicate the successful organisational behaviours of others through 'coercive isomorphism', that is political influence, and 'normative isomorphism', or the constantly improving organisational arrangements developed by others. Professionalism sits in both categories and the creation of professional associations, exhibiting the secondary functions described at the start of the section on power theory above, involve political and state influence and the copying of previously established patterns.

Such theories have come to dominate the recent study of the professions (Empson 2005). Abbott (1988) is perhaps the best known of the commentators for his system of the professions based on their jurisdictional role. He builds on elements from Wilensky and Carr-Saunders and Wilson to suggest that occupations required jurisdiction to qualify as professions, and that jurisdiction requires demonstrating through a process of diagnosing, inferring and then treating the conditions of need expressed by the client (Abbott 1988:39-52). It wasn't a wholly new concept because Weber had used jurisdiction as part of his bureaucratic structure, but Abbott (1988) made it the central theme of his study and he argued that it marked a developmental step in the theories of professional development. He didn't pull his punches in critiquing earlier theories and he considered that his (neo-institutional) systems model:

*transcends its predecessors: functionalism, with its naïve reification of American society; or monopolism, with its equally naïve fear of the dominant classes; or professionalization, with its wistful belief in a sort of corporatist nirvana* (Abbott 1988:316).

He argued that jurisdiction contributes to the formalisation of the professions as they move from their origins as expert occupations and evolve into institutions with the characteristics of professional associations. On the way, 'territory marking' of the professional jurisdiction

means that other professions challenge the 'turf' of an existing profession, and this results in boundary disputes, a point that Abbott (1988:56) considered inevitable.

Neo-institutional theories influence the professions in the same two ways as power theory; at a personal level and institutional level (Peters 1999). At the personal level institutions act as explicit regulators of behaviour to influence individuals through implied social norms; these, so called, 'regulative institutions' counterbalance an individuals' desire to maximise personal benefits (as expected of rational actors) by some form of explicit, direct regulation. There are also 'normative institutions' where the individuals act out of duty, or an awareness of what one is 'supposed' to do; behaving in response to indirect social expectations. Both of these neo-institutionalist interpretations reinforce behavioural constraints, and this further extends whatever shared values already exist among the members of the institution (Peters 1999).

One final point to draw out on neo-institutionalism is that it is possible for the organisation itself to operate as a rational actor maximising the benefits back to the organisation (Parsons 1951, Larson 1977, Peters 1999). March and Olsen (1989) already saw the possibility of influencing the conditions for survival, but Luhman (1995) took this further. English law holds the concept that a company or registered organisation is formed as a body corporate meaning that, as an organisation, it has all the same legal powers as an individual. This legal concept was seen by Luhmann to extend to organisational behaviour and he considered institutions to be self-productive – that is each system develops its own rationality and is, therefore, able to react with its environment to self-generate and reproduce. He termed this process 'autopoietic' after a pseudo-Ancient Greek word, formed through the conjunction of two 'proper' Ancient Greek words, 'auto' meaning 'self', and 'poiesis' meaning (roughly) 'creation' or 'production'. Greek careers long ago fell under 'praxis', the path of arms, or 'poiesis', the path of letters (Baldwin and Cave 1999:31). The result is that institutions take on their own persona, and for a professional association, the organisation may develop activities that open up options to influence the benefits to its members, or influence the behaviour of its members, or to just act for the organisation's own benefit.



### 2.2.5 Postmodern approaches

Evetts (2005) argues that analysis of the professions should be shifted away from a concept of professionalism to a 'discourse' of professionalism. Postmodern interpretations emphasise critical theory, and so Evatts uses the term discourse to see how professionalism is actually used by society for maintenance of, recruitment to, and regulation of the professions. She uses Fournier's (1999) ideas to see professionalism as an influence on work practices creating group identity, and she recasts this from the work of McClelland (2003) to categorise professionalisation as being either 'from within' or 'from above'. 'From within' is where the group creates occupational identity, promotes its image, and bargains to maintain regulatory responsibilities in the market, whilst 'from above' is where management or other external forces influence occupational change, and so set up external disciplinary mechanisms. These ideas create new terms for the professions, respectively, 'occupational professionalism' and 'organisational professionalism' (Evetts 2005).

Such an approach may not be as radical as it seems. If Evetts' (2005) terminology for the idea of 'from within' is changed to simply being called normative, because it relates to creating group identity by group members, then this would be a third straight theoretical approach that contains a normative element. Powell and DiMaggio (1983) identified coercive (external political influence) and normative, and Peters (1999) described regulative and normative structures. Evatts (2003) contribution therefore adds 'from above' into existing managerial conflicts and 'from within' into existing normative conflicts. Although this last approach adds complexity, it could be seen simply as a development of the two earlier neo-institutionalist theories adding management conflict to political and regulatory conflict. Abbott (1988) saw conflicts in terms of boundary disputes between professional groupings and Evatts' compounds these with professional-client conflict and business-professional conflict, both of which were previously identified by Millerson (1964) and Wilensky (1964), but not elaborated on. The postmodern approach is often associated with individual, personal power relationships, and though Evatts (2005) looks to provide a lens for this approach, and tries to discard a wider narrative, it seems the bigger picture is not actually overturned, suggesting her views align more with the existing neo-institutionalist interpretation.

## 2.2.6 The professions as ideology

An ideology is described as a system of beliefs, values and norms that expresses and legitimates the interests of a particular social group (Fulcher and Scott 2011). An important aspect of a dominant ideology is that it becomes the accepted interpretation of a culture making alternative views difficult to establish. Gramsci termed this cultural hegemony (Fulcher and Scott 2011:352) and Mills (1956) gave an example of ideology writing about the ‘power elite’ and criticising how “vast concentrations of power had coagulated in America, making a mockery of democracy” (Wolfe 2000). For the professions, such an ideological position can make it difficult to see alternative arrangements. This makes Larson’s (1977) work superseding the very powerful perceptions of the ‘ideal’ professions from the 1950s, and 1960s even more remarkable. Millerson and Wilensky included some element of critical interpretation but, when they were writing, even ordinary professionals were held with a reverence that is now difficult to grasp in the present, consumer based, society.

Key themes drawn from the theories of professional development suggest sociologists are more interested in professionalisation than professionalism, perhaps because there are wider social implications and because it demands more complex modelling. A summary of the themes is shown below at table 2.1.

<b>Professionalism</b>	<b>Professionalisation</b>
Education of the members	Collective action/pressure group
Setting standards for practice	Building identity and branding
Setting examinations	Controlling entry to the profession
Assessing competence	Establishing and protecting jurisdiction
Regulating members’ practice and behaviour	Raising professional status
	Autopoietic organisational behaviour
	Management from above/from within

Table 2.1 The elements of professionalism and professionalisation

Johnson (1972) did not separate these themes. He saw professionalism as an ideology seeking to gain status and privilege on the back of the ‘ideal type’ that included strong

moral codes and a good dose of altruism, though he acknowledged expertise as the prime source of professional power (Eraut 1994:2). Carr-Saunders and Wilson (1933:503) argued it promoted “freedom, dignity and responsibility” and Freidson (2001:122) spoke of an ideology of specialisation and service, but acknowledged it went beyond merely serving the client and leaned towards a ‘secular priesthood’. Eraut (1994) described this inherent elitism as a caste-like system. The resultant ideologies are powerful, and they are used for the advancement and protection of groups. They look legitimate, but, as Neumann (2006:51) points out, ideologies differ from social theory because they lack critical analysis. The service ideal remains dominant, despite Larson’s (1977:56) view that professions are based on ‘anti-market principles’.

## **2.3 The impact of culture on behaviour**

### **2.3.1 Organisational culture**

If there is definitional uncertainty around such terms as professionalism, then an attempt to define culture is perhaps even more difficult. Culture has been defined as:

*meanings held in common handed down to us – the cultural baggage of tradition, reinforced by the material environment in which we live and which seems to reinforce our inherited beliefs – partly transmitted to us by powerful agencies, such as the law and education, and partly modified by our own critical or passive examination and experience (Anthony 1994:33).*

Anthony (1994:98) goes on to say the phenomenon of culture “emerges from history, is rooted in practice, sustained by structures and becomes habitual” and adds that it is “unconscious and unthinking – the result of routines of repeated behaviour”. Within the more specific area of professional associations organisational culture has been defined as:

*The shared ideas, customs, assumptions, expectations, traditions, values, understandings that determine the way employees will behave (Osborne and Brown 2005:75).*

The term employees used here can be readily extended to members of the professions. Schein (1985) suggested culture operates at three levels, visible artefacts such as dress and office layout, values, and the learned responses that come from the assumptions that people have made about the organisation and its values. Culture is considered to be stable and resistant to change, it operates at a sub-conscious level and rests on the shared understanding of its members.

The history of our current understanding throws up some interesting snippets. Descartes was no fan of culture and proposed a programme for man's liberation from it (Gellner 1992:13). Instead, he wanted a rationalist approach to truth, based on reason alone, rejecting a collectivist past handed down from previous generations. Durkheim (1933) by contrast concurred with Locke's (1690) view that said people were blank slates (*tabula rasa*) on which culture wrote. These views stretched the scope of culture between two ends of a continuum. At one end cultural power is overwritten by reason, and at the other extreme it overwrites everything. There has long been argument in the 'nature versus nurture' debate as to where the main influences lie in creating individual and, consequently, group, behaviour. Wilson (1998) challenged the blank slate by supporting Kroeber and Kluckhohn's (1952) views of culture as being influential, but not all powerful, stating:

*culture is a product; is historical; includes ideas, patterns and values; is selective; is learned; is based upon symbols; and is an abstraction from behaviour and the products of behaviour.* (Kroeber and Kluckhohn 1952:719).

Work on culture was originally the scholarly concern of anthropologists, but now social psychologists also claim jurisdiction over the topic. The new group states their work seeks to understand how people think about, feel about, and relate to or influence one another (Smith et al 2006). This new group illustrates how a potential boundary dispute might develop over jurisdiction, as put forward by Abbott (1988) in his *Systems of the Professions*.

Society is made up of different communities, in a colloquial sense these are tribes, and each smaller community has its own sub-culture (Anthony 1994:50, Schein 1985). Each has strong influence on procedures, and each generates structures that reinforce its values. Much of the research for both culture and the professions came from theories of management and change management. Study of corporate culture has its roots in Taylor's (1947) scientific management and developments from other management work such as Weber's (1962) bureaucracy, Elton Mayo's (1949/2003) Hawthorne experiments from the 1930s, and MacGregor's (1960) behavioural management with theory X and theory Y. From these beginnings normative behaviour was analysed as a measure of efficiency that grew into organisational behavioural studies which, in turn, led back to ask questions about culture. Management seeks organisational effectiveness and sees

organisational culture as the key to unlocking potential benefits, performance and competitive advantage (Osborne and Brown 2005:76).

The professions form a sub-set of corporate culture. Their strong traditions, reinforced by literature supporting their social contribution, suggest a universal structure for applying expertise. It is still possible, however, to consider a culture where credentials and professional associations do not dominate because they are, after all, only a recent addition to the formal structure of our society. As already noted, Carr-Saunders and Wilson (1933) thought that specialisation led to the 'unescapable' rise of the professions, and Freidson (2001) couldn't find a situation where a culture might develop without them. Abbott (1988) concluded that the professional model was the strongest in a Darwinian framework and the model persisted because the market structure "favours employment based on personally held resources". Knowledge is readily organisable for use by groups of individuals and he concluded the present arrangements has not yet been "overwhelmed" by competing models (Abbott 1988:324).

Recent developments in evolutionary psychology, an area that would normally be beyond the scope of a sociological study, are worth a comment here. Dawkins (1976) suggests the primary driver of genes is survival and they act through the process of nature, not nurture, to influence their host's behaviour. More specifically he introduced the term 'meme' as a unit of cultural inheritance suggesting behaviours are hardwired. Wilson (1998:139) supported such evolutionary ideas, but went beyond simple survival tactics to link successful cultures and successful genetics to produce something he called a 'gene-culture coevolution'; a doubly successful Darwinian concept more successful in terms of survival than evolution alone, and which has parallels with neo-institutionalist theory. If this approach relates to the culture of the professions, it suggests that the most successful behaviours exhibited by the most successful professional associations are replicated and copied to support their own success. This links back to Powell and DiMaggio's (1983) isomorphism and Luhmann's (1995) autopoietic systems discussed earlier. Autopoiesis suggests organisations replicate by self-referenced internal decision making, without the need to reference back to their environment, and the same applies to genes and memes acting without reference back to their hosts.

Returning to mainstream sociological issues, and in direct contrast to the gene/meme process, social psychologists have also looked at the weaknesses as well as the strengths of the influences of group behaviour. 'Groupthink' is not about survival, but about a failure to survive and is described as the "deterioration of mental efficiency, reality testing and moral judgement that results from in-group pressures" (Janis 1982). Where a culture is developed by like-minded people working together, whose approach to external pressures or events is compromised by an enhanced sense of group identity, this clouds rational analysis. Such a situation can be tempered by modern networks and the isomorphic influence of Powell and DiMaggio (1983), and so it may now be less common. There is still, however, evidence that groups, including professional associations, operate with a predictable homogeneity and lack grounding in real world problems, and this is a theme that is explored further in the case studies.

Cultures are important to this analysis because the advancement of innovation rests on the existing dominant cultures. It takes a long time to develop an organisational culture and they are deeply embedded. A change in culture is difficult to engineer and it requires structural change. Anthony (1994:3) points out that there are more comments about aspirational cultural change than there are research findings about the consequential results, mainly because cultural change programmes in major corporations are not adequately critical of the outcomes. Failures don't get analysed and are quickly forgotten. The research findings relating to cultural change issues are evaluated against only positive and subjective interpretations that filter the results of the outcomes (Anthony 1994:9). This point will also be explored in more detail in the case studies.

### **2.3.2 International cultural differences**

It is possible to analyse culture from both national and international perspectives. The work of Freidson (2001) and Larson (1977) has a strong Anglo-American thread because they saw the UK and the USA as having a strong culture of professionalization, but other nations have not developed professional associations in such numbers, or with such strong traditions. Hofstede (1994) attempted to get an international perspective on culture by looking at thousands of IBM employees across 70 countries in a study titled *Culture's Consequences*, and he identified and mapped four national variations of what might be called behavioural norms. These were:

- power distance – the relationship of superiors to supervised staff
- uncertainty avoidance – the need for staff to work with a sense of security
- individualism-collectivism – a measure of the need to work with others
- masculinity-femininity – the approach to asserting power or supporting staff.

From this research the culture in the UK was seen as most strongly dominated by individualistic tendencies.

In a separate international study, Schwartz (1992) looked at the values held by individual people and suggested that the UK scored strongly on values of 'affective autonomy' indicated by traits such as enjoying life, excitement, pleasure and variety. Not all national characteristics followed such hedonistic paths and the national traits of other countries focused more strongly on issues of egalitarianism, harmony, respect, tradition, hierarchy, mastery and intellectual autonomy (curious and creative). Costa and McCrae (1992) mapped these issues against the personality traits of; agreeableness, conscientiousness, neuroticism, extraversion and openness to experience, and considered that bilingual people were influenced by more than one set of cultural traits. Glick and Fiske (2001) identified UK workers as high on competence, but low on warmth.

National traits and the identification of cultural tendencies do not readily fall out of these analyses because each nation's make up is influenced by different histories, family values, immigration, technology and local access to natural resources. However, the UK's strong showing of autonomy, individualism and competence supports a culture of professionalism and professionalization, the traits that drive the requirements of professional practice are also the traits that feed conflict. A different perspective is offered by Huntington's (1997) comments on Merissi's *Islam and Democracy* which explored the social conflicts between religion and individual power and concluded:

*Individualism, the hallmark of Western Culture, is "the source of all the trouble"* (Huntingdon 1997:214).

## **2.4 Communication**

In moving from its agrarian roots, through manufacture, to service industries, Western society has changed, with little consideration of how individuals have coped with the needs of the new economy. Given that the professions have been identified for their

intellectual contribution based on educational and credential evidence, it is relevant to ask how the intellectual element has come to be so important in such a short space of time.

Marx considered that history starts when man begins to control nature (Haralambos 1985:535). He argued that the process of social change is driven by incompatible forces so the old definitions of society were left behind with industrialisation as workers became alienated or disconnected from the outputs of their work. Marx worked a societal level, but the implications of alienation were felt by both individuals and social groups, and the tensions he spoke of still affect manual and knowledge workers today. Stress is the single biggest cause of long term sickness in UK workers (CIPD 2011). Occupational or professional tensions influence the way we work, and Johnson (1972) and Freidson (1983) suggested that power and authority were more influential than trust or service, although Abbott (1988) gave trust greater importance. The words 'trust' and 'altruism' feature strongly in many commentators' views of professional work and the service ideal highlighted by Wilensky (1964), Millerson (1964) and Perkin (1989) indicated a superior moral approach to work, and an expectation that the professional was above the need to work for profit maximisation. Many professional bodies have codes of ethics supporting superior morals, and there was a widely held belief that the professions' altruism was a strong influence on their development, however, such evidence demands an understanding of why societies need trust, and before that topic can be fully assessed, it requires another meander into the realm of evolutionary psychology.

Organisational culture and evolutionary psychology both recognise that culture has an important impact on our ability to relate to others. Ridley (1993) put the success of the human race down to its ability to use its large brains, but there is a twist in this part of the story because Darwin's original view was that the adaptation of a species came in response to the hostile forces of nature (Ridley 1993:319). More recently, Alexander (1974) suggested that a cultural ability to survive, by passing on information about hunting and food sources, was not, on its own, a sufficient motivator for evolutionary adaptation. He thought the key feature of the human environment that drove higher intelligence was the need to relate to the presence of other human beings (Ridley 1993:319). At the same time, Humphrey (1976) argued the intelligence of large apes was associated with managing social problems that demanded intellectual effort for dominating, submitting or reading the mood of other apes (Ridley 1995:320). This social brain hypothesis suggests



our larger brains result not from the wider forces of nature, but from the need to develop social skills (Barnett et al 2002). Barnett et al (2002) argue the brain is ill prepared for the rigours of modern society because it works best for the base human responses that were established in the hunter-gatherer societies many thousands of years ago. If correct, these ideas suggest that being a knowledge worker would present evidence of dislocation in modern society, and that ties in closely with the studies from Marx and Durkheim of anomie resulting from industrialisation.

## **2.5 Trust and altruism**

Modern humans have to relate to large numbers of people, a recent phenomenon in the span of evolutionary time. Hunter-gatherer communities operate in bands of about five with close friends providing a support clique (Barnett et al 2002). Most individuals in modern society are limited to a personal social grouping of 150; a size traditionally equivalent to a clan, and beyond that number it is difficult to maintain personal identity. Thereafter, identity is limited to categories that require the use of labelling for social groups, something well suited to professional activity.

The professions trade on both their specialist expertise and the trust that goes with it. However, working with large social groupings is a barrier to trust (Barnett et al 2002), so if trust is reduced, the need for social identifiers is increased. Various so-called 'small world' experiments identify that trust (such as delivering a package) is limited to the clan and modern groups are labelled (for example, police and librarians) to provide guidelines on how to interact with the labelled individuals. In a stable environment trust spreads wider, but in times of trouble it breaks down and draws back to the smaller core group (Barnett et al 2002). The formation of professional bodies fits with these themes because they provide the labels needed to help form social grouping. Trust is enhanced by the labelled professional group providing guidelines for interaction.

Staying with the evolutionary approach for one further point, the shift from trust to altruism requires an understanding of the behaviour that influences selection pressures. Trivers (1971) observed frequent cooperation, based on reciprocity, that improved an animal's capacity for survival and he noted that behaviours described as altruistic were actually self-serving.

*Models that attempt to explain altruistic behaviour in terms of natural selection are models designed to take the altruism out of altruism (Trivers 1971:35).*

Evolutionary psychologists discredit the concept of individuals, or groups, exhibiting altruistic tendencies so it is only our perception that humans, and professionals, exhibit altruism, or show reciprocity. Their ultimate aim is founded in survival. Economist Robert Frank (1985) used this for his commitment model theory and identified that moral sentiments, or emotions, are merely problem-solving devices designed to make highly social creatures effective in responding to selection pressures (Ridley 1996:133). In the same way as the institutionalists claimed institutions were the “rules of the game in society” (North 1990:3) the evolutionary psychologists identify the survival rules for behaviour. Exhibiting altruism just means playing the long game for survival, and aspects of the professions working for the common good should be considered through this lens.

Contemporary professional society throws up significant issues in relation to trust which have resulted from serious failings of professionals as groups or as individuals. The sectors of accountancy, banking, medicine and business all have stories to tell, and although Evetts (2005:14) concludes that professionalism requires a higher level of trust from the client, she recognises the failings of individual professionals, and that means doctors, lawyers and many others are now treated with suspicion. The complexity of society makes trusting people harder because the smaller groups and communities that retain elements of cooperative behaviour have been lost in the process of urbanisation. Larger social groups undermine trust (Laird and Thompson 1992) and this introduces a parallel development of the growth of professionalism with the growth of urbanism, but that is beyond the scope of this research.

In an interdependent situation, marked by uncertainty and limited trust, participants with dominant market positions, political power or greater knowledge are tempted to resist cooperative activities that could mean an immediate cost to themselves. This operates even if the dominant players could see that it would be generally beneficial if all complied (Sullivan 2005:170). This feeds directly into the ethics of professional work and the development of codes of practice by the professional bodies to address a professional-client imbalance. Trust is at a premium where resources are scarce and using expert knowledge is just one area of economic scarcity (Rutte et al 1987). Studies of trust and altruism suggest cooperation in a single transaction is illogical so these are the

arrangements that require tighter regulation. Areas such as making of a will or arranging a mortgage are single transactions, but for the most part transactions are part of repeat arrangements, and trust works to encourage cooperation.

Trust also operates at an institutional and economic level and Fukuyama (1995:5) argues that economies with high levels of trust are more successful than economies with lower levels of trust. He considers that a thriving civil society depends on a people's habits, customs, and ethics and restates the findings of the international studies by Hofstede (1994) and Schwartz (1992) that trust is culturally determined. Put simply, higher trust allows for lower transaction costs and makes trade easier.

## **2.6 Regulation**

If a professional association was seen to be a trusted body it would enjoy considerable freedom to operate. If, however, there is an absence of trust, real or perceived, then regulation is commonly introduced to address any weakness in ethical behaviour or service standards. Carr-Saunders and Wilson (1933) argued that regulation of the professions by state intervention was undesirable because they believed in the service ideal, with its superior knowledge and client confidentiality, and because it provided an objective (impersonal) service. They saw little abuse of power, or rather, they didn't look for it. They did, however, see a role for external regulation in special public services that required a higher level of openness, notably where:

- the service was vital, for example the medical profession
- the service was fiduciary or legal
- there was a concern for public safety, or
- the state is the employer (Carr-Saunders and Wilson 1933).

Wilensky (1964) in contrast suggested there was no general acceptance that the professions were associated with selfless service provision, and he did not shy away from criticising the use and abuse of power by professions. He cited the role of the professions in Nazi Germany where physicians and lawyers subverted the client–professional role, at enormous cost to their clients, just so individual professionals could maintain their employment. He saw a strong customer focus as incompatible with professionalism

(Wilensky 1964), but it was another 20 years before a social shift brought different attitudes in the UK through government legislation to back up consumer protection.

Those involved with governance and regulation face the constant question –*quis custodiet ipsos custodiet?* (Juvenal) or in English: who guards the guards themselves? Millerson (1964) was content that professional ethics gave moral direction which guided the professional-client relationship and distinguished between right and wrong. The codes of ethics and codes of conduct usually address three issues:

- how the profession addresses economic and social status, and reputation
- how it maintains and improves technical standards
- how it develops the professional culture (Millerson 1964).

The first and last of these give considerable scope for Bentham (1789/1823) and Mill's (1863/1906) utilitarian perspective, allowing the greatest good to the greatest number of people (Troyer 2003). They also give room for opportunity to raise group status, but if professions had followed Kant's (1781/2002) categorical imperative, to act with pure practical reason that overrides any subjective moral interpretation, then their codes may have stopped some the abuse that Evatts (2005) complained about. Durkheim considered associations would police their own standards, but Millerson (1964) found that most codes were imposed from outside the association. There is a continuing debate on the role of regulation between the intervention camp and the *laissez faire* camp with the latter arguing that licensing is not in the public interest because red tape costs business and generates inertia (Saks 1995).

Regulation addresses market failures that work against the public interest. Baldwin and Cave (1999) list these as monopolies, information inadequacies, anti-competitive behaviour, unequal bargaining power, and planning for future generations who have no voice in the debate. All but the last one of these are relevant to the work of the professions. Even the process of regulation itself is not a simple issue because it sustains its own social theories. Public interest theories suggest the regulator acts on behalf of the public, whilst private interest theories (the Chicago theory) suggest businesses work with regulators to maximise profits (Baldwin and Cave 1999). Such theories argue the regulator seeks to balance the needs of control with the needs of those being controlled. The state becomes important when there are weaknesses in self-regulation or where

external standards can be imposed, backed by criminal sanctions (Baldwin and Cave 1999:35). There are different levels of regulation illustrated in the scale below.

- self-regulation – at its lowest level a trade body develops a system of rules
- enforced self-regulation – the sector is subject to a form of government oversight
- discretionary regulation – the state holds discretionary power of external punishment
- mandatory regulation – the state holds mandatory punishment (Baldwin and Cave 1999:41).

In addition to this static picture it is useful to consider regulation's theoretical lifecycle over time. Bernstein (1955) considered three stages of regulatory activity, youth, maturity and old age, and at each phase the role of regulation changes. These stages are illustrated in phases 2, 3 and 4 of the growth curve (figure 2.1 below, and a more detailed explanation of the growth curve is included at annexe 2).

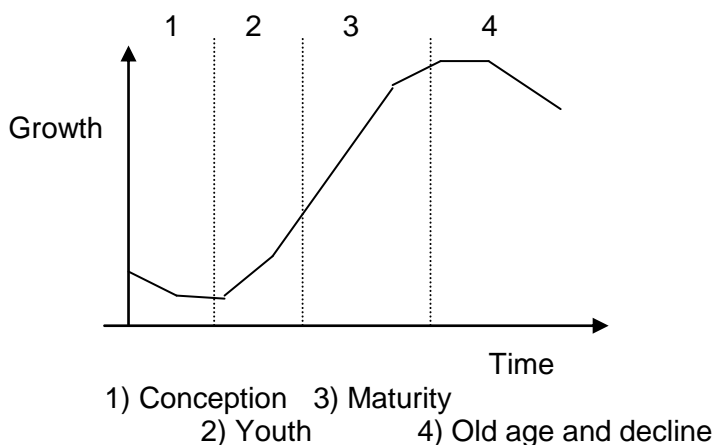


Figure 2.2 The growth or sigmoid curve, after Ainsworth-Land (1984)

The youthful stage starts with the creation of a regulatory body where the two parties, the regulator and the regulated look to work in harmony. In the mature stage the new regulatory body is outmanoeuvred by the regulatees, and the process of regulation slips into the mainstream of business activity increasingly paying attention to the needs of the regulated industry. In old age the regulator is characterised by debility and decline (Baldwin and Cave 1999:25), and ceases to be effective. It is even possible, at any point in the lifecycle, that the regulator is captured by the industry, resulting in regulation being used as a tool to benefit the industry rather than the consumer or wider society (Baldwin and Cave 1999:36). This does not present a very powerful picture of the work of

regulation, and instead assumes that the regulated parties simply shift their behaviour to accommodate possible regulatory demands. Baldwin and Cave (1999) do not comment on who pays for the costs of such regulation, and it remains a politically subjective discussion.

General institutional theory suggests the rational–actor model of regulation is shaped by the institutional structure (Baldwin and Cave 1999:27), and that leads to regulation driven by a combination of public interest, industry, professional rules and institutional arrangements. As discussed above, neo-institutionalism recognises that the institutions take on an independent persona (Peters 1999), allowing their primary function to align to the goals of the organisation representing it. This is complicated further when such theories relate, not only to professional bodies, but also their regulatory bodies, which also take on autopoietic properties (Baldwin and Cave 1999). Institutions respond by establishing structures that prepare for auditing, inspection and other regulatory activity. On the back of this Evetts (2005) posed a critical question, which she did not answer, that is: to what extent are (client-professional) trust relationships being replaced by organisational forms of regulation? Examples are commonplace and, in one case, the government commissioned reviews of health care regulation concluded that the public’s trust in a doctor’s fitness to practise must be “underpinned by objective assurance” (Maybin 2007), which circumvented the professional-client relationship. To reinforce the regulatory model proposed by Baldwin and Cave (1999) the General Medical Council recognised that “an ‘independent profession’ was a privilege given by the state through parliament” (Irvine 2007).

Built environment professions have all recently responded to calls for external regulation by reviewing their requirements for professional competence, and all have developed either regulatory frameworks or threshold competences. It is the influence of these competences on pedagogy and practice that is key to this thesis, and the impact of regulatory regimes is explored in the case studies at chapter 6.

## **2.7 Tensions with management, clients and customers**

The professions are not only under scrutiny by government and regulators. The historical and traditional autonomy granted to the more senior professions allowed for freedom of

decision-making over how they operated, but they now face challenges from management, clients and customers. Friedson (2001:6) held the view that professionalism was independent of management or the market (consumerism), but he did accept that the strong autonomy faced challenges from a range of other professions, empowered clients and systems of business, in what he called the “assault on professionalism”. He was not alone; Wilensky (1964), Johnson (1972) and Evatts (2003) identified similar themes challenging the professions, resulting in external pressures building up to this ‘assault’ and creating conflict with autonomous practice. They each identify the three main areas of conflict, asking whether:

- management has control over the professions, or does professionalism balance out corporate excess?
- clients override professional practice?
- consumer interests weaken professional control?

Abbott’s (1988) neo-institutionalist position identified a similar pattern, he argued that the professions needed to address subsidiary issues of:

- how they respond to criticism of corporate extortion
- how they control difficult client-professional relationships
- whether or not they have helped or hindered general social functions.

Evetts’ (2003) postmodern view centred on professional-client and business-professional conflict, and Eraut (1994) identified that power relations existed with a mix of service users, managers, government and other professions. Perkin (1989) highlighted the backlash against professional society because it does not fit well into a free market economy. It is perhaps a matter of interpretation as to whether this constitutes an assault on the professions or is just the continuing influence of Durkheim’s (1963) compelling and coercive forces. If the professions are seen as having their own lifecycle (Ainsworth-Land 1984) then it is a simple step to see them at the mature, old age or even decline phase of the cycle with an increase in threats that result from shifting internal activity and changing external environment. The common ground is that there are always external threats to a profession’s autonomy, though there is little agreement about the consequence of these threats. Johnson (1972) thought the professions owed their development to patronage by corporations, whilst Mills (1956) saw the professions as succumbing to management influence, or as Johnson (1972:15) put it ‘managerial demiurge’ (literally ‘creation’). One

point of view sees external influences as opportunistic while another sees it as threatening. Consequently, the professions evolve their service responses over time, but they remain a ubiquitous and significant part of the UK's institutions.

### **2.7.1 The tensions with management**

The conflict between professional autonomy and the needs of management was first considered by Weber (Roth and Wittich 1968) as a consequence of his bureaucratic structure, and later new-institutional theory pitted the norms of the profession against the norms of the employing organisation (Peters 1999). As it now stands, the debate seems to be settling around the tensions for the standardisation of knowledge, with management increasing pressure to make it a commodity that undermines professionalism as a special case (Evatts 2005). Abbott (1988:208) agreed that artificial intelligence would change the way competition worked, but Susskind (2008) suggested that, even with ready access to specialist knowledge, the professions would still be required for the analysis of complex or deep knowledge, and for complex communication. He recognised that much of the routine work of the professions could be undertaken by computer modelling, but the professions were needed to interpret that modelling through judgement and intuition.

Powell and DiMaggio's (1983) ideas of isomorphism (organisations taking on similar forms influenced by success) allow a number of optional pathways to open up. On the one hand, a greater participation of managers with a professional background could lead to stronger professionalism or, alternatively, greater management interference may spread from other institutions, so weakening professional practice. These are just two of the coercive powers at work in supporting, or acting against, the professions, and there are more complex permutations.

### **2.7.2 The tensions with clients and customers**

The influences of the client similarly draw a wide range of comment. Friedson (2001:180) saw smaller clients as less powerful (Freidson 1986:219) and Abbott (1988:141) considered the dominant professions "can be only as powerful as their clients let them be" with large clients having a forceful restraining power.



The pressures from consumers can work through government-led regulation, but there is now a strong trend for individuals, and groups, to use their rights and powers to seek direct redress against professionals. The health and finance sectors have been at the forefront of this redress, and despite a public commitment to it, they are often dragged reluctantly along this path with public statements not matching up to practical action. A classic illustration of the protections afforded by institutional theory presents itself on the topic of whistleblowing, where consumers support exposure of professional malpractice, but management chooses to protect the organisation.

*Organizational managers, against whom the whistleblowers level claims of wrongdoing, seek quickly to discredit, defame and terminate them (Rothschild 2013).*

Ombudsman schemes operate for many professions or sectors including surveyors, social housing, and estate agents (British and Irish Ombudsman Association 2013) and architects have a separate regulatory system set up by legislation.

The same desire for the commodification of knowledge by management also operates for the consumer. The professions build walls around their social standing to restrict the flow of knowledge through Weberian 'social closure' (Larson 1977) and this is challenged by the torrential flow of information from modern internet search engines and social media. The balance seems to remain in place. Susskind (2008) agrees that it is possible to access most factual information online, but the role of the professional persists, shifting to being a wise counsellor providing, not information, but judgement.

## **2.8 The implications of the literature review findings on this research project**

The professions form part of the institutional social structure, and they have developed a theme of contributing to the common good. This chapter has seen their development through a range of theories based on traits, functions, power, institutional theory and postmodern interpretations and for all these theories the interests and actions work at a personal and organisational level. At a personal level there are norms and guidelines established with expectations for compliance, and at an organisational level even the organisation develops a self-perpetuating persona. Professionals hold power at the individual level and their knowledge and wisdom creates an asymmetric relationship that requires regulation to avoid abuse of trust. At member level there are tensions between

the professional and the client, the professional and management, and the professional and the profession. The so called 'altruism' of professional practice is challenged, and their elite professional status is, Friedson (2001) argues, under 'assault'.

At the institutional level some of the early theories have been superseded by better ideas and more critical theory. Trait theory has largely been absorbed into functionalist theory, and though Saks (1995) confirms the taxonomic approach, he notes even supporters of trait theory found difficulty in agreeing patterns and definitions. Supporters of functionalist theory, with a focus on the client-professional relationship, agree the underlying reasons that led to the professions achieving their privileged status, but just listing the characteristics is inadequate. By the 1970s the functional 'orthodoxy' was being rejected (Macdonald 1995:3). Functional analysis started the discussion, but it did not dig far enough. As Searle (1995) notes:

*Either function is defined in terms of causes, in which case there is nothing intrinsically functional about functions...Or functions are defined in terms of the furtherance of a set of values that we hold - life, survival, reproduction, health - in which case they are observer relative (Searle 1995:16).*

Durkheim (1933) saw occupational groups as a key link between the individual and the wider society, but institutional analysis only came after economic and political analysts had done the groundwork. Troyer (2003) explains that the economists wanted to understand individual behaviour and believed the role of the individual was as a rational actor; rational in the sense of utilitarianism as promoted by Bentham (1789/1823) and Mill (1863/1906). Veblen (1918) was prescient when, writing in 1898, he recognised that an individual's conduct was influenced by habit and convention and foresaw a good deal of sociological analysis on the topic of normative behaviour.

The professions are also in a state of tension at the organisational level with tensions between the profession and general management seeking the systematisation of knowledge to make it available to less skilled people (Evetts 2003). Individual professional groups are in conflict with other professional groups, and there is tension between the current institutional form and an evolving desired position responding to client needs. Durkheim (1963) would have been able to recognise these compelling and coercive powers though collectively they muddy the water, and make it difficult to identify true 'ideal types' on which to build and test conceptual models for social research. That dynamic

context does, however, stimulate the need for exploration into how the actors, ends, means, conditions and norms impact on the work of the professions. What emerges from these theories is that analysis is required at both an institutional and a personal level, and because each influences the other, they cannot be wholly isolated.

The coercive aspects of the institutions are merely a snapshot of the institutional environment at a point in time, and it is a static picture. What is missing is the process of social change seen first in Marx's recognition of shifts in the balance of power, and later in Gramsci's hegemony. Current organisational theory now focuses more on change (Crowther and Green 2004:177), so this research will have to consider both the static and the dynamic aspects of the institutions when considering how individuals act alone and collectively. It is these 'actions' that shape the sociological form that we understand as the professions.

Most of this analysis comes from commentators who take a predominantly Anglo-American perspective. At different points the professions have been interpreted as being elites (Carr-Saunders and Wilson 1933, Wilensky 1964), power bases (Larson 1977), protectors of the public (Millerson 1964) and protectors of self-interest (Larson 1977, Abbott 1988). The research task is to explore what issues will impact on the professions advancing innovation and promoting innovation pedagogy. It has now looked at developmental theories, the different roles of professionalism and professionalization, cultural influences, including trust and regulation, and the tensions with other stakeholders. This chapter has also explored a little of the role played by actors, ends, means, conditions and norms that are suggested as important by Parsons' (1967) action frame of reference. These influences operate through culture, and suggest organisational forms take the best ideas for success to form similar structures; even the regulators do it. These issues will be tested at chapter 6 but for now the key to the continuing presence of professional associations is their use of expert knowledge and the next chapter turns to that topic.

## Chapter 3 Knowledge and professional knowledge

### 3.1 The context of professional knowledge

The previous chapter set out the main sociological theories that frame the activities of the professions, including ideas about the division of labour, controlling its supply, institutional influence and conflicts over jurisdiction. Importantly all these hinge on the use of knowledge as a pre-requisite for professionals to act; their work depends on applying a body of knowledge. The growth of knowledge is a recent phenomenon (Macdonald 1995:158) and the professions have followed that growth path. This chapter, the second of three that builds up the secondary research, will firstly consider how knowledge is defined and then how individual professionals use it, before going on to consider how professional associations use their institutional body of knowledge.

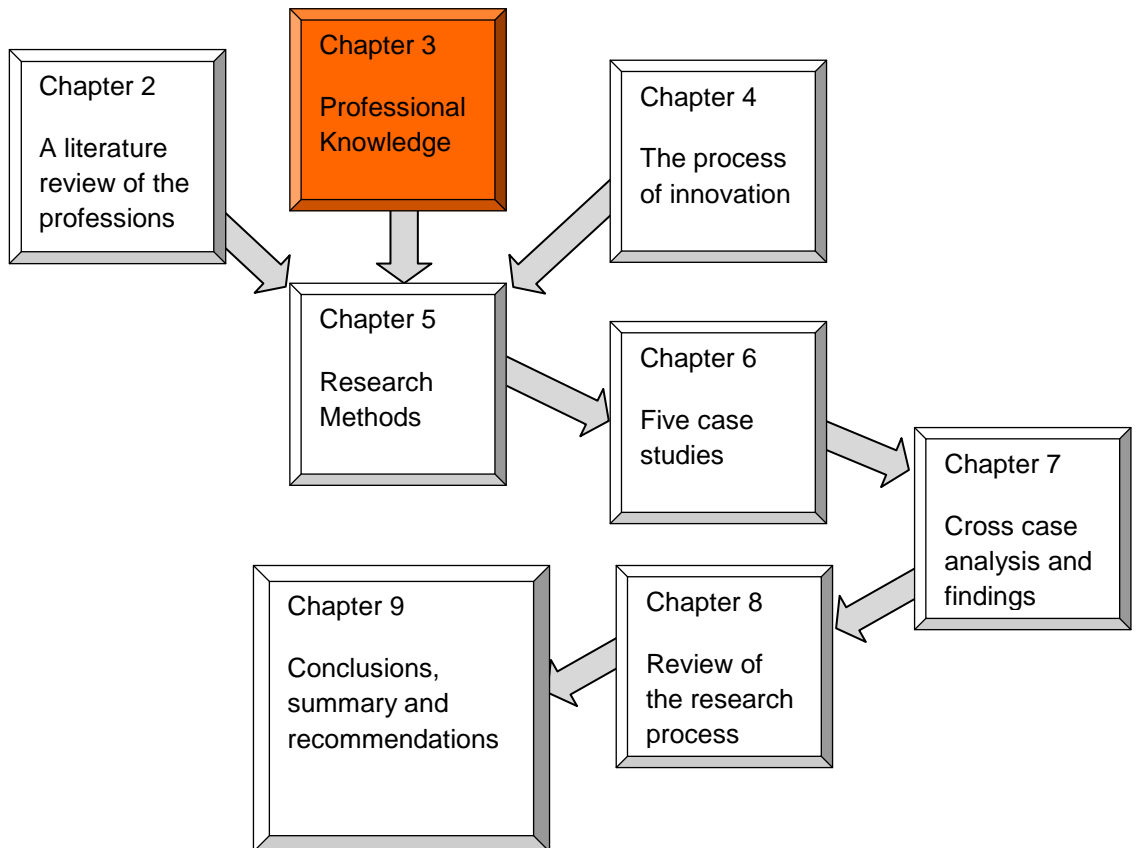


Figure 3.1 A diagrammatic representation of the flow of the thesis highlighting chapter 3.

It requires an understanding of what knowledge is, specifically the study of the theory of knowledge, or epistemology (Pritchard 2010:3, Bryman 2004:11, Knight and Turnbull 2008:64), to sit alongside the theories of professionalism and professionalization. That then enables a synthesis of ideas to identify what sets the professions apart from other knowledge workers (Drucker 1967).

### **3.2 Knowledge defined**

Early work on analysing the professions (Carr-Saunders and Wilson 1933) identified them as organised bodies of experts who applied knowledge. A typical definition of knowledge (Oxford English Dictionary 1976) says it is “the understanding gained through experience or study”. So it follows that a professional is an expert with knowledge gained from experience or study. It is worth trying to side-step some extraneous terminology at this point because professional knowledge can be confused with other terms. ‘Expert knowledge’ in its common usage is applied to the development of expert computer systems (Harmon and Sawyer 1990:92), and is now linked to the studies of ‘artificial intelligence’. In a similar fashion, ‘knowledge management’ has developed its own following and associated terminology, and is defined as “the creation, acquisition, capture, sharing and use of knowledge, skills and expertise” (Scarborough and Swan 1999). Whilst these terms are interesting areas for study, they are not the central focus here, and are considered to be outside the scope of this thesis.

Commentators on the professions start from the point that their work is primarily about the use of knowledge.

*Sociologists generally take a model of rational, formalised scientific knowledge as their starting point in the study of the epistemological base of the professions (MacDonald 1995:157).*

MacDonald (1995) goes on to note that individual professionals use knowledge as a tool for creating their livelihoods and they carry the means of production in their heads. With this in mind, it is worth asking the question, reciting the title of Pritchard’s (2010) book, ‘*What is this thing called knowledge?*’

At a philosophical level, knowledge is simply a 'justified true belief' (Knight and Turnbull 2008:65, Nonaka and Takeuchi 1995:21, Pritchard 2010:23). The essence of the statement hasn't changed in almost 2,500 years. The ancient Greek philosophers, notably Plato, said that knowledge was gained through reason, or what are called deductive approaches. Pritchard (2010:91) stated this is knowledge obtained '*a priori*', obtained independent of an investigation through the senses. By contrast, Aristotle considered that knowledge was a gained through the senses, a term called empiricism, or using inductive methods (Russell 1979:209, Nonaka and Takeuchi 1995:22). In research terms, deduction is used when an idea is put to the test by research, whilst induction is used where the research is done and ideas are generated from it (Bryman 2004).

The debate as to the source of true knowledge is not resolved, but it is refined. In the 17<sup>th</sup> century Descartes sought to address this very issue and, in the end, sided more with Plato. Descartes, in turn, was challenged by Locke, who supported Aristotle's empiricist approach (Nonaka and Takeuchi 1995:24, Russell 1979:675). In the 18<sup>th</sup> century Kant and Nietzsche, and in the 19<sup>th</sup> century Marx and Hegel all tried to settle it, but the debate continued. More recently in the 20<sup>th</sup> century Husserl developed phenomenology and Popper developed his ideas of falsification, whereby what is true only stands until it is refuted (Knight and Turnbull 2008:70, Nonaka and Takeuchi 1995:25, Pritchard 2010:104).

Alongside these many debates have been parallel groups of 'sceptics', who have taken the line there was no certainty to any of the different points of view noted above (Knight and Turnbull 2008:67, Nonaka and Takeuchi 1995:21, Pritchard 2010:37). They recognised the difficulty of defining knowledge in the same way as the sociologists have found difficulty in defining the professions. Pritchard (2010:20) highlighted several problems of trying to agree on a definition for knowledge and he chose to lead with defining the characteristics of it; what he called the 'criteria'. A criteria is a standard, or rule, against which something can be tested, but unfortunately this approach suggests we can only identify knowledge if we know what we are looking for (the criteria). Unfortunately we don't know what we are looking for until we define knowledge. Perhaps this explains the sceptics' doubts. It is not necessary to go into this riddle in much more detail, at least for the purposes of this chapter, but in chapter 5 on research methods, the matter of what is a belief is discussed in more detail. For now, the distinction as to whether knowledge is

developed through reason or empiricism is not the primary focus, more importantly it is how knowledge is used.

Aristotle took the view that knowledge consists of both:

*theoretical knowledge 'theoria' and practical knowledge 'praxis'* (Knight and Turnbull 2008:67, Russell 1979:169).

In modern parlance, Pritchard (2010:3) says knowledge is either propositional knowledge, that is, it can be asserted in a sentence, or ability knowledge which is about knowing how to do something without having to explain it in words. In this approach, knowledge and skills remain separate. For example, in the context of the built environment it would be propositional knowledge for a professional to say “these plans meet building regulations”, but it would be ability knowledge to lay a course of bricks. Ryle (1949) identified the distinction as ‘know that’ for propositional knowledge and ‘know-how’ for process, or ability knowledge (Pritchard 2010:3, Eraut 1994:22). Other commentators take a different line suggesting knowing and doing are linked with a pathway starting from knowing and going across to doing, and they think that knowing has to be in place first (Pfeffer and Sutton 2000).

Polanyi (1966:4) considered a different separation. He described knowledge as being either explicit or tacit, the latter stemming from his belief that ‘*we can know more than we can tell*’. He recognised a weakness in the language to describe differences between what is known against what can be set down, and then conveyed to others. Explicit knowledge is that which is codifiable or transmittable in formal systematic language; tacit knowledge is personal and specific to the context in which it is used (Nonaka and Takeuchi 1995:59, Polanyi 1966). He suggested there was a gulf between the two, and that knowledge was incomplete, arguing that more effort was needed to tap into tacit aspects of knowledge. This approach goes beyond the scientific method and the rational approaches developed since the renaissance (Freidson 1986:4), even though the thinkers all sought to pursue truth and use knowledge to its best advantage. Weber’s (1922/1964) requirements of an efficient and economic (bureaucratic) organisational structure did not tap into tacit knowledge; he was content for the efficient use of explicit knowledge, through a bureaucracy, to lead to a technically superior form of organisation and decision making.

Reflecting Aristotle's earlier thinking, Oakeshott (1962) said there was technical knowledge and practical knowledge and the former was codifiable, capable of being written down and passed on. This parallels, but does not exactly overlay, Polanyi's (1966) explicit and tacit knowledge. Additionally, Oakeshott sub-divided each area into routine and non-routine practice, which produces four possible elements to professional knowledge:

- technical knowledge, routine
- technical knowledge, non-routine
- practical knowledge, routine
- practical knowledge, non-routine.

Such a breakdown has not been commonly used by later commentators, although these elements are helpful for discussion on both the teaching of knowledge and the aspect of 'indeterminacy' presented by Larson (1977) in her analysis of autonomy. The definition of knowledge rests more on theory and practice, and tacit and explicit elements.

### **3.3 Acquiring and controlling knowledge**

Early Western philosophy built on Plato's approach of developing knowledge through cerebral reflection, and that was mirrored in the East where Bhudda proposed calm non-striving. Both approaches have their supporters, but also detractors; Kant (1781/2002) argued for an active and creative process to acquire knowledge (Fulcher and Scott 2011:23), and learning in a modern performance culture (both East and West) is now considered to require action, striving and engagement (Haidt 2006:105). Such a view underpins the requirement that professional training should be rigorous and lengthy.

The cultural difference to acquiring knowledge between the East and the West has implications for creating knowledge too, a point that will be explored in more detail in the next chapter. For now, it is worth noting that Nonaka and Takeuchi (1995:27-32) state that the Cartesian split between the object and the thinker was not a separation addressed in Eastern philosophy, and as a consequence eastern thinkers retained a unity of the self and nature, as well as a unity of the mind and body. This resulted in a narrower and less critical view of their epistemology.



Professional work operates in a social context that brings factors into play beyond the simple use of knowledge. Johnson (1972:32) notes that a professional's claim to knowledge is influenced by the ideological drive to professionalism; the desire of occupational groups to gain control of their work environment, and that enables them to pursue the process of enhancing status through professionalisation. Groups capture knowledge that is codifiable into a body of knowledge and consider that, if it can be captured, it can be controlled. The control of the knowledge led to market control, and Larson (1977) suggested:

*..the more esoteric the body of knowledge and the more it approaches a new paradigm, the more favourable the situation is for the profession (Larson 1977:47).*

Both Larson and Macdonald (1995:134) choose to use the word esoteric, meaning the holding of secret doctrines, or the practice of limiting knowledge to a small group. They and Johnson (1972) clearly saw the professions as controlling, a view supported by Abbott's (1988) systems approach where professions sought control of a specific jurisdiction to claim their own body of knowledge. A different line, however, is taken by Foucault (1979) who says that the very process of formalising knowledge makes the practitioners more docile, and adds that formalising, and normalising, knowledge is a controlling process in itself. He here refers to the controlling of the practitioners, and not about the practitioners controlling the knowledge, which is more the purpose of this inquiry.

### **3.4 The teaching of knowledge**

The effective use of knowledge and the development of the professions are closely linked. It was the desire to give some structure to expert knowledge that brought like-minded souls together to further inquiry into specific expert areas. The early professional associations formed around law and medicine, and these groups were followed by engineers and architects (Millerson 1964:246). It was through the vehicle of professional association that professional knowledge was, and is, codified and institutionalised (Gold et. al. 2002:1, Friedson 2001, Susskind 2008). Education in the emerging professions was originally by pupillage, and that was enough to award the necessary credentials with no need for structured learning or examination, and little need to test competence. The new associations were more focused on gaining status by influencing the market and gaining

recognition by the state, rather than on learning (Millerson 1964:120, Perkin 1989:119, Macdonald 1995:101). It seems the control of knowledge by professional associations was less about Weber's efficiency and economy, and more about social standing.

The critical requirement for institutionalising knowledge came into play as the associations matured. Although the architects and engineers followed law and medicine in using pupillage, the pharmacists and actuaries pioneered the use of examinations, even if there was no educational framework to support them. By the end of the 19<sup>th</sup> century most professional associations set exams, many doing so without teachers or textbooks (Millerson 1964:128). The educational infrastructure took time to establish and here, the Chartered Auctioneers' and Estate Agents' Institute provides a useful illustration. It was established in 1880, and in 1918 it persuaded the London University to set up a degree course in estate management. Then, as a mature professional body, it set up its own College of Estate Management in 1919 to offer correspondence courses, and in 1959, give its own diplomas (Millerson 1964:133). In 1967 it formed a partnership with Reading University and, since then, it has offered only distance learning courses, with the more formal educational programmes undertaken by universities. In 2013 it was given taught degree awarding powers in its own right (College of Estate Management 2013). This pattern, or something similar, follows Powell and DiMaggio's (1983) isomorphism, and has been replicated by many other professional associations. In the UK after the Second World War there was a major growth in the teaching programmes accredited to professional associations, stimulated by the introduction of polytechnics in the 1960s. These developments reflected the theoretical and vocational nature of professional education, and enabled more practical subjects to be studied at degree level.

Today, professional associations often create their curricula and set the general expectations for examinations in partnership with universities. In turn, these are recognised by the Quality Assurance Agency (QAA) for Higher Education, an independent agency answerable to government through the Privy Council. This body sets subject benchmark statements for degree topics or disciplines. The case studies at chapter 6 for architecture; construction, property and surveying; housing studies and town and country planning all have QAA subject benchmark statements (QAA website 2013) and the research will explore the curricula for a contribution to innovation.

It is worth explaining here how the demands of professional knowledge and the expectation for its teaching are addressed through the formality of the curricula and the course requirements. An example of this arrangement is contained in QAA's (2008) subject benchmark statement for Construction, Property and Surveying which helpfully states, at paragraph 8.4 that:

*Professional bodies accredit or approve higher education courses through a process of auditing and monitoring. This relies on experienced members (academics and practitioners) assessing each course, to ensure that the curricular and assessment methods are appropriate, that standards of attainment are at an acceptable quality to enter the selected profession and that there are adequate resources to deliver it to a high standard. Some professional bodies, including RICS and CIOB, have moved to a partnership system of accreditation. This involves the selection of partner universities that meet high standards in, for example, teaching, learning outcomes, entry standards, research and knowledge transfer. Additionally, instead of central audit by the professional body, the key premise of accreditation relies on the university and professional body working together to achieve acceptable standards. (QAA 2008)*

This statement explains how the courses are built, but it does not go into detail about how the codified body of knowledge required for the higher education course is presented. There's a standard approach to educational levels across Europe since the Bologna declaration (1999) set out a three-cycle degree structure of undergraduate study, Masters and Doctorates (EACEA 2010), and the professions use this system. It does not, however, address the process for transferring knowledge and skills to students, and that is not a straightforward process. The academic or professional syllabus will often only use blunt language leaving the content at a broad level. It results in much of the content lacking precise meaning or being open to interpretation. Here again, it is useful to illustrate expectations with an extract from QAA's subject benchmark statement from Construction Property and Surveying. Section 4.1 states that:

*Graduates in construction, property and surveying should, depending on their area of specialism, have acquired knowledge and understanding across several of the following:*

- *and surveying relevant to their specialism. These may include measurement; physical and financial appraisal of buildings; legal principles;*

*economic theory and applied economics; design, construction, performance of buildings; resource management; investment analysis; corporate real estate management; and the application of business management theories*

- *the appropriate stakeholders involved in construction, property and surveying, and their relevant power and interest*
- *the context in which building, construction management and real estate processes operate, including the legal; business; social; economic; health and safety; cultural; technological; physical; environmental; and global influences on its specialism (QAA 2008).*

This does not spell out precise learning outcomes, but rather uses open language, so the subject benchmark statement is not prescriptive. It leaves considerable scope for academics to build their programmes, and for assessors to set either examinations or course work. The partnership arrangement between the professional association and the delivery agent, usually the university, enables dialogue between them on what constitutes content for subject-specific and generic skills, and what assessments are deemed 'fit for purpose'. Interestingly, there are no specified competences identified in this subject benchmark document although there are references to the competences of third party sources in an appendix. Since this 2008 document was published, RICS has published its own expected competences (RICS 2014) which now closes a gap in the detail of what knowledge and skills are to be transferred to the professional student.

As noted above, Oakeshott separated the technical and practical aspects of knowledge adding that practical knowledge, learned through experience, was not easily transferable. Only the first of his four sub-sections, routine technical knowledge, fits easily into codified knowledge and, for obvious reasons, it is more difficult to teach non-routine elements. It is, therefore, necessary to consider how the teaching of professional knowledge relates to the requirements of professional practice. The educational programmes assume that knowledge is transferred to the professions' members through the work of the delivery agent, the university or the association, and these are expected to have the competence to teach. Ramsden notes:

*The professional authority of the academic-as-scholar rests on a body of knowledge; the professional authority of the academic-as-teacher should rest on a*

*body of didactic knowledge. This comprises knowledge of how the subjects he or she professes is best learned and taught (Ramsden 1992:9).*

The use of the term 'didactic' in this quote might be seen as unhelpful as its definition includes a moral element, but the primary purpose of the quote is to emphasise how the teacher must be well versed in how to pass on knowledge, essentially how to instruct. Biggs (1999:25) says that effective teaching in higher education requires constructive alignment between the desired outcomes and the necessary inputs. These come from a combination of factors including: the curriculum, teaching methods, assessment and the personal and institutional climate that is produced. This is reflected in the subject benchmark statement noted above and both Biggs and the QAA are explicit in stating that assessment of competence is an integral part of the teaching programme.

Educational objectives were set out in Bloom et al's (1956) taxonomy, framing four different levels of assessments so that criteria could be set against each level.

- level one – recall of facts, information or procedures
- level two – use of information or conceptual knowledge
- level three – enables reasoning and the development of a plan
- level four – requires an investigation, collection of data and analysis of results.

This, in turn, closely aligned with Broudy et al's (1964) structure which proposed that knowledge was:

- replication – the basis of routine tasks
- application – working within rules and boundaries
- interpretation - the use of judgement within systems of thought
- association – intuitive application to other situations.

The implication of these models is that professionals are able to operate at the higher levels of both these approaches. Bloom et al's (1956) approach has a weakness in working with practical skills, as it leans more towards testing technical knowledge. It also considers only explicit and not tacit knowledge, and this reinforces the lack of practice in the structure. Broudy et al's (1964) approach is easier for the routine work, but the last stage opens up the area of intuition, and this presents a challenge to both professional associations and educators in the delivery and assessment of their learning programmes. The assessment of intuition is further complicated where two separate bodies are interpreting what is required. Eraut (1994:55-58) was critical of the overlap between

academia and the professions as he considered each of them to be largely autonomous, even though they claimed to promote collaborative arrangements through joint activities. Common approaches to initial and continuing education, and recruitment to academia from those continuing in professional practice are helpful, but Eraut (1994) says there remains a rigid separation of education and practice and that tacit professional knowledge, is not passed across. Furthermore, he argues, academics are the real holders of the body of knowledge and researchers do most of the work to codify, publish and make public its content (Eraut 1994:54). The consequence of this is that the professions have delegated their hold on knowledge and worse, he states, that education produces a bias to scientific, rather than professional knowledge (Eraut 1994:10). Freidson (1986:215) saw this too, stating that, within the professions, there are divisions of practitioners and teacher-researchers and the latter creates a bias towards professional practice being too academic. Taken together this presents an argument that the current education model only weakly incorporates the practice element into teaching and assessment.

Overlaid on this are additional constraints on knowledge transfer whereby what is learned, whatever its content, is drawn from what is taught, and that, in turn, is selected from what is known (Eraut 1994:7). Therefore, the teaching of the planned broad education, as set out in the subject benchmark statements is, at a personal level, received with a much narrower focus. The teacher has strengths and weaknesses and personal preferences for specific topics, and so does the student. The assessment process will look to expose these weaknesses, if it is looked for, but that requires a deep understanding of the pedagogy of professional education. None of these points highlight that regular practice is important to retain knowledge (Cohen and Levinthal 1990:131), and the ability to forget does not appear to be part of pedagogy.

Larson (1977), Abbott (1988) and Macdonald (1995) all agree that the codified body of knowledge must be interpreted in such a way as to allow professionals to operate with what they call 'indeterminacy'; it is that which allows the professional to practise with autonomy, or as Larson puts it (1977:41), "what cannot be standardized". Susskind (2008) reiterates the separation of theory and practice as being a key element in professional work requiring both the specialised field of knowledge and an applied technique, and suggests there is a need for using skills additional to the body of knowledge before

professionals can operate with autonomy and then apply their wisdom as part of professional practice.

### **3.5 Professional practice and reflection**

Schön (1983) sought an epistemology of the intuitive process (Eraut 1994:142) which formed part of Broudy et al's educational framework. He called it reflective practice, a process to integrate theory and practice. He accepted that much of professional activity was, in his terms, 'knowledge-in-action' and suggested a higher level of practice was developed by the process of reflection that created what he called 'reflection-in-action'. Knowledge on its own gives the opportunity to solve problems, but professional practice requires more, because simple problem-solving led to unintended consequences that triggered criticism of the weaknesses in the rational decision making. Schön argued that the decisions of rational professionals in the 1970s resulted in a crisis of professional confidence, because short-term solutions did not recognise or understand the wider context. Such context required problem solving to be done as part of problem setting (Schön 1983:40), and he argued the technical or rational solutions from well-educated specialists had, too often, caused problems further down the road in other areas of society. 'Quick fix' specialist decisions were remote from the understanding of the social context. One illustration of knowledge-in-action would be the technical and rational problem-solving of the post-war housing shortage where architects, planners, and social housing professionals created large, system built, mono-tenure, out-of-town estates that were technically practical and built to high standards, but they quickly became associated with the poorest quality housing and highest levels of deprivation. Schön (1983) believed rational positivists had been looking to control the environment; seeking convergent solutions or panaceas, but, in the real world, social complexity was increasingly divergent, and what turned out to be successful engineering was consequently a failure of social engineering. A specialised codified body of knowledge was not enough.

His reflection-in-action response required analysis of the subliminal actions of professionals in their day-to-day responses to new issues. He based his work on Polanyi's (1966) separation of explicit and tacit knowledge. He worked with Argyris to review the processes of both learning and the use of knowledge (Argyris and Schön 1974) and their proposals identified two models. The first 'theory-in-use model I' used rational action

where individuals sought to control situations and were driven by a desire to win. This led to attitudes that reinforced defensive routines at both an individual and organisational level, and it protected knowledge and controlled jurisdiction in the way Abbott proposed in 1988. Here, they found the solution came only from within the technical body of knowledge. They searched for something beyond this win-lose equation and identified their 'theory-in-use model II' which was based on a double loop learning process (Kolb 1984) that put evaluation above control, and it replaced the desire to win with shared outcomes (Argyris 2004:10).

The double loop learning challenged learners to use both Polanyi's tacit knowledge and Kolb's (1984) experiential learning, and so it tapped into skills development using a combination of experience, observation, the forming of abstract concepts, and the testing of these in new situations. In so doing they hoped to go beyond the use of rational knowledge. An outline of Kolb's double loop learning is shown below at figure 3.2. This shows the technical experiences at step one being utilised in step two before concepts and solutions are proposed in step three or tested at step four. The double loop requires the technical knowledge to be evaluated in a wider context at step two, on the second lap of the process.

These ideas come together in an iterative process of learning or what is now more commonly termed, continuous learning. It sets professional learning in a context that is more challenging than simply using knowledge, and it requires reflection of the social context and it results in analysis of personal behaviours. The model produces a wider range of options for action scoped by criteria beyond the simple requirements of a professional 'decision'.

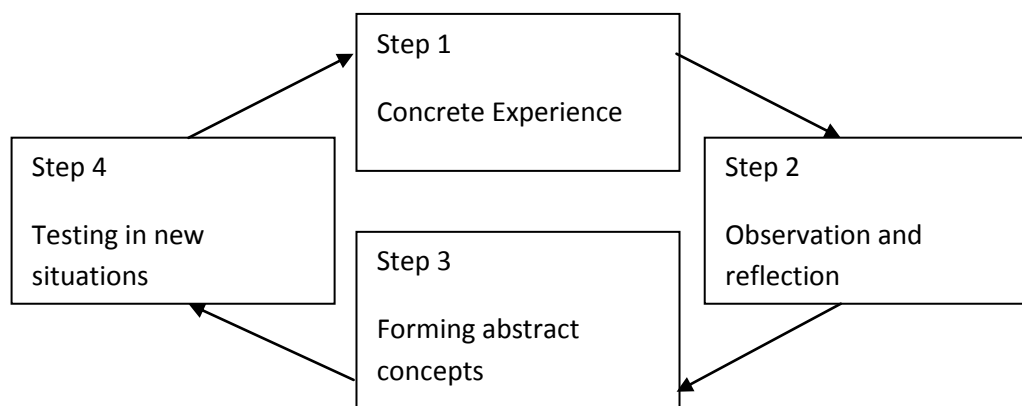


Figure 3.2 Kolb's (1984) double loop learning



Schön's work is not without its critics. Finlay (2008) presents a long list that challenges the findings of Schön's work that includes lack of theory, lack of method, lack of context and basic impracticability. Perhaps most tellingly it is considered that reflection can only take place retrospectively (Finlay 2008), and that suggests continuous personal reflection at an individual level is impractical because it requires the views of others to complete the picture. Finlay (2008) further identified that reflection is just part of the process of reflective practice and, as shown in figure 3.3 below, it also requires a lot of activity in the areas of self-awareness and critical thinking.

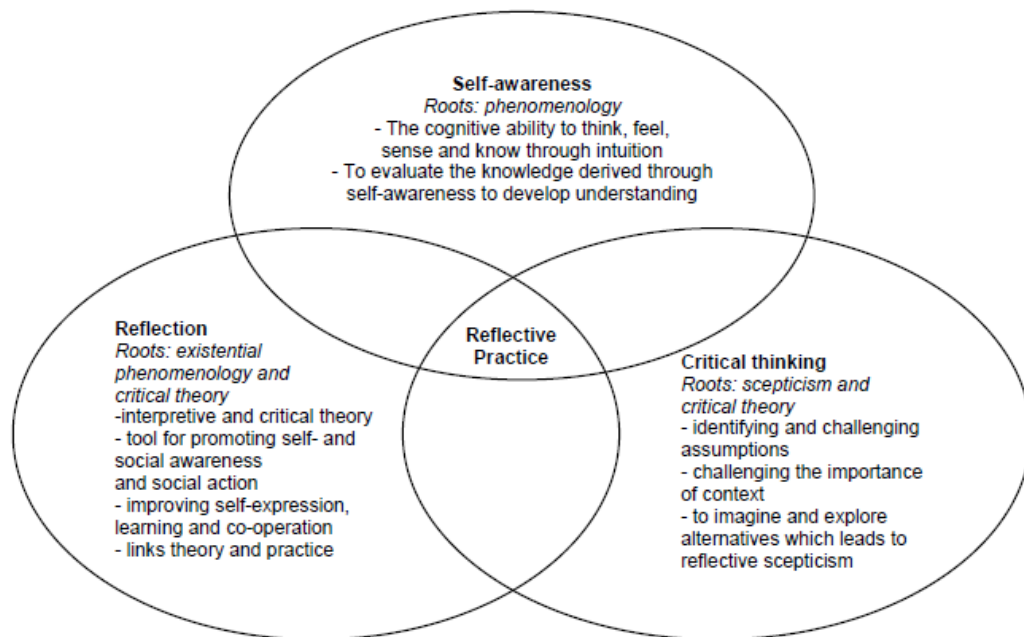


Figure 3.3 Self-awareness, critical thinking and reflection as part of reflective practice (Finlay 2008)

Professionals often work as individuals, and recent work on trying to understand the personal aspects of decision-making is relevant. It follows, in part, from Polanyi's work on tacit knowledge and has produced different inquiries into different aspects of the problem. Kahneman (2011) has done much to explore the difference between what he describes as considered or deliberate use of knowledge, and intuitive knowledge. He identifies two distinctive thinking styles (not learning styles) called systems 1 and 2. System 1 is the quick and automatic thinking and system 2 the slow thinking style which operates in orderly steps. He does not use the term tacit for system 1 or explicit for system 2, but

there are many parallels in the examples he provides (Kahneman 2011). In a similar way Hammond's Cognitive Continuum Theory (Hammond et al 1980) puts analytic and intuitive theory at opposite ends of a continuum, and he too uses the terms fast and slow. A further example, still pursuing the same theme, is the identification of different individual social styles that suggest behavioural differences between people who exhibit a preference for either fact-based knowledge and those exhibiting intuition (Merrill and Reid 1981). This social styles model also uses fast and deliberative decision making although, quite properly in this comparative model, the term 'deliberative' is preferred to the word 'slow', which has pejorative meaning.

Taken together these systems and models provide evidence that individuals do indeed have preferences for thinking fast and slow and, when moved into the workplace setting or the classroom, it presents difficulties, even conflicts, with the way the topics are communicated. This can be extrapolated from individuals to infer that groups can exhibit preferences for fast and slow decisions, although the immediate work pressures and deadlines probably exert more pressure on timetables than personal styles allow. Importantly for reflective practice there are individuals who strongly engage with deliberative decision making processes, and there are some that do not. Personal habits of being task focused and making quick decisions do not lend themselves to reflective practice. Merrill and Reid (1981) thought there was an even split in society between these fast and deliberative styles, and so perhaps half of professionals would be comfortable embarking on reflective practice, but the other half would have to work hard to overcome their action orientated habitual behaviours.

### **3.6 Pedagogic weakness**

These models and the pressures of day-to-day work make it difficult for educators to respond and get the balance right for the constructive alignment of teaching inputs that enables professional practice to be effectively transferred (Biggs 1999). What is more, there is not a direct overlap between the educational frameworks, with their different levels of learning, and the competence frameworks that categorise skills acquisition. Competences can be assessed using similar terminology to learning, as developed by Dreyfus and Dreyfus (1986) on a scale running from novice to expert (with competence being the mid-point on the scale). However, this is not an identical model to acquiring

knowledge, and moreover, the pathways for acquiring knowledge and competence are not the same for everyone. Eraut tries to clarify the relationship between education and expertise, but ends up concluding:

*the process of interpreting and personalizing theory and integrating it into conceptual frameworks that are themselves partly inconsistent and partly tacit is as yet only minimally understood. (Eraut 1995:157)*

The reflective process demands work from the practitioner, particularly work on those aspects of practice that do not easily lend themselves to analysis. Furthermore, Biggs (1999:25) and Finlay (2008) recognise that the teachers themselves must be reflective and so the successful outcome of reflective practice for the practitioner is dependent on at least two layers of possibly flawed understanding: first with the teacher and then with the professional. Larrivee (2000) could be talking about teachers or any other professional group when she states:

*Unless teachers develop the practice of critical reflection, they stay trapped in unexamined judgments, interpretations, assumptions, and expectations (Larrivee, 2000, p.293).*

Gaps remain in the pedagogy of professional practice, and Eraut remains critical of the way professional knowledge and competence is developed. He says:

*The syllabus of the higher education component is based on propositional knowledge... ignoring professional contexts. (Eraut 1994:116)*

Professional education is the route to achieve the credentialed requirement of the professional body, and it is also to ensure professional knowledge is soundly acquired, but it seems, in this mercurial world, that a good deal is built on little understood aspects of tacit knowledge supported by intuition. Additionally, Tran (2008) argues that where the environment is protected by monopoly, government or weak customer bargaining, in essence the world of professionalism, then learning is likely to be reflexive (note this is not the same as reflective), developing only very slowly, maintaining existing competences, and with little change. The more innovative contributions to learning, he claims, come with the challenges where the external environment demands rapid adaption for survival, it is here, he says, where critical learning is greatest.

### **3.7 Institutional knowledge**

Before leaving the topic of professional knowledge it is worth comparing it with the knowledge that exists in other contexts. Knowledge can be held by institutions, by communities and by society in general, and the similarities to, and differences from, the way knowledge is held by professional associations is worth noting. The professions, markets and firms all use knowledge to sustain their effectiveness. The market is the framework within which firms operate, and it puts a price on specialist knowledge. There is much general knowledge readily, if not always freely, available through various government educational programmes and information projects. The market depends on a differential between who holds knowledge, what is held, and where it is held, and it creates tools and builds organisations to respond to those differences. Organisations, or more properly institutions, are created to formalise the use of knowledge.

North (1990:3) argues that whilst institutions can be based around maximising financial returns, firms specifically seek to reduce transaction costs (Coase 1937) and social organisations seek to reduce social costs (Coase 1960). Organisations are also formed to further the objectives of their creators (North 1990:73). Whether mercantile or social, all institutions create structures around which knowledge can be formalised in an effort to reduce uncertainty. Firms take pure knowledge and transfer it into applied knowledge to drive profits, and they secure and control new knowledge through patents and trade secrets. Social institutions, on the other hand, respond to the scale of the problem rather than the scale of the market, and there is often more openness about the sharing of the knowledge they develop. Whatever the primary driver, the well-established institutions, including professional associations, use their knowledge to contribute to stability.

### **3.8 Path dependency**

There is a downside to this stability because it can reinforce institutional inertia or otherwise constrain activities. Institutions can be hobbled by something called path dependency, where options on future actions are constrained by past decisions and existing structures (North 1990:76). One classic example is that of the QWERTY keyboard which was built for moving typewriter keys that are no longer required. It has many inefficiencies, and there are much better layouts, yet the design persists because

everyone is familiar with using it, and change is difficult to introduce. The same is true for how organisations, such as professional associations, evolve and adapt, not so much in response to where they *should* be to meet the needs of their customers, but rather in response to where they *have* been (David 1985).

Arthur (1988) identified a number of 'self-reinforcing mechanisms' that keep institutions on specific paths. These included high set up costs of new options, the costs of improvements, or simply where there are established cooperative arrangements that tie in other parties. Such mechanisms can lead to what he calls 'lock-in', a pathway that is difficult to get out of because of existing investment. Professional associations are heavily dependent on their existing knowledge, and they have invested heavily in it because they consider it their jurisdictional body of knowledge. Locked-in knowledge reinforces the higher status of the profession and maintains the economic status quo, so it is not lightly watered down or too rapidly adapted. Johnson (1972) said that knowledge was of prime importance to the professional, and their expertise (along with confidentiality) afforded protection from competition and freedom from interference. Unfortunately it also introduces a risk of redundancy. The professional associations' long traditions, accompanied by the influence of path dependency and lock-in to existing patterns, produces stability, but it makes change difficult.

### **3.9 Research**

A further area where knowledge is held outside of the professions is that of research. Research is variously described as a critical or systematic investigation or inquiry into existing knowledge to reach new conclusions. A structured approach to organisational research was presented by Murray (2001) who identified how organisations look to get the best out of their knowledge, and she identified a selective approach to building knowledge by constructing a model to show how searching for it, and assembling it, could be optimised. This model requires active searching for knowledge by first exploring within the discipline, and then looking both inside and outside of the organisation (or profession). It results in scanning for knowledge and cherry picking it, as represented in table 3.1 below.

		Searching for knowledge	
		Inside the firm	Outside the firm
Assembling knowledge	Specific to the discipline	Deep exploring	External drilling
	Outside the discipline	Internal scanning	Cherry picking

Table 3.1. A framework for searching for knowledge (Murray 2001:192)

The model uses modern terminology taken from industry with the suggestion that knowledge is appropriated by a firm and then assembled, as if in a factory. It follows the scientific method and the Weberian requirement for economy and efficiency, but it is a model of optimising existing knowledge that lacks the associated wisdom (Susskind 2008) or the application of reflection needed for professional practice (Schön 1983). The risk of commercial exploitation of knowledge may result in the kind of unintended consequences that Argyris and Schön (1974) sought to overcome with their ‘theory-in-use model II’.

There are some words in the English language that require clarification as to their use as they have both a creative and a destructive potential in their interpretation; these include ‘exploit’ and ‘manipulate’. The context for the word ‘exploit’, for example, might be taken to contain a potentially pejorative connotation because it can mean using something in an underhand manner. This does not have to be the case, and the word ‘exploit’ can mean making full use of the available benefits. There are moral issues in its interpretation, but for the purposes of this research the term ‘exploit’ should be used in the sense of making full use of the benefits, unless otherwise stated.

### 3.10 Communities of practice

A further area where knowledge is held outside of professions is found with communities of practice. Wenger et al (2002) noted there are communities of practice operating both within and outside organisations and he describes such communities of practice as groups:

*of people who share a concern, a set of problems, or a passion about a topic and who deepen their knowledge and expertise in this area by interacting on an ongoing basis (Wenger, McDermott and Snyder 2002:4).*

A community of practice links the work of different knowledge workers, and it provides a bridge to inter-professional activity, government, academia, firms and markets. Although institutions have been the traditional repositories of knowledge, the work of communities is becoming easier with the use of modern technology and knowledge transfer applications. The knowledge flows between individuals, or groups of individuals, as visually represented by figure 3.4 below. The complexity of this illustration indicates no particular single source as the place where knowledge is held, nor, as will be discussed in the next chapter, where innovation might occur.

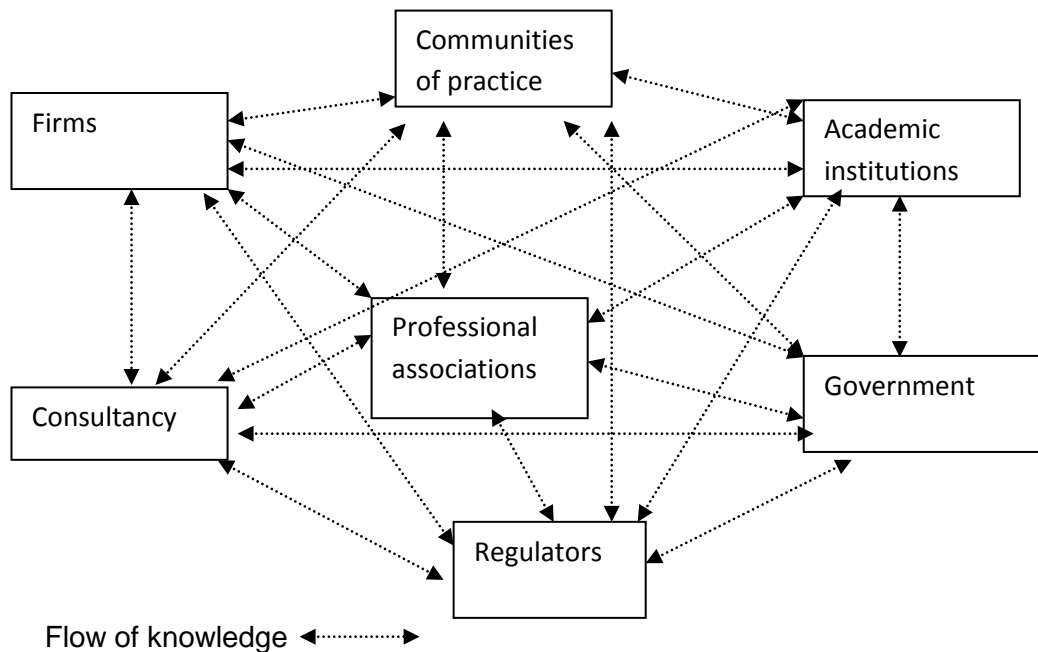


Figure 3.4 The flow of expert knowledge in a community of knowledge

One illustration of a community of knowledge for the built environment is the *Journal for Education in the Built Environment*, published since 2006, the journal:

*is a major resource for educators, practitioners and scholars in higher education within the broad discipline area of the built environment. It provides an international forum for discussion and debate on subject-focused teaching, learning and scholarship issues and a means for disseminating the findings of well-founded academic investigations.... JEBE thereby provides a stronger intellectual basis for practice (JEBE 2012).*

Although the editorial role of JEBE sits within an academic institution, as predicted by Eraut (1994), it draws on expertise from across the built environment. As a peer reviewed journal it depends on input from academics. It was created out of the Centre for Education in the Built Environment (CEBE), a government supported body that formed part of the Higher Education Authority and ran from 2000 to 2012 before closing due to funding cuts (HEA website 2013). The journal, however, is still published.

### **3.11 Ownership of knowledge**

Abbott (1988:323) alludes to knowledge being a personally held resource and this introduces the concept of ownership in the hands of individuals being part of capitalism. 'Capitalism' was a term of disparagement coined by Marxists (Conway 2009) and knowledge is just one of the capitals employed by private individuals – the others including money, labour, equipment and structures. Knowledge as 'intellectual property' is increasingly protected by individuals, firms and the professions (Nowotny, Scott and Gibbons 2001) and whilst governments may be seeking more openness and transparency of information they are working against strong and dynamic capitalist market forces that see intellectual property ownership and knowledge aligned more to the traditional capital of money and property.

This interpretation takes the story back to the question of whether, or not, the professions contribute to a common good, and use the knowledge for Putnam's (2000) social capital, or whether they use it to secure credentials? In *Economy and Society* Weber (1922/1964) suggested that credentialism was a monopoly practice controlled by the educationally privileged (Brown 2001) and Larson's (1977) analysis showed these to be very beneficial monopoly practices. There is, perhaps, a case for professionals not using their own information for profit maximisation and using it for socially beneficial purposes. The current theoretical framework discussed in chapter two seems to have overlooked some of Weber's early work because if knowledge is held by professional associations for capitalist purposes, that is, in the literal sense of ownership in private hands, then it is difficult to see how they could be a 'third logic' as Freidson (2001) argues. Such an alternative view suggests they are merely just another firm with a special product of knowledge.



### **3.12 The implications of professional knowledge on this research project**

This section on professional knowledge has focused on knowledge in use. It has not developed a deep analysis of the theories of teaching or pedagogy although the latter will be discussed again in the next chapter. It is established that knowledge is central to the professions; it sets their jurisdictional boundaries and enables members to gain access and status through credentials to the professional body. The professions are influential in controlling their knowledge, but it is perhaps academic institutions that do more to define the content, with the consequence that an academic bias weakens the practical elements of professional work. Support for the effective transfer of knowledge by educators is hampered by a lack of effective pedagogy. Bloom's (1956) taxonomy of education does not reflect the overlap of theory and practice, and nor does it identify that which is codifiable or tacit. Eraut (1995:124-126) considers that professional practitioners are not stretched to reach the higher levels of intellectual challenge, and he says even the expert is non-reflective. All this gives the professions much to think about in terms of their approach to practice, not least that practitioners and educators alike should continue to reflect on their work.

The challenge is all the greater if Polanyi's (1966) tacit knowledge is overlooked and Foucault (1979) is right that formalised knowledge makes the practitioners docile. It is reassuring that these issues have not affected the underlying trend for the public to use professional expertise, and people continue to seek the help of experts (Susskind 2009). Knowledge is held by professions, firms, governments and communities of knowledge who use it for different purposes. Importantly knowledge evolves outside of the professions and that influences their adaptive response for retaining control of the body of knowledge. There is a trend towards commodification of knowledge, but there is also a need for wise interpretation of it.

Taking stock of the issues raised in this chapter, it is acknowledged that knowledge is difficult to define. Professional bodies seek to secure best practice, monopoly (Larson 1977), and control of jurisdiction (Abbott 1988) and try to do all these things at the same time. Such forces do not readily lend themselves to a reduction of transaction costs nor reduce social costs, but instead prioritise a payoff for controlling knowledge and putting a

premium on its price (North 1990:79, Johnson 1972). If professional institutions are flawed by path dependency and supporting old knowledge, it gives further fuel to critics of their social contribution, and it begs the question of what other models might work better? As noted previously Abbott (1988) says there are “many alternatives”, but concludes that the western professional model remains successful because it operates within a competitive, Darwinian, framework, and the other alternatives are weaker. This permanence makes it important to see how the professions’ use of knowledge can be harnessed to advance innovation. Pedagogy to support practice is very different from innovation pedagogy, and the transfer of knowledge is not the same as creating new knowledge. If the current external context demands that innovation contributes even more to economic growth, then it is necessary to consider how the knowledge used in professional practice is different from the process of creating new knowledge, and that is the discussion in the next chapter.

## Chapter 4 Innovation

### 4.1 Is innovation important?

The UK government wants to be in the top eight countries in the world for skills, jobs and productivity (Business, Innovation and Skills 2012) and, for developed countries, that position comes through innovation (Porter 1990, World Economic Forum 2013). The last chapter noted that Aristotle split knowledge into theory and practice, but he also separated it into the different elements of; *techne* or skill; *poiesis*, described as creativity and *phronesis* or the good life (Knight and Turnbull 2008:67). Skill has been explored in the previous chapter and the need for the good life is interesting, but not relevant for this research. *Poiesis*, however, is the focus for this chapter; it is identified as formation or production, the creative aspect of knowledge.

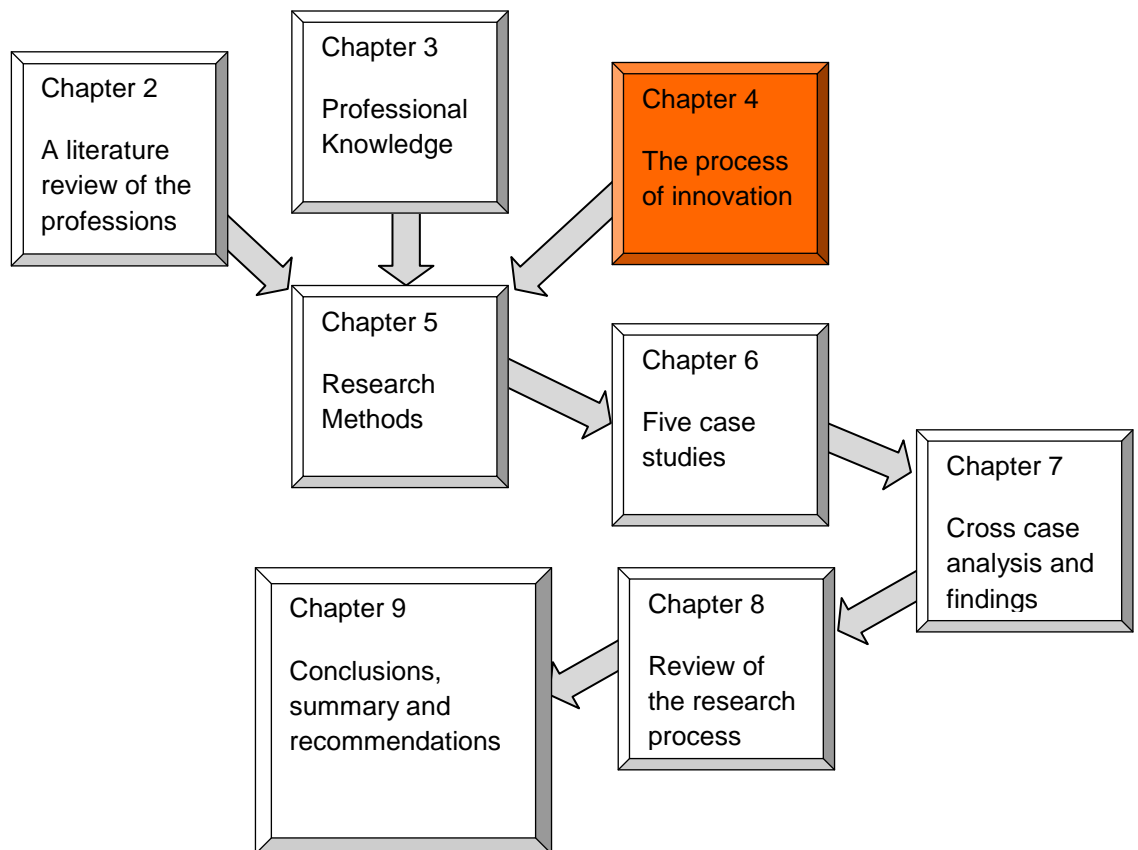


Figure 4.1 A diagrammatic representation of the flow of the thesis highlighting chapter 4.

It has already been noted that knowledge management requires the creation, capture or sharing of knowledge, and that the individual professional can get by with just capturing it, without the need to create or share it. This is because professional knowledge comes from an existing body of work that is set by the profession's jurisdiction, constitutional requirements and by regulation. Because of these constraints, innovation has not been associated with the work of the professions, even if it has been an important topic of management analysis for 50 years (Burns and Stalker 1961, Rogers 1962). Its link to professional education is only weakly documented, indeed, despite innovation's current prominence, its study and application has struggled to gain universal traction in business planning, public policy or education (Govindarajan and Trimble 2010).

There have been phases of interest in innovation. Einstein (1931) said that "imagination is more important than knowledge" and, almost 30 years ago, Drucker (1985) asked entrepreneurs to look for it;

*innovation is capable of being presented as a discipline, capable of being learned and capable of being practised (Drucker 1985:33).*

More recently business and policymakers were called on to consider innovation as 'the new holy grail' (Christensen 2011, italics added). If innovation is important, it is also mercurial. It is difficult to define in much the same way that definitional uncertainty clouded both the professions in chapter 2 and a definition of knowledge in chapter 3. It is hard to get agreement on what innovation is, and so this chapter must first explore how it can be defined, before going on to see how it is used. It is also important to consider how others see it in wider society, and this forms the basis for exploration of how institutions and the professions are embracing it. A word of warning was signalled by one of the early writers on the topic:

*Innovation has come to mean all things to all men, and the careful student should perhaps avoid it wherever possible, using instead some other term (Ames 1961).*

Is innovation important? Jacques (2000) cheekily chides Marx for having the short-sightedness to die in 1883 when machine production dominated capitalism, and so he failed to grasp the modern era where knowledge became the dominant contribution to economies. Such criticism is perhaps a little harsh. Today, knowledge is central to economic success, but so too is innovation, so much so that the OECD (Organisation for Economic Co-operation and Development) has been working to clarify the links between

technical developments and economic performance. Schumpeter identified the difference between innovation and invention back in 1939, saying invention, on its own, was of no importance for economic activity, but innovation was an economic decision to apply invention (Godin 2008). Drucker (1985:44) gives a warning to entrepreneurs that the resource generated by new things is only valuable if it is useful. He noted “every plant is a weed and every mineral just another rock” until the value is found. Given the pressure on society from political and environmental concerns, the task of innovating should perhaps not be considered as something to avoid, as Ames noted, but rather something to embrace, analyse and clarify.

OECD finds a strong correlation between a country’s gross domestic product (GDP), its comparative growth of research and development, and its consequent educational attainment (Ásgeirsdóttir 2006). Indeed, the Lisbon strategy, agreed at the European Council in March 2000, seeks to make Europe the:

*most dynamic and competitive knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion* (European Parliament 2012).

Firms are seen as the main contributors to innovation (Business, Innovation and Skills 2012) and, though they seek to reduce transaction costs, they also work to secure competitive advantage through innovation. Schumpeter’s economic model of ‘creative destruction’ is driven by the search for new profits (Tidd et al 1997), and Baumol (2002) notes “virtually all the economic growth since the 18th century is attributable to innovation”. Rogers (1962:124) talks of the relative advantage provided by innovation, though he recognises that a lack of compatibility of old and new systems within organisations will frustrate the adoption of new ideas. Indeed, it could be argued, there is much more commentary on institutional ‘lock-in’ acting as a barrier to innovation, as discussed in the last chapter, than of innovation being successful.

Burns and Stalker (1961) now seem to have been ahead of the game when they titled their book *The Management of Innovation*. They concluded that organisations fell into two camps; mechanistic and organic (and interestingly Durkheim, in his *Division of Labour* (1933), labelled social solidarity as mechanical and organic). Mechanistic organisations closely followed Weberian bureaucracy to reinforce a strong division of labour that was inflexible to change, whilst organistic organisations were more suited to unstable

conditions because they lacked formal job definition and allowed interaction to run laterally as well as vertically. Peters and Waterman (1982) and Peters (1988) concurred with these views suggesting that innovation most likely came from 'skunk works', which he described as groups of people, in dingy offices miles from the corporate headquarters, working with autonomy outside the normal processes. Such florid prose also chimes with Burns and Stalker's (1961) view that the individual innovator was a myth; they saw innovation as part of complex organisational interdependence. History has its innovating heroes and perhaps the greatest of these is Thomas Edison, credited with the electric light bulb and more patent applications than anyone else, but behind Edison's grand persona, the reality was founded on a good deal of organisational complexity (Israel 1998).

Govindarajan and Trimble (2010) identified the period of the 1990s as a critical watershed in bringing innovation to the forefront of business strategy, but much time has have elapsed since then and questions remain as to whether there are strong processes of embedding innovation in the workplace. NESTA, the National Endowment for Science, Technology and the Arts, described as 'the UK's innovation foundation', published a Manifesto for the Creative Economy (NESTA 2013), which was useful but there was no manifesto for the non-creative industries. The Lisbon Treaty objectives would indicate that any manifesto for a creative economy should cover the possibility of improved creativity from all sectors of the economy.

The process of innovation itself remains an underdeveloped study (Cabinet Office 2003, Brooke Dobni 2008). This thesis will look to see if the culture and the energies of organisations, institutions and individuals have actually embraced the topic of innovation to advance knowledge creation. Chapters 2 and 3 have given some indication of the span and influence of the professions in UK society, but their role as innovator remains largely unexplored. If innovation is an area of underdeveloped study then the link between it and the professions is even more so. This research will look at how innovation is defined, measured and taught.

## 4.2 Innovation defined

Innovation is not inventing. It is about starting something new. Various dictionary definitions for innovation include a new idea, a new method or device or just the introduction of something new. The Latin 'innovare' means 'to make something new', but such simplicity becomes complicated when the term is immersed into business, government and societal contexts.

From one perspective Rogers considered that innovation was a personal issue, and it only becomes relevant when the newness directly impacts on the individual.

*An innovation is an idea perceived as new by an individual. It matters little whether the idea is "objectively" new as measured by the lapse of time since its first use or discovery. It is the newness of the idea to the individual that determines his reaction to it (Rogers 1962:13).*

More widely, innovation can include not just the idea, but also the implementing of something new.

*The introduction of new elements in the form of new knowledge, a new organisation and/or new management or processual skills. It represents discontinuity with the past (Osborne and Brown 2005:4).*

*Implementation, then, is the great challenge that stands between invention and innovation. Innovativeness is the ability, the process, of converting inventions into innovations (Glor 1999).*

This is a recurrent theme, particularly within government. The UK government prefers a definition of "the successful exploitation of new ideas" (Department of Trade and Industry 2003). NESTA (2012) stresses innovation is not synonymous with research and so this creates a problem of finding a dividing line between 'innovation' and 'incremental development', a term which they consider is indistinguishable from 'improvement' or 'change' (NESTA 2007). It appears as though the main analysts of innovation hold a very wide interpretation of it. NESTA includes what they call 'hidden innovation' and, as a consequence, innovation is defined as anything that involves an inventive step or results in meaningful improvement in a business or organisation. It might be argued that an organisation charged with promoting innovation should focus on helping creativity rather than widening definitions into areas previously hidden, because such a move could be seen as being autopoietic, but their exploration is valid because their wider definition

includes the exploitation of knowledge from customers and research centres. It calls this 'innovation without research', which shifts the focus to implementation rather than creation. NESTA has reflected on its own definition and now states that:

*Our understanding of innovation has changed: where once it was understood to be largely the result of scientific research and development, it is now seen more widely to include changes to services, ways of working and delivery, customer insight and many other forms (Roper et al 2009).*

The Department for Business, Innovation and Skills (BIS), formed in 2009, also reflects this shift. It is in the business of defining innovation because it wants to measure it and, purportedly, wants to optimise it. BIS inherited the innovation survey from the Department of Trade and Industry (DTI) which followed the definitions and terminology used by Eurostat (BIS 2012) to identify 'innovation active' firms. This attempted to capture a wider range of data. This term 'innovation active', as coined by the OECD, includes not just research and development (R&D), but also organisational change, training, testing and marketing. Godin (2002) notes that Eurostat and the OECD's work marked the start of a standardisation of innovation measurement and specifically the measurement of outputs, although this was loosened to cover more general innovation activities. The scope of the government's definition is driven by its demand for action because it sees innovation as a tool for economic growth, and that comes from new products, or from upgrading existing ones (BIS 2011:2).

Thomke (2001), and Govindarajan and Trimble (2010) take a view that includes both creativity and experimenting. Govindarajan and Trimble (2010:5) follow Rogers' (1962) lead from 50 years earlier to define innovation as any project that is new to the individual and has an uncertain outcome. Tidd et al (1997:24) take the helpful step of collecting definitions of innovation produced by other commentators that includes:

- technical design, manufacturing, management and commercial activities involved in the marketing of a new product
- the utilisation of small-scale changes in technological knowhow
- a tool for entrepreneurs to exploit change as an opportunity.

The views of Peters and Waterman (1982), Nonaka and Takeuchi (1995), Argyris and Schön (1974) and Sharmer (2001) all suggest it is possible to distil the creative aspects of innovation into a replicable process. Drucker (1985:36) said that information and



processes had been systematised, and that the disruptive elements of innovation could also be captured. His principles of innovation were grounded more in activity, analysis and awareness than in the creative process itself. Other commentators put innovation at the individual or team level and ask what it takes to be creative; their approach considered a narrower theoretical position centred on the inputs of innovation or the creative process itself.

The result is that it is possible to have two separate definitions for innovation – a wide definition and a narrow one – and this has a knock-on effect for conducting research. If research is dependent on the view expressed by Rogers (1962), that innovation rests on a perception by an individual, then such subjectivity makes it difficult to get a single definition to work. A definition of innovation, if not an absolute requirement, is at least helpful for research. The measurements of businesses by governments, who are actively trying to encourage innovation, creates even more difficulty because, using the axiom from Osborne and Gaebler's (1992) *Reinventing Government*, "what gets measured gets done". This means the easiest elements to measure become the basis of measurement while the better measures, that might be harder to capture, end up being sidelined.

The UK government sought to index innovation, and use those measures to promote an innovative economy. In their national innovation surveys (DTI from 2003) they first analysed a wide range of business data, and then reflected on what to measure. The measure was skewed by looking for the links between innovation and GDP (gross domestic product). GDP is a measure of national wealth based on the value of goods and services produced and traded by a country (HM Treasury 2006), so the data relating to innovation does not reflect how it occurs, but rather how it influences economic growth. For example, the DTI wanted to know if financial support helped innovation or if regulation stifled it, or even stopped it, but they did not, and BIS still does not, look in detail at what takes place inside the firms to make innovation happen. There is recognition that innovation requires some interaction (BIS 2011:2), but the focus remains on organisations and structures with long-term investment targeted into those structures with the expectation that it helps GDP activity. This systemic approach (BIS 2011:28) leads to four planks of policy:

- collaboration between organisations
- financial support for universities and research laboratories

- incentives to firms
- Government, and client-led, innovation in the public sector.

Tellingly, and perhaps predictably, this economic analysis of innovation does not consider the contribution of the professions worthy of mention. Some analysis of the creative processes has been picked up by NESTA, but the economic data that drives government policy is too blunt an instrument for influencing the micro processes that promote creativity and lead to innovation.

### 4.3 Models of innovation

Recognising the breadth of the term innovation, there's a number of analysts who have tried to distil it into models, in the same way that Weber conceptualised ideal types for bureaucracy. The first models followed a linear path moving from generating an idea to implementing it. For example, Amabile (1988) started by setting the innovation agenda and followed it with the production of ideas, testing them and assessing the outcome. Rothwell (1994) mapped five generations of innovation from the 1950s.

First	Technology push – the first generation model proposed the linear development of incremental and ad hoc technological developments or improvements, and this was driven from an engineering perspective.
Second	Market pull – the second-generation model focused on the demands of the market that were driven by customers' needs for new products.
Third	Coupling – this model recognised the linkages between parts of the production process, such as R&D, when linked with marketing to create an emerging formalisation of collaboration.
Fourth	Integration – this model suggested a more co-ordinated collaborative approach across businesses, as well as links to suppliers and customers.
Fifth	Systems and networks – this last model added to the earlier generations to emphasise how systems are planned to take on a role for communicating. Networks are planned to take the process away from traditional command and control co-ordination.

These generations led to Chesborough (2003) proposing open innovation with customers, suppliers and other organisations all equally contributing to the process, a position not far removed from the communities of knowledge discussed in the previous chapter. Such models now generate their own special field of research. More recently Trott (2005) and Galanakis (2006) have added further generations that build on Chesborough and Rothwell's fifth generation model with more sophisticated work on integration and networks. The distillation of the interests and activities that leads to innovation activity is somewhat overlooked in these process models. Innovation needs individuals and groups of people to be motivated, something that often comes from the need to compete in the marketplace. Professional associations do not face the competitive pressures of firms and their activity and development follows different pathways from those of purely commercial organisations.

Rogers (1962) sets out a model of diffusion and he identifies the steps as being; awareness, interest, evaluation, trial and adoption. In a similar manner he set out adopter categories, shown in figure 4.2 below, such as the innovators, early adopters, early majority, late majority and laggards and he uses these to define how an innovation is taken up.

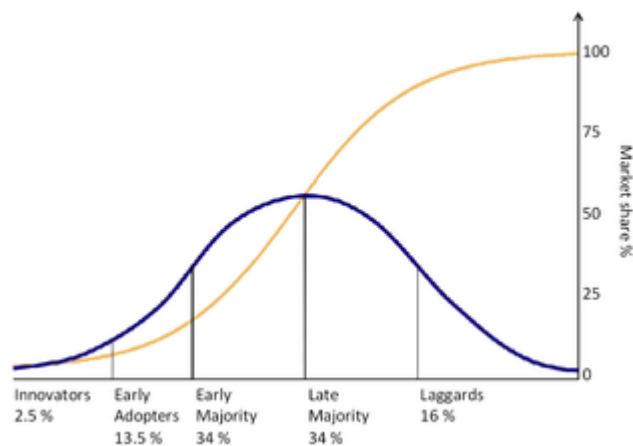
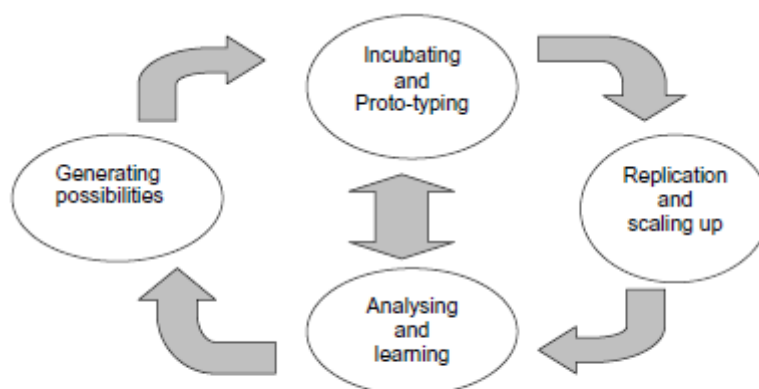


Figure 4.2 Rogers (1962) The diffusion of innovation

This model works for the steps after the innovation has been identified, but it does not look at the creative process itself. The model does, however, hold relevance for research into the theory of innovation and this is discussed further in the next chapter on research methods.

Mulgan and Albury (2003) sought to provide a framework for fostering innovation by identifying the strategic things that need to happen to manage innovation. This is shown below in figure 4.3 as an iterative process, but it too omits consideration of individual behaviours; a problem commonly associated with other models.



Source: Mulgan and Albury (2003)

Figure 4.3 Mulgan and Albury's (2003) framework for innovation

Osborne and Brown (2005) present a rational model of innovation (figure 4.4 on the next page) which reflects an organisation's desire to attain specified goals. The focus is on a structured way to fill organisational gaps and, as such, draws on the wider definition of innovation. It moves from problem-solving to innovation between stages IV and V, and it can be argued that it remains a problem-solving tool rather than a model of innovation.

Brooke Dobni (2008), as part of his analysis for the measurement of innovation (see the next section), distilled the findings from more than a dozen other academic papers to identify the essence of a model of innovation. He identified the common inputs as being an intention to innovate within a supportive framework, influenced by the markets, and with a responsive organisational structure. This is shown in figure 4.5 on the next page.

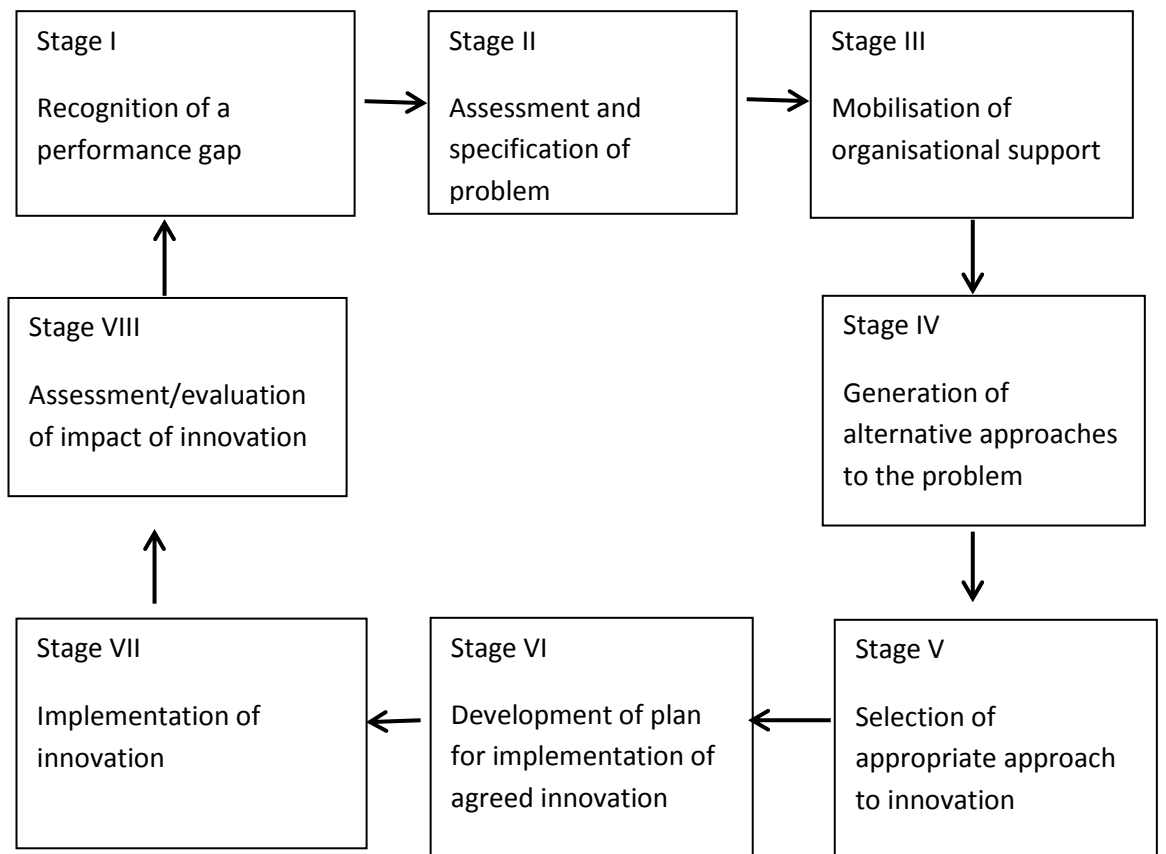


Figure 4.4. Osborne and Brown's (2005:1999) rational model of innovation

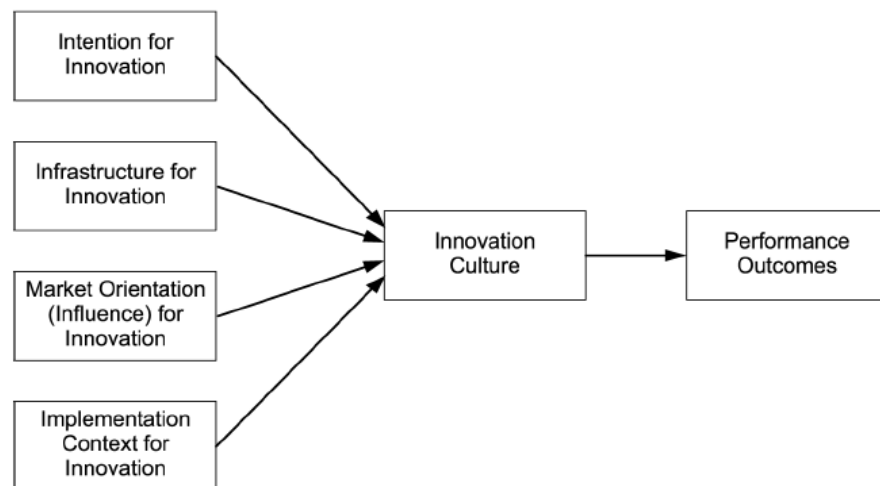


Figure 4.5 Model of innovation (Brooke Dobni 2008)

Hoholm and Olsen (2012) introduced real activities that contribute to the creative process in their four-stage innovation process model and they included interaction, confrontation and mobilising actor networks to the more traditional steps of exploring knowledge. Osborne's (1970) brainstorming (A.F. Osborne, not S.P. Osborne) also forms part of the process to increase creativity in problem-solving and indeed that process has its own industry of analysts.

The *European Journal of Innovation* has been an online peer reviewed journal since 1998 and the *Creativity Research Journal* a paper and online journal from the early 1960s. Each has produced an array of models for creativity and innovation. More recently, neuroscientists (Heilman et al 2003) have entered the field to identify how it works, focusing on the capacity of the human frontal lobe. Although much of the literature focuses on the processes and strategies of innovation, none has been found to link innovation to the work of professional associations.

#### **4.4 The measurement of innovation**

The measurement of innovation is generally focused at the level of the firm because governments draw their statistics from firms. Early attempts at measurement found it difficult to link cause and effect (Fitzgibbon 2000), possibly because Drucker (1985:184) thought measurement helped the creative process, but also because he thought that the new entrepreneurial activity should be kept separate from the old processes. Tidd et al suggested innovation can be measured on a four-tier scale as follows:

1. *innovation is not even thought about and rarely happens*
2. *there is some awareness, but only random and occasional responses supported by informal systems*
3. *there is real awareness and formal systems in place, but these could still be improved*
4. *there are highly developed and effective systems including the provision for improvement and development of innovative capacity.* (Tidd et al 1997:364)

OECD developed the *Frascati Manual* (OECD 2006, 2010) to collect and publish national data on research and development, and this assumed that innovation had been brought into the 'mainstream', but Godin (2002) recognised that innovation was multidimensional

and required the measurement of both inputs and outputs. He considered it was only governments who can produce regular statistics on it.

*Innovation is a complex phenomenon, which makes it difficult to capture it fully with available measurement technique (BIS 2011:21).*

For the purposes of this research it is important to clarify the different uses of terminology for inputs and outputs. In the traditional logic model, noted at figure 4.6 below, inputs are the elements that go into a process, the outputs, or more generally, outcomes are what come out, and these represent the benefits that accrue.



Figure 4.6 Logic model

Wang and Ahmed (2004) and Brooke Dobni (2008) all tried to distil the work on the measurement of innovation from a range of published papers and in each case sought to frame their findings into manageable blocks. Their approach was focused on quantitative measures from a range of variables. Wang and Ahmed (2004) analysed nine earlier authors and distilled their findings into five dimensions of innovativeness covering:

- product
- market
- process
- behaviour
- strategy

They collected data by asking 1,500 UK companies (not including professional associations) to comment on 29 different statements about their commitment to innovative activity and to respond on a Likert scale from agree strongly to disagree strongly. They received a 14% response rate of usable data. An example of the statements is noted below and these reflect the subjective nature of innovation first recognised by Rogers in 1962:

- *Statement IN07 – in comparison with our competitors, our company has a lower success rate in new products and services launch.*

- *Statement IN25 – in our company we tolerate individuals who do things in a different way* (Wang and Ahmed 2004).

They were looking for a measure of the organisations' innovative capability rather than an understanding of how the processes worked.

Brooke Dobni's (2008) model, considered in the previous section, looked deeper into the innovation culture and its measures, and he credited Wang and Ahmed's work as being the most structured attempt at measurement so far. He also recognised their weakness on measuring the intention for innovation, and so tried to get closer to the individual behaviours contributing to innovation, or what has been identified here as the inputs. He added elements such as learning development and participative decision making into his framework, but he still looked for measurement at a cultural level, and not for any understanding of individual behaviours. He followed Wang and Ahmed's approach in a similar fashion with a series of 70 detailed, subjective statements assessed, again, through a Likert scale, against the dimensions of:

- intention
- infrastructure
- influence
- implementation.

Martinson et al (2007) added to this work, and tried a different tack considering seven variables that added leadership and customers to the elements noted above. All the authors produced complex mathematical analyses that would be difficult to translate into practical management initiatives. Brooke Dobni (2008) specifically attempted an easier analysis, but still had 70 variables and acknowledged that more work was needed. Martinson et al (2007) actually believed that complexity was important as a tool for learning, and the result was unwieldy, and required time-consuming measurement.

NESTA (2007) still uses a community innovation survey (CIS) to ask what activity is undertaken when looking for new ideas, developing those ideas and commercialising them. This survey has three overarching areas for analysis:

- accessing knowledge
- building innovation
- commercialising innovation



Although the initial approach is straightforward, it introduces complexity that results in 16 firm-level metrics (split among the three headings above), but even the aspect of accessing knowledge is not about creating it; rather it is about the percentage of effort that goes into research, development and design.

All these attempts at measurement focus on outputs and they operate at the level of the firm. They all contain a high level of complexity that requires time consuming tools to produce detailed documentation. They each contain considerable problems of definitional uncertainty and a high level of understanding to complete. The work of Wang and Ahmed (2004) and Brooke Dobni (2008) focused on organisations that seek innovation for competitive advantage, and governments use similar measures to find a correlation with GDP growth. The work focuses on the tangible and the readily measurable, but not on the creative process. Professional associations are not commonly linked to the measure of innovation so it is necessary to explore what they do to advance innovation. Furthermore it is important to identify what occurs at an institutional and personal level and what links the two. To achieve the Government's objective it is the behaviour of individual members that is more important, and this requires an understanding of the influence of the professional associations' curricula.

#### **4.5 The theoretical process of innovating**

The theoretical process of innovating needs to be explained further before the links to professional practice can be considered, particularly because creating new knowledge is different from merely using it. From a historic perspective it is pleasing that the analysis of creativity and innovation has come out from the shadow of early psychoanalysis. Back in 1972, Stoor's work on *The Dynamics of Creativity* was heavily dependent on the views of Freud, which contained little or no empirical evidence, and included chapters that related to schizophrenia, mania, depression and obsession, rather than anything useful to help with a constructive understanding of creativity. Such work did not well stand the test of time. Psychologists have since worked to get a better understanding of the processes underpinning creativity, but perhaps the most down to earth advice was offered by management authors Cohen and Levinthal who said:

*The prior possession of relevant knowledge and skill is what gives rise to creativity, permitting the sorts of associations and linkages that may never have been considered before (Cohen and Levinthal 1990:130).*

Schön (1983) considered that research, the term he coined for the development of new knowledge, is institutionally separate from practice, and such a view fits with the discussions set out in chapter 3. It is already established that current professional knowledge is based on its efficient and economic use, driven by a technical rationality. Macdonald (1995:158) notes that it is a product of 300 years of positivism. However, the use of knowledge, developed and captured over a very long period of time is very different from the momentary creative process. It is also established that the professions secure their jurisdiction by capturing knowledge (Abbott 1988), but how that knowledge is itself developed is not documented.

Burns and Stalker (1961:36) reported that 19<sup>th</sup>-century institutional and bureaucratic structures attempted to rationalise decision making, but they also introduced barriers between science and industry. In the early 20<sup>th</sup> century, before the institutional structures grew more elaborate, the technical innovators still overlapped with teaching and research institutions, government and industry. Later, with planned or unplanned sub-division, the scholarly teaching was undertaken in the universities whilst professional studies were directed to lower schools. This resulted in the work of creating new professional knowledge being consciously passed to universities, and the professions expected the new knowledge to be passed back for inclusion in their practice (Veblen 1918). After the 1950s, with increased power and influence, the professions eventually retook control of their higher level knowledge, and put it on the same level as university activity (Schön 1983:36). The complexity built into the links between professions and universities set up barriers to communication, and divisions of labour created 'silo' thinking that interfered with the easy interaction between the two. This research is about the professions' body of knowledge, a knowledge that Eraut (1998) thought was too heavily influenced by academics. These background issues are useful to bear in mind when considering how new knowledge is created.

The manner of creating new knowledge has particularly been advanced by Nonaka and Takeuchi's (1995) SECI process. It proposes an iterative model of knowledge creation

grounded firmly within an organisational group, using activity which builds on shifts from tacit knowledge to explicit and back again. SECI is the acronym for socialisation, externalisation, combination and internalisation – the steps in the process draw in existing codified knowledge and put it through a defined process with a view to creating something new. There are parallels with the work of Polanyi here, and the process is shown in figure 4.7 below. The iterative nature of the process is indicated by the pathway drawn at the centre of the figure. The steps in the process are represented by the squares, and the shifts from explicit knowledge to tacit knowledge and back again are shown on the outside of the squares.

The first step, socialisation, is the transfer of tacit knowledge held by one person to the tacit knowledge of another. This transfer is enabled through processes such as apprenticeships or mentoring, where there is close empathy between individuals. Both skills and knowledge are passed across even if the knowledge is not codified. Nonaka and Takeuchi provide an illustration of this step from Matsushita engineers who were, at the time, designing a mechanical breadmaker. The engineers took kneading lessons and learned that a twist was necessary to add to the stretching of the bread, so as to ensure the right consistency of the dough (Nonaka and Takeuchi 1995:63). A rational observation of the breadmaking process by the engineers would not have revealed this subtle hand movement, which had not hitherto been seen as a requirement of breadmaking.

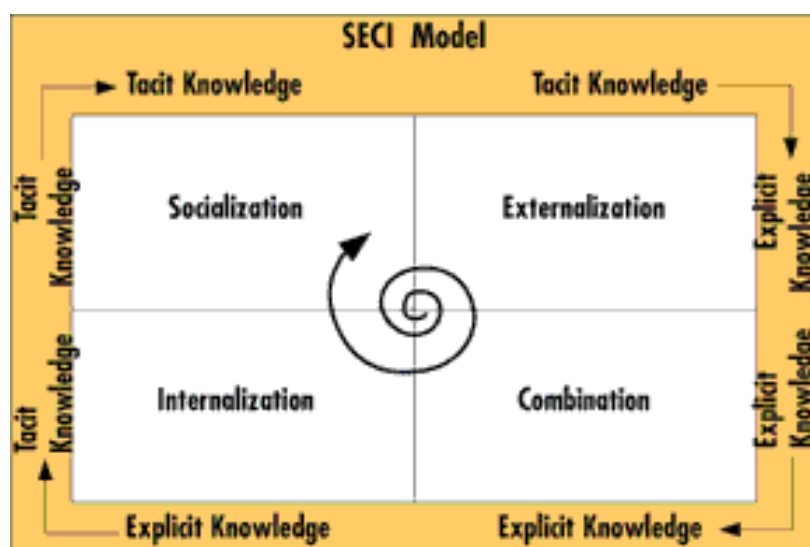


Figure 4.7 Nonaka and Takeuchi's (1995) SECI process

Externalisation is the transfer from tacit to explicit knowledge, and is identified as articulating knowledge through the use of metaphor and models. This is where the knowledge is codified and it comes from discussion and interaction with others to test what is being said. Such a process has clear links to the style of Socratic questioning used in teaching and psychology. It is an interactive process that cannot be done effectively by an individual, though it was seen as being a key element in the presentations given by the late Apple CEO, Steve Jobs, who developed extraordinarily engaging presentations to draw the audience into the topic (Gallo 2009). The use of metaphors and models is helpful to clear out contradictions and any lack of clarity (Nonaka and Takeuchi 1995:67).

The next step, combination, requires the sharing of explicit knowledge from more than one person. It creates an equation such as 'explicit plus explicit' and it makes connections based on conceptual analysis and synthesis. This is perhaps the most straightforward step in the SECI process; it is a common management tool of simply collecting the best information (Nonaka and Takeuchi 1995:68), and Murray (2001) used it in her research model discussed in the last chapter.

Finally, internalisation moves explicit knowledge back to tacit, embodying it through learning-by-doing and reflection. This is where the skills and knowledge base of individuals and companies moves to a higher level, supporting a more challenging, interactive and creative set of behaviours than existed before (Nonaka and Takeuchi 1995:69). At one level this is simply learning, but when it is embedded in an organisational context it enables the organisation to be much more agile and adaptive in its approaches to external challenges. It builds resilience, and a capacity to cope with higher levels of disruptive or discontinuous change (Christensen 1997).

The SECI process is shown as an iterative spiral and continues from the last step, back to the first. The creative process requires the socialisation and internalisation of knowledge to be developed within a specific context. Nonaka and Takeuchi (1995) stress the importance of the work context and used a Japanese term for it, 'Ba', which means the place where the creative process can work. It is readily understood that a learning spiral might not work for all locations, but the coining of this Japanese term does not seem to

have caught the imagination of other management or creativity writers because most search references lead back only to Nonaka's original work, and not to any wider application. Indeed the whole concept of Nonaka and Takeuchi's work remains untapped in most texts on innovation because most texts focus on outputs not inputs.

Nonaka and Takeuchi's (1995) four-step interactive model is supported by Scharmer (2001) who presents his approach in a three-step model.

- Step one: explicit knowledge – this is about things we know or, as suggested by Aristotle, things that can be observed
- Step two: tacit knowledge – this is about things we do, and touches on our creative ability to make things
- Step three: self-transcending knowledge – a step that relates closely to reflection-in-action as identified by Schön (1983).

Most importantly Scharmer (2001) argues that for a creative process to work all these elements must be underpinned by a conscious action that adds both creativity, and the process of creative thought, into the mix.

His first two steps readily relate to propositional and ability knowledge discussed in the previous chapter, but he takes the steps of building knowledge into three models of learning infrastructures:

- a type-I learning infrastructure that is composed of sources of explicit knowledge, the codified knowledge that is available to everyone
- a type-II learning infrastructure that includes action and reflection-on-action, usually with shared time and space among a group of practitioners, and including the thoughtful application of professional knowledge
- a type-III learning infrastructure that has shared reflection and shared practice combined with a shared will, and which requires high-quality shared time, space and the ingredient of a conscious action to innovate.

The point he makes is that, whilst innovation is possible for people or workers through interacting, it is more likely that they will innovate if effort is made to support the process with time and space. This aligns with the hothousing for innovation suggested by Peters and Waterman (1982) in their creative 'skunk works' and, whilst Cohen and Levinthal (1999) state that knowledge aids creativity, it is clear that knowledge about creativity aids it even more.

Less theoretically, but more practically, Tran (2008) identified that a failure to innovate rests on the learning culture of the organisation. He also states that learning can occur at three levels, but instead he uses the terms 'reflexive', 'bounded' and 'critical'. Here it is important not to confuse Schön's reflection with Tran's reflexive learning, the use of the term 'reflexive' in this context is the lowest level of response between cause and effect. Tran means that at the reflexive level there is little interrogation of why any such learning or development is taking place. People at this level of activity may undergo training in what might be described as an 'automatic pilot'-type intervention. The middle level, bounded learning, is similar to the single loop learning of Schön's work with basic knowledge-in-action. Tran's final, higher stage of critical learning relates to Kolb's double loop learning or Schön's reflection-in-action which were considered earlier. He considers that innovation only occurs 'when needs must' which, after careful consideration, reduces to the old adage that 'necessity is the mother of invention'.

Hamel (2006) makes a number of key points about management innovation, but it is important to stress this is not the management of innovation, as titled by Burns and Stalker (1961), but the management process itself. He considers that management practices have not evolved much in the 50 years since innovation became a topic of study, and he cites Mary Parker Follett's writings from 1924 where she stated that institutional growth is maximised only when local communities are self-governing. Hamel sees that the only way to get the ingredients for innovation, those qualities of passion, ingenuity and self-direction, is when management practices use variety, competition, flexibility, devolution and activism. The usual situation, he reports, sees only a continuation of command and control which results in creativity being strangled. Command here could be interchanged with a term such as 'regulation' in many professional settings, and the consequences are likely to be similar. Tran (2008) saw innovation as a response to a problem, and so did Hamel (2006) – the bigger the problem the better. Hamel said the creative process required novelty, a deconstruction both of the practical barriers and of management orthodoxy, and, he added, that it required a metaphor for the solution or change.

The ideas from Peters and Waterman (1982), Nonaka and Takeuchi (1995), Argyris and Schön (1974), Scharmer (2001), and Hamel (2006) all come together to form a coherent

picture of what is required for innovation to occur. They all distil part of the key requirements for innovation to take place or what might be called the inputs. These can be summarised as space, time, resources, reflection, interaction and the conscious act of innovating, but only Nonaka and Takeuchi (1995) seem to have come close to identifying a full set of these requirements. Hoegel and Proserpio (2004) have more recently added that team members have to be in close proximity to be effective, something that follows similar conclusions from Porter's (1990) work where clusters of related and supporting industries help contribute to innovation. Hoholm and Olsen (2012) add the need for not just interaction, but also confrontation, as well as mobilising more support from others.

Hargadon and Sutton (1997) considered how Thomas Edison worked, and noted that he specifically created his laboratory in 1875 to provide for all these elements of interaction – time, space, resources and the intention to innovate. His Menlo Park laboratory was opened with the plan for “a minor invention every ten days, a big thing every six months or so” (Israel 1998). He always placed experience before formal education, and Israel states that it was Edison's empiricism that set him apart from modern researchers (Israel 1998:471). Israel (1998) explores in detail how Edison found out what worked and what did not and these are all issues that fit well with the creative models described above. These also fit well with the work of professionals who need to tap into both theory and practice and tacit and explicit knowledge. It does not appear, however, that they easily fit with the academic approaches of professional pedagogy noted in the previous chapter.

#### **4.6 Innovation pedagogy**

There are many articles to be found in peer-reviewed journals on the topic of innovation, but few of them touch on the behaviours relating to creativity. Since Land (2011) identified, back in the 1960s, that we train ourselves out of creative habits, the debate has spluttered on. It still appears difficult to build an environment, and a set of behaviours, that is conducive to creativity. Specifically, there appears to be little on record of any pedagogic content and little of the method or practice for generating the creative spark behind innovation. Given the work on models of innovation and its measurement, it is surprising that no book has been produced with a title of ‘how to teach innovation’ or anything remotely similar.

There are few results relating to content on innovation pedagogy and, while there are some references from Canada and the USA, there appear to be none from the UK. The only textbooks referencing this are already mentioned above (Nonaka and Takeuchi 1995, Schön 1983, Peters and Waterman 1982, Scharmer 2001). An inquiry into this topic has been helped by Fagerberg et al (2012) who analysed 130 leading texts on innovation, including books, chapters and articles, in an effort to find out how the rapidly expanding field of innovation had grown, and to identify the core contributions. They adopted a process to rank the literature according to a J-index that related to the number of citations produced a year after publication. Whilst this is useful to identify the key texts, only a few included commentary on the pedagogic issues of innovation. The most popular texts focused not on how creativity could be encouraged, but what economic circumstances would encourage innovation. The result was that the work of Porter (1990) on *The Competitive Advantage of Nations* was cited at number three in their J-index and Rogers (1962), as already mentioned, was cited at number five.

One academic journal from the University of Turku in Finland, appeared too late to be included in Fagerberg et al's analysis, but it suggests there is now a group of academics who are taking innovation pedagogy seriously (Lehto, Kairisto-Mertanen and Penttilä, 2011). Kairisto-Mertanen et al (2011:11) identify innovation pedagogy as contributing to the development of students' innovation competencies; that is "the knowledge, skills and attitudes needed for innovation to be successful". Following on from Eraut (1998), they also identify the significant institutional barrier between university education and the work place and although they cite a broad range of Finnish references, the message is consistent with the themes in the UK presented in this and preceding chapters.

Lehto, Kairisto-Mertanen and Penttilä's (2011) deeper understanding of innovation pedagogy highlights both a lack of real content in the universities of applied sciences and in the work of the professions. Their findings appear to be borne out by the lack of content revealed for this research in a series of literature searches. If the inputs to innovation are not understood as pedagogy, then it follows that universities and the professions will find it difficult to develop constructive approaches to it. Teaching and learning for creativity can be approached through problem-based and peer learning – that is, groups of learners look to collaborate to find solutions to problems. Universities and businesses are well versed in the use of business games, brainstorming, group meetings, hatcheries and incubators, but



each, on their own, is not sufficient to create something new; that requires a more comprehensive framework, and there is little evidence that such a framework has taken hold. If innovation pedagogy is still only weakly understood then it follows that the diffusion of its teaching and learning process is compromised.

This uncertainty requires clarification of the current state of innovation pedagogy. This research looks to explore how professional associations advance innovation, and for that to occur it requires some framework for innovation pedagogy. This project requires there to be a theoretical content for innovation, so that there is a body of knowledge that can be passed on. Christensen's (2011) statement that innovation was 'the new holy grail' emphasised the importance of searching for it, and he presented a number of disruptive examples of creative change, but his emphasis on the mythological nature of the creative process is not helpful. It is important to this research that there is some concrete framework for innovation pedagogy to test the professions' use of it in support of their members' activity.

#### **4.6.1 A test for innovation pedagogy in textbooks**

The analysis of innovation pedagogy in textbooks was helped by Fagerberg et al's (2012) list of core contributions. Bestsellers, or rather so-called bestsellers, considered the inputs to the innovation process only rarely. For example, Christensen's (1997) book *The Innovator's Dilemma* relates anecdotes about lock-in, but it does not define innovation, or say how it works. At one point he does report on changing organisational culture, and says it is possible to build up a heavyweight team to drive change (Christensen 1997:204), but he does not explain how such a team works. His follow-up book (Christensen 2003) *The Innovator's Solution* is about business strategy, and again, it is generally without reference to innovation or creativity in either the contents or the index, and it makes passing reference to the inputs to innovation only on pages 9 and 10. Haragon and Sutton (2000) open their article on '*Building an Innovation Factory*' by saying the best innovators use old ideas, which says little that is helpful for this research topic, and they don't get any closer to discussing the behaviours supporting innovation as the article proceeds.

Fagerberg et al's (2012:1134) core literature identified three strands of text; the first emphasised firms and management; the second emphasised technology, addressing economic and social change and a third tried to link the first two together. From this they

identified 14 keywords relevant to their search, but they found difficulty in analysing the core literature texts because there were no abstracts and the text was not in a machine readable format. They clustered the texts at a social level into management and technology, but they did not look for the inputs of innovation, and so it now requires another trawl through some of their data.

It is possible, on a smaller scale, to analyse nine of Fagerberg et al's (2012) chosen texts to see if the content presents a sufficiently coherent message that innovation can be taught. As noted above, a number of the most cited textbooks in their list relate to economic theory or national systems, and these were not so relevant to the behavioural elements of this research. For example, books one to four of their J-index: Nelson and Winter (1982), Nelson (1993), Porter (1990) and Schumpeter (1934) are broad, sweeping texts considering international frameworks, markets, supply and demand and, as such, only have limited relevance to innovation pedagogy. Porter (1990:680) in particular, has a strong focus on the firm and government, but does not consider the role of the individual.

The nine texts analysed for this small-scale review are noted below with Fagerberg et al's J-index score shown to the left:

- 5 Rogers, E. (1962) *Diffusion of Innovations*. Toronto: Collier-Macmillan Canada Ltd.
- 6 Lundvall, B. (1992) *National Systems of Innovation; Toward a Theory of Innovation and Interactive Learning*. London: Anthem Press.
- 8 Cohen, W. & Levinthal, D. (1990) *Absorptive Capacity: A New Perspective on Learning and Innovation*. *Administrative Science Quarterly*. Vol 35 No1 pp128-152.
- 13 Von Hippel, E. (1988) *The Sources of Innovation*.
- 14 Christensen, C. (1997) *The Innovators Dilemma*. New York: HarperBusiness.
- 20 Tidd, J., Bessant, J. & Pavitt (1997) *Managing Innovation: Integrating Technological Market and Organisational Change*. Chichester John Wiley & Son Ltd.
- 21 Burns, T. & Stalker, G. (1961) *The Management of Innovation*. London: Tavistock publications.
- 28 Von Hippel, E. (2005) *Democratizing Innovation*. Cambridge MA: MIT Press.
- 40 Nonaka, I. & Takeuchi, H. (1995) *The Knowledge Creating Company*. New York: Oxford University Press.

Fagerber et al's list only includes publications up to 2010 and more recent texts, such as Lehto et al (2011) and Govindarajan and Trimble's (2010) *The Other Side of Innovation: Solving the Execution Challenge*, were omitted because of delay in their work being recognised and cited. The second of these texts was added because it has a strong focus on the inputs to innovation even if, perversely, it considers these after organisational matters. In the second half of the book the authors helpfully identify the need to formalise the experiment, break down the hypothesis, and seek the truth.

The results suggest that half of these texts focus on the implementation of innovation without considering the inputs to it. Nevertheless there is clear evidence from Lundvall (1992), Cohen and Levinthal (1990), Von Hippel (2005), and Nonaka and Takeuchi (1995) along with texts discussed earlier about learning from Kolb (1984), Schön (1983) and Scharmer (2001) that there is a useable framework for the theoretical underpinning for teaching innovation. This indicates sufficient content to support Drucker's (1985) statement that innovation can be taught. An indication of the main themes of these texts is contained in the following table (table 4.1).

Author	Year	Areas covered									
		Strategy	Management	Organisation	Growth	Change	Market	Knowledge	R & D	Experiment	Inputs
Rogers	1962	X	X				X				X (i)
Lundvall	1992	X	X	X				X	X		X
Cohen & Levinthal	1990			X				X	X		X
Von Hippel	1998			X				X	X		
Christianson	1997	X		X		X					
Tidd, Besant, Pavitt	1997	X	X	X					X		
Burns & Stalker	1991		X	X		X	X				
Von Hippel	2005		X	X							X
Nonaka & Takeuchi	1995							X		X	X
Govindarajan & Trimble	2010		X	X		X				X	X
Notes											
(i) Reference to interaction for the purposes of adoption only											

Table 4.1 Analysis of innovation themes from frequently cited texts

The terms identified as the inputs to innovation, terms such as 'creativity', 'problem solving', 'collaboration', 'interaction', 'resources' (for innovating) and 'reflection' are taken collectively in the final column.

#### **4.6.2 A test for innovation pedagogy in academic articles**

The discussion of the measurement of innovation included two significant academic journal articles from Wang and Ahmed (2004) and Brooke Dobni (2008) and they both distilled the work of other authors. Wang and Ahmed (2004) used behaviour as one of five dimensions of innovativeness, and although they looked to focus on 'sustained behavioural change', they looked for this at an organisational level rather than at a personal level. Their view of behaviours focused on a measure of commitment rather than specific individual activities, and their overarching measure was for organisational culture. A word count of their paper is predictable in that it was targeted at the key measures of product, market, process, behaviour and strategy so the results, in the same order, are 67, 47, 28, 5, 40 with behaviour scoring the least. Words relating to the inputs of innovation, as noted above, such as 'time', 'space', 'resources' (specific to an interacting group), 'interaction' and the 'conscious act of innovating' (or similar terms) are not found in the paper, so it is reasonable to conclude that innovation pedagogy did not feature strongly in their work.

Brooke Dobni (2008) by contrast gets closer to the individual behaviours that contribute to inputs such as 'learning development' and 'participative decision-making', but he still looks for measures at a cultural level, and although his analysis considers the creative capacity of employees, he does this without citing specific inputs (Brooke Dobni 2008:551). The understanding of the need for inputs to innovation is recognised, but not directly measured, and so the relevance to innovation pedagogy is limited.

#### **4.6.3 A test for innovation pedagogy in government papers**

Innovation is a key driver for many businesses and their quarterly financial results, often reflecting the implementation of new ideas, is considered a matter of survival. The UK government's publications take a wide definition of innovation and this, as already shown, presents a problem for measurement, but it is still possible to use the government's measures and its strategy publications to shed light on innovation pedagogy.

Individual behaviour, or rather the functioning of individuals, gets a mention in the UK innovation survey (BIS 2012), but it only goes as far as asking if a lack of qualified personnel is a barrier to innovation. More generally NESTA's community innovation survey (Roper et al 2009), a survey commissioned by the government, looks mostly at outputs such as the transforming of knowledge into new products, processes or organisational forms and then commercialising or exploiting the knowledge into productivity or sales gains. Another possible weakness is that this survey only links new knowledge with knowledge sourcing, that is to say innovation is only taking ideas from elsewhere. When it publishes its findings it loses any measure of creativity under wider measures which result in high level results looking at:

- proportion of externally sourced ideas
- R&D intensity
- design intensity
- use of external partners in accessing knowledge.

The evidence here does not support creativity as being part of innovation measurement and it does not indicate that the creative process is significant. Interestingly the report (Roper et al 2009) gives the construction sector as just one example of where low levels of investment in new knowledge leads to low levels of innovation.

A second relevant theme key to government activity is its strategy. It might be expected that government policy will be a source to highlight the need to respond to the significant challenges to social and economic problems and, therefore, set the context for the role of professional associations to contribute to innovation. Chapter 1 quoted from a government document that noted:

*The way we respond to them will require greater levels of ingenuity and innovation. Our goal is for the Government to play its full part – in concert with business, academia and the public – to deliver an environment that fosters the world's best innovators and the world's best innovation. (BIS 2012)*

The policy and approach of the government is distilled in their Innovation and Research Strategy for Growth (BIS 2011a) which comes out of the UK's Commission for Employment and Skills (UKCES) report '*Ambition 2020*' (UKCES 2009), a document which advises government itself on the policies, strategies and measures needed to achieve a top eight place in the world for skills, jobs and productivity. The Global Competitive Index shows the UK at eighth place for skills in 2012 (World Economic Forum

2013), but our educational attainment has now dropped below twentieth (OECD 2013). The government's response is, therefore, important to the trend in these figures, and analysis of the government's strategy for innovation opens with a statement about building on existing strengths. It goes on to set out policy with a strong focus on economics and outputs, but this is probably because it is written alongside the Department for Business, Innovation and Skills economics paper 15 (BIS 2011b) and both documents are drafted by a team of economists. This background to the strategy perhaps explains why it does not consider the pedagogy of innovation.

This differs markedly from the syllabus for the UK apprenticeship scheme which does include a section on creative thinking. The driver for inclusion of this was the Department for Education, although the apprenticeship programme is overseen by the Department for Business, Innovation and Skills.

*Personal Learning and Thinking Skills (PLTs) play a key part in realising this ambition [for growth]. The 6 PLTs; independent enquiry, creative thinking, reflective learning, team working, self-management and effective participation are a mandatory component of every Apprenticeship framework. PLTs should be included alongside any qualification-specific guidance, giving the apprentice the opportunity to become effective learners. (BIS 2013)*

So the national strategy for growth does not identify the need for creativity, but the apprenticeship scheme does. The national strategy puts the responsibility for innovation with firms not with professional associations or their members, and although it gives recognition to relationships and networks this theme is not developed further.

*Business innovation is a broad concept, encompassing performance improvements in products, services, processes, and systems. Competition between firms provides incentives for firms to invest in innovation, whether this involves spending on research, or skills, or simply better management. However innovation is also spurred through relationships and networks – with innovations building on previous innovations, and drawing on knowledge and lessons from a wide range of sources. (BIS 2011b)*

One further anomaly arises in the evidence from the Employer Skills Survey (UKCES 2011) which looks to quantify the skills gap, essentially to identify why, and by what amount, UK staff are not proficient in their current jobs. It is interesting to note the static nature of the term 'proficient'. Lack of proficiency relates primarily to gaps caused by staff new to their jobs or still undergoing training, or because gaps occur despite training where

performance has not improved. The survey suggests the skills gap is greatest at the lower level of skills or in unskilled work and is lowest for the supervisory and managerial posts (UKCES 2011:71). The report does not challenge what appears to be the obvious conclusion from the data; that supervisors think they are good at improving the proficiency of their less skilled staff despite the evidence to the contrary.

#### **4.6.4 A test for innovation pedagogy in wider teaching**

The finding that innovation pedagogy is not included in the government's innovation strategy (BIS 2011a) but is included in the apprenticeships scheme begs the question of whether innovation is taught elsewhere. The most likely place to find it would probably be on MBA (Master of Business Administration) programmes and analysis was undertaken of their teaching content, both in the UK and abroad to establish what innovation pedagogy was established in the business schools. It was difficult to get responses from a number of business schools, and that is probably because MBA programmes charge £6,000 for one week's educational course on the topic, so there is a commercial sensitivity about what they put into the programmes. It was however possible to access a range of documents indicating that the teaching did include creating a culture where innovative activity was supported (Beckman & Barry 2007).

The A-level syllabus for business studies uses the term innovation once only in the curriculum, for *process innovation*, but that is unsupported by any further commentary in a document of 40 pages. Despite this it states on the first page that students will be "innovative and equipped for new and future challenges" (CIE 2013) and this appears to be yet another example of innovation rhetoric lacking in substance.

#### **4.6.5 A summary of the content of innovation pedagogy**

It is possible to teach innovation, but the evidence for its pedagogy is only piecemeal, found formally only at the top and the bottom of the educational scale, with elite MBA programmes and apprenticeships. Drucker (1965) strongly held that innovation can be taught, but most individual contributions do not present a comprehensive picture of an effective pedagogy. It is useful, therefore, to restate a summary of that content, and this is done in box 4.1 below.

- Innovation requires a trigger, a real world problem that needs a better solution. The need for a solution must be made explicit (Scharmer 2001, Hamel 2006).
- Innovation requires a high level of existing knowledge (Johnson 1992, Von Hippel 1998).
- Solutions can be generated and implemented by individuals, but better solutions come from collaboration and interaction (Nonaka and Takeuchi 1995, Hoholm and Olsen 2012).
- Collaboration requires a shared understanding of the tacit and explicit skills (Polanyi 1966), with a shared understanding of the problem (Nonaka and Takeuchi 1995).
- Problems need time, space, resources, interaction and the conscious act of creating something new (Nonaka and Takeuchi 1995, Scharmer 2001, Hamel 2006).
- The participants work together on a solution (Nonaka and Takeuchi 1995). This solution is an iterative process (Kolb 1984, Scharmer 2001), it requires confrontation (Hoholm and Olsen 2012) and a deconstruction of the barriers to change (Hamel 2006).
- The participants reflect, (Schön 1983) and embed the new knowledge and skills.
- The new arrangements require a metaphor to carry the message. (Nonaka and Takeuchi 1995, Eraut 1994, Hamel 2006).
- The problem solving must occur in the right place (Nonaka and Takeuchi 1995, Kairisto-Mertanen et al 2011).

#### Box 4.1 The inputs to innovation

Johnson (1972:31) said that almost all learning is done by some form of interaction, but it is shaped by institutions. These institutions can be firms or professions and how they choose to develop staff or members will depend on the goals of the institution. The evidence here identifies that it is possible to teach the inputs to innovation, what is here called innovation pedagogy, it is understood, and there is a body of knowledge relevant to it.



#### 4.7 The implications of innovation pedagogy on this research project

It is possible for professionals to create new knowledge in their field, but that new knowledge is commonly not codified. It is also possible to take established practice and put it into new contexts but Eraut considers that:

*neither the creation of new knowledge outside traditional academic territory, nor the redevelopment of syllabus knowledge for use in practical contexts are priority concerns among either the academic or the professional community (Eraut 1994:57).*

For the professions, as with others, both at an individual and institutional level, new knowledge occurs where there is an economic imperative. It is possible for it to occur where existing professional knowledge combines with new knowledge in the higher education institutions (Eraut 1997: 82), but this is just one step in Nonaka and Takeuchi's (1995) SECI process. It is not difficult for the professions and the universities to take explicit knowledge and share it around, but even this step has weaknesses, and Eraut argued it is really only the full-time staff of professional schools in universities that produce the bulk of the new knowledge: the professions do not really contribute. Friedson (1986:83) saw the creative process controlled by the academics, and Eraut (1997) went further arguing that the nature of knowledge gained by practising professionals was itself a barrier to knowledge creation. He noted the development of theory and exchange with others was limited by the esoteric nature of its content, and the mechanistic structures of the professional bodies. He suggested the ability to create metaphors, to interact, share and combine knowledge was frustrated by professional practice, and he expected higher education to do more to enhance "the knowledge creation capacity of individuals and professional communities" (Eraut 1994:20).

This chapter has identified that the requirements for innovation to happen are space, time, resources, reflection, interaction and recognition that the process is a conscious act of innovating. Therefore, it requires the conditions, the role of the actors, the ends and the means to be right for innovation to happen. It is possible to count how much is spent on innovation or research, development activity and training, but much of that analysis is at the level of the firm where innovation is measured by intention, infrastructure, influence and implementation, and not on creativity. One key factor in government analysis is the

implementation stage and an understanding of how ideas are spread (Rogers 1983), but here again there is little measure of the inputs required for the creative process to work.

It is the professions that hold the empirical and practical knowledge that Edison demanded in his Menlo Laboratory (Israel 1998:328). If Edison was able to undertake such creative and experimental work more than 100 years ago, and if the current expectations for innovation are important for economic growth, then it might be expected that the creative process would be well established in the teaching of universities through its pedagogy. Furthermore, it would be demanded by the professions as part of their practice because they, more than most, hold the tacit and explicit knowledge essential to the creative process. The textbooks do not provide a comprehensive picture of the creative process and the message from other sources is not clear. Academic texts are seemingly intent on making the measurement of innovation complicated, and MBA programmes are using their knowledge as capital and charging heavily for it. Alongside this, the government appears to have only a limited awareness of innovation pedagogy.

The English often turn to professionals for solutions because they are the dominant groups recognised as established holders of knowledge and expertise. They trade on their problem-solving abilities within specific jurisdictions and on historical practice that makes good use of knowledge within their specialist scope. However, the practices of professional groups acting to educate their members, control entry to the professions, raise status and enforce a code of practice, mean they do not necessarily advance innovation. The professions are increasingly regulated, and the term regulation has its roots in 'regular' described as normal, uniform or fixed arrangements tending to conformity. Regulation is a control process and that does not easily align with creativity.

From the secondary research it would be easy to suggest the professions perpetuate traditional, regulated old knowledge at the expense of the new. It has considered how professions develop, how they use knowledge, and how new knowledge is created. The task is now to set out a research process to test how the professions advance innovation. It will need to identify what influences arise from the models of innovation, its measurement, and the institutional and personal responses to its advancement, both in its wider sense and specifically for innovation pedagogy. That is the task for the next chapter.

## Chapter 5 Research methods

### 5.1 A justification of the research methodology

This chapter considers how the content of the three preceding chapters can be framed into a research strategy, a plan or methodology, to ensure the detailed work follows established research methods. This position is shown in figure 5.1 below.

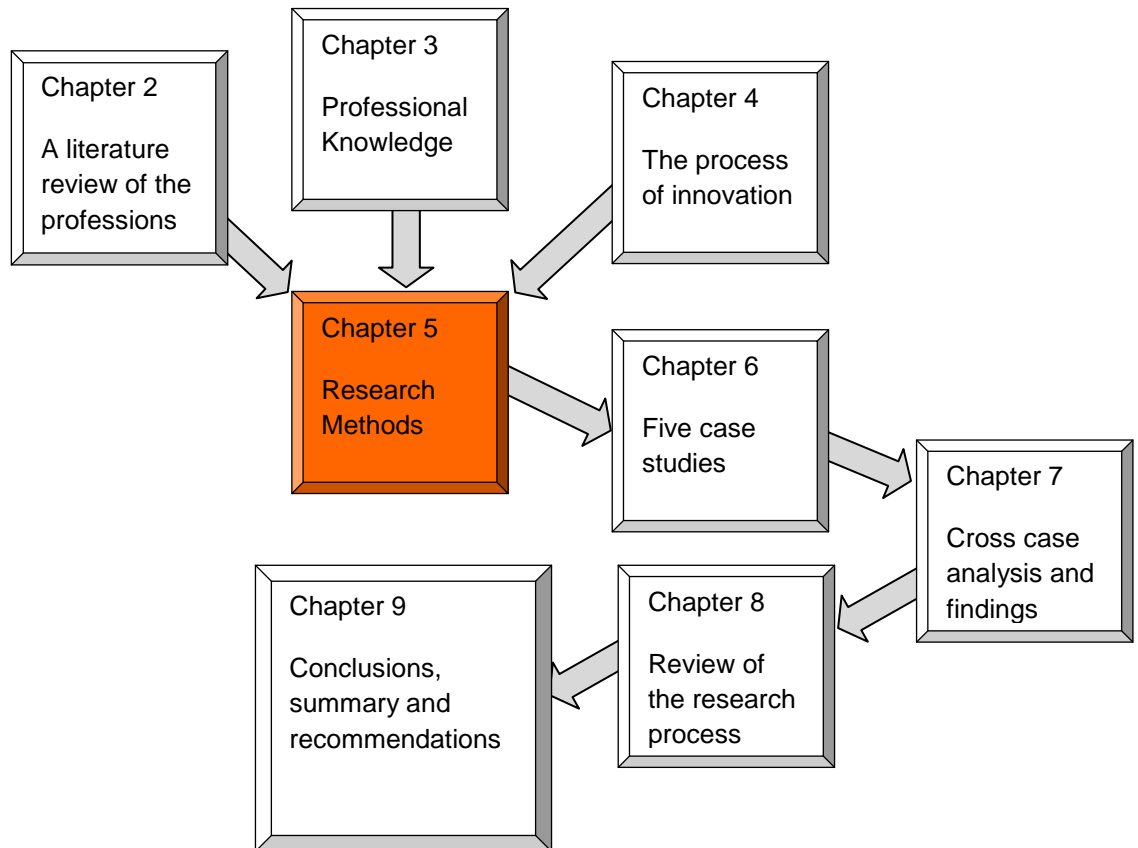


Figure 5.1 A diagrammatic representation of the flow of the thesis highlighting chapter 5.

The research strategy here must situate the observer in the real world (Denzin and Lincoln 2000). This empirical enquiry undertakes an in depth exploration of a phenomenon, professional education, where the boundaries between the phenomenon and its wider context are not clearly evident. The research requires a rigorous methodological plan starting with the posing of research questions (Yin 2009:3). Although there is considerable diversity of options for investigation, it still requires this research project to be a discrete piece of work enabling a contribution to knowledge. It is therefore

necessary to distil the process down to something useful, effective and manageable, and to ensure the data is able to withstand robust challenge.

Chapters 2-4 identify that professional associations can advance innovation and promote innovation pedagogy through a range of internal processes and initiatives and such work will be reflected in the curricula for member's study. The activities of the professional associations can be explored by mapping their activity through three research questions:

- What are the interests of the professions in advancing innovation?
- What are they doing to pursue those ends?
- What evidence can they produce to support the first two questions?

Miles and Huberman (1994) use conceptual frameworks as logical models to contain the scope of the research, to act as a guide to ask the right questions, and thereby explore the underlying interests and activities of the parties. Parsons considered this encompassed analysis of actors, ends, means, conditions and norms, whilst Miles and Huberman (1994) used similar range of criteria based on settings, actors, events and processes.

The research leans towards an inductive rather than deductive process but, as will be explained, it results in an integrative approach. Deduction helps manage the sampling and analysis that comes from exploring the data (Miles and Huberman 1994). The preceding chapters have already framed the underlying issues so the data collection will build on the research questions to explore the current level of awareness and activity, and the relative importance of the topic with the various institutions.

## **5.2 The use of case study**

Exploration of the profession's curricula is a sociological investigation of complex organisational processes well suited to case study research. The use of case study can be considered from the actor's point of view as being either at the level of the individual or the institution. The overall research puts the institution as the unit of analysis, but it is important to understand the driving forces acting on individual people as well. Freidson (2001) looked at professional associations separate from the wider profession, and there were also separate from the work of firms or the market. When considering how to illuminate the professions' contribution to the Government's agenda Skate (2000:437)

considers that using case study research is driven by the need to understand a single entity, whether complex or simple, and so each professional association can be considered as a single entity.

The researcher was familiar with a number of the case studies chosen, and there was proximity to the topic from past experience and proximity to the organisations from personal networks. Both Mills (1959) and Polanyi (1958) identify that research is closely linked to the personal knowledge of the researcher. In addition, Proverbs and Gameson (2008) suggest case study research is highly relevant to the built environment, and more specifically Yin (2009) suggests the case study is a good strategy for asking 'what' questions (although other strategies also answer such questions). Case studies do not require the researcher to have control over any of the behaviours exhibited, or the activities being studied, but it allows for a focus on contemporary events.

Case studies have been criticised for lack of rigour and a single case study may not be generalisable, that is, not applicable to situations outside that single study (Gomm et al 2002:2, Skate 2000:236). Multiple case study research overcomes this criticism and vastly strengthens the findings of a single case study (Yin 2009:61). Other criticisms such as researcher bias, and the common complaint that case studies take too long and require too much effort for data collection, are valid, but other research strategies, such as grounded theory, have similar weaknesses. It is possible to address these criticisms. The research can provide evidence of its rigour and overcome the restriction on generalisability by presenting findings from multiple cases. The time taken for data collection and the presentation of the outputs is a matter for the researcher, not for the researcher's audience.

Crucially, as already noted, there appears to be little evidence of pedagogy associated with innovation and certainly very little research crossover of such pedagogy with the interests of the professions. Yin suggests that where the existing knowledge base is poor, as it appears to be for this project, then "any new empirical study is likely to assume the characteristic of an 'exploratory' study" (Yin 2009:37).

The use of case study for this analysis allows the researcher to work directly with documents, individual actors engaged in the process of managing professional

organisations, educators, and members of the professions. The data is generated to fit within a conceptual framework that supports the exploration of settings, actors, events and processes to enable some mapping of the how the professions work to advance innovation.

The analysis, therefore, seeks to address, at least in part, some of the analytic techniques identified by Yin (2009):

- the process of pattern matching
- explanation building
- the use of logic models (the matching of empirical observation with theoretically predicted events)
- cross-case synthesis.

It was not considered necessary to include time series analysis for this research, although for one of the cases considered, a youthful organisation, the data might reveal some comparisons with more mature institutions. The approach of a case study, and more specifically a multiple, embedded case study, enables data to be collected to help understand the workings of the organisations (Yin 2009). It will consider the influences of professionalism and professionalization and this approach fits well with the circumstances outlined by Yin, who notes:

*the need for case studies arises from the need to understand complex phenomena...it allows investigators to retain the holistic and meaningful characteristics of real life events- ...group behaviour, organisational and management processes...and the maturation of industries (Yin 2009:4).*

Yin (2009) considers a helpful starting point is to 'play' with the data as part of an iterative process, and so a pilot case study was undertaken to assist the process of exploring the topic.

*The analysis of case study evidence is one of the least developed and most difficult aspects of doing case studies (Yin 2009:127).*

Lofland and Lofland (1995:1) add that the process of gathering, focusing and analysing the data is not sequential but overlaps and interweaves, and for this project it is clear that the research questions evolved from undertaking the literature review.

The data could be collected using surveys, archival analysis, history, grounded theory and case study (Gomm et al 2000:2, Yin 2009). The approach closest to positivism; the option of experiment is discounted because the researcher has little control over the phenomenon. Surveys were considered, but this exploratory research required a stronger understanding of the issues before surveys could be designed. Archival analysis and history are incorporated in the data collection and interviews, and the decision of whether to use case study or grounded theory rested on current knowledge and the context for coding activity.

Case study analysis requires the coding of qualitative data, a process now well established by specialists of grounded theory such as Glaser and Strauss (1967), Strauss (1987), Strauss and Corbin (1997), and Charmaz (2006). The skill of coding has been strongly advanced by grounded theory because it requires the data to be coded to bring shape to the phenomenon. By contrast the case study has an extant framework and the qualitative data is coded to fit within that frame. For case studies the literature review is completed before the case study investigation, as has been undertaken here, whilst for grounded theory it is done afterwards. Strauss (1987:218) interpreted his research through the lens of a grounded theorist arguing there was a greater 'density of conceptual analysis' in that route, but both grounded theory and case study contain a richness. Grounded theory provides a richness of analysis where there is no previous theoretical construct, whilst case study gives richness from exhaustive data and an existing structure (Yin 2009:2).

Yin (2009:114) argues that the sources of evidence can be optimised by following three principles: using multiple sources, creating a case study database and maintaining a chain of evidence. The evidence for this case study will be drawn from five different sources:

- a quantitative content analysis of key corporate documents, including the curricula
- an interpretivist narrative of those documents
- an interpretation of interviews with staff from the professional associations
- an interpretation of interviews with members of the professional associations
- an interpretation of interviews with educational partners of the professional association.

These sources will be supplemented by commentary highlighting points of detail in the evidence, or summarising the wider issues that come from it. All the documents used are readily available and the details of the interviews conducted are referenced at the end of this thesis. The data is drawn from discrete case study files developed in the course of the data collection. Where possible, tables are constructed from the evidence for both the documents and the interpretation of the interviews.

As well as the blunt approach of the research questions there are subtle issues to explore including:

- Are innovators working outside normal processes or as part of a complex organisational interdependence? (Peters and Waterman 1982, Burns and Stalker 1961)
- Are definitional terms for innovation such as 'exploitation of knowledge' or 'experimentation' used?
- What are the levels of awareness of innovation, innovation pedagogy and what activity supports these? (Drucker 1985, Tidd et al 1997)
- What adoption from the literature of innovation has taken place? (Fagerberg et al 2012)

### **5.3 The basis of valid sociological research**

#### **5.3.1 Epistemology, ontology, positivism and interpretivism**

A rigorous methodology requires an understanding of the wider framework of sociological research. It is first necessary to establish to consider what is known; what epistemological evidence can support the answer to that question, and it is then possible to consider what can be shown to exist, or what is ontologically established about professional associations, and how they use their knowledge to advance innovation. This enables a consideration of theoretical approaches, a conceptual framework, the justification of case study, data collection and sampling and the validity and reliability of the research.

The study of the social sciences requires a different approach from that of the pure sciences. It is not possible to use experiment because the work of the professions is dependent on the actor's interpretation. Epistemology asks 'what is known?' a problem



that has been around since the time of the ancient Greeks (Pritchard 2010:33). The justification of knowledge can be set against a foundationalist epistemology based on some basic belief that does not require further justification, or an interpretivist position. More likely, a belief rests on supporting grounds from a network of other beliefs, and this is called coherentist epistemology (Knight and Turnbull 2008:65, Pritchard 2010:35). Interpretivism takes the epistemological position that the social scientist has to grasp the subjective meaning of social action through a series of coherent beliefs; not a single foundational justification (Bryman 2004).

The ontology of the natural sciences can be explained through positivism – the scientific study of knowledge from empirical information. Positivism is a quest for objective knowledge but interpretation requires an element of subjectivity or empathy. Interpretation is, therefore, a quest for subjective knowledge (Hofweber 2013). As noted in chapter 3, knowledge is simply a ‘justified true belief’ (Knight and Turnbull 2008:65, Nonaka and Takeuchi 1995:21, Pritchard 2010:23), but this presents a problem for the social sciences because, whilst positivism works to clear theories under the control of the researcher, interpretivism requires an understanding of why things happen in social contexts. This depends on justifying someone else’s perspective.

The interpretive approach needs to meet the challenge as to whether it is a valid strategy for research into the professions. It has found favour with sociologists for almost a century, and it is commonly referred to as the Frankfurt School (Bullock and Stallybrass 1977). It both challenges and opposes the positivism of pure science, and encourages a continuously self-critical approach.

Kuhn (1976) argued that there were periodic paradigm shifts, or revolutions, of what was accepted science, and, although there have been different research approaches since, interpretivism has not been superseded. Kuhn’s paradigm still holds good for interpretivism. Popper (1959) also opposed positivism but he viewed scientific ideas, including social science, as being only valid if the theories could be falsified: if they could not be falsified they were not science. For positivists, logic bolstered scientific authority, whereas for Popper logic challenged it (Fuller 2006:25).

Valid sociological research also considers contemporary views, as suggested by critical theory, feminism, postmodernism or other approaches that challenge traditional sociological analysis (Alvesson and Deetz 2000). The different paths include conflicting

interpretations, suggesting there is no single basis for understanding how the findings of this research will be interpreted, and these alternative interpretations will be considered again after the data is assessed.

### **5.3.2 Induction and the implications for data collection**

As well as considering ontological and epistemological issues the research needs a plan, to help collect the data, and this requires assessment of research methods and sampling. If this research could replicate the natural sciences it would try to follow the inductive method first developed by Francis Bacon (1561-1626) (Russell 1979). Bacon's approach was to get the data and then think about a theory (Bryman 2004), he hoped that simply ordering the data would produce the right hypothesis because he was looking for patterns, for regularity. It is called the inductive method, or normative studies, because it tries to find a typical (normal) model in the data (Alvesson and Deetz 2000).

By contrast deduction generates a theory and then collects data to test it (Bryman 2004). It is not always easy to spot the dividing line between deductive and inductive processes, and Bryman (2004) considered they often operate in parallel. Indeed this research has evolved in such a fashion. The preparatory work undertaken provided outline ideas that were followed by reading round the topic, in turn, this led to a refinement of the ideas and then further reading. It became an iterative, cyclical, process with further refinement of the data collected at each stage.

### **5.3.3 Objectivism, subjectivism, constructionism**

Weber used structures to explain how society worked, and used simple models from human behaviour to form concepts that he described as 'ideal types' (Roth and Wittich 1968). These structures are only seen through the interpretation of the actors' engaged in the activity around them, and this is called constructionism. The structures do not have any independent form although Durkheim (1933) considered there were social 'facts' or social entities that existed independent of an actor's view of them, what is called the objectivist position. Parsons (1937/1967) tried to bring the two conflicting strands, Weber's interpretation and Durkheim's facts, together in his 'analytic realism', and he suggested social study should look beyond the structures that held 'compelling and coercive power' over individuals, and instead explore the actors, their ends, means, conditions and norms, and so gain a full picture of social action. Miles and Huberman (1994), as noted above,

considered Durkheim's requirements could be better framed through the use of settings, events and processes as the sampling choices and basis for thematic coding of the qualitative data.

#### **5.3.4 Critical theory**

Marx added a twist by suggesting social actors engaged in a dialectic process with society. This is not the same dialectic meaning originally made famous by Socrates (Russell 1979:109), as in engaging in discussion, because Marx used it to describe conflict in society and the consequent process of change. He noted the philosophers had only tried to understand the world, but his dialectic process (what later became called instrumentalism) required the social actor in the search for 'truth' to engage with society, act upon it, and change it (Russell 1979:749). With the need to change society Marx demanded the pursuit of knowledge needed continual review, enabling social research to be dynamic and continually adapt. Critical theory study is now used to see organisations and events emerging from struggle and domination, in the same way that Marx saw wider society formed by class conflict. Larson's (1977) work fits into this approach by identifying a political underpinning for the professional project. The professions may be interpretive phenomena, but critical theorists look for a theory to adequately explain their workings (Alvesson and Deetz 2000;37). Larson (1977), Abbott (1988) and Macdonald (1995), as discussed in chapter 2, have all contributed to critical theory on the professions.

#### **5.3.5 Postmodernism and feminism**

Research on individual actors requires an understanding of postmodern ideas because these centre on knowledge and power acting through the individual at the moment of action (Foucault 1977). This interpretation, takes a personal, not structural or constructionist, view of the world. Lyotard (1984) was the first to reject grand theories (narratives) of class conflict or ideal types, and he placed more importance on personal interpretations; a position that further challenged the view that it is possible to use positivist (scientific) research approaches based on reason (Ritzer 1997). Burger and Luckman (1966) suggested we experience the world through signs, or discourses, in everyday text, and they examined and deconstructed the texts to see how they influenced our experience. Baudrillard developed his ideas around the simple signifiers of labels and signs of modern consumerism, and he suggested these were signs of social status and

power (Ritzer 1997:81). Such an approach takes the 'here and now' of postmodernist thought through three steps into wider culture:

- externalisation – where an external object is observed and a meaning is attached to it
- objectification – where a meaning is transferred to other situations, so the object takes on more importance than the situation
- internalisation – where, whatever the situation, the object becomes a signifier and the sign is internalised into culture.

The use of such terms for postmodernists is that they are powerful influences to form the basis of culture, and signifiers take on a disproportionate meaning. The work of professional associations, as seen in chapter 2, contains many signifiers relating to practice, power, status and knowledge, and they hold strong cultural influence.

Lyotard (1984) still saw postmodernism as part of the modern and did not see them as separate epochs (Ritzer 1997:129 and 221). Postmodernity does not necessarily mean the end, the discreditation or the rejection of modernity. Postmodernity is no more (but no less either) than the modern mind taking a long, attentive and sober look at itself (Bauman 1991).

Research methods analysing discourses lean towards qualitative analysis, and this is important because the term innovation has become a powerful symbol and signifier. Unfortunately, its true meaning has been obscured by what might be described as 'noise', where weak symbolism has resulted in strong objects when transferred and internalised by individuals. The signs bear little resemblance to the original object, and so there is a risk that the term innovation is liberally scattered through documents, without any real underpinning of its original meaning. This adds additional problems of interpretation to the previously identified definitional uncertainty, and these points will have to be tested.

A post-war study would have analysed the male-dominated professions without criticism because of its male-oriented history and tradition, and this omits a feminist perspective. Feminist thinking considers capitalism had damaged both men and women, and that the patriarchal society had exploited women (Evans 1995:13, Callas and Smircich 1996:216). Importantly for this research feminism allows a different lens to be used for research

analysis because it considers capitalism, not through such concepts as supply and demand and market forces, but rather through inequality and power (Callas and Smircich 1996:233). A feminist perspective of the data from this research project may illuminate some aspects of the workings of professional associations that would not be revealed if considered from only a traditional male outlook.

### **5.3.6 Evolutionary psychology**

The more recent intervention of evolutionary psychology seeks to challenge all the above theories of intergroup differences, and within group similarities, that go to form the standard social scientific model (SSSM). Tooby and Cosmides (1992) suggest the SSSM studies have failed “to explore or accept their logical connections to the rest of the body of science” (Tooby and Cosmides 1992:23) and they look to ditch social science, claiming it is based on the wrong premise, and has taken an independent path, separate from the rigours of analysis of the natural sciences. Zoologist G Simpson, writing in 1966 at the start of evolutionary psychology, said that all attempts to answer questions about the nature of human beings and the meaning of life before 1859 (the publication of Darwin’s Origin of the Species) had been worthless, and that “we should be better off if we ignored them completely” (Radcliffe Richards 2000:4).

Tooby and Cosmides (1992) see human behaviour not about norms but about actions driven by the need to survive. They want to move behavioural analysis back to analysis by positivist methods; back to the pure sciences. There is a link with Searle’s (1995) work, and he sees no opposition between culture and biology. He states:

*There ought to be a more or less continuous story that goes from an ontology of biology that includes cultural and institutional forms: there should not be any radical break. (Searle 1995:227)*

### **5.3.7 Problems of predetermination**

The task then is to validate the data and then test it against strong criteria. It is necessary to identify what is, or should be, regarded as acceptable knowledge in the discipline. Bryman (2004:11) recognised this was complicated still further because both qualitative and quantitative data should be collected objectively, or value free, and he found

objectivity difficult to achieve. He argued value free research was difficult for anyone already involved in developing knowledge of the subject because it is inevitable that 'theory laden observations' draw predetermined conclusions about the shape and content of the topic. Kant's (1781/2002) *Critique of Pure Reason* recognised this problem long ago: he separated information collected from observation or experiment, called a *posteriori* or empirical data (which he called 'analytic propositions') from a *priori* information achieved through deduction without sensory experience (what he called 'synthetic propositions'). He still found elements of predetermination in the mind of the researcher, and Habermas too argued that knowledge from the senses is:

*directed not [just] to matters of fact, as observation is, but rather to pre-interpreted matters of fact* (Habermas 1988:92).

As identified in chapter 4 the discussion of innovation in this research has a good deal of definitional uncertainty and this runs the risk that the uncertainty will influence some element of pre-interpretation. This possibility is considered in the review in chapter 8. The researcher is a member of several professional associations so the personal reasons for joining them and the existing knowledge of their workings may, or may not, influence the research process.

#### **5.4 A conceptual framework**

Given the diversity of options for investigation, it still requires this research project to be a discrete piece of work enabling a contribution to knowledge. The world of work is vast, and the study of the professions with their complexity and use of knowledge, as a subset of that field, is still expansive. The next stage is to ensure the research methods distil the theoretical frameworks down to something useful, effective and manageable, and this section focuses on what data is usefully collectable, and what analysis from that data is able to withstand robust challenge.

Miles and Huberman (1994) used conceptual frameworks as logical models to contain the scope of the research, and to guide it to ask the right questions, and so explore the underlying interests and activities of the parties. To restate, Parsons considered this encompassed analysis of actors, ends, means, conditions and norms, whilst Miles and

Huberman (1994) used settings, actors, events and processes. For the professional associations in the built environment the research asks just three questions:

- What are their interests in advancing innovation?
- What are they doing to pursue those ends?
- What evidence can they produce to support the first two questions?

The research leans towards an inductive rather than deductive process but consideration of deduction helps manage the sampling and analysis that will come from the study (Miles and Huberman 1994). Preceding chapters have already framed the underlying issues so the data collection will build on the research questions to explore the current level of awareness and activity, and the relative importance of the topic with the various institutions.

#### 5.4.1 A simple conceptual framework based on force field analysis

At a simple level a conceptual framework could be illustrated diagrammatically from the research questions as a linear model where the professional associations hold particular interests and undertake activities which, in turn, impact on their membership. Such a model is shown in figure 5.2 below.

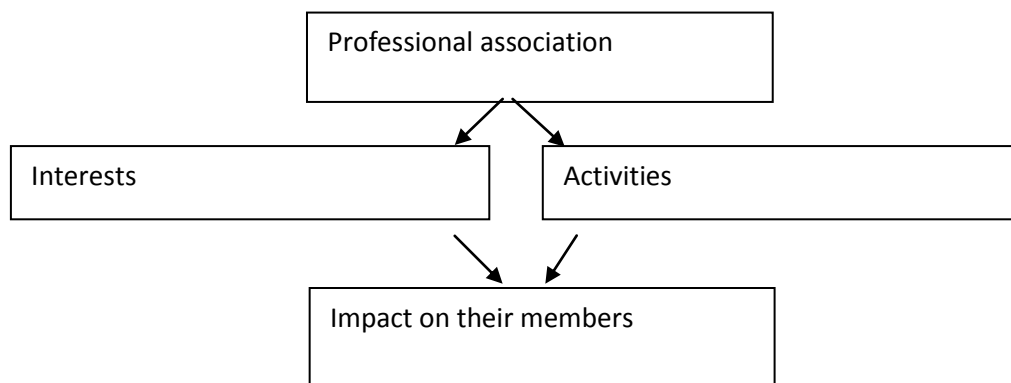


Figure 5.2 A simple conceptual framework for considering the work of a professional association on its members

Such a simple picture, however, does not explore the compelling or coercive powers suggested by Durkheim, and whilst it looks at high-level themes, it does not investigate specific aspects or interests. A better model might be formed from Lewin's (1951) force field analysis, illustrated in figure 5.2. This seeks to make a pictorial assessment of the

issues affecting change, and sets out both the driving forces for change and the resisting forces against it. It shows a dividing line between the two. For every driving force there can be a definable resisting force, although these may not have directly corresponding opposing elements (Lewin 1951). Forces are set out on a chart with the drivers for change above the dividing line and the resistors below it, and each element is scored from one to ten indicating the power of the influence. It presents a systematic, but not wholly objective analysis of the forces of change. Such illustration can be a useful contribution to change management by informing how strategies might be tuned to meet critical resisting forces.

An example is shown in the illustration at figure 5.3 on the next page. There might be drivers in favour of innovation such as training (A), measurement (B), incentives (C), strategy (D), freedom to experiment (E), and management support (F) shown above the line and, at the same time, there may be resistors to innovation such as low existing skills levels (A), management metrics (B), pay differentials (C), communications (D), tight job descriptions (E) and management traditions (F) shown below the line.

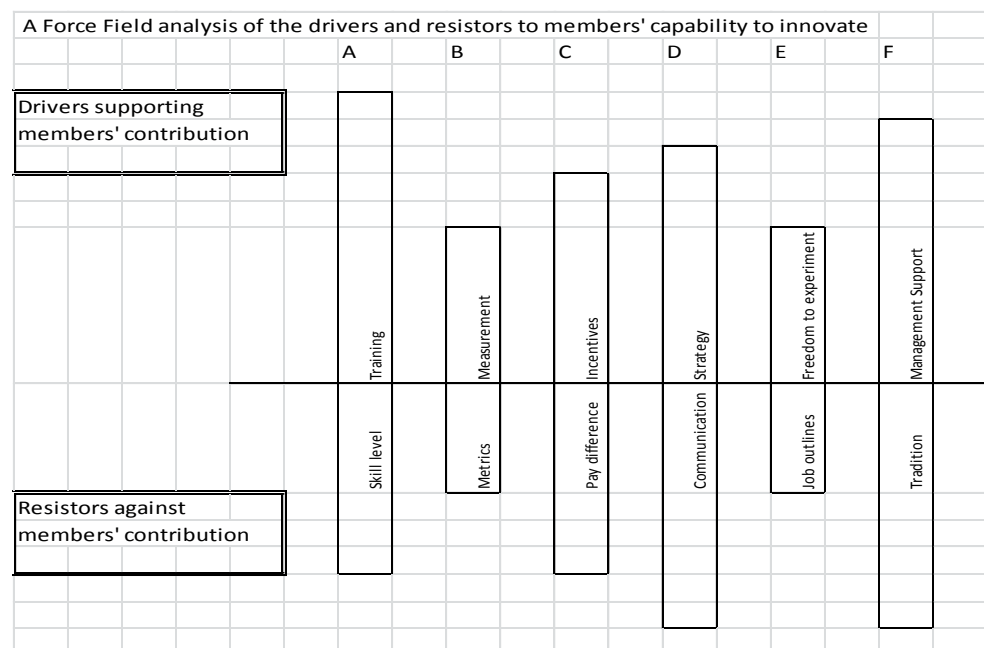


Figure 5.3 Lewin's (1951) force field analysis

#### 5.4.2 Fisher and Ury's model of interest

Chapter 2 established the professions as part of institutional theory, and chapter 4 alluded to the needs of government. These two bodies are distinct blocks that Parsons (1967) and



Miles and Huberman (1994) would recognise as actors, and they also fit with Weber's conceptual ideal types. It could be argued that both want economic growth, supported by innovation, though each may want to achieve the ends by using different means. They may have different interests and motives, or come to it from different starting positions. It is possible for both to achieve the same ends, but by working through different conditions and expecting different things from other players. Further discussion of such a model can easily get sidetracked into the vast area of conflict or conflict management, and that is not the intention here; rather it is to see how the model can be useful to clarify different interests.

For example, if the professions' purpose does not precisely align with a government's aims, but if both want economic growth driven by innovation then this could be modelled by an illustration from the work of Fisher and Ury (1991) based on their principled negotiation. They state that different parties have interests that are shared, differing or opposing. So professions and government might have shared interests in working to secure economic growth, but have different interests for how that growth is achieved. In other areas their interests, such as the holding and controlling of knowledge or the commodification of it, may be a point of opposition. This is modelled in the following pie chart (figure 5.4).

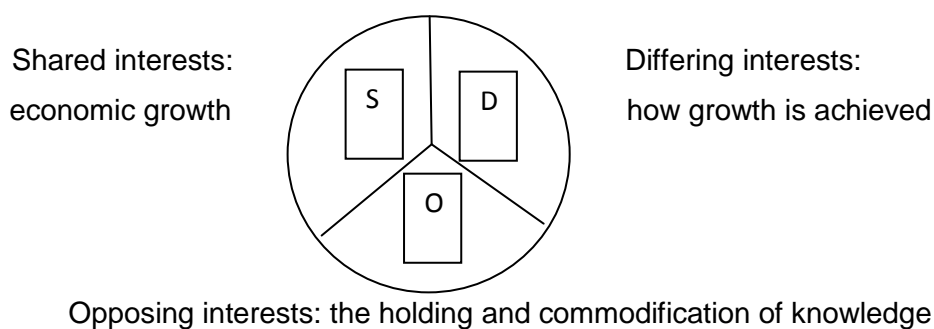


Figure 5.4 Pie chart of Fisher and Ury's (1991) shared, differing and opposing interests

Fisher and Ury (1991) used this approach to keep the conflicted parties talking. Negotiations first addressed shared interests before moving to open dialogue on differing interests. Only when these two elements were understood could discussion move to considering opposing interests. Difference, or conflict, could only be satisfactorily

addressed by continuously returning to the shared interests. The professions' interests in advancing innovation will be influenced by the needs and expectations of wider society, or other players, such as government.

One of the reasons that Marx was able to influence debate so effectively was that he identified a simple metaphor; that of class conflict, and although it had sociological weaknesses many people were readily able to understand the idea, and to position themselves within the model he developed. Describing the tensions and coercive powers, either through Lewin's (1951) force field analysis or Fisher and Ury's (1991) interests enables themes (or 'bins') to be drawn for the data and these help narrow the research activity, and also identify relationships between the themes.

### 5.4.3 Miles and Huberman's conceptual framework

Miles and Huberman (1994) propose a more useful structure for research analysis putting the settings, actors, events and processes against the topics; in this case the topics are the headings explored in each of the previous chapters. This is shown in figure 5.5 below.

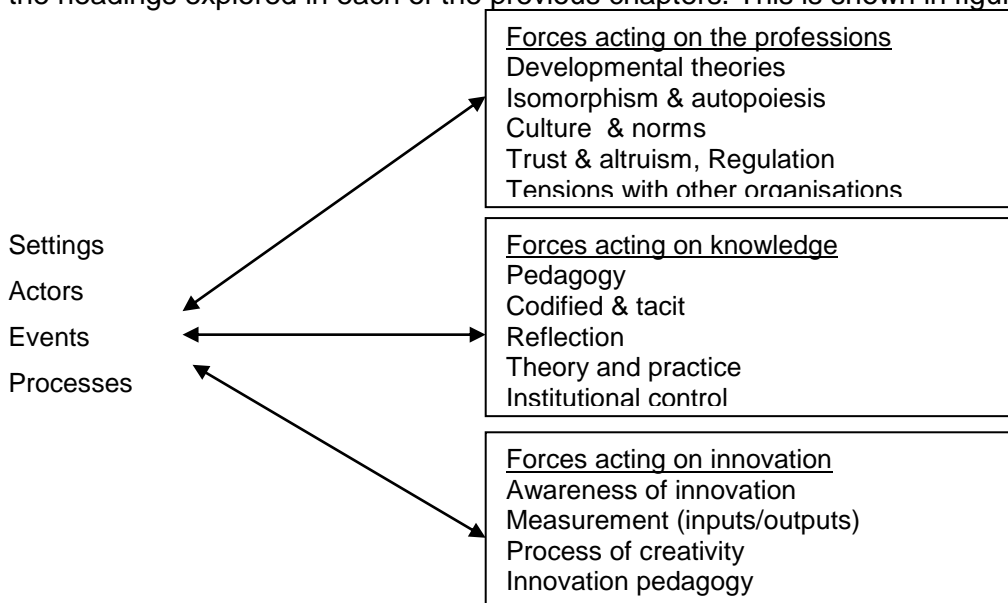


Figure 5.5 Conceptual framework: Support for members' capacity to innovate

The framework above is helpful but does not show the linkages and interactions to best effect. The directions of influence, as indicated by the use of two headed arrows, are not specific, and so the flow requires better explanation. The influences on innovation by

professional associations might be better illustrated in the improved conceptual framework shown below (see figure 5.6).

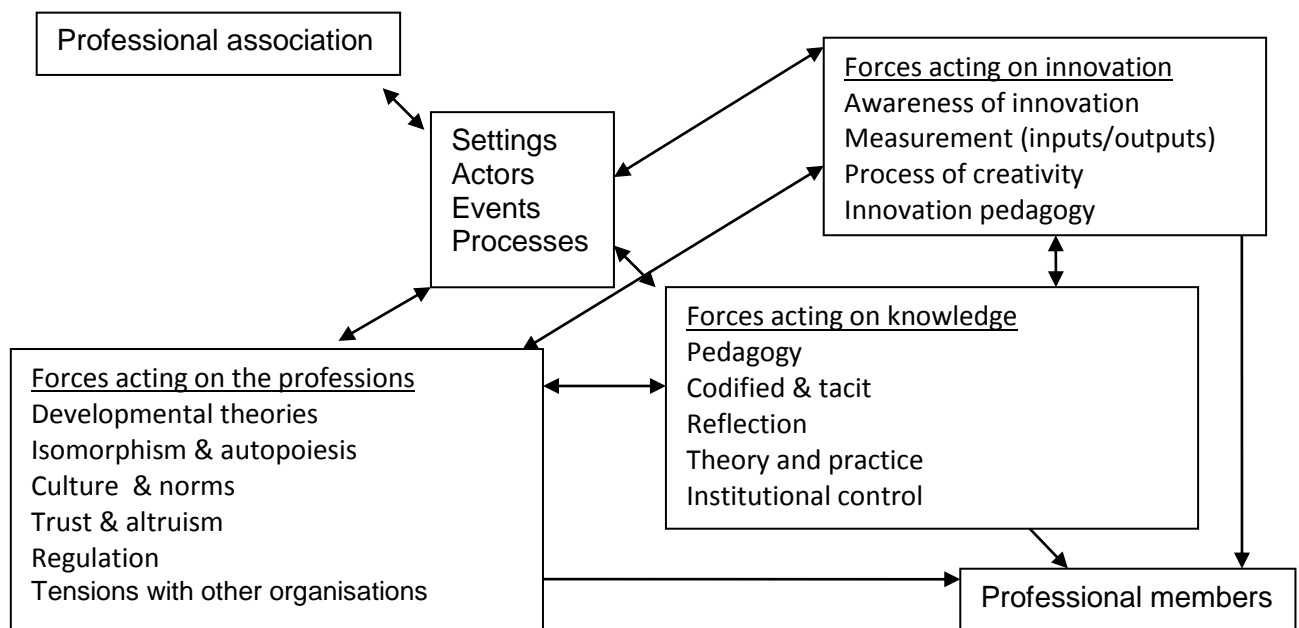


Figure 5.6 Improved conceptual framework (II) after Miles and Huberman (1994) to test how professional associations advance innovation.

This conceptual framework attempts to incorporate some of the dynamic movement of the forces acting on the institutions and individuals, and to recognise the interdependence of the topic and the players. Most of the directions of influence, as indicated by the arrows include a two-way flow but, the influences from the forces acting on the professions' members, coming from knowledge and innovation are likely to be one way, acting on the members rather than the members acting on the respective topics. Such a conceptual framework helps to set the boundaries for the research and illuminate the process, and so enables some management of the eventual output.

## 5.5 Data Management

### 5.5.1 Data collection

There are limits to what can be explored with interview subjects that do not have a grasp of the topics that have been identified by the research process, but use of documents and interviews can help to build a picture to answer the primary research questions.

The conceptual framework in figure 5.6 has already identified a possible coding scheme for the research based on the content of the earlier chapters; chapter 2 provided details of the professions, chapter 3 details of their use of expert knowledge, chapter 4 details of innovation and this chapter provides a framework for the research methods. Yin (2009:114) does not spell out coding in his work, instead he focuses on general strategies; taking theoretical propositions, describing the case and advocating using multiple sources of evidence, creating the database and maintaining a chain of evidence. Conversely, Charmaz's (2006) work on coding grounded theory does not include commentary about case studies, but she says coding "generates the bones of the analysis" (Charmaz 2006:45). An outline of a possible coding framework can, therefore, be proposed and is shown on the next page at box 5.1.

This is a somewhat sterile list and Charmaz (2006:47) suggests the first mandate of coding is to study emerging data which gives clues to emerging themes. Glaser and Strauss (1967) advocate 'constant comparative methods' where the coding continues to evolve as the project progresses leading to focused coding as the themes emerge (Charmaz 2006:57). There is also the opportunity to reassemble some of the analysis through axial coding, a term for making links (Strauss and Corbin 1997). The codes noted are descriptive, and not thematic, and if the themes such as innovation pedagogy are not identified from the analysis then the search will move to exploring the interests and activities that might reveal what relevant discussion, influence, or effort is taking place.

Charmaz's (2006:55) notes the importance of the language used in *in vivo* codes looking not just at the terminology but the meaning behind the terminology. It is expected that the evidence of whether the professions advance innovation, as posed by the three research questions, will demand interpretation of the language behind the data. The following examples may, therefore, illustrate how the data can be better analysed leading to stronger themes being developed:

- Best practice (code 1.1.1) may be an activity, but the research will look to see if that activity constrains innovation (code 3).
- Innovation (code 3) may be an activity, but the research look to see who is driving it and whether it is driven internally or externally (as yet uncoded).

- Management (code 1.6) may demand change to support more innovative practices, and the research will look to see if this is dominant over professional practice (code 1.1.1).

1.1	Professionalism
1.1.1	Standards/practice
1.2	Professionalisation
1.2.1	Status
1.3	Government
1.4	Clients
1.5	Customers
1.6	Management
1.7	Institutional activity
1.7.1	Isomorphism
1.7.2	Autopoiesis
1.7.3	Norms
2	Knowledge
2.1	Expertise/body of knowledge
2.2	Theory/practice
2.3	Tacit/explicit
2.4	Reflection
2.5	Jurisdiction
2.6	Lock-in, path dependency
2.7	Knowledge transfer/pedagogy
3	Innovation
3.1	Measurement
3.2	Process
3.3	Pedagogy
3.3.1	Experiment
3.3.2	Exploit
3.3.3	Collaborate
3.3.4	Interact
4	Research method
4.1	Interpretive
4.2	Phenomenon
4.3	Postmodern/feminist
4.4	Evolutionary
4.5	Reflexivity

Box 5.1 A proposed code for qualitative data analysis

It is important to try to avoid the problems of predetermination noted in section 5.4, and more specifically to avoid preconceived codes and categories (Charmaz 2006:67). The eventual coding arrangements used will be explained alongside the data collected in the next chapter.

### **5.5.2 Data sampling**

The introduction suggested there are 300 chartered and non-chartered professional associations with a membership of possibly 12 million in Britain. This is a large population and requires a representative sample to make the task easier (Neumann 2006). The professional association case studies chosen are noted in section 5.9 below.

Within each profession, the target for analysis of that profession's activity to advance innovation is small. There are few documents that address this specific topic and few people are directly engaged in the activity. Indeed the data needs to be drawn from a wider sphere to identify what activity, if any, is undertaken at all. This makes sampling much easier because there is not a vast population to take samples from. All those contacted for the purpose of this research will have a representative view of their association with the content of chapters 2, 3 and 4. The decision on what data is collected will be made from a range of documents and interviews, and this is explained for each case study.

### **5.5.3 The use of qualitative data analysis (QDA) software**

The documents and interviews in this research project were analysed with the aid of Weft QDA, a free software tool developed by Alex Fenton at the University of Surrey. Whilst it does not include the multitude of features provided by bespoke QDA software, it does enable the researcher to undertake basic coding from documents and interviews. It is recommended for those using QDA software for the first time because of its ease of use. For this project it was considered to provide sufficient analysis.

Both Habermas and Giddens were known for their lack of interest in conducting empirical work (Alvesson and Deetz 2000). The choice of simple software has not been found to be a barrier to securing valid analysis. Indeed, King (2008) notes that the use of computer-assisted qualitative data analysis software (CAQDAS) can result in 'overcoding'. The analytical work for case study research is not removed by using QDA software and it still requires the researcher to provide the source of the concepts. In any event it is important to focus on the outcomes, as Mills (1959:55) notes "the details, no matter how numerous, do not convince us of anything worth having convictions about".

#### **5.5.4 Content analysis from documents**

The texts produced by government and professional bodies can be productive sources of data (Prior 2004), and the textual analysis from within the documents can also be instructive (Travers 2001:5). The analysis of documents and their text will contribute to an understanding of how the activities of the professions advance innovation. Their work on membership, education and professionalisation are reported in published papers, committee reports and internal documents. Such analysis may give an insight into whether the professions' strategy and their internal systems are aligned with practices that support innovation, but as these documents are for public consumption, it is expected they will be sanitised to remove discussion of conflicts or differences. They can still be instructive, and the documents considered for detailed analysis focus on the interests and activities and members' behaviours and include constitutions, business plans, learning expectations, and the process for the validation of professional courses and competences.

#### **5.5.5 Anticipated findings from the document analysis**

There are two likely outcomes from the document analysis. The first will be the general themes or the purposes of the documents. This will require general reading and interpretation supported by QDA software. The second, taking a lead from Fagerberg et al's (2012) work, is to look for keywords used in the texts. More specifically, the analysis in chapter 4 distinguished the wider terms used for innovation outputs from the more specific terms associated with the innovation inputs. The analysis for this research was set up in three parts and then subdivided into three parts. The first level of analysis considered:

- a. the terms associated with general professional activity
- b. the terms associated with wider innovation
- c. the terms associated with innovation inputs

The purpose of this approach was to compare, and target, the different levels of activity as shown in figure 5.7 below.

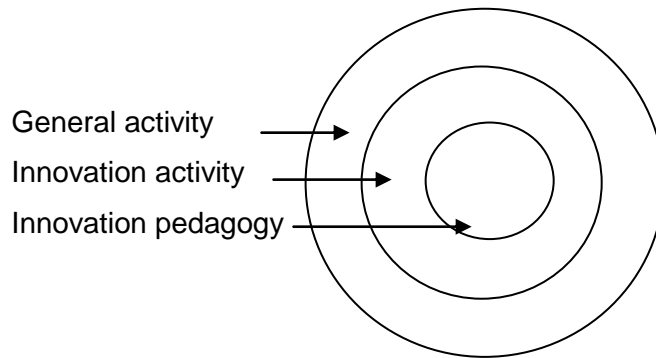


Figure 5.7 Targeting of innovation by purpose.

The terms for general activity included: 'business', 'management', 'customer', 'client', 'standards' and 'knowledge'. The terms for wider innovation activity considered words such as: 'new', 'ideas', 'exploit', 'improve', 'change', 'experiment', 'search' and the actual term 'innovation'. The words more closely connected to the inputs of innovation or innovation pedagogy included: 'creativity', 'problem solving', 'interaction', 'collaboration', 'resources' and 'reflection'. The first category was chosen to act as a relative comparator against the two later categories. Additionally the analysis looked for a break down into three categories to show where the emphasis of the activity rested, namely:

- a. personal –relating to activity undertaken or required by individual members
- b. practice – which relates to the expectation of the professional work itself
- c. institutional – relating to the work at the organisational level.

The targeting of activity by level is shown in figure 5.8 below.

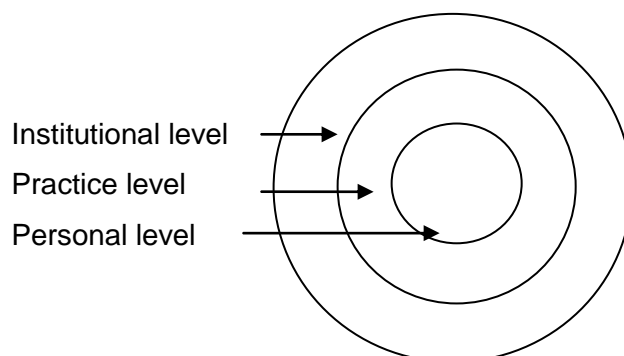


Figure 5.8 Targeting of innovation by level.



Analysis of this data proved to be easier and quicker using a straightforward word search rather than using the QDA software. It proved a straightforward exercise to separate out the meaning of words relating to personal, practice or institutional activity. For example, if the term ‘collaboration’ related to personal activity it would be at the level of the individual member working with others. If it related to practice it would be a more general expectation of all members, and if it was institutional it would be because the institution was collaborating with other institutions. The expected results can be shown as a table as illustrated in the blank text analysis shown below at table 5.1.

Document	Business	Management	Customer	Client	Profession	Standards	Knowledge		New	Idea	Exploit	Improve	Change	Experiment	Search	Innov		Creat	Problem	Collab	Interact	Resource	Reflect	Totals	
Corporate Plan																									
Personal																									
Practice																									
Institutional																									
QAA Benchmark																									
Personal																									
Practice																									
Institutional																									
Constitution																									
Personal																									
Practice																									
Institution																									
Competence																									
Personal																									
Practice																									
Institutional																									

Table 5.1 Text analysis of word count in key corporate documents for a professional association.

It should be noted that the words such as ‘create’ at the column headings are deliberately misspelled so as to capture the wider usage of the term. ‘Creat’ used in a search engine enables the capture of words such as create, creative and creativity.

However, as Freidson and Larson (1977) both acknowledge:

*it is illicit to jump from the verifiable attributes of occupational organisations (expressed in formal documents, by laws, codes, curricula, .. and the like) to the attributes of individuals (Larson 1977:59).*

This, therefore, requires an understanding of the institutional picture from the perspective of individuals working in or alongside the associations.

### **5.5.6 Interviews**

The process of the interview is about building a relationship and getting the interviewees' interpretations (Rubin and Rubin 2005:36). There is an expectation for the interviewer to adapt the interview based on what is learned, and at the same time maintain how the findings will sit with the anticipated data analysis for the topic and the research question.

Interviews took place with staff, board members, and members of the individual professional associations to explore their internal workings. A further group was included for the academics charged with delivering the educational requirements of the professions.

The unit of analysis is at the level of the professional association, but within each specific institution it was possible to focus on detailed activities advancing innovation. Such an approach had already found favour with researchers exploring a community of people at work. Their method was:

*to gain acquaintance, through conversation and observation, with the routines of behaviour current in the particular social system being studied (Burns and Stalker 1961:1).*

The process here sought to answer the three research questions. Burns and Stalker's practical approach was to make notes of their interviews and meetings and record the proceedings with a tape recorder (Burns and Stalker 1961:14) a process supported by Lofland and Lofland (1995:87), although they identify the dangers of missing the point in such an automated process. Strauss (1987:63) by contrast suggests recording is not essential and taking notes from interviews is sufficient. Burns and Stalker arguably had greater resources and better access to organisational personnel than many researchers. Their book suggests an open approach, more in line with grounded theory (before

grounded theory was recognised as a research approach), rather than it being a targeted research project. Detailed notes of the interviews were recorded for coding and to maintain an audit trail.

### **5.5.7 Anticipated findings from the interviews**

The interviews were planned to target:

- the views at the centre – to better understand the interests of the institutions
- the views of the educational partners – to better understand the activities supporting the professional members' ability to innovate
- the views of ordinary members – to identify what patterns of procedure operated to support the practices.

For each group the research set out to explore the levels of awareness about innovation activity at a general level and specifically for innovation pedagogy. It was also widened to allow for consideration of activity at the level of the institution, the level of practice or the level of the individual. For the interviews it was possible to consider whether the associations have an interest in innovation and whether they have turned the interests into activity. This particularly explored path dependency noting that action could be constrained by barriers such as behavioural norms and other commitments. The themes that result from the coding are explained for each case study, and the data supported by quotations from the interviewees expresses some of the views and messages of the individual participants.

Additionally, to simplify the findings, it was considered possible to map the involvement of the actors against Tidd et al's (1997:364) suggested levels of innovation measurement.

These were:

1. innovation is not even thought about, it rarely happens
2. there is some awareness but with random and occasional responses, and informal systems
3. there is awareness with formal systems in place – but this could still be improved
4. highly developed and effective systems including the provision for improvement and development.

Such a cross-tabulation enables a presentation of the data on a grid mapping the three areas of actors' engagement (central, educational, member) against the areas of activity (institutional, practice, pedagogy for the members) and for each, it is then possible to rate the level of involvement against Tidd et al's four levels. This can be illustrated in the grid below at table 5.2.

	Interests and Activities				Interest on members' contribution	Activity on members' contribution
	Institutional Interest	Institutional activity	Practice Interest	Practice Activity		
Interview category						
Central Personnel	2	2	2	2	2	2
Educational Partners	2	2	2	2	2	2
Membership	2	2	2	2	2	2

Table 5.2 Assessment of Tidd et al's (1997) interest and activity for innovation (Note: the figures within the cells are for illustration only)

Data for other areas of associated awareness or activity that do not fit so neatly into this analytical chart , such as those interests or actions from actors, specific settings, actions, events and processes (Miles and Huberman 1994), will be reported separately.

An evaluation of the research methods must ensure adequate collection of data, its proper presentation, and it must be relevant and appropriate to the task (Yin 2009). The work must be situated in an ontological and epistemological framework (Knight and Turnbull 2008, Bryman 2004) that results in the findings being grounded in a justifiable system capable of defending robust challenges about its meaning. The data is analysed to provide individual case study findings (at chapter 6) and a cross-case synthesis (at chapter 7). Four out of five of the case studies are 'mature' organisations and one is of a 'youthful' professional association – this may additionally enable some time line implications to be reported.

### **5.5.8 Questionnaires**

Questionnaires were conducted as part of the pilot case study to inform the early research and provided the opportunity to provide some quantitative data for triangulation of the qualitative findings. This method was not continued for the other case studies, and the reasons for this are discussed in chapter 6.

### **5.5.9 Unexpected findings**

It is possible that the data will fit into the expected framework for the questions asked, but it is also possible that it will not. The data was documented in such a way that the researcher would not excessively bias or distort the findings, but also that it would allow additional themes to be explored.

## **5.6 Ethical considerations**

There are ethical considerations for this research, but the risks of breaching ethical guidelines are low. It is not a piece of cutting-edge medical or psychological study, although it could still put participants at risk of harm by compromising work relations. There are basic ethical standards of respect, non-manipulation and support for democratic values and institutional norms that must be adhered to. "Naivete [about ethics] itself is unethical" (Mirvis and Seashore 1982).

The information for the document analysis is all collected from publicly available sources, but if the documents had not been in the public domain they would have been used only with the permission of the relevant institutions or professional associations.

The participants for interviews contributed voluntarily and without coercion. The purpose and protocol of the research project was made explicit in advance of any discussions taking place.

All participants had the opportunity to ask questions and to obtain a copy of the data collected and the resultant findings (Creswell 2003). A briefing statement was developed (see box 5.2) so that participants could be reassured as to the use of data, and this was

tested for early interviews, but found to be ungainly, and so was only used when the process was challenged. It was, however, on hand and could readily be included in preparatory emails, or used as part of interview discussions.

#### **The ethical basis of this research – a note to all participants**

The purpose of this research is to identify how professional associations advance innovation. It therefore seeks to identify how professional associations hold, develop and disseminate information.

The interviews and textual analysis associated with this research are carried out to strict ethical guidelines ensuring that any documents used will be in the public domain and, for any documents not in the public domain, these will be used only with the permission of the relevant institutions or professional associations. Participants interviewed will contribute voluntarily and without coercion. The purpose and process of the research project will be made explicit in advance of any discussions.

All participants have the opportunity to ask questions and obtain a copy of the data collected and the resultant findings.

The process of the research will be made transparent to the participants, but the findings of the data collection will be confidential to the researcher and the participant. No quotes or directly presented information will be included in the final report without the express permission of the participant and/or the relevant organisation.

Box 5.2 The ethical arrangements for interviews

### **5.7 Reporting the data**

The task of this research is also about reporting the data to show mastery of the methodology used (Yin 2009), and present the findings with clarity. The research attempts to communicate the findings easily to non-specialists, and focus on the needs of the readers rather than the needs of the researcher. It should clearly show the structured analysis from a number of comparative exploratory case studies. Importantly, the report

should be significant and complete and should consider alternative perspectives, display sufficient evidence and be composed in an engaging manner (Yin 2009:185).

## **5.8 Validity**

The test for qualitative research is that it is reliable and valid (Bryman 2004, Neumann 2006) and Yin (2009:40-45) identifies four specific tests to establish the quality of empirical social research for case studies, these are:

- Construct validity, to test the data against the conceptual framework set for the project, but here no defined concepts are set out.
- Internal validity, to test the links between the professional bodies' plans and their actual activities.
- External validity, to test if the findings are generalizable to other cases or fields of study.
- Reliability, to test if the process can be replicated to produce similar findings.

Lincoln and Guba (1985), however, argue that qualitative research requires trustworthiness and they use terms such as credibility, transferability, dependability and confirmability, which they argue gives better insight into the worth of the study. These terms are simpler, and more understandable, and they overlap to some degree with those identified by Yin (2009), Bryman (2004) and Neumann (2006). A blend of different tests would require this research to be trustworthy, and this can be achieved by expecting the results to be relevant to the task, consistent, replicable and generalizable.

The use of case study for exploration does not require Yin's (2009) second test of internal validity because exploration produces only weak evidence of causal or spurious linkages (Yin 2009:42), and it is not the express purpose of this research to seek causal links between associated activities. The test of internal validity is therefore not the prime objective of this case study research.

The essence of the case study, and a tendency among many types of case study, is to illuminate a decision or set of decisions by the actors, such as: why were they taken, how they were implemented, and with what result (Yin 2009:17). Such questions align closely to those posed about the interests and actions that are associated with innovation.

Qualitative research as a strategy uses words rather than numbers or 'quantification' for the collection and analysis of data (Bryman 2004:266), so analysis of the published documents and, where possible, internal communications of the professional bodies, supports a possible triangulation of findings with the consistency of the interviews.

A pilot study was undertaken with the Chartered Institute of Housing, to provide evidence to enable the study to be refined and the second case study, RICS, enabled yet further refinement of the process. The consequent analysis focused on what actions the professional associations were taking to advance innovation; it rested on the author's and interview participants' understanding of the term, and so the relevance and consistency of the data was determined by that understanding.

The case study approach enables the researcher to review the findings with both peers and participants, and this helps with the validation of the findings (Yin 2009); it reduces the likelihood of false reporting of any findings. This exploratory case study considers the actor's interpretation, seeking to understand the social construction of their interactions. It considers the symbolism of the discourses, and uses their thinking to seek an understanding of the phenomenon and the actions of the professional bodies considered.

## **5.9 The case studies chosen**

There are a number of reasons for choosing representative case studies. The researcher is familiar with the work of the built environment and housing, is a member of two of the case study organisations and has held office in both. Additionally the researcher has taught on topics associated with the built environment and understands the university structures, and the curricula associated with built environment teaching. This is not a sector at the forefront on innovation, indeed the construction sector is criticised for performing badly in terms of innovation (NESTA 2006). At the root of the selection, however, is that most of these case studies represent the main professions operating in the field of the built environment and housing.

- Chartered Institute of Housing (CIH)
- Royal Institution of Chartered Surveyors (RICS)
- Royal Institute of British Architects (RIBA)
- Royal Town Planning Institute (RTPI)



- Institute of Residential Property Management (IRPM).

Details of each of these professional associations are noted below.

### **5.9.1 Chartered Institute of Housing (CIH)**

The Chartered Institute of Housing (CIH) was identified as the pilot for this research project. It is a professional body for people involved in housing and communities (CIH 2010A) and its website strapline states it is “the independent voice of housing and the home of professional standards” (CIH 2013). It received a Royal Charter in 1984 and today is a membership organisation to promote the science and art of housing.

CIH is an interesting case study because, although it has 22,000 members, there is no requirement for a license to practise, and the membership represents only a minority of those actually engaged in housing management activity (CIH 2010A). More than half its members are women; 56% (CIH 2011a) because historically it grew from the work of Victorian reformer Octavia Hill in the 1860s, and this led to the formation of the Association of Women Housing Workers in 1916. After the First World War a (mostly male) organisation developed in the Midlands, called the Institute of Housing (Millerson 1964) and the two associations merged in 1965 to form the Institute of Housing Managers. It changed its name back to the Institute of Housing in 1974 (CIH 2010A).

### **5.9.2 Royal Institution of Chartered surveyors**

RICS is the world's leading professional body for qualifications and standards in land, property and construction. It is one of the oldest of the professions. A surveyors club was formed in 1792 although formal articles of association were only agreed in London in 1868. Today it has 100,000 members and 40,000 students and operates in 140 countries (RICS 2011a). It is the most global of the chosen case studies. It heavily promotes the professional association's role of gaining status on its website which states:

*As people, governments, banks and commercial organisations continue to demand more assurance of certified standards and ethics, attaining RICS status is the recognised mark of property professionalism (RICS 2011a).*

Predictably, from the literature in the earlier chapters, the emphasis in this quote is on standards of existing knowledge rather than the creation of new knowledge. The overt reference to status may lack subtlety, but the website reinforces the credentials of existing members, and offers a lure to draw in new members.

### **5.9.3 Royal Town Planning Institute (RTPI)**

The Royal Town Planning Institute (RTPI) was established in 1914 in response to the increasing role of planning in urban developments in the UK. There had been a need to redevelop unhealthy areas that were built in the industrial revolution, and new ideas were formed by pioneering industrial philanthropists such as Wilfred Owen and Titus Salt. This led to the Garden Cities movement and new town building. The institute was granted a Royal Charter in 1959. It is a learned society with a purpose to advance the science and art of town and country planning and spatial planning for the benefit of the public. It has 23,000 members and it sets the professional standards for planning practitioners. It accredits planning courses nationally and internationally (RTPI 2013a).

### **5.9.4 Royal Institute of British Architects (RIBA)**

The Royal Institute of British Architects (RIBA) is another old, traditional association. It was founded in 1834, awarded its Royal Charter in 1837, and established a board of architectural education in 1904. It now has 40,000 members worldwide and architects are one of the few professions regulated by primary legislation. The Architects Act 1997 sets out the work of the Architects Registration Board (ARB 2013) in Britain which provides a disciplinary framework and controls the use of the title 'architect'. In a similar way the profession is recognised by the European Parliament and Council directive 2005/36/EC, reflecting the UK parliamentary requirements, and setting out the requirements for a code of conduct, confirmation of registration and a complaints procedure. This may provide a different angle on how the profession and individuals working within it operate.

According to RIBA's website (RIBA 2013a) "The Royal Institute of British Architects champions better buildings, communities and the environment through architecture and our members." It adds that it provides the standards, training, support and recognition for its members to operate. Its website is keen to relate its work to partnership with

government, and the recent government review for the Minister for Culture, Communications and Creative Industries (DCMS 2014), led by Sir Terry Farrell looks to see how architects can better deliver high standards of design.

### **5.9.5 Institute of Residential Property Management (IRPM)**

The final case study chosen is the Institute of Residential Property Management (IRPM), a new professional association incorporated in 2002 to promote increased professionalism for the management of leasehold residential blocks. Such management activity is common worldwide but, in England and Wales, the old feudal arrangements of landlord and tenant persist, creating additional management complexity. The Institute was created to introduce personal and transferable recognition of skills through qualification. An exam structure was set up in 2004. Practitioners saw the advantages of competitive advantage through qualification and the higher status associated with membership. Membership has increased, since incorporation, to 2,700 (IRPM 2013). The Institute's aims are to raise standards, provide career development and generally improve the standing of the sector in the eyes of the public (IRPM 2013). It requires compulsory continuing professional development, and it recently agreed new governance arrangements and new articles of association to reflect the growth in membership.

### **5.10 Managing the different sociological approaches and the project overall**

There has been much interest and activity in the management of innovation since Burns and Stalker's (1961) work. This overlaps with Freidson's (2001) proposal that the professions form a 'third logic' with the markets. The research requires an understanding of institutional norms, rules of behaviour, aspects of culture and the social tensions acting on the professions from management, customers and clients. Importantly, data needs to be collected to explore what patterns are exhibited by the professions as they pursue their interests and activities.

Human behaviour has long been analysed as a sociological phenomenon. The traditional methods sought to find scientific, universal ideas and possibly even social laws to explain our society – after all, Auguste Comte created the term 'sociology' to mean a universal

science. Sociological ideas are based on a process that builds knowledge on past analysis and refines it to discover a single justifiable narrative moulding the 'plastic' characteristics of humans. The challenges to traditional sociology show that such ideas are not the only approach to take. It is vulnerable to critique from the different interpretations of postmodernism, deconstructionism and evolutionary psychology that challenge the very basis of sociological knowledge and the theories underpinning it (Ritzer 1997:10). There is a limited coherence to the feminist and postmodern interpretations, and whilst they do not fully override the traditional work of the social scientist, they do demand of them a wider and more critical view of their research (Ritzer 1997). In particular they demand a look to the everyday, the emotions, feelings, reflection and experience as being more relevant, and to present this without the perceived facts leading to grand explanations. Such criticism supports Taleb's (2007) view that the narrative can get in the way of understanding. The challenge of the poststructuralists is a philosophical challenge as well as a scientific one.

To be manageable, the research will have to be selective, but such an approach is not without precedent, indeed Weber himself was;

*not interested in the relationship between the natural and cultural sciences...not troubled by the implications (of)... Geisteswissenschaften for the extension of the critique of pure reason... he took only what he needed to clarify his own research practice (Habermas 1988:10).*

This project will do better than that, it will look to offer a wide span of data and evidence, and not cherry pick just the headline issues.

This research project still has to present social science from a coherent platform of true justified belief. Even if the very basis of valid sociological research is open to challenge, the findings from qualitative studies are considered to have an element of 'undeniability' to them (Miles and Huberman 1994). The data and evidence collected will be assessed and evaluated against the various different interpretations. The case-by-case data is set out in the following chapter and the cross-case analysis reviewed in chapter 7.

## Chapter 6 Research into the activities of professional associations – the results of five case studies

### 6.1 The findings from the case studies

Chapter 2 highlighted the theories of professional development and the impact of culture, chapter 3 the role of knowledge, chapter 4 the creative process underpinning innovation and chapter 5 considered how the profession's contribution to advancing innovation could be assessed through research, suggesting a multiple case study approach. This chapter presents the empirical findings of that case study research from five different professional bodies all associated with the built environment.

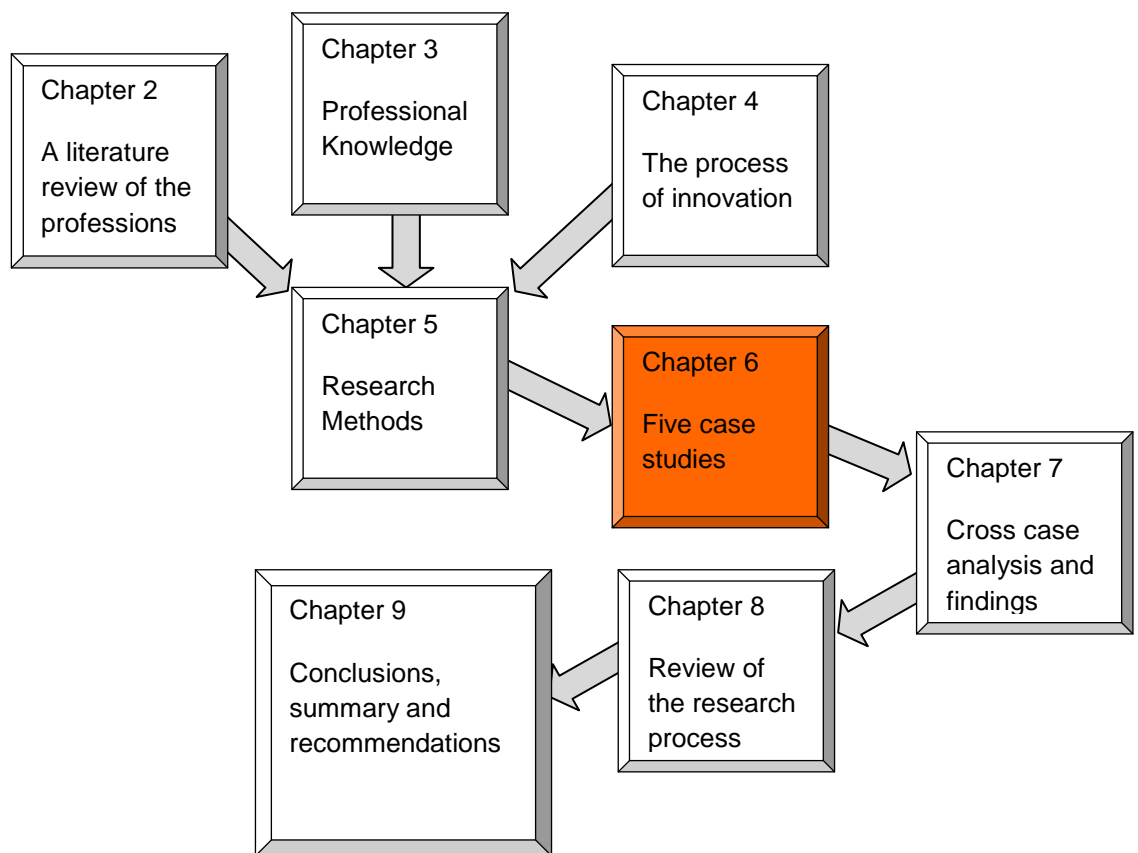


Figure 6.1 A diagrammatic representation of the flow of the thesis highlighting chapter 6.

It is important to restate the focus is on the bridging point, the junction, between the professions' educational activities and the creative process underpinning innovation. The

research plan sought a broad base for data collection by framing the scope of the exploratory study on three questions:

- What are the professional associations' interests in advancing innovation?
- What actions are they pursuing to achieve those ends?
- What evidence can be produced to support the first two questions?

The expectation was to explore the interest and actions through the evidence of the culture, norms, settings and events of the professional associations, and in particular to look at their educational expectations. The process was to analyse their documents and to hold discussions with relevant staff. The documents included business plans, constitutions, educational benchmark statements and competence statements. The document analysis explored the institution's possible interests, and looked for specific evidence of activity related to *innovation* from both the wider interpretations and, more specifically, for terms associated with the inputs to innovation. To better put these two aspects into the general context of the association's activity the documents analysed also considered the wider social influences from business, management, customers and clients. To supplement the documentary evidence interviews were undertaken with members of staff, educational partners and ordinary members of the professional bodies, with a view to enable the exploration of more specific aspects of the interests and activities of the professional bodies.

### **6.1.1 Constraints on collecting data for the case study**

As would be expected in a case study there were constraints in collecting some of the desired data. The evidence detailing the interests and activities of the professional associations was obtained from the content of their strategy, systems and from staff activity. The pilot study additionally considered data questionnaires but the subsequent case studies relied just on qualitative analysis from documents and interviews and this is explained below.

In most cases it was possible to access participants for interviews from each of the three groups; staff, educational partners and wider membership, but it was not possible to secure an interview with senior staff at the Royal Town Planning Institute. However, other evidence from documents and the Institute's educational partners enables a partial picture

of their approach to advancing innovation which proves a useful comparison with other case study evidence.

## **6.2 Chartered Institute of Housing: the pilot case study**

### **6.2.1 CIH document analysis**

The documents analysed for the CIH case study covered major publications such as the business plan, annual reports, committee reports, web pages, training material, the formal constitution and other supporting documents of the professional body. All the documents were readily in the public domain. In 2010 CIH was undergoing a significant change in its governance with a newly adopted strapline of “Learn with us. Improve with us. Influence with us” featured within a high-profile media campaign. This background has some relevance when considering the findings from the document analysis because terms such as ‘improve’ and ‘learn’ had an increased profile at the time of the survey, and so may be disproportionately represented in the data. The strapline is still in use in 2014 and the common terminology of the association still readily uses and refers back to the ‘learn, improve and influence’ slogan.

Chapter 4 noted a concern that using the term ‘innovation’ does not always signify a real intention to innovate, but is merely a vogue use of the term that obscures the true intention of a proposed activity. An example of this comes from one CIH publication (CIH 2010B) which quoted the chief executive as saying:

*You will see the sector’s commitment to excellence and innovation, illustrated with examples of existing good practice from around the UK (CIH 2010B).*

However, the document doesn’t contain any examples of actual innovation, rather it contains the more predictable best practice response expected of a professional body for increasing awareness for, and informing on, such social issues as housing supply, standards, support for the vulnerable, tackling poverty, sustainability, localism and employment. A planned intention to innovate through any attempt of measured activity of the inputs and outputs of any part of a crafted strategy did not feature in this document. This illustration of a subjective conviction to advance innovation is one of the difficulties to be managed in interpreting the data.

The sample documents analysed in detail were:

- CIH corporate plan (CIH 2012)
- Quality Assurance Agency benchmark statement for housing (QAA 2006)
- CIH constitution (CIH 2011).

It would have been useful to compare the benchmark statement against expected competences which are used by many other professions but, in 2013, the CIH did not have such a set of competences. It might have provided further insights into the interests of the professional body's expectations for attitudes, behaviours and capabilities and so provided an alternative source of data. Instead, for the purposes of comparison, the gap was filled by searching for competences produced by the major employers in the sector, such as housing associations and local authorities. One set of competences was used as a comparator from Genesis Housing Group (Genesis 2012) because it was found to be particularly comprehensive. The relevance of this inclusion is noted below.

The interests set out in CIH's corporate plan (CIH 2012) quite properly focused on excellence, informed decisions and solutions for action to support its membership. The three core aims were to ensure the customer was central to service delivery, specifically "at the heart" of CIH, and there was a specific plan for investment in knowledge, with a catchphrase of 'everything we learn we teach'. The general purpose of the corporate plan was, predictably, to make CIH 'the home of professional standards'. The close analysis of such documents throws up what may be unintended consequences, but the use of the term 'customer', which dominated the early part of the document, expressly at page 6, shifted to member and customer by page 7, and moved finally to member by page 11. The document did not clarify exactly who the customer was. All the messages were very positive, as expected for such a public document, which meant that any analysis of the underlying tensions influencing the association would be a pointless exercise. In any event the association restricted copying of the document so it was not possible to undertake word searches or copy it into QDA software. The word count included in the chart below was undertaken manually.

The CIH constitution (CIH 2011), titled the Charter and Byelaws, was under review at the time of the pilot study, and was included because it framed the purpose of the organization, and was the most current of any equivalent documents from the other case



studies. Its content focused on institutional and wider governance matters but ignored the practical role of members, though it did provide illustration of the traditional values that influence professions, and especially those that hold a Royal Charter. Apart from the anachronistic language the charter states that the purpose of the profession is to promote the science and art of housing, and specifically the practice is “primarily as a service to the community”. The institute has the powers to:

*Provide opportunities for the acquisition and dissemination of technical information by and among members of the said profession with a view to improving standards of efficiency and in particular by the provision of a library, the arrangement of lectures, meetings, conferences and discussions, the organisation of study tours, the interchange of information and opinion, the encouragement and endowment of research and by publication, purchase, sale, hire and distribution of books, papers, reports and other communications, by training and knowledge management (including electronic and distance learning) and by any other means (CIH 2011).*

Although, as stated, this is perhaps the most up to date constitution of any professional association it generally ignores anything associated explicitly with the creation of new knowledge.

The third document, the educational benchmark statement from the Quality Assurance Agency (QAA 2006) set out the educational expectations for the students by the educational partners, it influences the curricula of the universities, but it was not specifically targeted for the membership of the professional body. It was, however, of particular interest to yield insight into the profession’s interest in its members’ education, as the professional body has influence over its content.

A sample word count from these documents is noted below in table 6.1 below. The analysis was set up in three parts and then subdivided again into three parts. The first level of analysis considered:

- a. the terms associated with general professional activity including ‘business’, ‘management’, ‘customer’, ‘client’, ‘standards’ and ‘knowledge’. These helped to put the subsequent and more specific data into a general business context.
- b. the terms associated with wider innovation such as ‘new’, ‘ideas’, ‘exploit’, ‘improve’, ‘change’, ‘experiment’, ‘search’ and the actual term ‘innovation’. These were included to identify a general awareness of innovation as a topic.

- c. the terms associated with the inputs to innovation including 'creativity', 'problem solving', 'interaction', 'collaboration', 'resources' and 'reflection'. These were included to look for a significant inclusion of innovation pedagogy as part of the role of professional education.

These three groupings are shown in the left, middle and right-hand columns respectively in the table. A further break down of the data is provided by analysing each use of the terms into three categories relating to:

- a. personal relevance – specifically relating to activity undertaken by, or required by, individual members
- b. practice relevance – relating to the expectation or activity of the professional work itself
- c. institutional relevance – relating to the activity of the organisation as a whole.

As noted in chapter 5, it was considered that any attempt to show where the emphasis of the activity rests was an interpretation of the data by the researcher but this proved to be a straightforward and easy task. This analysis did not appear to throw up any notable researcher bias and the commentary that follows supports the broad assessment that results from the word count.

The word count from CIH documents is shown on the next page in Table 6.1. The interpretation of data from this chart, and for subsequent case studies, is summarised in the commentary. The key analysis results from the use of the terms is shown in the bottom row, and thereafter the detailed incidence of the terms requires the reader to scan back up the column to identify the relevant document used or the relevant level of activity within that document.

Document	Business	Management	Customer	Client	Profession	Standards	Knowledge	New	Idea	Exploit	Improve	Change	Experiment	Search	Innov	Creat	Problem	Collab	Interact	Resource	Reflect	Totals
Corporate Plan	1	0	16	0	19	4	13	5	0	0	5	1	0	2	0	1	0	0	0	0	0	67
Personal	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Practice	0	0	0	0	4	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Institutional	1	0	16	0	10	4	11	5	0	0	5	1	0	2	0	1	0	0	0	0	0	56
QAA Benchmark	4	5	0	0	9	14	26	2	1	0	0	3	0	9	2	1	1	1	4	2	11	95
Personal	0	1	0	0	0	0	0	0	1	0	0	0	0	3	1	1	1	0	0	0	5	13
Practice	0	0	0	0	2	0	26	2	0	0	0	1	0	4	1	0	0	0	0	0	5	41
Institutional	4	4	0	0	7	14	0	0	0	0	0	2	0	2	0	0	0	1	4	2	1	41
Constitution	28	9	0	0	15	2	2	11	0	0	3	9	0	1	0	1	0	0	0	0	0	81
Personal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Practice	0	2	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0	6
Institution	28	7	0	0	15	2	2	11	0	0	0	9	0	0	0	1	0	0	0	0	0	75
Competence (1)	5	4	26	0	0	3	2	6	1	0	5	19	0	1	0	5	13	0	0	0	0	90
Personal	0	0	20	0	0	3	1	6	1	0	1	2	0	1	0	3	3	0	0	0	0	41
Practice	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	6
Institutional	5	1	6	0	0	0	1	0	0	0	4	17	0	0	0	2	7	0	0	0	0	43
Total word count	38	18	42	0	43	23	43	24	2	0	13	32	0	13	2	8	14	1	4	2	11	333

Table 6.1 Text analysis of word count in key corporate documents of CIH  
(1) A substitute document from Genesis Housing Group (Genesis 2012)

The evidence shows that the term ‘innovation’ was not found to be widely used in the professional body’s literature. There are only two references in the documents shown above and these relate to innovation of teaching practice from the QAA benchmarks statement, and not specifically to members’ activities. The central block in the chart showing the terms associated with the wider use of innovation indicate only a low word count, particularly for the corporate plan and QAA’s benchmark statement. The same is true for the right-hand block of data where the inputs to innovation again show a low incidence. The term ‘reflect’ has a higher incidence for both personal and practice applications but ‘interaction’ and ‘collaboration’ only occur at an institutional and not at a personal level.

Other points to highlight are that the terms ‘business’ and ‘management’ have a wide usage but terms such as ‘client’, ‘exploit’ or ‘experiment’ are not used at all. The term ‘customer’ is not used in the QAA benchmark statement or constitution. The word ‘standards’ relate only to practice and institutional arrangements and not to individual

expectations, but again it is included in the external employer's competences at the personal level. The comparison in the above chart is useful and telling for two main reasons. Taking perhaps the most significant pattern first:

- The professional educational framework differs from the competences required by a major employer in that the latter has a high expectation that a staff member will be able to handle organisational change and problem solving, but it is not a significant requirement for learning from QAA's benchmark statement. The QAA document considers the needs of professional practice whilst the competences consider the needs of a firm, and so there are different needs for the different purposes. The teaching of professional practice, driven by the curricula that stems from the QAA statement appears isolated from the needs of the customer, a requirement of Rothwell's (1994) model of innovation. It might also be considered that the teaching is, therefore, not well aligned to the needs of the service delivery companies, a point that will be considered again after discussion of the interviews. Any specific difference between the two documents relating to innovation is irrelevant, as none of documents comment directly on it.
- The needs of the employer, as illustrated in the competence document, focus on change and problem-solving to a significant degree, but there is no indication of the theoretical or practical underpinning for the necessary inputs to help staff members deal with these issues. A requirement to handle change and problems might require an underpinning of 'collaboration', 'interaction', 'resources', or 'reflection' but these requirements do not appear to be put in place, indeed, for the QAA benchmark document, often translated directly into the university curricula, these key words are contained in a single line demanding 'creativity, innovation and problem-solving skills' but the document offers no indication as to how these capabilities might be achieved. yet it is often translated directly into university curricula. There appears to be only weak alignment between problem-solving and the teaching for it at an employer and educational level.

More widely on CIH's website in 2010 (CIH 2010) there were only 26 references to innovation, but only one actually cited the word 'innovation' directly relating to the work of the professional body, and this was a regional (local) innovation award. All the other references related to firms working alongside, but not part of the professional body, and they referred to activity such as commercial innovation awards. Because the pilot study

was carried out before the other case studies, it was possible to revisit the website for later information. In 2013 the number of website references had increased from 26 to 249 (CIH 2013) and more than half of these were news items, but the 'innovation' references to policy and practice were simply updates to previous policy and practice and did not use the term innovation in its proper sense. The 'innovation' references to books, events and training were also, without exception, about best practice. A search for combined terms such as 'innovation' and 'teaching' gave five search results; four relating to the same document responding to an external change, and one citation used the term 'innovation' as a search keyword, but that did not include the actual word in the article. The low incidence of such terms in the main corporate documents supports an interpretation that advancing innovation is not a central driver of activity for the professional body. Where the term is used more widely, it is likely to be used in a 'lazy' sense without the author understanding the proper implications of its meaning.

### **6.2.2 Interviews with CIH stakeholders**

Twelve interviews were conducted with people associated with CIH. To ensure a representative and relevant sample, the interview participants included the chief executive, policy and educational staff, council members, educational partners and ordinary members. Further views were taken from a number of students through a questionnaire which operated only for this pilot case study.

Whilst the document analysis considered evidence of key words signifying themes, the interviews drew in a wider scope of potential issues. The use of the QDA software enabled themes to be drawn on specific topics. The expected coding structure identified in chapter 5 was only slightly amended for analysis of the interview data, and the references to other agents, such as the government and clients, ended up as separate codes further down the list. This change came from familiarisation with using the software. The original coding is shown on the left hand side of the next page, and the coding used in practice on the right, along with the totals for each coding category (table 6.2). The totals for each row are not particularly significant for this or any of the other case studies; rather, what is important is the content of the associated themes within the overall topic, and these are explored in more detail after the presentation of table 6.2.

1.1	Professionalism
1.1.1	Standards/Practice
1.2	Professionalization
1.2.1	Status
1.3	Government
1.4	Clients
1.5	Customers
1.6	Management
1.7	Institutional Activity
1.7.1	Isomorphism
1.7.2	Autopoiesis
1.7.3	Norms
2	Knowledge
2.1	Expertise/Body of knowledge
2.2	Theory/Practice
2.3	Tacit/Explicit
2.4	Reflection
2.5	Jurisdiction
2.6	Lock-in, Path dependency
2.7	Knowledge transfer/pedagogy
3	Innovation
3.1	Measurement
3.2	Process
3.3	Pedagogy
3.3.1	Experiment
3.3.2	Exploit
3.3.3	Collaborate
3.3.4	Interact
3.4	Subjective/Definition
4	Research method
4.1	Interpretive
4.2	Phenomenon
4.3	Postmodern/Feminist
4.4	Evolutionary
4.5	Reflexivity

Box 5.1 The proposed code for qualitative data analysis: Reproduced for chapter 6

Code	Topic	Incidence
1.1	Professionalism	2
1.1.1	Standards	12
1.1.2	Practice	4
	Membership	5
1.2	Professionalization	
1.2.1	Status	
1.2.2	Elite	2
1.2.3	Tradition	6
2	Expert Knowledge	
2.1	Body of Knowledge	0
2.2	Theory/ Practice	1
2.3	Tacit/Explicit	0
2.4	Reflection	2
2.5	Jurisdiction	0
2.6	Path Dependency	0
2.7	Transfer/Pedagogy	10
2.8	Research	0
2.9	Skills	2
3	Innovation	11
3.1	Measurement	4
3.2	Process	20
3.3	Pedagogy	31
3.3.1	Experiment	0
3.3.2	Exploit	0
3.3.3	Collaborate	0
3.3.4	Interact	0
3.4	Subjective/Definition	5
4	Research Methods	0
5	Agents	
5.1	Government	9
5.2	Client	3
5.3	Customer	0
5.4	Management	9
5.5	Regulation	4
5.6	Institutions	0
5.6.1	Autopoiesis	0
5.6.2	Isomorphism	3
5.6.3	Norms	2
5.7	Competition	0
Total		147

Table 6.2 CIH interview coding of QDA software themes

Some of the topics considered in the planning of the research were not explored in the interviews with research participants. The discussions centred more on standards and pedagogy, rather than reference to the 'customer'. An example from code 1.1.1 on standards elicited the following responses from the consolidated CIH interviews as illustrated in box 6.1 below.

Interview consolidation [3475-3534]  
**Look at verification, inspections, scores and benchmarking**  
Interview consolidation [3606-3641]  
**They have supported benchmarking**  
Interview consolidation [3642-3688]  
**The qualification is focussed on best practice**  
Interview consolidation [6436-6464]  
**It is largely content driven**  
Interview consolidation [6521-6560]  
**It is not about enabling the students**  
Interview consolidation [7923-8013]  
**All the content won't get you in a position to change anything – that needs people skills**  
Interview consolidation [10420-10471]  
**Professional body can give the intellectual ballast**  
Interview consolidation [11140-11193]  
**The CIH does not currently have competences laid down**  
Interview consolidation [20305-20366]  
**We seek to influence the regulator to influence the standards**  
Interview consolidation [20388-20459]  
**A focus on regulation and standards can act against innovation? A: Yes**  
Interview consolidation [23344-23388]  
**The CIH are not much interested in standards**  
Interview consolidation [23390-23487]  
**They have moved their qualification to a foundation degree level. We have stuck to a full degree**

Box 6.1 Example of output from QDA software from CIH consolidated interviews

This does not present a particularly flattering picture of the standards from an 'ideal type' of professional body, as it produced a number of negative responses, but nevertheless it is instructive. A much wider range of positive and negative views was unearthed on the topic of the innovation process (code 3.2) shown below in box 6.2.

There is a mix of views for this category but it gives no indication of the weight that should be attributed to each comment. Some of the positive comments came from the chief officer whilst many of the negative comments came from those away from the centre of the organisation.

Interview consolidation [691-719]  
**Creativity is hard to manage**  
 Interview consolidation [999-1036]  
**No interest in optimising these tools**  
 Interview consolidation [1038-1083]  
**You never come across that kind of creativity**  
 Interview consolidation [1747-1790]  
**There is limited opportunity for creativity**  
 Interview consolidation [3196-3243]  
**But too much of their activity was not embedded**  
 Interview consolidation [3689-3728]  
**Innovation is considered at conference**  
 Interview consolidation [4428-4493]  
**Policy is innovative and the CIH are also innovative for policy**  
 Interview consolidation [4779-4822]  
**They do innovate and drive policy forward**  
 Interview consolidation [7923-8013]  
**All the content won't get you in a position to change anything – that needs people skills**  
 Interview consolidation [9371-9418]  
**The CIH hasn't played a role in housing finance**  
 Interview consolidation [10105-10155]  
**But these issues need energy to make things happen**  
 Interview consolidation [11326-11372]  
**It is difficult to make time for stargazing**  
 Interview consolidation [16258-16304]  
**The centre of the CIH thinks it is innovative**  
 Interview consolidation [18337-18371]  
**We encourage people to be creative**  
 Interview consolidation [18825-18873]  
**We are proactively working on the next new ideas**  
 Interview consolidation [18875-18933]  
**We have an agenda to get things done and change the agenda**  
 Interview consolidation [19463-19520]  
**We contribute to innovation through the UK Housing Awards**  
 Interview consolidation [19726-19801]  
**We try to strike a balance between practice and moving the agenda forward.**  
 Interview consolidation [21312-21357]  
**The CIH has to do more on blue skies thinking**  
 Interview consolidation [21359-21415]  
**It should be part of our normal process to do more ideas**

Box 6.2. Analysis from code 3.2: Comments on innovation process from CIH consolidated interviews

The interview-by-interview data was sufficient to identify the general levels of awareness and activity and score those against Tidd et al's (1997:364) four-level scale as discussed in chapter 4, based on a simple measure of activity given as:

1. innovation is not even thought about and rarely happens
2. some awareness, but random and occasional responses with informal systems
3. awareness and formal systems are in place, but could still be improved



4. highly developed and effective systems exist including the provision for improvement and development.

The details from all the interviews for this case study are summarised below in table 6.3.

		Interests and Activities					
Interview category		Institutional Interest	Institutional activity	Practice Interest	Practice Activity	Interest on members' contribution	Activity on members' contribution
Central Personnel							
	Interviewee 2	2	2	2	2	1	1
	Interviewee 3	2	2	2	2	1	1
	Interviewee 5	1	1	1	1	1	1
	Interviewee 6	1	1	1	1	1	1
	Interviewee 10	3	3	3	3	1	1
Educational Partners							
	Interviewee 1	1	1	1	1	1	1
	Interviewee 4	1	1	1	1	3	3
	Interviewee 7	1	1	1	1	1	1
	Interviewee 11	1	1	1	1	1	1
Membership							
	Interviewee 8	1	1	2	2	1	1
	Interviewee 9	2	2	1	1	1	1

Table 6.3 Assessment of Tidd et al's (1997) interest and activity for innovation for CIH

To present this data the researcher was obliged to interpret and summarise the general comments from each interview, this again introduced the prospect of bias and predetermination, but the assessment in this chart is supported by the words from the interview subjects in the commentary which follows.

The views of the chief executive suggested direct involvement, a proactive stance, and a leading role:

*I think CIH has a strong track record in innovation. Decent homes and ALMOs were developed at CIH. Equity stakes were developed, so was consumer based regulation. Rethinking Housing is a CIH initiative. We support the individuals and the organisations they work for. We encourage people to be creative and we encourage tenant participation to contribute to that creativity. People bring ideas to CIH because of our ability to generate new approaches. We work for members and non-members. We have a well-established track record. [The public recognition] doesn't matter as long as the outcomes benefit the customers (Interview 1.10).*

This is positive of advancing innovation, but, away from the centre of activity, the board members and other members identified that CIH's involvement was more mixed. There was a stronger feeling it was only indirect and with no overall framework for it. The perception of the professional association's work, when viewed from more remote positions, was that innovation did not feature significantly, indeed it was mostly absent. What did take place was seen as reactive, not proactive, and although led from the centre, there was a strong view that the association followed the lead of others, such as government or other external agencies. A typical response by a board member supporting this interpretation was:

*The drivers of that [project's] change were the local authority and housing association, the role of CIH was indirect, working through publications and educating for best practice (Interview 1.8).*

Such a view should not be seen as critical. It identifies the proper role of the professional body in relation to professionalism. It highlights how the expectations of a traditional professional body differs from that of a firm.

In 2013 CIH's head of education (Interview 1.6) considered the CIH supported innovation, but he felt it was intangible, and so a review was underway to review the core requirements of its education and make access for the members easier. Innovation was not an explicit topic and the opportunity to engage in the visionary activity needed for such inclusion was limited because day-to-day activities focused on membership numbers and administrative issues. However, a follow up email noted the teaching of innovation could be included:

*I also talked about how we can embed 'creativity' and 'innovation' in the core specification for CIH CM (Chartered Membership) (follow-up to interview 1.6).*

The various discussions identified that this research project challenged the existing understanding of the topic with the interview subjects. This is called reflexivity and it produces a response bias. The questions posed in the interview triggered the subjects to review their own position in relation to the topic.

Lecturers from CIH's partner universities were questioned to explore the extent of the teaching of innovation and their comments too are instructive, one lecturer noted:

*We do run a module called reflective practice. We use case studies and role play to help them with a different way of thinking. They are encouraged to reflect on their own ethics and their own thinking process. They consider the problems of housing management, regeneration and finance, but I couldn't point to a module where we actually teach the creative process. Do we teach innovation? I don't think we do (Interview 1.7).*

And the pattern was repeated with other contributions:

*There are no real expectations for creativity in CIH specification, it is largely content driven and made up of the things that the students should know. It is not about enabling the students (Interview 1.4).*

*[Innovation] learning outcomes based on the professional qualification? It's not on their agenda in the slightest (Interview number withheld).*

There were individual teachers, notably interviewees 1.4 and 1.11, who were passionate about enabling the students to contribute to new knowledge and act creatively to solve problems, but they did so from the position of a personal belief, not a structural requirement to do so.

*What is being taught boils down to the teachers' individual research interest and the way it is taught is about individual attitudes (Interview 1.11).*

There was evidence that the institutional norms impacted on the ability of the professional body to respond.

*The tensions between the professional body wanting to optimise its membership and the universities wanting to provide a good education does not support innovation, nor does the work of the professional body in protecting its interests. They would be nervous of innovation in that it would open up all sorts of ideas that could not be considered as practice (Interview 1.7).*

Before leaving the outcomes of the interviews there was one further point that was made emphatically by the chief officer, it was clear that regulation undermined any possible contribution to innovation:

*KLOES (the Audit Commission's Key Lines of Enquiry) were the worst thing to happen. Good organisations did them as part of their work and continued to improve, but some, let me call it the 'soggy middle', just did what the KLOES told them, so they didn't innovate (Interview 1.10).*

Throughout all the interviews, and not just in this case study, there was a good deal of comment and clarification of the definitional uncertainty and 'tangibility' of the term 'innovation', but there was a good basic understanding of the difference between professionalism and professionalisation and the resulting tensions that these concepts introduced to the work of the professional body.

### **6.2.3 CIH questionnaire analysis**

The pilot study looked to include other sources of evidence (Proverbs and Gameson 2008) and in 2010 a sample of 12 students completed questionnaires to put the professional body's contribution to innovation in context with employers, political groups, regulators, customers and competitor organisations. Analysis of the questionnaire responses indicated that CIH students consider that education towards the professional qualification is a prerequisite for the ability to innovate, and this aligns directly with the work of Cohen and Levinthal (1990) featured at number eight in Fagerberg et al's (2012) sample of texts. The students felt that the code of practice could constrain innovation, but separate discussions with them in a range of professional practice interviews (required as part of the test for corporate membership) undertaken in 2009 (unpublished evidence) indicated that the code of practice was less restrictive than the requirements of their current contracts of employment.

Over half the students felt that controlling entry through examination did not advance innovation, but they felt that raising the status of the profession did. The first point was because the process of examination focused on historic practice rather than the ability to innovate and the second because it introduced a stronger competitive element to the members' performance. They saw the higher status itself as a key motivator to higher performance and, therefore, as a contribution to innovation.

#### **6.2.4 Summary of the findings from CIH data**

The research questions sought to answer three specific questions:

Question 1: What were the professional association's interests in advancing innovation?

The answer is that the question had not practically been considered by CIH. Any discussion on innovation at all was only at an institutional level, and it had not been considered as an issue for the profession's role to influence its members.

Question 2: What actions were they pursuing to achieve those ends? The answer, acknowledging the answer given for question 1, is 'none' at the time when the question was asked, but this research triggered institutional activity to respond to the question.

Question 3: What evidence could be produced to support the first two questions? The evidence available has been presented from the documents and the interviews and it reflects the answer to question 2. The detail has been highlighted in the preceding sections.

A number of themes emerged from the evaluation of the documents, interviews, coding and Tidd et al's (1997) measure of innovation activity. These provide some understanding of the institutional situation, the different priorities affecting activity, the role of conflicts between institutions, the role of the actors and finally, issues affecting the research process itself.

There was a common understanding that much of the change demanded of the membership came from outside the profession and, in addition, there were comments about the conditions and norms under which it operated, and about the differing and opposing interests that influenced its activity. CIH was faced with difficulty from its external setting because of significant cuts in government work (code 1.3; most of the membership works in the local authority and the not-for-profit sector). Their response to tighter budgets meant narrowing their activities to essential tasks (interviews 1.1, 1.2, 1.5, 1.8, 1.10) and the norms (code 1.7.3) identified that setting standards (code 1.1.1) was an overriding priority. The interests of the professional body were different from, and in tension with, other institutions such as government (interview 1.1) and universities (code 2.7; interviews 1.1, 1.6, 1.11). The latter wanted more autonomy over the subject matter, a point that was

predicted by Abbott (1988) and Eraut (1994). There were tensions with management (code 1.6; interviews 1.1, 1.4, 1.11) as predicted by Evatts (2003), and this point was reinforced by the document analysis suggesting different interests between the academic specification and the needs of the employers. A potential clash between communities of knowledge was also identified as they operate independent from the professional body (interview 1.2).

Setting standards and pursuing best practice were seen to be in conflict with support for innovation, and not just suggesting interests were different, but actually in opposition. An effort on one activity actually undermines the work on the other (codes 1.1.1, 3 and 3.3, Interviews 1.1, 1.6a, 1.8, 1.10). The commodification of knowledge undermined creativity (interview 1.1). The interviews also highlighted a need for more soft skills for managing relations rather than the technical hard skills demanded of the profession. This is an area where knowledge and skills are more difficult to standardise.

The themes of conflict between institutional blocks, and between practice and creativity were not drawn out in the documents, but the interviews illuminated a good understanding of these social tensions. The needs of the professional body are not the same as the needs of the partner universities, or the needs of the employers. The interviews suggest a number of barriers to the professions advancing innovation which can be summarised as follows:

- the profession is in tension with universities to teach practice not creativity
- the teaching (the pedagogy) of professional practice, conflicts with the teaching of innovation
- teaching lacks awareness of innovation pedagogy.

In a separate interpretation there is some evidence of semantic shifts that foreshadow a changing picture for the role of this professional body. CIH appears to want to raise brand awareness through lobbying and customer services, and to secure a doubling in its membership, and this has a greater priority than acting to develop skills or support education. Jay (2011) suggests that businesses that shift their attention from their primary purpose, such as making things, to a secondary purpose, such as maximising profit, lose their way. The same could be said for a professional association that wants to do things other than the traits and functions identified in chapter 2. The primary purpose is to

educate and raise standards and organize, and the size of the membership should be a reflection of that activity. Membership size should only be a secondary consideration and it does not seem appropriate that the primary purpose of a professional association is to set targets for membership. That activity should flow as a consequence of their primary purpose.

The role of individual actors can be seen as significant. Comments from teachers (code 3.3) identified that they could teach creativity through such approaches as project management, case studies, role play, interactive IT platforms, scenarios, group work and group presentations. They reinforced this creativity by careful academic assessment, even if that was not a requirement of the professional body (interviews 1.1, 1.4, 1.11). These were individual actors working against the norms of their educational settings to encourage critical thinking and problem-solving to advance innovation.

The learning points that come from this pilot case study are that there are elements of subjectivity in both the word search and in the interview coding. There is also a weakness in the coding process because although it is possible to code for interests and activities and drivers and resisters, it proved difficult to extract useful data from the software package for the shared, different or opposing interests that required coding against each other. That analysis only came after reflecting on how the structures and influences worked, and it did not come directly from the natural flow from the dialogue. Where reflexivity from the research process occurred, it influenced the actors to inquire further about the topic, and this suggests that the process of inquiry can have a significant impact on the activity of the profession. CIH staff indicated that they were able to change the expectations for creativity as a result of a stimulus from this research (code 4.5, interviews 1.4, 1.6a and 1.6b). This effect will be considered again in the cross-case synthesis in the next chapter, and evaluated as part of a review of the research methods in chapter 8.

### **6.3 Royal Institution of Chartered Surveyors (RICS) case study**

#### **6.3.1 RICS document analysis**

RICS's website in 2011 (RICS 2011b) identified 24,700 references to innovation, but in 2013 that figure had changed to 256 (RICS 2013) indicating a change in the construction

of the website in the intervening years. A large proportion of the 2011 references referred to COBRA conference papers, construction and building research conferences, or third party references, which were removed by 2013 with most of the remaining references relating to internal RICS design and innovation competitions.

Investigation of RICS documents was undertaken in a similar manner to the CIH pilot study. It was considered that four key documents were likely to detail evidence of how RICS as an institution might advance innovation; these were:

- RICS Business Plan 2012-15
- RICS Assessment of Professional Competence (RICS version 4, July 2013)
- QAA benchmark statement for surveying (QAA 2008)
- RICS threshold standard for research and innovation and threshold standard for employability (RICS 2011d).

The last of these explicitly relates to the teaching curriculum, but some further explanation is required to put this into context before considering its content. The pattern for the current educational partnerships between the professions and the universities emerged in the 1970s when the polytechnics took on the organisation of formal education, and in this process 13 centres of RICS excellence were established. Prior to that arrangement surveyors were educated in a similar manner to articled clerks and formal study was through distance learning. A review in the 1990s through an internal discussion paper called *Agenda for Change* sought to expand RICS's educational provision in the redbrick universities and to expand provision internationally. The purpose behind these changes was to improve the quality of both the students and the providers. That required the establishment of minimum teaching and research thresholds for the universities that, in turn, required a triple 'A' score under the universities Research Assessment Exercise (RAE) (Interview 2.3).

*More recently the RAE has become the Research Excellence Framework (REF) which still uses difficult terminology for outsiders to understand, hence a more user friendly title of 'Threshold Standard for Research and Innovation' (Interview 2.3).*

In 2001 RICS formalised partnership arrangements for working with higher education institutions to deliver its accredited courses. This brought together the RICS and universities to establish common goals for professional education, and to set out how the standards for that education were to be set, monitored and enforced. The understanding



was that RICS, as a professional body, could no longer engage with the level of detail necessary for the scrutiny of every aspect of professional education, and so the previously centrally controlled work was devolved to partnerships with accredited universities. The expectation was that they would develop new courses within a broad framework (Interview 2.1, Interview 2.3).

The Threshold Standard for Research and Innovation document was published in 2011 to help focus the partner educational institutions on the issues of research and innovation. On the face of it the document suggests that innovation is an important issue for RICS, but a closer analysis undermines that view.

*..it was crafted in user friendly terms as a document to address the Quality Assurance Agency for Higher Education requirements for research in Universities. It supports the educational partners' requirements to have research as part of the accredited educational programme. (Interview 2.3)*

This interpretation is supported by a detailed examination of the document itself. Superficially RICS seeks to prepare its members to contribute to innovation, but a deeper look suggests that innovation is not a specific theme, but rather just a fashionable word riding on the back of research. When asked about this point RICS's higher education policy manager identified two critical issues; firstly that the definition of innovation was open to interpretation, so RICS was free to use a different and wider interpretation than that identified by this research project (one that just focused on the teaching of innovation inputs), and secondly it was important that RICS members were able to contribute to innovation, so there was no suggestion that their threshold standard document used the term innovation in a 'lazy' sense (Interview 2.1). Accepting that innovation is a subjective term triggered when someone experiences something new then, in that sense, the comments from interviewee 2.1 are valid.

However, the RICS threshold standard for research and innovation document uses the word 'innovation' 24 times and 'research' 101 times. This looks to present an emphatic support for both terms, indeed the final reference, on its last page (appendix E of that document), considers innovation to be important for employability skills and business success. Yet, when exploring these references, 21 of the 24 uses of the term innovation (including references in the title) are presented jointly with the word research even though the activity of research does not automatically link to the activity of innovating, and the two



Document	Business	Management	Customer	Client	Profession	Standard	Knowledge	New	Idea	Exploit	Improve	Change	Experiment	Search	Innov	Creat	Problem	Collab	Interact	Resource	Reflect	Totals	
RICS Business Plan 2012-1	55	32	14	4	60	85	5	54	0	2	34	12	0	3	0	13	0	4	1	8	4	390	
Personal	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Practice	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	
Institutional	55	32	14	3	60	84	5	54	0	2	34	12	0	3	0	13	0	3	1	8	4	387	
RICS Competences	<b>40</b>	<b>191</b>	<b>0</b>	<b>61</b>	<b>74</b>	<b>31</b>	<b>173</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>16</b>	<b>4</b>	625	
Personal	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5	
Practice	37	191	0	61	10	25	172	0	0	4	6	0	0	19	0	1	2	1	0	16	3	548	
Institutional	0	0	0	0	64	6	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	72	
QAA Benchmark	<b>13</b>	<b>35</b>	<b>0</b>	<b>3</b>	<b>57</b>	<b>38</b>	<b>26</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>0</b>	<b>7</b>	<b>2</b>	<b>2</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>8</b>	223	
Personal	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	5	0	0	0	0	14	
Practice	12	35	0	3	9	1	1	0	0	0	2	2	0	0	0	1	2	0	0	9	2	79	
Institutional	1	0	0	0	48	37	24	5	0	0	0	1	0	7	2	1	0	0	0	3	1	130	
RICS Threshold R & I	<b>3</b>	<b>12</b>	<b>5</b>	<b>0</b>	<b>21</b>	<b>16</b>	<b>9</b>	<b>10</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>101</b>	<b>24</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>6</b>	225	
Personal	0	4	0	0	0	0	0	0	0	1	1	0	0	0	1	1	2	2	1	0	4	17	
Practice	3	1	5	0	13	0	0	0	0	0	0	0	0	101	0	1	0	0	0	0	0	124	
Institutional	0	7	0	0	8	16	9	10	0	0	2	1	0	0	23	0	0	3	2	1	2	84	
Total word count	56	238	5	64	152	85	208	0	15	1	5	13	5	0	127	26	0	6	11	6	3	29	1073

Table 6.4 Text analysis of word count in key corporate documents of RICS

The analysis indicates, with the odd notable exception, a general low count for words associated with the process of innovation in its widest sense, and also for words associated with the inputs to innovation. The exceptions to this are for the terms ‘search/research’ that are contained in RICS’s threshold standard for research and innovation as noted above. The term ‘search/research’ almost always resulted in ‘research’ being used and it was used in its widest sense; identifying existing information. The words ‘create’ or ‘problem’ were mentioned only once for personal activity in the QAA document, but in the competency framework five times which, as with the CIH study suggests that there is a need for these abilities, but they are not generally recognised as part of the skill set required at an institutional level. In this same sub-category ‘collaboration’ featured twice and ‘interaction’ once. As with CIH documents, the term ‘customer’ does not feature at all in RICS competences or the QAA benchmark statement.

All the documents, even the QAA benchmark statement, were geared much more to institutional and general practice than to expectations of individual performance and there was only a low incidence of references to the expectations of personal activity. It suggests personal activity is expected to align with general practice and institutional business rather more than personal development.

Further evidence can be obtained by considering the explicit support for innovation highlighted in RICS documents for its Innovation Awards. The 2012 award winner was Northwood Primary School in Darlington, but the only reference on RICS's website to actual innovation in this project was that one of the judges commented (briefly) that the solutions for natural daylight were innovative (RICS 2012), but there was no further clarification.

In addition to the simple word count the documents were screened to identify themes that may add meaning from signifiers in the text (Burger and Luckman 1966). This adds to the meaning of the document in the context of its author's intended purpose.

- The RICS Assessment of Professional Competence (RICS version 4, July 2013) states in its introduction that the assessment of professional competence is made up of a mix of technical and professional practice, interpersonal, business and management skills, and it goes on to list the various different aspects of RICS activity and the associated expectations of practice. Despite this introductory comment none of the detailed content sets any expectations for interpersonal skills. Overall this document is just a list of requirements, but it does not signpost how the skills may be acquired.
- The QAA benchmark statement for Surveying (QAA 2008), in true isomorphic fashion, follows the same template as for the CIH case study. It requires practitioners to be able to "respect the respective inputs of fellow professionals, clients and other stakeholders", but does not go beyond this static position. It is possible to question standard practice when applying professional judgement, but the use of the terms 'respect' and 'questioning' set the tone of normative behaviour as it relates to creativity. They seem to exclude the confrontation required by Hoholm and Olsen (2012) and a deconstruction of the barriers to change required by Hamel (2006).
- The themes underpinning the RICS threshold standard for research and innovation and threshold standard for employability (RICS 2011d) have been discussed in detail above. There are different interpretations between the author and the researcher as to whether the use of the term 'innovation' has significance or is just used superficially in this document.

### 6.3.2 Interviews with RICS stakeholders

Ten interviews were concluded with a representative sample from senior staff, influencing the use of professional knowledge, and including members and educators in the partner universities. The internal discussions in the professional association indicate that innovation is an increasingly important topic, but it is not yet recognised as a central plank of the work of the institution and so the activity of this topic remains piecemeal. There is only little of direct relevance in the detail of the coded data and these are cited below, supported by direct quotes from the participants.

A number of themes emerge from the interviews in relation to actors, conditions, norms and interests:

- Definitional uncertainty and intangibility were again highlighted, in the same way as they were for the CIH pilot case study (Interview 2.1, code 4.4 and see box 6.3).

RICS consolidated Interviews and correspondence [2428-2486] Innovation can be promoted, but how it works is intangible RICS consolidated Interviews and correspondence [2974-3022] RICS definition of innovation might be different RICS consolidated Interviews and correspondence [6754-6791] Depends what you mean by innovation!
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Box 6.3 Extract from analysis from extract of code 4.4 from RICS consolidated interviews

- The process of knowledge transfer is recognised as being only part of the process of advancing innovation (interview 2.3, code 3.6), and there is an understanding that more needs to be done.
- The explicit and implied norms for the delivery of teaching practice is that it should follow a prescriptive, traditional content undertaken in a compliant manner, and where rewards result from holding conventional knowledge. There are individual actors challenging these norms to bring more creative teaching into the curriculum for students (interviews 2.5, 2.8, code 9.3).
- There are differing interests between RICS and its partner universities about what is taught for the professional body. The effect of this is that it passes the responsibility for student skills, particularly for the teaching of innovation, back to the universities (interview 2.1, code 4.3).

RICS consolidated Interviews and correspondence [1358-1441]  
Our role as an accreditation body does limit our ability to influence this directly

RICS consolidated Interviews and correspondence [1445-1525]  
We do encourage universities to allow their students to contribute to new ideas

RICS consolidated Interviews and correspondence [2358-2426]  
It's the universities' responsibility to include innovation in their curricula

Box 6.4 Extract from analysis from code 4.3 RICS consolidated interviews

- The RICS itself has to manage the differing interests of its members and any activity advancing innovation, at an institutional level. It leans towards the interests of big surveying companies rather than small ones (interview 2.4).
- The need to comply with the teaching of standard practice is seen to strongly oppose the cultural development of new ideas (interviews 2.8, 2.9).

The intellectual development of RICS's body of knowledge is overseen by a Knowledge Board, accountable for practice standards and technical competencies (RICS 2011c). As the RICS director of practice standards noted:

*RICS has supported innovative projects with funds of up to £100,000 a year over the past few years even if innovation was not in the title. Ideas are generated by firms and considered by a management conference. The RICS Business Development Board selects those that are considered worthy of further work in a Dragon's Den approach (Interview 2.9).*

Although RICS is a membership organisation, the financial incentives are targeted at the member employing firms and not the individual members. This is reinforced by evidence from the membership suggesting the role of professional education in advancing innovation is limited or negative. One practitioner noted:

*The professional body focuses on the bigger companies which are process driven. The trouble with this approach is that it loses the creativity and innovation that can come from individual members and small firms (Interview 2.4).*

The views of RICS's teaching partners were taken from a series of interviews with academics, all of whom were engaged in the process of teaching and learning on RICS accredited courses. The findings ranged from clear statements that innovation was not taught as part of the curriculum to emphatic statements that it was. It was, however, the

view of a majority of the academics that innovation was not taught (Interviews 2.3, 2.6, 2.8).

*Currently the educational system is predicated against thinking, reward is for conventional knowledge and process. In my experience genuine thinking and critical thinking is seldom really taught (Interview 2.8).*

Such a view is supported by one practitioner, not an academic, who noted the teaching focused on old theories, in his words 'ancient', and without a link to current practice (interview 2.5). There was wide agreement that the creative element of innovation was not included in RICS's educational expectations, and that only existing knowledge was required, occasionally used in different contexts (interviews 2.6, 2.10). There was no explicit reference to the teaching of innovation on the surveying courses but some academics included it by writing their own personal syllabi and, as a result, included sessions on creativity and analytical problem solving, with the express purpose of contributing to innovative ideas (interview 2.10).

Responding to the wider theories of professionalism and professionalisation one lecturer offered the following unprompted comment relating to RICS's influence:

*Professional bodies like to keep their knowledge mysterious, esoteric and they like to keep their numbers limited. As a university we would have liked to develop wider access to our courses but the professional body demanded a certain level of A level qualification (Interview 1.1).*

This shows an awareness of the tensions between the social roles and the expectations of the role of a professional association, and it aligns with Larson's (1977) assessment of the professional project.

Discussions with members suggest that RICS has little influence on advancing innovation, indeed, the most influential factor would be the consumer or client, then, in order of priority, the employer or firm, then government or a regulator and last the professional body (Interview 2.6). The pattern that emerges from mapping the responses against Tidd et al's (1997) four levels of awareness is shown in table 6.5 below.

		Interests and Activities					
Interview category		Institutional Interest	Institutional activity	Practice Interest	Practice Activity	Interest on members' contribution	Activity on members' contribution
Central Personnel							
	Interview 2.1	3	3	2	2	2	2
	Interview 2.9	3	3	3	3	2	2
Educational Partners							
	Interview 2.3	2	2	2	2	2	2
	Interview 2.6	2	2	2	2	2	2
	Interview 2.8	2	2	1	1	1	1
	Interview 2.10	1	1	1	1	2	2
Membership							
	Interview 2.4	1	1	1	1	1	1
	Interview 2.5	1	1	1	1	1	1

Table 6.5 Assessment of Tidd et al's (1997) interest and activity for innovation for RICS

Discussions with RICS staff in 2011 suggested that its central administration was starting to get to grips with innovation as an important topic, but they recognised there was some way to go.

*The review of innovative projects is not yet properly assessed. RICS is just now gearing up to ensure a comprehensive review process (Interview 2.9).*

More recently the RICS consider they now have a thorough process for review of innovative ideas (Interview 2.9 follow up 2014) but it is not yet included in the curriculum. Such comments reflect the pattern that those closest to the centre of the institution have a better understanding of innovation needing to be better supported. There is a pattern in the responses mapped against Tidd et al's (1997) scores, and people working at the centre gave a higher score, indicating a greater understanding that innovation needs to be important for the members as well as for the institution.



The development of building information modelling (BIM) was seen by a few interview participants as a possible trigger for practitioners to look anew at their traditional practices. Creating digital representations of buildings and considering their use from concept to decommissioning, demanded a sharing of expertise in the creation of the model, and was seen as a significant driver of innovation. One lecturer however noted that this doesn't actually teach about relationships, and that creativity really comes from interactions between people (Interview 2.6).

### **6.3.3. Summary of themes from RICS data**

There was awareness that the professional body has important interests at stake where RICS members and innovation overlap, but such awareness have only recently been formed, and the implications for education, pedagogy and innovation pedagogy had not yet been fully worked through. This was reflected in the activities of the profession which promoted innovation, but still only at the institutional level and targeted at large member firms.

The evidence shows, in the same way as for the CIH pilot study that, for RICS data there is a strong alignment between the word count, the general theme of the documents and the interview comments. This suggests only a low level of awareness and a low level of activity relating to support for advancing innovation. Innovation has a high profile in the terminology, notably in the RICS threshold standard for research and innovation (RICS 2011d), but there may be different interpretations about the true contribution of that content. There is awareness that the professional association requires a structured approach to be more effective in its support for member's creativity and there is also evidence that individuals within the institution are thinking about how their own work affects the membership at the personal level.

Again, similar to CIH, there are pockets of awareness with individual actors taking an independent view and acting outside the institutional norms to consciously include activities for critical thinking and problem solving to contribute to advancing innovation. These are passionate teachers and practitioners who are overriding the norms of institutionally compliant behavior.

The themes of conflict between institutional blocks, and between practice and creativity are expressed in similar terms to those in the CIH case study, and there is a clear sense that there are different and opposing interests at work between the needs for teaching a codified professional practice and the needs of a student able to respond to problems or, as Schön (1983:40) put it, problem setting, not just problem solving.

A further, final point also reflects the CIH pilot study, in that the research introduced a stimulus into the discussions on innovation and triggered a reflexive response. The subjects began to reflect on their own position in relation to the topic. One respondent noted that “innovation can be promoted [to members] but how it works is intangible” and recognised that more information was needed, along with a desire to find out more.

## **6.4 Royal Town Planning Institute (RTPI) case study**

### **6.4.1 Document analysis**

The question of whether planners should be aware of the needs of innovation can also be assessed through wider readings in academic and sociological journals. Steele (2007) suggests that:

*planners [are not] professionals at the forefront of change, but [are] struggling to find relevance and direction within the complexity of the contemporary governance framework (Steele 2007, p.872).*

Writing about the modern role of planners, Landry (2008:xxiv) argues that they should be ‘curious’, ‘creative’, ‘imaginative’, ‘innovative’ and ‘talented’. He says that all these terms are synonymous and, despite including ‘innovation’ in his expectations, his view is that innovation is about convergent thinking, and says it reduces creative ideas to those that work. In this approach he takes what might be described as a traditional functionalist view that innovation is about task-focused outputs for implementation, and not about creativity.

QAA benchmark statement for town and country planning 2008 (QAA 2007) states that, as a generic requirement, planners should be able to undertake: “critical reflection with an understanding of the need for lifelong learning”, and elsewhere it identifies that:

*a key skill of the planners is to be able to synthesise... to be able to propose focused, effective courses of action, and responses to these problems.*

*[Planning] needs committed, talented and creative individuals to help deliver its evolving agenda.*

*Planners are therefore, first and foremost, creative problem solvers (QAA 2007).*

There were a number of useful documents that provide evidence to inform the debate on the role of the RTPI in this area. Four documents best encompassed the intersection of the work of the Institute and its role on advancing innovation.

- QAA benchmark statement for Town and Country Planning 2008 (QAA 2007)
- RTPI assessment of professional competence (RTPI 2013a)
- Policy Statement on Initial Planning Education (RTPI 2012)
- Manifesto for Planning (RTPI 2010).

The QAA benchmark statement for Town and Country Planning 2008 (QAA 2007), follows a similar template as the CIH and RICS documents. The requirement for town and country planning emphasises that students should be able to demonstrate critical thinking, a capacity for critical reflection, and a capacity for independent thinking and action. The word count in RTPI's assessment of professional competence (RTPI 2013a), indicated a strong emphasis on reflective practice, and it set a prescriptive process for completing competence logs to meet the expectations of the professional body. The Policy Statement on Initial Planning Education (RTPI 2012) set out the professional body's expectations for administering a planning school. The QAA document is formed from a partnership between RTPI and the educational institutions, but it was created to influence the performance of the planning schools. The Manifesto for Planning (RTPI 2010) set out RTPI's general position and the long-term aspiration for both RTPI and the profession by emphasising the opportunity for it and its members to help government get a planning system that was fit for purpose.

As for the two previous case studies, the table below (table 6.6) considers the word count from the documents for words associated with the general professional activity in the left-hand columns, wider innovation in the middle and the more specific inputs to innovation in the right-hand columns and again it breaks each category down into personal, practice and institutional levels of activity.

Document		Business	Management	Customer	Client	Profession	Standard	Knowledge	New	Idea	Exploit	Improve	Change	Experiment	Search	Innov	Creat	Problem	Collab	Interact	Resource	Reflect	Totals
QAA Benchmark (2008)		1	2	0	0	17	23	20	5	2	0	1	18	0	1	1	8	2	0	0	9	1	111
	Personal	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	Practice	0	2	0	0	10	0	20	2	1	0	1	16	0	0	1	0	2	0	0	4	1	60
	Institutional	1	0	0	0	7	23	0	3	0	0	0	2	0	0	0	5	0	0	0	5	0	46
RTPI Competences (2013)		2	2	0	8	91	10	15	13	2	0	10	14	0	22	0	1	9	0	0	5	31	235
	Personal	0	0	0	0	7	0	0	1	0	0	8	0	0	0	0	0	1	0	0	0	31	48
	Practice	2	2	0	7	15	10	15	5	1	0	2	5	0	22	0	1	8	0	0	2	0	97
	Institutional	0	0	0	1	69	0	0	7	1	0	0	9	0	0	0	0	0	0	0	3	0	90
Policy on Planning Education (2012)		0	6	0	0	25	4	21	8	4	0	1	9	0	7	2	5	0	0	0	6	13	111
	Personal	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	5	7
	Practice	0	6	0	0	4	1	17	3	1	0	1	4	0	2	0	3	0	0	0	1	1	44
	Institutional	0	0	0	0	21	3	4	5	3	0	0	5	0	4	2	1	0	0	0	5	7	60
Manifesto for Planning (2010)		2	16	0	0	15	4	4	10	0	0	3	28	0	0	0	5	2	0	0	9	1	99
	Personal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Practice	2	16	0	0	3	0	0	9	0	0	1	27	0	0	0	0	2	0	0	4	1	65
	Institutional	0	0	0	0	12	4	4	1	0	0	2	1	0	0	0	5	0	0	0	5	0	34
Total word count		5	26	0	8	148	41	60	36	8	0	15	69	0	30	3	19	13	0	0	29	46	556

Table 6.6 Text analysis of word count in key corporate documents of RTPI

Note: All references to the word *profession* (7) in RTPI competence under the personal category relate to reflective practice. All references to the word 'change' (28) in the Manifesto for Planning relate to climate change.

There are a number of points from this analysis that provide research interest. Terms such as 'collaboration' and 'interaction' don't feature at all. 'Problem' as part of problem-solving features 13 times in all the documents but these, still rare, references are in stark contrast to the frequency of the term 'reflect' which appears 31 times in the competency statement alone. The contribution of reflection to professional practice is clearly important for RTPI and their competences framework links reflection with critical thinking which was a key point required by Finlay (2008).

The term 'innovation' occurs only three times, once in the QAA benchmark statement (QAA 2007), in relation to teaching flexibility, and twice in the Policy Statement on Initial Planning Education (RTPI 2012) which demands critical thinking to encourage innovative approaches to planning education (one reference) and specialisms which can best be achieved by allowing schools to innovate (one reference). None of the references therefore relate to the work of the individual planner and there is no express requirement that planners themselves should be able to innovate, be innovative, or actually understand innovation. On the back of the two earlier case studies, it is not surprising that the analysis also highlights the lack of reference to 'customer' and 'client' in the QAA benchmark (no references), Policy on Initial Planning Education (no references) or the Manifesto for

Planning (no references). Indeed the use of the word ‘customer’ does not feature in any of the documents. The terms ‘business’ and ‘management’ are used infrequently and mostly for the purpose of managing at a practice level, and it does not indicate any possible conflict between the profession and management.

#### **6.4.2 Interviews with RTPI stakeholders**

Only four interviews were completed for RTPI associated activity and these were all sampled from partner educational universities. One of the weaknesses of the case study approach is that it is not always possible to access data from key players. In the case of RTPI it was not possible to secure a response from their internal personnel, despite numerous attempts by e-mail and phone messages. This was either because it was not their policy to contribute, or they did not see it as a priority. Although inconvenient and weakening the wider picture, the pattern of comments from the academics does give a flavour for the institute’s demands on its educational partners.

The interviews indicated RTPI had a stronger emphasis on tradition, and that its role was to defend its body of knowledge (interview 3.4, code 3.4), see box 6.5 below.

RTPI consolidated Interviews [5226-5254] <b>Defend the body of knowledge</b> RTPI consolidated Interviews [6245-6312] <b>We are not steered to produce graduates beyond these requirements</b>
---

Box 6.5 extract from analysis of code 3.4 consolidated RTPI interviews

In response to this the universities have taken a more traditional line on teaching (Interview 3.4, code 3.6), see box 6.6 on the next page.

RTPI consolidated Interviews [6092-6123] <b>We teach what we are asked for</b>
---

Box 6.6 extract from analysis of code 3.6 consolidated RTPI interviews

The institutional arrangements do not give evidence of support for advancing innovation and this is confirmed in the following quotes. At an individual level there is evidence of that

practice does respond to the aspirations in the Policy Statement on Initial Planning Education (RTPI 2012):

*The issue of innovation in curriculum design is present but not as a separate topic in terms of teaching. Creative work is done through work experience; it requires course designers to invest in research and contemporary issues (Interview 3.1).*

*I can't put my finger on anything relating to an agenda about innovation...it's a public service so it is perhaps not the place to find innovation (Interview 3.2).*

*We discuss creativity for teaching but the issue of innovation [for practice] does not come up (Interview 3.3).*

*No! We teach what we are asked for. We are asked to provide an intellectual framework and to ask students to think about the broader principles of planning. We are not steered to produce graduates beyond these requirements (Interview 3.4).*

The details of the analysis of the interviews against Tidd et al's (1997) four-stage measure of innovation awareness are shown in table 6.7 on the next page.

As with the discussions with RICS stakeholders, there is nothing inherently critical in the comments noted above or in the measures indicating a low level of awareness of the issues of innovation. They are statements of fact that reflect the proper role of a professional body with a body of knowledge. Indeed the interviewees recognised the true purpose of the Institute as this comment illustrates:

*Their role is to defend the body of knowledge so it is an odd role for RTPI to innovate. (Interview 3.4)*

Unfortunately, it omits any context about educating to produce the world's best innovators (BIS 2012).

		Interests and Activities					
Interview category		Institutional Interest	Institutional activity	Practice Interest	Practice Activity	Interest on members' contribution	Activity on members' contribution
Central Personnel							
	No data						
Educational Partners							
	Interview 3.1	1	1	1	1	2	2
	Interview 3.2	1	1	1	1	1	1
	Interview 3.3	1	1	1	1	1	1
	Interview 3.4	1	1	1	1	1	1

Table 6.7 Assessment of Tidd et al's (1997) interest and activity for innovation for RTPI

#### 6.4.3. Summary of themes from RTPI data

The document analysis and the interviews with academic partners suggest that RTPI has not yet considered if it has a role in advancing innovation. There are no activities to suggest this matter is part of the institutional function. The evidence shows much alignment between the findings of the word count, document analysis and interviews but, importantly, the documents set a high expectation for the creativity and problem-solving capacity of planners that is not fully reflected in the institutional expectations of the partner planning schools. There does not appear to be a concrete process to support or assess the creative expectations of the professional body in the pedagogy, or, if the expectation is there, then the message does not appear to have reached the academics. There are, however, individual actors looking to enable a full range of skills for their students, even if the matter of supporting their capacity to innovate is not explicit.

This evidence gives only an outline indication that there may be themes of conflict between the expectations of the institution and the demands of providing a wide-ranging planning education. The educational process is perhaps more prescriptive than the partner planning schools would like. There are tensions between the planning process and the control of government on topics relating to both planning design and planning policy. This is unsurprising as planning is a very political process and whilst the planners seek to provide a good spatial arrangement, the political influence always has an eye to voters' future intentions.

There was only a limited sense of reflexivity caused by the interview process, and this is possibly because innovation was not seen as being a hugely important part of the curriculum.

## **6.5 Royal Institution of British Architects (RIBA) case study**

### **6.5.1 Document analysis**

The RIBA is a mature and perhaps the most creative of the professional organisations considered for this case study analysis. It offered a good deal of documentation including much that touched on the crossover between professional practice and the teaching of innovation. The document analysis included the QAA subject benchmark statement for architecture (QAA 2010) and the professional body also had a published strategy (RIBA 2013b), business plan (2013c), core curriculum (2013d) and a validation procedure for architectural education (2013e). Other possible sources of data included the documents of the Architectural Registration Board (ARB), as the architectural profession is regulated through primary legislation under The Architects Act 1997 (ARB 1997), but these documents were discounted for further analysis after word counts showed insufficient relevance to the detail of architectural practice, or its education. The report of the *Farrell Review of Architecture and the Built Environment* in April 2014 also proved to be a useful late addition to the document analysis.

Explicitly the QAA subject benchmark statement notes that:

*The criteria used by the ARB in prescription of qualifications have been agreed by RIBA and are used through the work of its Validation Committee in enhancing the quality of architectural education and **encouraging experimentation and innovation** in programme content, delivery, and methods of learning and teaching.*



*RIBA uses the validation process to stimulate critical self-analysis in schools of architecture in achieving their objectives (QAA 2010, emphasis added).*

This is the first time the word 'experiment' has been used by any of the professional associations. It is, therefore, disappointing that the sole reference to experimentation and innovation relates only to the teaching programme and not to actual architectural practices. The specific application of the knowledge and skills associated with creativity are only addressed tangentially, as in the following comment:

*The word 'studio' means much more in architecture education than a convenient workroom. It evokes an image of creative cooperative working in which the outcome: the architectural design and the educational benefit in terms of skill development, is greatly superior to that which could be achieved by the individual student working alone (QAA 2010, p14).*

The phrase 'evokes an image' sets out to create an environment for creativity and innovation, but omits to mention the intellectual underpinning for the process. This falls some way short of identifying the nature of innovation through 'collaboration', 'interaction', 'problem-solving' and 'reflecting' or by referencing Nonaka and Takeuchi's (1995) SECI process; although this is perhaps the desired message of this extract. The five references to the term 'interact' are used for practical purposes rather than for creative purposes typically illustrated by the statement:

*The candidate will have the skills necessary to positively interact with statutory and private bodies or individuals, and competently deliver projects within diverse legislative frameworks (QAA 2010, p18).*

As with the previous case studies, the table below (table 6.8) considers the word count for words associated with general professional activity in the left-hand columns, wider innovation in the middle and the more specific inputs to innovation in the right-hand columns. It breaks each category down into personal, practice and institutional levels of activity.

Document	Business	Management	Customer	Client	Profession	Standard	Knowledge	New	Idea	Exploit	Improve	Change	Experiment	Search	Innov	Creat	Problem	Collab	Interact	Resource	Reflect	Totals
QAA Benchmark	6	14	0	8	69	18	38	5	5	0	0	5	1	5	2	13	3	1	5	5	7	210
Personal	0	3	0	0	0	0	0	0	0	0	0	0	0	4	0	6	1	0	0	2	6	22
Practice	6	11	0	8	16	4	8	2	5	0	0	5	0	0	0	7	2	1	5	0	0	80
Institutional	0	0	0	0	53	14	30	3	0	0	0	0	1	1	2	0	0	0	0	3	1	108
RIBA Strategy 2012-16	15	1	0	32	15	9	20	18	0	0	15	6	0	20	16	4	0	2	0	4	5	182
Personal	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Practice	0	1	0	6	0	0	4	0	0	0	7	0	0	0	0	0	0	0	0	1	0	19
Institutional	13	0	0	26	15	9	16	18	0	0	6	8	0	20	16	4	0	2	0	3	5	161
RIBA Business Plan 2013	12	6	1	15	14	6	5	6	0	0	5	0	0	8	9	4	0	1	0	8	0	100
Personal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Practice	0	0	0	0	4	2	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	9
Institutional	12	6	1	15	10	4	5	6	0	0	5	0	0	8	9	2	0	0	0	8	0	91
RIBA Core Curriculum	3	14	0	3	4	3	1	2	1	0	0	10	0	3	1	1	0	0	0	7	1	54
Personal	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3
Practice	2	9	0	3	4	3	1	1	1	0	0	10	0	3	1	1	0	0	0	7	0	46
Institutional	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Validation Procedure	7	17	0	6	130	24	30	30	2	0	6	37	2	13	0	7	3	3	3	22	16	358
Personal	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	7
Practice	6	11	0	6	23	1	19	1	2	0	0	0	0	2	0	3	3	1	2	2	0	82
Institutional	1	2	0	0	107	23	11	29	0	0	6	37	2	11	2	4	0	2	0	20	18	275
Total count	43	52	1	64	232	60	94	61	8	0	26	58	3	49	28	29	6	7	8	46	29	904

Table 6.8 Text analysis of word count in key corporate documents of RIBA

The business strategy uses the term ‘innovation’ 16 times, but 14 of these are in headings such as:

*Strategic priority 4: Knowledge, innovation and culture. We will be the hub for knowledge, innovation, research and debate on the built environment (RIBA 2013b).*

The only two comments outside of headings relate to one item of innovative media and one comment that RIBA will:

*Stimulate substantial research projects that advance innovation in architecture and construction (RIBA 2013a).*

The document does not say how these things will be done, and there is no indication of an understanding of any measurement or pathway that will lead to these processes being achieved. In the same way RIBA’s business plan (RIBA 2013c) is titled ‘Innovation and Impact’ and uses the term ‘innovation’ nine times, mostly relating back to the strategy document. In all cases the use of the term is unsupported by any comment about what actual activity will take place to make anything new actually happen. This appears a classic case of form over substance.

Elsewhere on its website RIBA offers professional support that includes a section on research and innovation (RIBA 2013g) and refers explicitly to knowledge communities as being separate from professional practice. This report gets close to understanding the collaborative requirements for innovation noting:

*RIBA Knowledge Communities are networks of architects, engineers, surveyors, architectural technologists and other built environment professionals engaging in specialist subjects across the construction industry. They make up cooperative environments with spaces to debate, facilitate and collaborate with the built environment community on topics ranging from highly focused technical issues to pan-industry policy consultations (RIBA 2013h).*

This sets out some of the inputs that are required for innovation to happen and provides the closest evidence found so far of the requirements identified by Nonaka and Takeuchi (1995). However, this is not driven by the institutional centre, it is not a requirement of the teaching practice, and it is not specified in the strategy, business plan or curriculum.

The word count shows a higher incidence of the use of terms associated with both wider innovation and its inputs when compared to the earlier case studies, but this is not a significant variation, and it is not associated with activity at the personal level. As with the previous case studies, the use of the term 'customer' barely gets a mention.

Additionally the Farrell Review (2014) commissioned by the Minister for Culture and Creative Industries considered the role of government, economics, heritage and education. The list of 23 questions which formed the basis of the review did not ask about 'clients' or 'customers' and did not mention 'collaboration' so the results are somewhat predictable in relation to this research. 'Customer' doesn't feature at all in the executive summary or the full report, 'client' gets one mention in the executive summary and 'knowledge', 'exploit, and 'experiment' get no references. 'Innovation' is mentioned twice but only in the widest unsubstantiated sense. 'Collaboration' is used only for wider practice. The words 'creativity' and 'problem-solving' are both mentioned once only for personal development and tellingly, only in relation to children's education. This last point reflects the strangely distorted message, identified by Robinson (2011), that such activity is appropriate for children (and elsewhere it is appropriate for education), but it is not required for professional education or institutional activity.

## 6.5.2 Interviews with RIBA stakeholders

Five interviews were completed which, although a small sample was representative of central staff, educators and members. The views expressed covered a very wide range of issues with very different views on creativity. For analysis of straightforward practice (code 1.2) the range of comments included (see box 6.7):

Royal Institution of British Architects Interviews [800-858] <b>No public awareness for the creativity behind architecture</b> Royal Institution of British Architects Interviews [860-940] <b>Architects are creative people, but I don't think you can make them be creative</b> Royal Institution of British Architects Interviews [1790-1832] <b>Architects work in facts and definitions</b> Royal Institution of British Architects Interviews [1879-1946] <b>There has been and continues to be an emphasis on functional skills</b> Royal Institution of British Architects Interviews [2497-2596] <b>Big innovation is architects using their practice in the intellectual sense and the practical sense</b> Royal Institution of British Architects Interviews [2622-2709] <b>A split, on the understanding of invention [between building and creative architecture]</b> Royal Institution of British Architects Interviews [2850-2955] <b>The aspects of reflective practice and the opportunity to explore alternative visions is an absurd luxury</b> Royal Institution of British Architects Interviews [3092-3176] <b>Small-scale innovation, a need to be fit for purpose when using other people's money</b> Royal Institution of British Architects Interviews [3186-3260] <b>Not the global issue, but it requires an ability to do more than just build</b> Royal Institution of British Architects Interviews [4088-4161] <b>Normative architecture that its about the meat and potatoes of building</b>
---

Box 6.7 Analysis from an extract for code 1.2

It is a creative profession, and for some respondents there is an underlying belief that architects are innately creative, and creativity cannot be taught (interview 4.1). From the administrative centre of the professional body some individuals have a good awareness of the need for creativity, and recognise the tensions that come with a professional association working with partners. RIBA's director of education recognised the scale of the task noting:

*The validation criteria for graduate school programmes demand originality and the testing of options. It was tough to get agreement to get this stuff in there. I want the schools to step up to the plate with ambitious teaching programmes (Interview 4.2).*

He also recognised the use of the terminology is not always best focused.

*RIBA is not a large organisation but it has 200 staff and a requirement to produce a range of publications. It is not my personal views that get rolled out and there are occasions where the currency of terminology, including the use of the term innovation, is applied without proper grounding in its true meaning (Interview 4.2).*

An analysis of the interviews is shown below in table 6.9, against Tidd et al's (1997) four-stage assessment of innovation awareness

RIBA		Interests and Activities					
		Institutional Interest	Institutional activity	Practice Interest	Practice Activity	Interest on members' contribution	Activity on members' contribution
Interview category							
Central Personnel							
	Interview 4.2	2	2	2	2	2	2
Educational Partners							
	Interview 4.3	1	1	1	1	1	1
	Interview 4.4	1	1	1	1	1	1
Membership							
	Interview 4.1	1	1	1	1	1	1
	Interview 4.5	1	1	1	1	1	1

Table 6.9 Assessment of Tidd et al's (1997) interest and activity for innovation for RIBA

Again the clarity and awareness of the different pressures acting on the professional body are less well understood away from the centre where historical and cultural issues had a stronger influence on the educational partners. Though no less thoughtful, these partners saw the issues through a cultural lens and one educator, being hungry for change, noted:

*If you define innovation in terms of how the industry looks for practical help to help it move forward then the UK building industry is utterly useless. There is an unwillingness to innovate or invest. There is a British bias against innovation. If there was a cultural change it would take 100 years to overcome the cultural bias against creativity (Name withheld 2013).*

Another took a more traditional view and noted:

*In general I think there has been rather too much innovation in architecture, summed up by the old saw 'the fact that you can do something does not mean you should'. In my experience when university and institutional documents start using abstract nouns like 'innovation', 'excellence' and 'employability' it is a good idea to stop reading and go and do something useful (Name withheld 2013).*

### **6.5.3 Summary of themes from RIBA data**

As may be expected for the profession of architecture, there was a wider use of terminology associated with creativity, but this saw only a small increase over the other professions, and what was recorded related to institutional and practice issues that did not impact on personal activity. It therefore seems that the profession has identified a business strategy on innovation, but not coherently thought through how to advance it. Certainly the evidence of activity does not suggest this is a priority at the institutional, practice or personal level.

There was a low level of use of terms for 'innovation', 'creativity' and 'collaboration' in the word count, in the wider interpretation of the documents, and in the interviews. The evidence from these three sources aligned in this low incidence. The interviews from RIBA stakeholders gave recognition of individual actors looking to change the current arrangements, both at the centre, and in their own spheres of activity as members and academics, but the links between their points of views had not coalesced to form a compelling or coercive force. There were tensions between the professional body and universities, and tensions between the body and its membership, in the same way as for the previous case studies.

The question was posed about whether creativity could actually be taught and this question came from people who perceived themselves to be more creative. This is discussed again in the next chapter. Architecture is split between the creative aspect and the day-to-day activity of managing building projects, and the latter requires little or no creative input. The view away from the centre was that the activity of RIBA became less relevant the further it travelled from London, requiring architects to be more autonomous, and resulting in less interest in the work of the professional body.

## 6.6 Institute of Residential Property Management (IRPM) case study

### 6.6.1 Document analysis

IRPM is a new and small professional association. Its website (IRPM 2013a) is not elaborate and does not have a search facility. There is no QAA benchmark statement because there is, as yet, no university programme to address its educational needs, and there are no competencies published. There are, however, three documents that shed light on the association's views on innovation and these are the association's articles (IRPM 2013b), syllabus (IRPM 2012) and business plan (IRPM 2013c).

The articles follow a similar pattern to those of other associations which include agitation to support protection of territory, works for the public good and education:

- (d) *to promote the general interest of those engaged in the sector and to maintain and extend same for public advantage.*
- (q) *to provide education and training to residential property managers in the sector and to promote and support an academy of learning to deliver training courses and arrange apprentices and provide professional accreditations to residential property managers in the sector (IRPM 2013b).*

The articles do not stretch the content of education and training, not even to the point of research, so it is particularly static in this interpretation for the role of the association.

As for the previous case studies, the table below (table 6.10) considers the word count from the documents for the terms associated with professional activity in the left-hand columns, wider innovation in the middle and the more specific inputs to innovation in the right-hand columns. It breaks each category down into personal, practice and institutional levels of activity.

The word search identified no direct references to 'innovation' and for other associated words there were only two responses relevant to personal activity; that members should 'improve' and 'reflect', with one reference each. These inclusions were made without any underpinning process as to how that might happen. There are no references to 'collaboration', 'interaction' or 'experimentation'. The word pattern suggests the work undertaken at an institutional level is focused only on institutional matters which, although

unsurprising for a new organisation, indicates that the members and their competences are not yet central to the organisational purpose. This is perhaps a chicken-and-egg issue that might face any new professional association that has to consider whether it has to first organise to become established through a process of professionalization, or professionalise to improve standards. The evidence from the word count is that the emphasis is on the former, although there is clear evidence from the interviews that the emphasis is shifting to professionalism.

IRPM Document Analysis		Business	Management	Customer	Client	Profession	Standard	Knowledge	New	Idea	Exploit	Improve	Change	Experiment	Search	Innov	Creat	Problem	Collab	Interact	Resource	Reflect	Totals
Articles		23	6	0	1	8	3	1	3	0	0	1	1	0	0	0	0	0	0	0	0	0	47
	Personal	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	Practice	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	Institutional	17	6	0	1	8	3	1	3	0	0	0	1	0	0	0	0	0	0	0	0	0	40
Syllabus		6	62	13	27	5	5	8	3	0	0	1	1	0	0	0	2	4	0	0	0	1	138
	Personal	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	Practice	6	60	13	27	0	4	8	3	0	0	1	1	0	0	0	2	4	0	0	0	0	129
	Institution	0	1	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Business Plan		19	8	0	1	17	2	1	18	0	0	0	2	0	1	0	0	1	0	0	6	5	81
	Personal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Practice	0	8	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
	Institution	19	0	0	1	17	0	0	18	0	0	0	3	0	1	0	0	1	0	0	6	5	71
Total word count		48	76	13	29	30	10	10	24	0	0	2	4	0	1	0	2	5	0	0	6	6	266

Table 6.10 Text analysis of word count in key corporate documents of IRPM

The growth curve noted in chapter 2 identifies the different pressures that act on an institution in the youthful phase, and this is shown in figure 6.3 on the next page. At the youthful stage of development the organisation starts to see significant growth as its main successes become embedded. At the same time as it is still exploring and refining its business activities. IRPM has now become an established association recognised and respected by government, although only just gaining awareness with the customers of its members. It has recognised gaps in its governance which that have been addressed through new articles of association, and it has recognised gaps in its members' education and is planning additional learning material to fill that need.



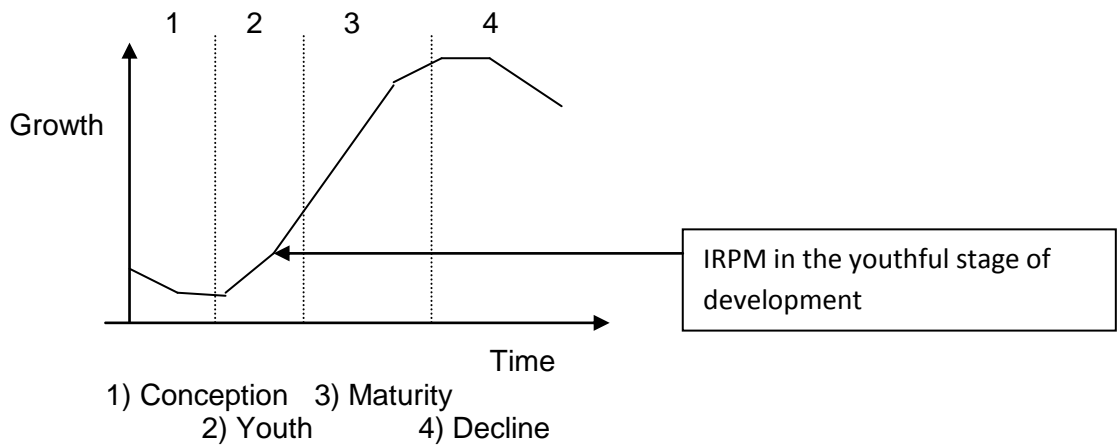


Figure 6.3 IRPM position on the growth or sigmoid curve, Ainsworth-Land (1984)

Further general comment on the interpretation of the growth curve for organisational studies is included at annexe 2.

### 6.6.2 Interviews with IRPM stakeholders

Eleven interviews were completed with a representative sample of central staff, board members, educators and members. The interviews with IRPM stakeholders reflected the newness of the professional body, and the topic of innovation was not yet on its radar. One academic noted:

*I think there is a parallel here with Maslow's hierarchy of need. IRPM is a new professional association and it's focusing at survival level activity. The luxury stuff such as innovation is at a higher level (Interview 5.4).*

The chief officer (Interview 5.7) acknowledged that the current priority of the association was to raise standards.

*The Institute's work is about both standards and ethics but until we can raise standards the issues of creativity and innovation don't feature highly in our priorities (Interview 5.7).*

The table below indicates a low level of awareness about innovation and little activity at any level whether institutional, practice and personal. Professional education is only now being considered as part of the professional infrastructure although that is not so unusual for new professional associations, and it was a point commented on in chapter 3.

		Interests and Activities					
Interview category		Institutional Interest	Institutional activity	Practice Interest	Practice Activity	Interest on members' contribution	Activity on members' contribution
Central Personnel							
	Interview 5.1	1	1	1	1	1	1
	Interview 5.3	1	1	1	1	1	1
	Interview 5.7	1	1	1	1	1	1
	Interview 5.8	1	1	1	1	1	1
	Interview 5.9	1	1	1	1	1	1
	Interview 5.11	1	1	1	1	1	1
Educational Partners							
	Interview 5.4	1	1	1	1	1	1
	Interview 5.10	1	1	1	1	1	1
Membership							
	Interview 5.2	1	1	1	1	1	1
	Interview 5.5	1	1	1	1	1	1
	Interview 5.6	1	1	1	1	1	1

Table 6.11 Assessment of Tidd et al's (1997) interest and activity for innovation for IRPM

A curriculum was established in 2004 to support its exam structure but only piecemeal training was provided (interview 5.8). There is little expectation for the professional body to support its members' contribution to innovation with a commonly held view that activity was "not too much [of a priority] in my opinion" (interview 5.2) and that respondent went on to say:

*Innovation will mean members are providing an enhanced level of service and thereby increasing our likelihood of business [success] over competitors. Innovation also puts IRPM members in the position to influence change rather than being just led by it (Interview 5.2).*

Interviewee 5.10 taught on RICS programmes as well as being an examiner for IRPM and she noted the bulk of residential property management activity responded to detailed contract and legislative constraints which meant it was harder to be innovative. She added that although there was only a weak educational framework, IRPM exams did test a range of problem solving scenarios.

The reflexive influence of the researcher was again in evidence when one practitioner noted:

*The very fact that you have asked the questions suggests a level of innovative thinking. The development of an 'Academy' and the emphasis on seeking to move the industry away from the 'traditional' view of a property manager focused on building towards relationship management is both refreshing and, in my view, required (Interview 5.4).*

The chair of the Qualifications Working Group noted:

*The fact that you've raised the issue is helpful. We need to think about this. We operate remotely and work through conference calls. We need more face-to-face contact to make sure these issues are properly developed (Interview 5.3).*

### **6.6.3. Summary of themes from IRPM data**

There is evidence of close alignment between the words, interpretation of the documents and data from the interviews. There is little interest in the professional association supporting their members' ability to contribute to innovation, as it is not seen as a priority for a new association. Even if it were a mature institution, the level of interest may not change significantly because much of the work is responsive to contractual and legal arrangements.

There is no activity undertaken by the association on the topic of innovation and as a consequence there is no evidence from which to draw any themes or trends. Indeed for this association there was little awareness that it was even a topic for discussion until prompted by the researcher. That is not to say, however, that there is no significance to the findings of this case study, on the contrary the findings that innovation is not a topic for discussion is important. The findings from the five case studies are now considered together in the next chapter through a cross case synthesis.

## Chapter 7 Analysis of the cross-case research findings

### 7.1 The advantages of a cross-case analysis

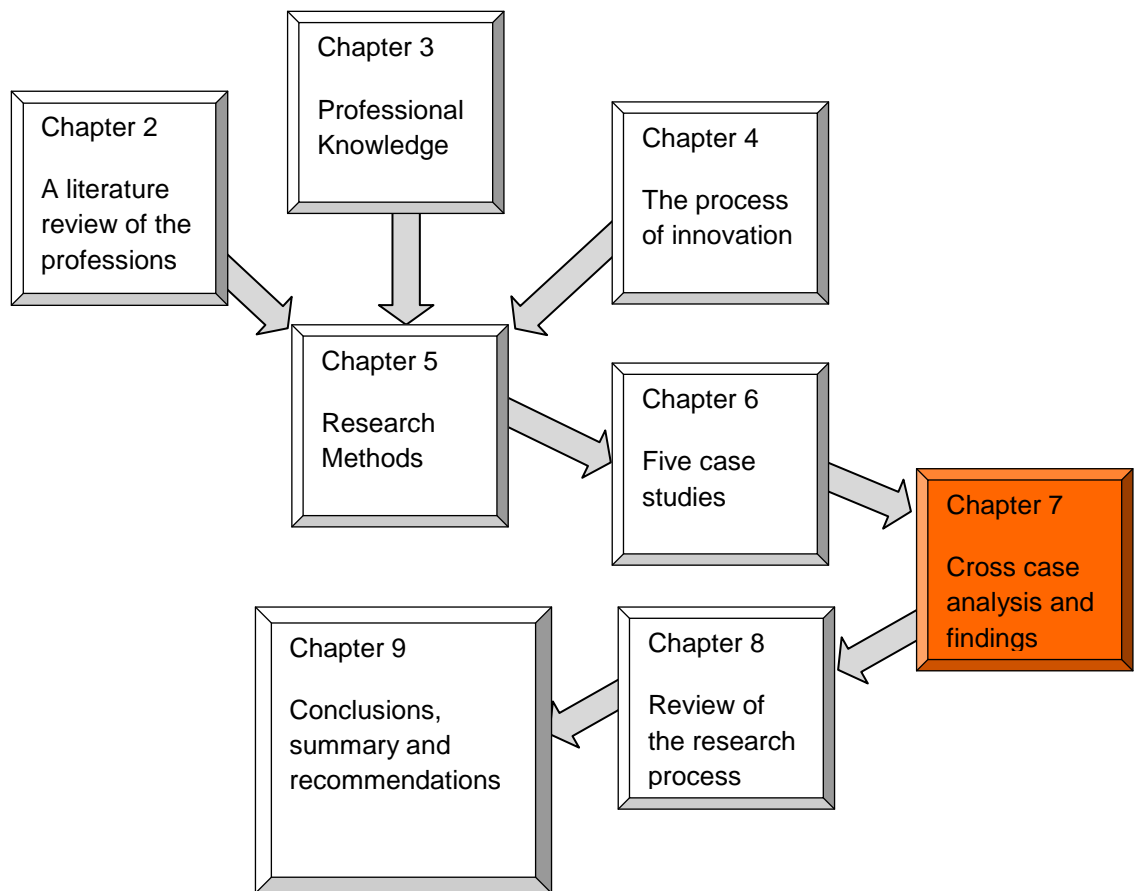


Figure 7.1 A diagrammatic representation of the flow of the thesis highlighting chapter 7.

The research plan in chapter 5 included a conceptual framework at figure 5.6 (Miles and Huberman 1994) and this is reproduced below (now at figure 7.2) as a reminder of the links of each chapter to the theoretical framework.

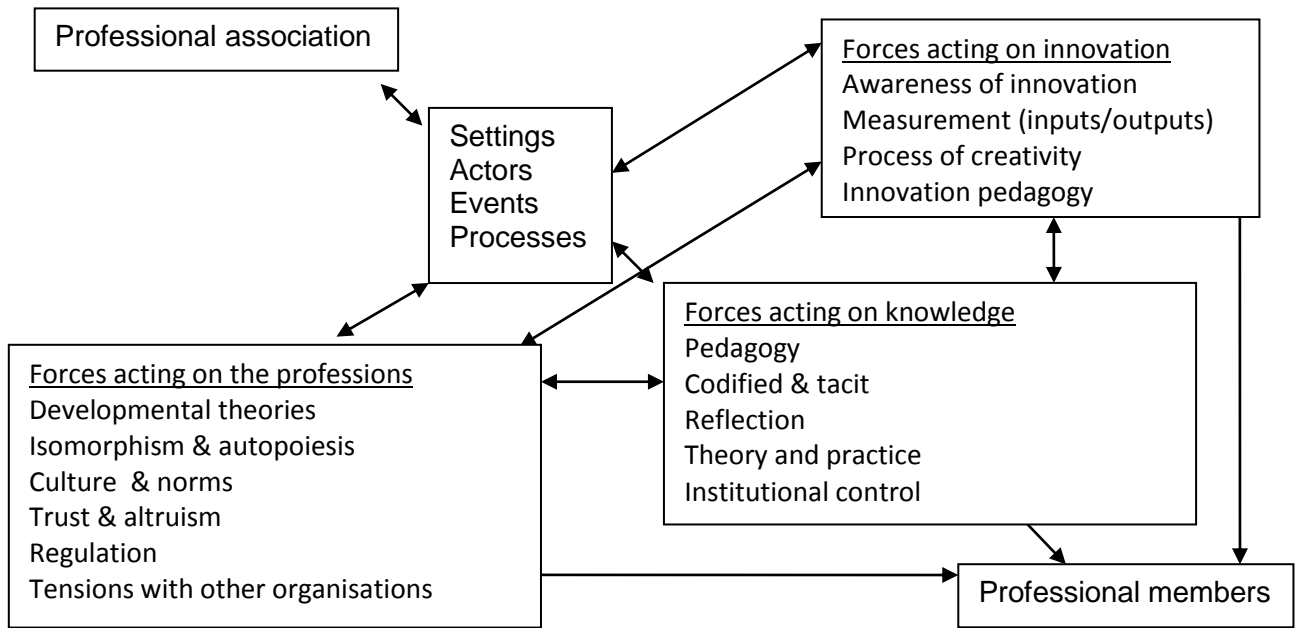


Figure 7.2 Reproducing Figure 5.6 - Improved conceptual framework (II) after Miles and Huberman (1994) to test how professional associations advance innovation.

## 7.2 Cross-case analysis – document data

A cross case analysis compares the data from the different cases and can also aggregate it. An analysis of the total word count from across the five individual case studies allows patterns to be either balanced-out or emphasised. The evidence below in table 7.1 summarises the relative frequency of the 21 indicative words chosen in the word count and identifies these as a percentage

Professional Association	Business	Management	Customer	Client	Profession	Standard	Knowledg		New	Idea	Exploit	Improve	Change	Experiment	Search	Innov		Creat	Problem	Collab	Interact	Resource	Reflect	Totals
CIH	11	5.4	13	0	13	6.91	12.9		7.2	0.6	0	3.9	9.6	0	3.9	0.6		2.4	4.2	0.3	1.2	0.6	3.3	100
RICS	5.2	22	0.5	6	14	7.92	19.4		1.4	0.1	0.5	1.2	0.5	0	12	2.4		0.6	1	0.6	0.3	2.7	1.7	100
RTPI	0.9	4.7	0	1.4	27	7.41	10.8		6.5	1.4	0	2.7	12	0	5.4	0.5		2.9	2.4	0	0	5.2	8.3	100
RIBA	4.7	5.7	0.1	7	25	6.59	10.3		6.7	0.9	0	2.6	6.6	0.3	5.4	3.3		3.2	0.7	0.8	0.9	5.1	3.6	100
IRPM	18	28	4.9	11	11	3.75	3.75		9	0	0	0.7	1.9	0	0.4	0		0.7	1.9	0	0	2.2	2.2	100

Table 7.1 Cross case analysis of words used as percentage of each professional association.

The words highlighted pick up some of the aspects for difference and similarity across the cases. For example, in the first column, the word 'business', is more strongly represented for the CIH and the IRPM than for the other professional associations and such differences may simply be one of writing style from the author. For the second column the greater use of management by the IRPM would be because it is the Institute of Residential Property Management and has that word in its title.

More significantly is the higher profile for the word 'customer' with the CIH (in column 3) 'client' with the IRPM (highlighted in column 4), 'change' for the RTPI (in column 12) and '(re)search' for the RICS (in column 14). These have been discussed in each of the case studies and the difference in frequency results from specific interpretations of the authors. To recap, the CIH bias to 'customer' came from employer competences, the IRPM use of 'client' came predominantly from their curriculum, the RTPI use of the word 'change' came from climate change, and the RICS (re)search came from a strategy with that word in the title.

It might be expected that words such as 'business', 'management', 'knowledge' and '(re)search' would all feature highly in the professional corporate documents, and all these words do record over 6% of the words analysed (see table 7.2 below). However, there was a pattern that indicated words such as 'innovation', 'create', 'collaborate' and 'interact' (highlighted in yellow below) did not have a high frequency in such documents. There might have been an expectation that they scored a reasonable smattering of coverage, but taking all the case studies together the table shows that individually none of these four words achieve even 0.2% of the word usage (61 incidences of the total of 3136 keywords recorded).

	Business	Management	Customer	Client	Profession	Standard	Knowledge		New	Idea	Exploit	Improve	Change	Experiment	Search	Innov		Creat	Problem	Collab	Interact	Resource	Reflect	Totals	Percentage of total words
All documents	5	14	20	0	14	3	2		8	4	1	13	2	0	9	2		13	13	2	2	2	61	190	6.1
Personal	5	14	20	0	14	3	2		8	4	1	13	2	0	9	2		13	13	2	2	2	61	190	6.1
Practice	82	358	18	121	117	53	294		28	11	4	24	71	0	154	3		22	28	4	7	46	13	1458	46
Institution	103	38	23	44	474	163	119		124	4	0	30	98	3	57	56		26	8	8	6	64	40	1488	47
Total word count	190	410	61	165	605	219	415		160	19	5	67	171	3	220	61		61	49	14	15	112	114	3136	100

Table 7.2 Percentage of words used for the personal, practice and institutional categories

This table shows the professions' corporate documents have a clear focus on institutional and practice matters, with percentages of 47% and 46% respectively shown in the last column. This leaves activity focusing on personal development at only 6% of the words analysed. It should be remembered that some of these documents were directly about the education of the professions' members, but even then, they still focused more on institutional issues.

It is possible to extend this analysis a step further, albeit that it might stretch the credibility of the exercise. The chart above gave the word count for individual words and the percentages for only the total rows (institutional, practice and personal). It is possible to show the percentage for each word in each of these three categories and they are highlighted in yellow in table 7.3 below.

All documents	Business	Management	Customer	Client	Profession	Standard	Knowledge		New	Idea	Exploit	Improve	Change	Experiment	Search	Innov		Creat	Problem	Collab	Interact	Resource	Reflect	Totals	Percentage of total words
Personal	5	14	20	0	14	3	2		8	4	1	13	2	0	9	2		13	13	2	2	2	61	190	6.1
	0.2	0.4	0.6	0	0.4	0.1	0.06		0.3	0.1	0	0.4	0.1	0	0.3	0.1		0.4	0.4	0.1	0.1	0.1	1.9	6.06	
Practice	82	358	18	121	117	53	294		28	11	4	24	71	0	154	3		22	28	4	7	46	13	1458	46
	2.6	11	0.6	3.9	3.7	1.69	9.38		0.9	0.4	0.1	0.8	2.3	0	4.9	0.1		0.7	0.9	0.1	0.2	1.5	0.4	46.5	
Institution	103	38	23	44	474	163	119		124	4	0	30	98	3	57	56		26	8	8	6	64	40	1488	47
	3.3	1.2	0.7	1.4	15	5.2	3.79		4	0.1	0	1	3.1	0.1	1.8	1.8		0.8	0.3	0.3	0.2	2	1.3	47.4	
Total word count	190	410	61	165	605	219	415		160	19	5	67	171	3	220	61		61	49	14	15	112	114	3136	100

Table 7.3 Details of the word count data by category of activity

There is limited significance in this step, but, given the analysis undertaken so far, and that 'collaboration' and 'interaction' are identified as essential activities for the innovation process to happen, they represent only 0.0001% of the 21 words selected for analysis in the personal category (2 incidences each out of 3136 keywords recorded). It reinforces the evidence of the low incidence of word use in the individual case studies. This is probably as far as a quantitative analysis can go for any further useful interpretation of the word count data.

Powell and DiMaggio's (1983) isomorphism suggests that institutions become more alike to pursue successful strategies, and this can be tested with cross-case data relating to the professional association's curricula. The two following tables consider the QAA

benchmark documents and then the professional competences. The comparative QAA data is shown below at table 7.4.

Document	Business	Management	Customer	Client	Profession	Standards	Knowledge		New	Idea	Exploit	Improve	Change	Experiment	Search	Innov	Creat	Problem	Collab	Interact	Resource	Reflect	Totals
CIH QAA Benchmark	4	5	0	0	9	14	26		2	1	0	0	3	0	9	2	1	1	1	4	2	11	95
Personal	0	1	0	0	0	0	0		0	1	0	0	0	0	3	1	1	1	0	0	0	5	13
Practice	0	0	0	0	2	0	26		2	0	0	0	1	0	4	1	0	0	0	0	0	5	41
Institutional	4	4	0	0	7	14	0		0	0	0	0	2	0	2	0	0	0	1	4	2	1	41
RICS QAA Benchmark	13	35	0	3	57	38	26		5	1	0	4	3	0	7	2	2	7	0	0	12	8	223
Personal	0	0	0	0	0	0	1		0	1	0	2	0	0	0	0	0	5	0	0	0	5	14
Practice	12	35	0	3	9	1	1		0	0	0	2	2	0	0	0	1	2	0	0	9	2	79
Institutional	1	0	0	0	48	37	24		5	0	0	0	1	0	7	2	1	0	0	0	3	1	130
RTPi QAA Benchmark (200	1	2	0	0	17	23	20		5	2	0	1	18	0	1	1	5	2	0	0	9	1	108
Personal	0	0	0	0	0	0	0		0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Practice	0	2	0	0	10	0	20		2	1	0	1	16	0	0	1	0	2	0	0	4	1	60
Institutional	1	0	0	0	7	23	0		3	0	0	0	2	0	1	0	5	0	0	0	5	0	47
RIBA QAA Benchmark	6	14	0	8	69	18	38		5	5	0	0	5	1	5	2	13	3	1	5	5	7	210
Personal	0	3	0	0	0	0	0		0	0	0	0	0	0	4	0	6	1	0	0	2	6	22
Practice	6	11	0	8	16	4	8		2	5	0	0	5	0	0	0	7	2	1	5	0	0	80
Institutional	0	0	0	0	53	14	30		3	0	0	0	0	1	1	2	0	0	0	0	3	1	108

Table 7.4 A cross-case analysis of CIH, RICS, RTPi and RIBA QAA benchmark documents

The QAA benchmark statements indicate, perhaps more than any other document, the translation of the professions' interests and activities into innovation pedagogy. It is, perhaps, unexpected that the word 'customer' does not feature in any of these documents. There are no references to clients at a personal level, and this indicates that the client-professional role, a matter that was of such concern to authors challenging the power of the professions (Johnson 1972, Freidson 1986 and Abbott 1988), is clearly not an issue for the professional bodies in terms of teaching. Neither is it seen as being a considered response to Rothwell's (2002) innovation models. Indeed there is no reference at a personal level to any of the words 'business', 'customer', 'client', 'profession', 'standard', 'improve', 'change', 'collaboration', 'interaction' or 'resources'. That is not to say that the documents do not infer some of these issues through other words, a point that may be worthy of further analysis, but the indicative point is made that the knowledge and skills required of the individual members for these topics are not stressed in professional education. Indeed, CIH has no expectation of engaging with 'business', 'management', 'customer', 'client', 'standard' or 'problem' (solving) even at the practice level. It is curious that the high profile for reflection identified in the RTPi competences (31 references) is not translated into the QAA benchmark statement (1 reference).



The words relating to personal development in the benchmark statements account for only 7.8% of the total words counted (50 out of 636, although these figures are not totalled in figure 7.4). It might be reasonable to have a high content for professional practice, but it seems odd that the word count for institutional activity is greater than for the other two areas combined. The focus in the curricula seems distorted towards institutionally imposed standards, adherence to the requirements of the profession, and it has only a very limited application for personal learning.

A comparison between the competences does not allow such a consistent comparison because CIH, RIBA and IRPM did not have published competences. That three out of five of the cases studied do not have competences is itself interesting, and two of the cases are mature professional bodies. The housing competence was taken from an employer organisation, and its inclusion presents some interesting cross-case issues, noted below in table 7.5.

Competences	Business	Management	Customer	Client	Profession	Standard	Knowledge		New	Idea	Exploit	Improve	Change	Experiment	Search	Innov		Creat	Problem	Collab	Interact	Resource	Reflect	Totals
Competence (Housing)	5	4	26	0	0	3	2		6	1	0	5	19	0	1	0		5	13	0	0	0	0	90
Personal	0	0	20	0	0	3	1		6	1	0	1	2	0	1	0		3	3	0	0	0	0	41
Practice	0	3	0	0	0	0	0		0	0	0	0	0	0	0	0		0	3	0	0	0	0	6
Institutional	5	1	6	0	0	0	1		0	0	0	4	17	0	0	0		2	7	0	0	0	0	43
RICS Competences	40	191	0	61	74	31	173		0	0	4	6	1	0	19	0		2	2	1	0	16	4	625
Personal	3	0	0	0	0	0	0		0	0	0	0	0	0	0	0		1	0	0	0	0	1	5
Practice	37	191	0	61	10	25	172		0	0	4	6	0	0	19	0		1	2	1	0	16	3	548
Institutional	0	0	0	0	64	6	1		0	0	0	0	1	0	0	0		0	0	0	0	0	0	72
RTPI Competences (2013)	2	2	0	8	91	10	15		13	2	0	10	14	0	22	0		1	9	0	0	5	31	235
Personal	0	0	0	0	7	0	0		1	0	0	8	0	0	0	0		0	1	0	0	0	31	48
Practice	2	2	0	7	15	10	15		5	1	0	2	5	0	22	0		1	8	0	0	2	0	97
Institutional	0	0	0	1	69	0	0		7	1	0	0	9	0	0	0		0	0	0	0	3	0	90

Table 7.5 Cross-case analysis of the housing, RICS and RTPI competences

The emphasis of the two competences from the professions is more about practice than personal skills. The RTPI document addresses this with 20% of the words relating to personal skills but the RICS focuses less than 1% of the word content at the personal level. Noting that the housing competence is from an employer and not the professional body, then for the employer's competence this is reversed. Here the employee becomes more important than the practice. The comparison shows the professional bodies do not recognise the term 'customer', but the employer does. Whilst RICS and RTPI competences set few demands on the individual member, other than reflection, the

employers' competence sets half of the staff's personal expectations against the word 'customer'.

'Innovation' and 'interaction' do not feature in any of the competences. This leads to a suggestion of strong command and control type management, and of staff expected to work with a directed purpose. Consideration of the patterns across the business plans is shown below in table 7.6 and strongly reinforces the institutional bias, although that is to be expected from institutional documents. There are so few references of the capacities of individual members in professional associations' business plans, only six references out of 738, that it suggests that the individual contribution of the members is not relevant to the thinking of these member organisations.

Business Plans	Business	Management	Customer	Client	Profession	Standard	Knowledge		New	Idea	Exploit	Improve	Change	Experiment	Search	Innov		Creat	Problem	Collab	Interact	Resource	Reflect	Totals
CIH Corporate Plan	1	0	16	0	19	4	13		5	0	0	5	1	0	2	0		1	0	0	0	0	0	67
Personal	0	0	0	0	5	0	0		0	0	0	0	0	0	0	0		0	0	0	0	0	0	5
Practice	0	0	0	0	4	0	2		0	0	0	0	0	0	0	0		0	0	0	0	0	0	6
Institutional	1	0	16	0	10	4	11		5	0	0	5	1	0	2	0		1	0	0	0	0	0	56
RICS Business Plan 2012-13	55	32	14	4	60	85	5		54	0	2	34	12	0	3	0		13	0	4	1	8	4	390
Personal	0	0	0	1	0	0	0		0	0	0	0	0	0	0	0		0	0	0	0	0	0	1
Practice	0	0	0	0	1	0	0		0	0	0	0	0	0	0	0		0	0	1	0	0	0	2
Institutional	55	32	14	3	60	84	5		54	0	2	34	12	0	3	0		13	0	3	1	8	4	387
RTPI Manifesto for Planning	2	16	0	0	15	4	4		10	0	0	3	28	0	0	0		5	2	0	0	9	1	99
Personal	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Practice	2	16	0	0	3	0	0		9	0	0	1	27	0	0	0		0	2	0	0	4	1	65
Institutional	0	0	0	0	12	4	4		1	0	0	2	1	0	0	0		5	0	0	0	5	0	34
RIBA Business Plan 2013	12	6	1	15	14	6	5		6	0	0	5	0	0	8	9		4	0	1	0	8	0	100
Personal	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Practice	0	0	0	0	4	2	0		0	0	0	0	0	0	0	0		2	0	1	0	0	0	9
Institutional	12	6	1	15	10	4	5		6	0	0	5	0	0	8	9		2	0	0	0	8	0	91
IRPM Business Plan	19	8	0	1	17	2	1		18	0	0	0	3	0	1	0		0	1	0	0	6	5	82
Personal	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Practice	0	8	0	0	0	2	1		0	0	0	0	0	0	0	0		0	0	0	0	0	0	11
Institution	19	0	0	1	17	0	0		18	0	0	0	3	0	1	0		0	1	0	0	6	5	71
Total	89	62	31	20	125	101	28		93	0	2	47	44	0	14	9		23	3	5	1	31	10	738

Table 7.6 Analysis of business plan word count for each case study

The evidence from the documents of the individual case studies and the cross-case analysis suggest that all the professions, as institutions, have a primary focus on institutional matters, and this indirectly supports aspects of power theory and neo-institutionalism. Such activity is supported by 47% of the words from all documents (table 7.2) relating to institutional matters, more than for practice or personal development. Words such as 'business', 'profession' and 'standard' had a clear focus at the institutional level, so the word 'standard' occurs just 1.4% at the level of personal activity, 24.2% for practice and 74.4% at the institutional level (total 100%). Words such as 'knowledge' and

'client' have a higher word count at the practice level rather than for personal use which reflects institutions setting expectations from an institutional perspective, but this does not indicate the responsibility for learning or practice is passed to the individual members. This also operates for 'standards', 'knowledge' and 'clients', so it can be no surprise that the institutions do not see advancing innovation as being a matter for individual members, and they are not acting to stimulate any contribution at this level.

There are weaknesses in interpreting and translating the data analysed, as identified by Habermas (1988), but there are a number of recurring themes from both the document analysis and the narrative of those documents, and these are as follows:

- The associations use the term 'innovation' only infrequently, and in the curricula it relates mostly to teaching and rarely to professional practice
- The use of the term is often inappropriate to its true meaning and most uses are unsupported in terms of the processes needed to advance it.
- The associations have only a weak link to customers and clients
- The link with customers and clients is even weaker at the personal level of activity
- There is a strong institutional bias to the documentation, suggesting it is written for activity by the professional association; it is not directed at the membership.

### **7.3 Cross-case analysis – interview data**

The data from the interviews suggests a strong alignment with the content from the document analysis, but it allows a wider and deeper analysis of some of the drivers, norms, setting and interests that impact on the institutions. As with the data from the content analysis, it is possible to both differentiate between the case studies and aggregate the data.

A cross case analysis of the individual comments from the five different case studies is shown below in table 7.7. As statistical data this is not helpful to a cross case analysis, and it is the interpretation of the data that is more relevant.

Coding analysis from Interviews							
	CIH	RICS	RTPI	RIBA	IRPM	Total	
Professionalism	2	1	2				5
Standards	12	4	2	1		6	25
Practice	4	10	5	13		3	35
Membership	5	1				1	7
Professionalization					2	3	5
Status			1	2		3	6
Elite	2						2
Tradition	6			1	1		8
Expert Knowledge							0
Theory/Practice	1	1	2			3	7
Skills	2					2	4
Reflection	2	1		1			4
Jurisdiction			4				4
Path Dependency							0
Transfer/Pedagogy	10	9	8	3		4	34
Research			3				3
Innovation	11	2	3	4		3	23
Measures	4	4	2				10
Process	20	16	5	11		8	60
Pedagogy	31	25	4	4		14	78
Subjective/Def	5	3		5		1	14
Government	9	4		2		2	17
Client	3				2		5
Customer				1		1	2
Management	9		2	1		4	16
Institutions					1		1
Autopoiesis							0
Isomorphism	3				1		4
Norms	2	3	1	3			9
Research Methods							0
Regulation	4	2					6
Competition						1	1
	147	86	45	57		60	395

Table 7.7 Analysis of coding; all case studies

There was a consistent theme that the awareness of innovation was greater with the professions' central personnel. The CIH and the RICS stood out as having greater awareness. Discussion with different staff members at the CIH suggest that a strong personal awareness was not automatically transferred into institutional activity or given the same commitment when staff changed. The RICS is alone in having a considered and structured view about rolling out more sophisticated approaches to encouraging their members to embrace innovation. They had two separate staff members at the centre of their organisation to record a score of 3 out of 4 on Tidd et al's (1997) four-level measure. There is limited statistical relevance to table 7.8 below, showing a summary the differences between the case study interview responses against the Tide et al's scores, but in all cases the central personnel have higher levels of awareness.

	CIH	RICS	RTPI	RIBA	IRPM
Central Personnel	1.53	2.5		2	1
Educational Partners	1.16	1.66	1.08	1	1
Membership	1.33	1		1	1

Table 7.8 Cross case analysis of all responses on Tidd et al's four-level measure

There are a number of recurring themes interpreted from the cross case analysis of the interviews that cannot be reflected in Tidd et al's (1997) four-level measure. These can be summarised as follows:

- The term 'innovation' was frequently used inappropriately, and a number of professional bodies indicated it did not always apply to awareness or activity associated with that word (code 4.4).
- The teaching of professional practice did not align with the teaching of creativity associated with innovation. The former required factual information and the latter required interactive processes for interpreting problems and finding solutions (codes 3.6 and 4.3)
- Some professional bodies put significant energy into influencing government policy (code 5), rather than the expected and straightforward functions from chapter 2.
- The professional bodies had different interests from their university partners over both the content of the qualifications, and the expected capabilities of the graduating students. The professions wanted more control over the content through the validation of the educational programmes, whilst the colleges wanted more openness, and to make more use of critical thinking (codes 3.6, 3.2 and 1.3).
- There was a perceived bias for technical content based on traditional skills and inadequate provision for softer, interpersonal skills. The professions focused on hard technical skills, whilst both the colleges and management supported more content on the soft skills for managing relations (codes 8, 3.2 and 3.6)
- Individual teachers ensured creativity was included in educational work in spite of the constraints of the curriculum. A minority of lecturers understood the importance of teaching creativity through project management, case studies, role play, interactive IT platforms, scenarios, group work, group presentations and through careful assessment. This was not a requirement from the professional body, but a choice of individual actors (code 4.3)

- There was a low level of understanding of innovation pedagogy with both the professions and their educational partners (code 4.3)
- There was a understanding in some associations that more needed to be done to embed a structured approach to the awareness and activity of advancing innovation (code 4.3)
- There were elements of reflexivity triggered by the research questions that contributed to further inquiry. This was generated by the interview process, with interview subjects asking for further information to increase their own levels of awareness, and so increase activity within their respective organisations (code 4.3)

To give some indication of the commonality of these nine themes it is possible to put them into a chart and this is noted below in table 7.10. Some themes were common in four of the five case studies and all the themes occurred in at least two of the individual case studies.

Professional body	Inappropriate use of term innovation	Clash of practice and creativity	Effort influencing government	Conflict with universities	Technical bias, lacking relationship management	Actors including creativity despite curriculum	Low awareness of innovation pedagogy	Awareness that more needs to be done	Reflectivity triggered by research
CIH	✓	✓	✓	✓	✓	✓	✓	✓	✓
RICS	✓	✓		✓	✓	✓	✓	✓	✓
RTPI	n/a	✓	✓	✓	✓	✓	✓		
RIBA	✓			✓				✓	✓
IRPM	n/a	n/a	n/a	n/a	✓	n/a	✓		✓

Table 7.9 Commonality of themes from interviews

The calculation and production of averages (means) in each case study for Tidd et al's (1997) four-level measure from table 7.8 may have little significance because of the low

data numbers, but the aggregated data from the 39 interviews provides some indication of the patterns of interest and activity. Table 7.10, below identifies the average score across all interviews. All the scores are in the range 1.237 to 1.342 which, within a scale of one to four, where the scale starts at one, not zero, it indicates a very low level of interest and activity, irrespective of which category is considered.

	Interests and Activities					
	Institutional Interest	Institutional activity	Practice Interest	Practice Activity	Interest on members' contribution	Activity on members' contribution
All case studies						
Total Score	51	51	49	49	47	47
Average score	1.342	1.342	1.289	1.289	1.237	1.237

Table 7.10. Analysis of all interviews against Tidd et al's four-level measure of innovation

It is possible to mine the data further and consider the different average scores for each set of interview participants working at the centre of the organisation, for the educational partners and for the wider membership. This is shown in table 7.11 The total scores from the individual case studies are shown in the first row of each section, and the average per interviewee shown in the second row. Again no great significance should be vested in these scores, but the view of innovation awareness and activity scores highest closest to the centre of the institution, and interest falls away as it moves to the requirements of practice, and for individual members' contributions. Predictably for the educational partners that trend is reversed showing more interest at the level of the members' contribution. The scores from the wider membership are the lowest of the three, and for activity and interest targeted at their own contribution the score 'flatlines' at the lowest possible level of activity and interest for all eight of the interviews. This indicates that the membership of the professional associations do not see any organisational interest in their personal potential to advance innovation.

	Interests and Activities					
	Institutional Interest	Institutional activity	Practice Interest	Practice Activity	Interest on members' contribution	Activity on members' contribution
All case studies						
Central personnel score	21	21	20	20	16	16
Interview (14) average score	1.5	1.5	1.429	1.429	1.143	1.143
Educational Partners	19	19	19	19	22	22
Interview (16) average score	1.188	1.188	1.188	1.188	1.375	1.375
Membership	9	9	9	9	8	8
Interview (8) average score	1.125	1.125	1.125	1.125	1	1

Table 7.11 Average scores from the interviews from central personnel, educational partners and members

It should be remembered that these summary scores are taken from the researcher's assessment of the evidence presented during the interviews, and, although this is backed up by the qualitative and quantitative data and supported by a chain of evidence (Yin 2009), it is a crude process of summation. It includes the possibility of both researcher bias and pre-determination. Nevertheless, there is a clear pattern from a statistical analysis of the interview data that interest in, and activity for, the topic of innovation has only a low score by Tidd et al's (1997) measure.

#### 7.4 The primary data findings considered against the secondary data from chapter 2

Chapter 2 set out the development of professional associations, identifying the ideological aspects of professionalism and professionalisation; the topics of isomorphism, autopoiesis, culture, norms, trust, altruism, regulation, and the challenges from clients, customers and management.



The case studies relating to the theories of professional development did not test support for, or challenge, any of the individual theories of traits, functions, power or neo-institutionalism – but the evidence confirms the relevance of these ideas from the high institutional level word counts. The interview evidence suggests the professions operate in states of tension with other institutions over their jurisdictions, and in particular, partner universities have different interests in what is to be taught for student's skills and knowledge. They also have different interests for the control of student numbers. The patterns are not universal, and the evidence suggests the more elite professions are likely to influence aspects of social closure, whilst the less elite professions are more open to encouraging membership.

The developmental theories have limited influence on the topic of whether a professional association influences a member's ability to advance innovation. Neither the document analysis, nor the interviews conducted, identified any significant interest or activity in the topic. Innovation had not emerged as a trait or function of the associations in the secondary data and, whilst there is recognition that innovation is a recent topic at a corporate level, it is not showing any importance at member level in the primary data. The inclusion or exclusion of innovation does not affect the professions drawing their power from existing, traditional bodies of knowledge, indeed there is reason to consider that such a shift could weaken their control.

Elements of isomorphism were found in the patterns of the documents from the primary data. The constitutions, QAA benchmark statements, business plans and statements about working with educational partners all followed similar formats. This reinforces the view that successful patterns of institutional activity are replicated by those that follow. Such a neo-institutional interpretation reinforces their isolation, but if a change occurs with one institution it could challenge the isolation of others. If one institution started to measure innovation activity with proper structures and controls, as being considered by the RICS, then it is possible that others might follow.

The institutional norms work through the established traits, functions and cultural values and the documents all contain statements about the public good, including a legacy influence from their original charters. The business plans return to these values, and limit the association's intention for research and instead emphasise technical skills; this mostly

omits innovation. Such a culture is difficult to change. What was perhaps most striking was that, despite the normative expectations of the organisations, individual staff and teachers from the educational partners were able to act independently and to write their own agendas for advancing innovation activity. Such actions were often driven by conscience or helped by expertise beyond the requirements of the job and, though the actions remained under institutional constraints, it was possible for them to realise new and different ways of working.

There was no content in the business plans to suggest a problem existed with trust or altruism, and the matter was simply not discussed. There may be an implied consensus that professionals no longer merit unquestioned elite status or autonomy, and so they do not have any trust to defend. Regulation was considered to be a barrier to creativity, because it emphasised narrow practices within the jurisdiction of the professions.

The professions' isolation from customers, clients and management reinforces their traditional approach, and stifles feedback from key stakeholders that might otherwise provide a more contemporary agenda. It is recognised that radical change is not the primary purpose of the profession, and that the integration of new and old ideas creates further tension for the institutions to manage. Whilst discontinuity with the past undermines their traditional body of knowledge (Osborne and Brown 2005:4), it is also unlikely that excessive inertia will benefit their long-term survival.

The rules governing planning, housing development and welfare are all overtly political issues and even the role of architecture, though less political, has faced government influence through the 2014 Farrell Review. Both the CIH and RTPI lobby government to influence policy, as it is perhaps the biggest threat to their jurisdiction. It was noted CIH operates with no requirement for a license to practise and the membership represents only a minority of those engaged in housing management activity (CIH 2010A). At the same time it sees its professional role undermined by shifts in government policy that erodes the value of its activity. Its more open approach to membership does not appear to see the professional model as one for the control of the occupation (Johnson 1972:45), but rather sees membership as a product (CIH 2014).

## 7.5 The primary data findings considered against the secondary data from chapter 3

Chapter 3 restated that knowledge was central to the work of the professions because it provided jurisdictional boundaries that enable members to gain access to status through the credentials of the professional body. It highlighted issues relating to effective pedagogy of theory and practice, the use of codified and tacit knowledge, the value of reflective practice, and institutional control. Aside from any personal weaknesses of individual professionals, chapter 2 highlighted general systemic weakness in the effective transfer of codified knowledge as part of professional pedagogy. It was also considered there was a failure to harness and transfer practice skills and tacit knowledge (Eraut 1994).

Professional knowledge depends on the four pillars of theory, practice, and implicit and explicit knowledge. The professional undergoes a rigorous and lengthy period of training, drawing on these elements, and whilst theory and explicit knowledge are readily codified, practice and implicit knowledge remain elusive for pedagogy. The primary data shows the acquisition of knowledge is heavily dependent on codifiable standards, and includes little content on the personal aspects of relationship management or the softer skills of communication. Revisiting the QAA benchmark statement for housing identifies areas of knowledge for generic transferable skills of:

- *self-management and motivation*
- *interpersonal and team-working skills*
- *self-awareness and critical reflection*
- *creativity, innovation and problem-solving skills* (QAA 2006:4).

These elements are not, however, underpinned by any commentary about how they fit with professional contexts, nor anything about how such skills are transferred. Such unsupported statements give the partner universities wide scope for interpretation, but the result is still constrained by an emphasis on technical skills. Oakshott (1962) identified 'non-routine knowledge', which Larson (1977) called 'indeterminacy', and these important aspects of professional activity are not addressed in QAA's statements. The professions' control of jurisdiction is effectively a control of the commodified and codified knowledge, and there is little or no documentary evidence that practice, implicit or non-routine knowledge forms any part of the associations' body of knowledge. This pattern is

replicated for all five case studies. Susskind (2008) argued that the professions depend heavily on what is additional to the body of knowledge, but if the very nature of innovative activity depends on the practical application of implicit knowledge in non-routine settings, then this is another possible explanation of why innovation, and especially the inputs to it, has such a low profile.

The consequences of not addressing identified weaknesses in professional education are significant. The present highly structured arrangements, focusing on commodified knowledge, lead to elements of Durkheim's *anomie* where a different approach could lead to Hamel's (2006) 'passion, ingenuity and self-direction'. The institutional resisters – the norms working against creativity – are powerful, and emphasise the need for safety, security, conformity and low-risk activity. These are stronger and more deeply embedded than the desire to play and, when added to the need for short-term returns on resources, they override the opportunity to experiment.

There is a vast body on knowledge on pedagogy, yet problems continue with students remaining passive rather than active participants (Freire 1970). The shift to mass learning, notably mass open online courses (MOOCs), distance learning and the increased costs to learners, all pose threats to a better understanding of tacit knowledge and the transferring of practice. Mentoring, apprenticeships, peer learning and problem-centred learning all offer higher levels of understanding for professional practice, but these demand a higher level of teaching inputs and have higher costs. A website search for 'innovation pedagogy', or how to teach innovation, is overrun by answers about 'innovative pedagogy', meaning how to better convey knowledge for deeper and wider learning. There is so little of the former that any search automatically defaults to the latter. It seems readily acceptable to consider innovation in teaching, but not acceptable for the teaching of innovation as part of professional practice.

Kolb (1984) and Schön (1983) recognise that iterative reviews, with self-awareness and critical thinking, all help put the professions' work in context (Finlay 2008). The repeated, almost slavish, use of the term 'reflection' in RTPI guidance for completing assessment of professional competence (APC) personal records, does not, on its own, appear to be adequate. It uses the term 'reflective' mostly in the sense that, if a client changes their brief, the planner has to rethink the outcomes. In much the same way, their Manifesto for

Planning (RTPI 2010) includes aspirations to help government develop a system that is fit for purpose, but it does not mention innovation. It would be interesting to explore further how the frequent use of terminology influences behaviour. A different, frequently repeated vocabulary for innovation might emerge from government and get adopted by the professions, enabling a shift in current patterns of behaviour. After all, the established requirements of the planning schools are merely part of a cultural template, and the particular model for planning (QAA 2007) differs from the other professions only because of its frequency for the signifier of reflective practice.

Innovation is more than research; research is simply a process for collecting knowledge and it does not provide the wisdom for its use. Getting new knowledge may fit some of the definitions cited in chapter 4, but that is too narrow a view to answer the question of whether professional bodies advance innovation. Knowledge itself helps that process (Cohen and Levinthal 1990), but in the same way, innovation pedagogy is more than research; it requires active participation in the creative process, and not just taking new information on board. Furthermore, new knowledge, used without an understanding of the context, may not provide lasting solutions.

A final point from chapter 3 is how consideration of knowledge is used as capital. Knowledge used for the common good contributes to social capital, but the protection of a body of knowledge and jurisdiction through social closure, or some other means, results in the control of business capital. Similarly, at a personal level, if an individual uses professional knowledge to enhance status and maintain fee income, then again it is part of business capital. Freidson (2001) asserted that the professions are 'the third logic' alongside the markets and firms, but his argument does not stack up if professional knowledge simply becomes capital. Larson's (1977) view of monopoly practise then becomes more relevant, and so does the inequality argument of feminists (Callas & Smircich 1996). The professions then emerge only as firms, precisely because they use their intellectual capital for financial gain. This is something that clashes with their founding articles and charters, but which is now understood by evolutionary psychologists to be a straightforward survival strategy.

## **7.6 The primary data findings considered against the secondary data from chapter 4**

Chapter 4 considered innovation itself, highlighting that it is about finding the value in something new, and exploiting it. It is seen as an economic, monetary issue, and Porter's (1990) work though the World Economic Forum sees it as the vehicle that makes nations competitive. A more detailed scrutiny of its definition and processes opens up a raft of interpretations as to whether something is, or is not, an innovation. In the end it comes down to the perception of the individual affected (Rogers 1962). This makes the bridging of the topic from the macro, institutional level down to the micro, personal level more challenging. The chapter specifically considered the awareness of innovation as an important topic, as well as measurement to support its advancement, the process of identifying the inputs to creativity, and the specialist field of innovation pedagogy.

Wang and Ahmed's (2003) and Brooke Dobni's (2008) reviews of the measurement of innovation used complex multiple measures, which did not help an understanding of the process of innovation. Tidd et al (1997) suggested a simpler metric – a four-level assessment – that proved useful for this research. It was easy to adapt to both interest in, and activity for, innovation by professional associations, and it enabled the interests and activities at the institutional, practice and individual levels to be given a simple ranking from one to four. To reiterate and paraphrase, this identifies:

- level 1 – no interest or activity
- level 2 – some ad-hoc interest and activity
- level 3 – formal systems
- level 4 – highly developed and effective systems (Tidd et al 1997).

Unfortunately, very little of the data relating to the research and development activity or training undertaken by professional associations addressed the inputs required for innovation to happen. There was little awareness of the need for the space, time, resources, reflection, interaction and the conscious act of innovating associated with professional practice. The professions manage important activities that could advance the creative process, and their pedagogy holds both the empirical and practical knowledge that Edison demanded in his Menlo Laboratory (Israel 1998:328). They also use both the tacit and explicit knowledge essential to the creative process. Innovation pedagogy

requires precisely these inputs, but the teaching of creativity is not well understood and, as a result, the overall contribution of the professions is minimal. It gives cause for concern when a professor of a business school, working in the field of innovation, puts in writing that innovation is 'indistinguishable from marketing'.

Innovation has the ability to provide competitive advantage for firms and add to a professional body's overall power and influence, but this clashes and competes with the process of controlling existing knowledge. The professions' emphasise the commodification of knowledge, and the normative activity protecting jurisdiction and territory, and they are locked-in to existing standards that reinforce regulatory structures. This adds further barriers to change. Such a cultural backdrop reduces the opportunity for 'quick wins', one of Kotter's (1996) eight steps for leading change, and a step that is seen as important for influencing change in institutional behaviour.

Few of the many texts discussing innovation actually get to the nub of what is involved in making it happen. It is possible for the process to be understood and, in the words, of Drucker (1985:33) 'it can be learned and practised'. Nonaka and Takeuchi's (1995) SECI model gets closer than most to identifying the requirements for innovation, as it addresses the need to work with tacit and explicit knowledge, and theory and practice. The model would be a useful tool to help the professions transfer their body of knowledge more effectively. The model, although not well known, it is not an outlier, and Scharmer (2001) and others have come up with similar arrangements, though not as simple or comprehensive.

The international cross-cultural findings identify a strong element of individualism in the UK suggesting people are able to operate independently of the institutional systems. Professional associations are not impervious to change and so it prompts the question of what innovation pedagogy might look like in a culture properly aligned to the expectations of growth, based on Porter's (1990) competitive nations. There would be an expectation of a higher awareness of the process of innovation at a general level across the working population, with the word itself being more visible and used in its proper, not lazy, sense. It is too frequently used only as a meaningless symbol tacked onto other messages (as arguably found in RIBA's business plan, or RICS's research and innovation statement). Measurements used by government and firms could spill over into the work of the

professions, and this would give further clarification to address any definitional uncertainty. Such developments would provide more support for creativity generally, and words such as 'exploit' and 'experiment' might become more commonly used.

If the Government is campaigning for the nation to have the best innovators, it should know about its own national culture of independence, and look to overcome the barriers to change that come from it. Unfortunately, it seems unclear about what message it is sending out – looking only for financial outputs and not seeing the need for intellectual inputs. This means innovation rests on a wide definition, and one that is possibly too wide when clarity is required. As a result innovation pedagogy is only weakly understood. Eraut (1994:57) considered creating new knowledge was not a priority for either educators or the professions, and the evidence suggests not much has changed in the 20 years since he made his comments. A simple metaphor about innovation pedagogy (Nonaka and Takeuchi 1994, Hamel 2006) might lead to a better understanding and, although creative people might think that creativity cannot be taught, there's a lot of evidence to suggest that it is simply about creating the right environment for creativity to thrive. An understanding of the contents of box 4.1 is a starting point, and it is clear there are already individuals enabling the inclusion of elements of innovation pedagogy into their routine teaching practice.

## **7.7 Cross-case study – overall findings from the data**

An overall view can now be taken of these themes. The need to provide the best innovators (BIS 2012) and the belief that innovation can be taught (Drucker 1985) indicate that the topic of this research has real significance and Yin (2009:185) stresses that a case study must be significant. The findings from the case study documents and interviews, when compared against the requirements of the conceptual analysis generated from chapters 2, 3 and 4 highlight serious conceptual, cultural, organisational and practical problems for the professions to be able to advance innovation. From the findings it is possible to distil seven contributions to knowledge from this research.

- 1 The professions are heavily locked-in to old knowledge. They provide little of any depth of learning about the soft skills that help to build relationships. There is an isomorphism across the activities of different professional associations, and their



activity is heavily focussed at the institutional level, with a strong element of autopoiesis, that does not make a link to innovation at the personal level.

- 2 The professions commodify knowledge to reinforce their jurisdiction, and they operate through cultural norms that reinforce compliant practice and regulation. At the same time, their ability, and their partner universities' ability, to transfer knowledge about both practice and tacit knowledge is weak. Innovation depends on practice and tacit knowledge being made explicit, so this weakness undermines the ability to advance innovation. Furthermore, the pedagogy of commodified knowledge is in direct conflict with innovation pedagogy.
- 3 The professions are isolated from the influence of customers, clients and Government, and are therefore removed from the feedback loops that encourage innovation.
- 4 The professions' culture complements the existing UK culture of individualism which militates against collaboration, and therefore creativity. The technical knowledge used by the professions is used more as institutional and personal capital, rather than for the common good.
- 5 Innovation pedagogy is poorly understood. There is a weak theoretical underpinning of innovation in literature, its measurement is complex, and, together with the Government's singular focus on economic outputs, it results in only a weak understanding of the inputs to creativity for all agencies. The messages and signifiers about innovation are unclear and in turn, this creates tensions between the institutions of the professions, universities and government about teaching priorities. The uncertainty means the topic is not sufficiently thought through by the professions or their university partners, and so is not included into the curricula for educational programmes
- 6 The professions often use the word innovation inappropriately. They use it because it is fashionable, without understanding its definition or process. They see research as innovation, and although it is a contributor, it is only a small part of the

process of creativity. In similar fashion, reflective practice is not well understood by the professions and its application is not well used to serve as a contribution to creativity.

- 7 Individual actors, in both the professions and in their university partners, are able to challenge the institutional norms, and so accelerate awareness of the need for innovation. There were elements of reflexivity triggered by this research process that contributed to challenging current practice.

The consequence of these seven contributions to knowledge is that there is little evidence to support a view that the professional bodies in general have any real consciousness about the need to advance innovation. There is evidence of emerging interest and activity, some triggered by this research, but for now it remains at a low level. A number of external catalysts may help to create compelling and coercive forces to increase current interest, and there may be better diffusion to follow. As innovation practices develop outside the professions the pressure for them to embrace it internally will get stronger.

## **7.8 Alternative interpretations or rival theories**

It is possible that the sociological interpretations of the primary and secondary data in the preceding eight chapters are wrong or flawed or both, and the findings may not be supported by any coherent epistemology. It is, therefore, useful to ask if there are alternate interpretations or rival theories that have not yet been considered. Yin (2009:135) identified a range of rival theories that he called 'craft rivals' including the null hypothesis, direct rivals and societal rivals, and such alternative interpretations are worth exploring to test the validity of this case study analysis. The null hypothesis suggests the whole project is based on chance findings, investigator bias or where the researcher has unduly influenced the findings. A direct rival theory occurs where some other influences produce the identified result, such as an 'implementation rival' which might occur where something different in the professions' activity accounts for the patterns seen in the research. Taleb (2007) warned that narrative can blind a true explanation. A 'societal rival' occurs where different underlying trends, other than those discussed, might form the same compelling or coercive forces that emerge from the results.

The prospect of these findings occurring from a null hypothesis can be challenged by use of five separate case studies. The probability that the findings are mere chance is overridden by the common patterns established across the different studies. The influence of researcher bias, documented as part of these case studies, is limited to simply raising an awareness with a few individuals, but it does not extend to influence the actions of the institutions overall.

The likelihood of a societal rival has already been explored where the traits and functions of the professions might only be constructed through individual and group behaviour working for different ends. It is possible to consider that individual professionals might strive for higher intellectual powers because they want higher performance (Ridley 1993) or they may be motivated by Skinnerian behavioural responses avoiding pain and seeking pleasure. It is known that tribal or community behaviours are driven by a feedback loop (Laird and Thompson 1992:262), so an alternative to collective action for seeking higher status might fall simply to Maslow's hierarchy of need. In essence, all these different approaches align with traditional social norms demanding compliance or needing security. It is similarly possible that the early work of Carr-Saunders and Wilson (1933) produced a form of lock-in that other sociologists followed resulting in their original, and all later ideas including this research, being flawed. This study has taken a constructionalist view as its prime approach which requires recognition that the professions are interpreted as a significant construction in the mind of both the researcher and the research participants. This too might be wrong, but it remains the most coherent model to work with. Alternative views might challenge the role of institutions, the professions themselves, use of knowledge and the behaviours of individuals, but no alternative models have been found to support this.

Institutions are clearly important to society (Durkheim 1933), even if they have weaknesses. North (1991) identifies the role played by institutions in supporting the need for investment in knowledge, but the professions are only one small part of institutional society, even if they have a significant role to play. Susskind (2008) and Freidson (2001) consider there will always be a need for the professions and, although their work may change in the light of developments in artificial intelligence, there is, as yet, no strong evidence to undermine the constructionist view of professional association. What has changed perhaps is the wider acceptance of tensions with other groups; the regulators,

government, management, customers and clients – but this is not new, merely an old problem getting a higher profile from the easier flow of data associated with new information technology. Business used to be conducted in secret or shared on a need-to-know basis, but such activity is now openly published. There may be cultural shifts affecting the way people in Britain work, but there is no theme suggesting the individualist culture of the worker will see radical change in the short term.

The professions form part of the world of work created by the division of expert labour and Johnson (1972:45) saw them as being the means of controlling the occupation rather than supporting it. If the professions' function for the use of knowledge becomes less relevant then it could operate without the need for control, and so weaken to become simply a community of knowledge. Such a community would be more open to sharing their knowledge freely, and would be more in tune to the needs of clients, customers and management.

A search for alternative views of the use of knowledge, as explored in chapter 3, reinforces similar findings. The acquisition of knowledge enhances group recognition and improves the chances of both survival and reproduction at the evolutionary level. The isomorphic adoption of a similar pedagogy across the professions makes it difficult to conceive of alternative interpretations. Friedson's (2001) idea of the professional carrying the tools of their trade around in their head is a useful signifier, but it depends on individual professionals being the vehicle to deliver that trade. The credentials associated with the professions are helpful, but the stipulated requirements for the credential are only a social construction. Here again, there is no strong alternative to the professions to show clients and customers that work is done by someone with skill and current knowledge.

An explanation of alternative views from management theory may add other explanations of the behaviour of individual actors. Taylor's scientific management sought optimum external control over behaviour, but it generated *anomie*. The human relations school overturned that work and, more recently, Covey's (1989) *Seven Habits of Highly Effective People* identified the need to seek win-win solutions, seeking first to understand and to create synergy. These all depend on interaction and co-operation, far removed from the performance management guidance of command and control.

A further possible alternative is that knowledge can be held by firms, markets or the state alone. These are all learning organisations, and could be a sufficient depository for it. The UK government sees innovation acting through through firms, and universities distil knowledge to individuals as workers. Such routes exclude the professions' role as guardians of established practice. It risks, however, limiting the flow of knowledge through fewer established channels, and if universities hold knowledge for generating income rather than sharing it, or the state controls the flow of knowledge, then access to it will be further restricted. Durkheim (1933) considered that different institutions make society more effective, and the professions offer a separate conduit to make information available.

Durkheim (1933) also strongly identified with the conflict theories in sociology and the conflicts generated by management are worth exploring further. A culture of individualism is associated with the range of conflicts that come from pluralism. Drucker advocated that innovation could be learned, but he held a Unitarian view that everyone was working together (Mullins 1996), so he overlooked or ignored conflict. Innovation is helped by conflict (Hamel 2009, Hoholm & Olsen 2012). Schumpeter considered conflict was an underlying theme in his 1942 text *Capitalism, Socialism and Democracy* and he noted that 'capitalism attacks its own institutional framework' (Schumpeter 1942:154). He argued that support for innovation rested on a political underpinning and, though he did not advocate a socialist framework (because the criticism in his book was targeted at Soviet Russia), he recognised collective behaviours would lead to better diffusion of innovation pedagogy. The evidence from the primary data here suggests the opportunity to influence innovation pedagogy has come from individuals rather than from wider political systems. In a recent MORI poll (2011), modern Western society has been labelled 'satisfied and disinterested' in relation to politics, and the same could be levelled at some work practices, so it is a manager's job to tap into the intrinsic motivations of individual workers.

It is also possible to simply conceive of an alternative culture that does not produce professional groups, but neither Abbott (1988) nor Friedson (2001) could see one emerging from the current Western social drivers. They identified that a culture based on personal status and economic return, set in a world of work burdened by regulation with little trust was fertile ground to support professionalism. The professions have adapted to the post war tensions with management, the client and customer but these other players have not gained sufficient ground to make the role of the profession redundant. The

professions are isolated from these other forces and this separates them from the process for innovation. The considerable autonomy of the professions, removed from the influence of clients and customers, allows them to stand off from engaging in new thinking.

The professions, as institutions, may be socially constructed, yet they are deeply embedded in Western culture. The evidence from sociological theory, and the data used here, does not suggest the research process or the findings are so flawed as to be irrelevant, or that this thesis has missed consideration of an alternative interpretation. On the contrary the findings are presented as being robust and significant.

## Chapter 8 Assessment of the research process

### 8.1 The research and the research method restated

This thesis has sought to address if professional associations are advancing innovation. The process used case studies of the professions from the built environment to explore the interests and activities of each association through document analysis and a representative sample of interview candidates. It asked three questions:

- What were their interests in advancing innovation?
- What were they doing to pursue those ends?
- What evidence could they produce to support the first two questions?

This chapter assesses the effectiveness of the research methods chosen.

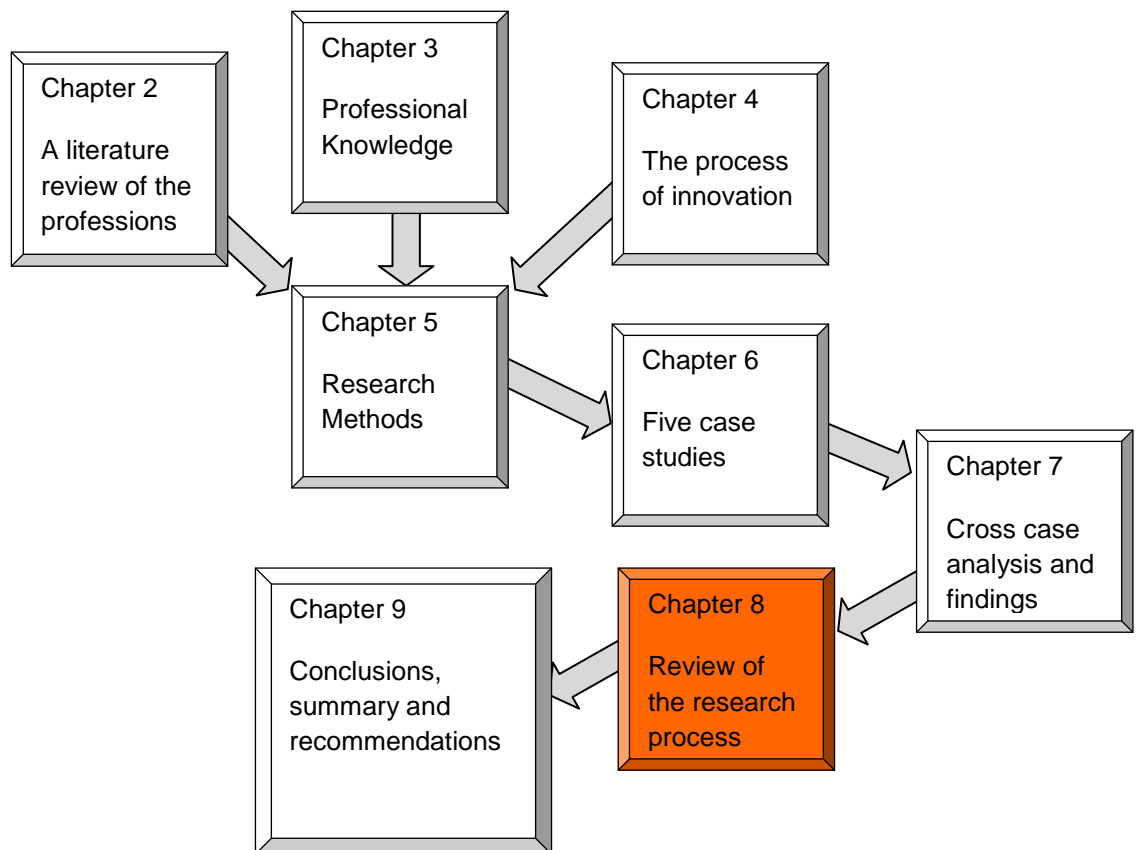


Figure 8.1 A diagrammatic representation of the flow of the thesis highlighting chapter 8

The research strategy favoured qualitative methods and case study to situate the observer in the real world (Denzin and Lincoln 2000, Yin 2009) and empirical enquiry to investigate the work of the professions as social phenomena (Fulcher and Scott 2011:50, Yin 2009:18). The work was based on a conceptual framework (Miles and Huberman 1994) to help enable the testing of ideas used for the research methods.

A pilot case study was undertaken to clarify the process of gathering, focusing and analysing the data. This was not a sequential process and, in practice, it was a series of overlapping activities shifting from planning, to data collection and back again (Lofland and Lofland 1995:1). The final research questions emerged from the literature review, and by testing both the process, and evaluating the emerging data, from the pilot case study.

Innovation pedagogy is an emerging field and, as a stand-alone concept, the research identified there was little understanding of it. The existing knowledge base for the topic was poor and Neumann (2006:33) and Yin (2009:37) recommend that where that occurs, new empirical work should be seen as an 'exploratory' study. The case studies, therefore, sought to explore the work of the professions directly, how they use their existing professional knowledge, and how that supports the creation of new knowledge to advance innovation. The research process stressed the importance of multiple sources of evidence to create a case study database and to maintain a chain of evidence (Yin 2009:114). The case study findings were supported by data from the following sources:

- word analysis of key corporate documents
- interpretation of the narrative of those documents
- interviews with staff from the professional associations
- interviews with educational partners of the professional associations
- interviews with members from the professional associations.

## **8.2 The work undertaken**

The work proceeded in line with the plan, with iterations driven by new learning that was fed back into the process. It is arguable that the greatest learning took place during the final drafting of the project, enhanced by the critical reflection of the work undertaken. This aspect of the research confirms the importance of reflection as part of professional practice. The areas of closest alignment to the plan, and probably the most satisfying,



were the discussions with the academic partners of the professional associations where their candid responses illuminated the research work and gave much food for thought. The ethical preparation for such discussion was valuable, but the topic did not prove to be sensitive.

The research plan assumed a number of research interviews, and not all these were completed. There was an unintended reflexivity that resulted from the completed exchanges, which was rewarding for many of the interviewees.

### **8.3 The validity of the sociological grounding of the thesis**

The findings reviewed in the previous chapter consider the data against the content of chapters 2, 3 and 4 but it is useful to consider the broad findings against the sociological grounding set out in chapter 5.

The research plan was to collect the data before trying to see any pattern, through a process of induction, and this proved to be a strongly inductive piece of research. The chapters on the literature review of the professions, how they use knowledge, the process of innovation and the research methods all informed the research process and the findings. As themes emerged, so the shape of the final project shifted from any preconceived notions that existed when the project started. There was little in the way of deduction until after the pilot case study was completed and that process enabled some of the early open questioning to be discarded in favour of a better directed set of questions. At that point a narrative of sorts emerged, centred on innovation pedagogy, and from then it was possible to collect data with more purpose and conviction.

The position that some professions require a licence to practise whilst others do not, supports a view that they do not operate as social facts (Durkheim 1933). They are, instead, social constructions that operate through the values, norms and behaviours given to them by individual actors. Such an exploration of the subjective position of the actors is considered an acceptable social science research paradigm (Kuhn 1976), and it retains validity until falsified by other ideas (Popper 1959). That the professions are constructed by the interactions of the individuals (Burr 2003) is supported by both the primary and secondary data. The professions present the characteristics of a phenomenon that would

be recognised by Habermas (1988), and they form an acceptable ontology that goes right back to Weber's (1964) understanding from 'within'. Macdonald distilled the sociology of the professions into four features:

- forming interest groups,
- being part of the class system,
- having economic interests and
- being part of the structure of industrial society (Macdonald 1995)

He supported Freidson's (2001) and Abbott's (1988) views that the professions' development is an inevitable consequence of the division of expert labour. All these four features are possible interpretations from a constructionalist position and in the minds of the interview subjects, the professions exist: they see them as operating with the full range of activities associated with institutions. They are seen to use 'compelling and coercive power' (Durkheim 1963), and they are in a state of tension with other actors, entities and institutions. Professions are seen to have extensive influence over how work is done, how their members are rewarded, educated and positioned in society, and how they influence other social constructions. This thesis has explored one small aspect of their wider activity: their response to the UK government's need to get the world's best innovators (BIS 2012).

The professions did not emerge from conditions of struggle against domination that Marx thought important (Alvesson and Deetz 2010), but rather they came from privilege that forged further elitism. Such an interpretation from critical theory suggests it needs further analysis of the coercive forces and tensions identified by Marx and Durkheim. Critical analysis considers that professions are formed by groups of like-minded people to pursue an interest or activity, often stimulated by an individual actor forming an organisation. That organisation is shaped by those that follow and later actors shift the organisational purpose along isomorphic lines to provide a platform to promote professionalisation that better enables income to be generated. Such was the case with Octavia Hill for CIH, John Clutton for RICS and Thomas Adams for RTPI (CIH 2012, RICS 2013, RTPI 2013, Millerson 1964, Larson 1977, Abbott 1988). Once formed, the institutions follow Marx's interpretation to use power and influence to change their social environment (Russell 1979:749). Neo-institutional theory supports this power, and constrains the actions of individuals. Taking these ideas together, it supports the view of the professions securing benefits for their members through monopoly practices and social closure (Weber 1963,

Larson 1977), and that organisations take on independent, organisational, persona working through autopoiesis, independent of the needs of the members (Luhmann 1995). Conversely, postmodern interpretations suggest individuals are only constrained by the power of the moment, but it is arguable that this might be seen to merely add to neo-institutional theory, rather than override it. It is now possible to add the coercive forces that drive or resist support for innovation pedagogy to the earlier functional influences at both the organisational and personal level

An enquiry into the interests and activities of the professions in relation to innovation had not previously been explored, so it created the potential for a power differential between the researcher and the participants. At all times the researcher was aware of this, but it proved not to be a barrier to communication. The freshness of the topic stimulated discussion to enable an equal partnership to be established. The reflexivity of the research empowered individual actors to take a more assertive position to explore innovation pedagogy, and link it to their usual work activities. Postmodern theory considers signifiers for the diffusion of innovation pedagogy to be of enormous importance, and the lack of ready symbolism certainly appears problematic, so if the topic is to gain wider understanding then stronger or simpler signifiers will be needed.

The feminist perspective to the social science epistemology provided an unexpected insight that is difficult to quantify. The feminist view looks to make the world a better place by adding equality and feminine values, and the professions in the built environment have long been dominated by men. The majority of the interviews undertaken were with men (36 out of 47 different individual contacts), but, on this topic, there was a different 'quality' about the interviews conducted with women. It is not possible to show this in Tidd et al's four-level measure, or to code it as part of the QDA software analysis, but women almost universally welcomed the chance to discuss creativity and innovation whilst many men, by contrast, were dismissive of the topic being of any interest. Only a few men engaged in discussions with the same level of interest and energy as the women. Two particular interviews with women, 1.2 and 2.9, indicated the high levels of passion and self-direction that were described by Hamel (2006), but this was not generally reflected in interviews with men. There is no statistical data to back-up this view, but the same pattern occurred with MBA lecturers, administrators and the academics associated with the professions. Women were more generous with their time, showed greater interest, and proved to be

more helpful guides to current and relevant material. Men, by contrast, generally gave only conditional responses or failed to respond at all. The women exhibited few of the behaviours associated with the role of protecting knowledge.

The evolutionary psychology ideas from Tooby and Cosmides (1992) suggest the whole social scientific model should be scrapped, and although their views permeated much of the data analysis, it did not in the end overturn the findings from a sociological perspective. Rather, in the same way as Lyotard (1984) saw the postmodern as part of the modern, the interpretations of the evolutionary psychologists seem to have added to the social science. Whilst it is possible to see these as opposing interpretations, it is also possible to see them as parallel or just different interpretations that inform each other. These ideas enable further interpretation of the work of the professions already done by Larson (1977) and Abbott (1988) whose thinking can now be mapped against survival theories at both an organisational and individual level.

Economic theory underpins much of the sociological discussion about production. The behaviours associated with individualism start from fundamentally different, or even opposing positions to those associated with collaboration. The bias of cultural individualism in the UK may be a consequence of capitalism, but capitalism is dependent on innovation, and yet it produces counterproductive forces to work against it. At the very least, there exist unintended and unexplored consequences of the influences of each on the other (Merton 1936). One path to deal with such counterproductive forces is a better understanding of innovation pedagogy to help overcome the institutional and individual barriers that act against collaboration or creativity. It could also challenge the autopoiesis and the regulatory frameworks that develop, which also militate against individual creativity.

#### **8.4 The use of case study**

Case study was chosen as a research method rather than experiment, survey, archival analysis, history or grounded theory. These other options, as explained in chapter 5, were discarded. The strong use of coding from grounded theory influenced the analysis of the case studies, but in this study the coding was led by the conceptual framework rather than vice versa. Case study method has enabled the collection of documents and the

interpretations of individual actors to be explored, analysed and compared in a multiple case study with a cross-case synthesis enabling data to be compared within each case and across different cases. The findings, as set out in the previous two chapters, suggest the research method chosen has proved useful to set expectations for the data collection that, in turn, has enabled commonalities and differences in the data set to be identified. There was little need to structure a plan for sampling and the range of relevant data collected did not require classifying into different populations or representative sections.

### **8.5 The use of QDA software**

The research process enabled the researcher to develop a new competence for coding and using QDA software. The eventual familiarisation with the process was rewarding. Using the software did not detract from reinforcing the point that it is not a substitute for analysing the data and extracting the findings. That required thoughtful analysis of the data and reflection on its connections. WEFT QDA, the free and basic software package that was used to enable text, interview notes and supplemental memos to be loaded, coded, categorised and searched and it proved simple to use, with considerable capacity. It was, however, found that for data analysis of the documents, simple word searches proved to be quicker and more informative using existing facilities common on modern computers.

### **8.6 Tests of validity**

As discussed in chapter 5, validity means truthful (Neuman 2006:196), and a range of tests for validity and reliability were considered. A review of the research process demands that a test of the research findings, and the researcher's interpretation of them, is plausible and has validity or truthfulness. Lincoln and Guba (1985) opt for the term trustworthiness. The discussion of alternative interpretations from the previous chapter has already attempted to frame the plausibility of this project, but other tests for validity consider its construct and the reliability of the method (Neumann 2006, Yin 2009, Lincoln and Guba 1985).

### **8.6.1 Construct validity or credibility and confirmability**

The requirements for construct validity include multiple sources of evidence, a chain of evidence and a review of the final report by key participants (Neumann 2006, Yin 2009). Lincoln and Guba (1985) ask for credibility and confirmability using the same requirements. Multiple sources of evidence have been achieved through the process of using a multiple case study; and the chain of evidence has been set out in this report and supported by data records held electronically and on paper. Additionally, the recommendations of the final report have been sent to the interview participants who have been able to review the full report. They have been advised of the specific references to them in the report, and all the quotes directly attributable to them, with a few exceptions where no response was forthcoming, have been authorised by them. No significant additional evidence was collected through this further review process although a number of clarifications were received, as well as several helpful comments about the topic in general.

### **8.6.2 Internal validity**

As explained in chapter 5, internal validity addresses causality (if x then y) and so it is used more for explanatory rather than exploratory case studies (Yin 2009:42). Bryman (2004:36) adds that it also tests if a different constituency might alter the findings. An example here would be if the interview participants were only established figures in their professional structures then it would result in different findings from a position where only new entrants were interviewed. The collection of evidence from different participants might skew the findings, but the supplementary checks undertaken on teaching in schools and universities, undertaken in chapter 4, do not suggest that innovation pedagogy has much of a foothold in other areas or in different levels of education.

### **8.6.3 External validity or transferability**

External validity or transferability tests generalisability, the test of whether the results from this study would be applicable to a different set of professional associations. The use of five different cases, all producing similar patterns in the results, suggests it is possible to replicate this analysis. The five case studies were associated with the built environment, a

choice made by the researcher because of prior built environment expertise, but the common themes for the study of established professional bodies, with significant bureaucracies that control educational activity, are readily found elsewhere in society. It would be expected that an exploration of associations in health, management and commerce would result in similar findings. The results from science and the creative arts might expect to have higher elements of creativity embedded in their organisational objectives, but the same forces would be influencing the inputs and outputs of the processes and impacting on their values, norms, interests and activities, in the same way as for the case studies explored here.

#### **8.6.4 Reliability or dependability**

The test of reliability (Bryman 2004, Neumann 2006, Yin 2009) or dependability (Lincoln and Guba 1985) is whether another researcher would be able to follow the same procedure. This research process was straightforward and based on a simple conceptual analysis so there is little specific complexity that cannot be documented. Indeed the process lends itself to explicit codified practice and the ready commodification of technical information that has been identified in the study. The research questions do not require prior understanding of the topic, but the definitional uncertainty for the terms 'professions' and 'innovation' occasionally diverted the research process. The methods used for the word counts, and the decisions on the themes for the coding developed from the conceptual framework, are both readily replicable. The participant sampling was targeted to those considered to have the most appropriate and relevant knowledge about the topic, and additional work to extend the case studies into the workings of government policy, and into other areas of education beyond the professional programmes, proved a useful reinforcement of the patterns found in the core case studies.

As for many such research projects, if the learning that was acquired from undertaking the work had been available at the beginning of the project it would have resulted in a different and better thesis. The risk of pre-determination and reflexivity, where the researcher could slip into conscious or sub-conscious bias, or where the work actually influences the outcomes of the intended analysis has been documented in the case studies. It is understood by the researcher that the symbolism of the discourses, interpretation of the documents and interviews, and the subsequent search for

understanding, based on the research subject's interpretation, have all introduced elements of bias, so the research has been constructed to minimise this bias.

No predicted pattern was set out for the expectations of the project. The analysis sought to identify patterns from cross-case synthesis based on the data collected. Patterns have emerged for common administrative arrangements, similar activities and similar trends, but these all reflect the low awareness and low level of activity for the topics of innovation and innovation pedagogy. Perhaps the strongest challenge to reliability is the subjectivity built into the coding which extends back to the interpretation of the data itself. The coding of interests and activities, and the drivers and resistors that influence the topic, is a subjective interpretation and it is not dampened by the use of qualitative data analysis software. Similarly the shared, different or opposing interests are also subjective interpretations, although here it is from the participant's perspective rather than the view of the researcher. It is already been noted that Drucker was a unitarian and saw the benefits of people working together, but individualists hold a different view. Furthermore, there is a personal stamp of personality on the interpretations documented here and Merrill and Reid's (1981) *Personal Styles and Effective Performance* introduces an element of determinism in the way the detail of the project is reported. The personal styles model means that, whilst the underlying reliability may not change, those with a greater attention to detail will produce more factual information, others will explore deeper into the interviewer/participant relationship whilst others still will follow diversionary themes. It is the personal style of this researcher to be more comfortable with the last of these behavioural traits.

## **8.7 Reflections**

It was not considered practicable to undertake sophisticated analysis to separate participants' views on the differences between professionalism and professionalisation as that would have required advance briefings before any interviewing could take place. Such supplementary data would, in any event, have been tangential to the main findings of this study. The main research questions, as set out in section 5.1, have proved satisfactory for the exploration of the topic.



The data analysis and the identification of the underlying themes proved easier when the interview notes were collected together and built into a single sheet held together with sticky tape rather than when using QDA software. The software was valuable for maintaining a chain of evidence, but the use of post-it notes and different coloured highlighters were more effective for identifying themes and codes. The need to 'play' with the data (Yin 2009:129) was very important, but the physical attributes of paper made it easier to get close to the data.

The process was enjoyable at every stage. There were two powerful motivators for completing the project. The first was the cumulative insights into the research findings, and the second was getting feedback on progress from the supervisors. There were conceptual blocks and activity blocks on the way, but these were sufficiently overcome to produce a final thesis. It has provided a sociological base for framing concepts and for understanding different interpretations, and the learning gained is generalisable into many different areas of business and education activity. It has produced explicit technical information on individual, group and organisational theories, but it has also given an understanding of the limits of that information, when compared with the value of tacit knowledge.

## Chapter 9 Conclusions, summary of learning and recommendations

### 9.1 Conclusion

As figure 9.1 illustrates below, this final chapter of this thesis sets out the conclusions, summary of learning and recommendations. The research set out to explore how professional associations advance innovation. On the way it considered the role of the professions in wider society, including how they hold and use professional knowledge, how innovation is measured and how the creative process of innovation works. It considered sociological and economic influences, and touched on the ontological and epistemological aspects of the professions' activities. It illuminated Weber's view of social action through interpretation, as against Durkheim's view of social structures as social 'facts', and it has given a better understanding of what Parsons meant when he said that institutions hold the rules of society.

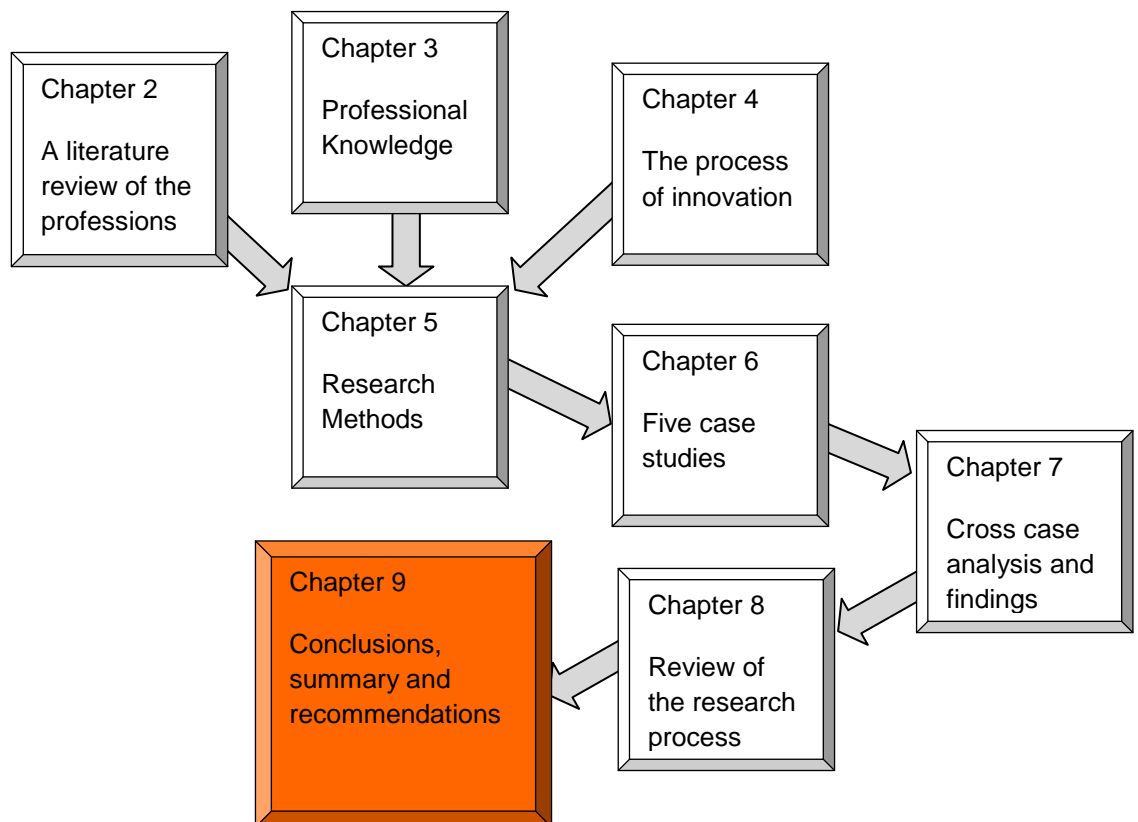


Figure 9.1 A diagrammatic representation of the flow of the thesis highlighting chapter 9.

The secondary research indicated that three research questions should explore professional associations' interests and activities. The questions were:

- What are professional associations' interests in advancing innovation?
- What are they doing to pursue those ends?
- What evidence can they produce to support the first two questions?

The evidence was collected by sampling data from five case studies taken from the professions associated with the built environment.

The topic was considered important for three reasons; the first is because the government wants to deliver an environment that fosters the world's best innovators (BIS 2012), the second is that the research established that innovation can be taught (Drucker 1985), through a process termed 'innovation pedagogy', and finally because the professions influence a significant part of higher, adult and continuing education. Innovation depends heavily on existing information and skills (Cohen and Levinthal 1990:130) but it also requires the use of theory and practice, and explicit and tacit knowledge. These are the ingredients required for creativity, and they are also the requirements that underpin professional practice.

## **9.2 Contribution to knowledge**

Yin (2009:185) stresses that a case study must be significant. The findings here highlight important conceptual, cultural, organisational and practical problems in the professions' advancement of innovation. The findings from the primary data are considered shortly but there is also a contribution from analysis of the secondary data. Chapter 4 identified that the contributions from a range of authors had not presented a comprehensive assessment of the inputs required for the creative process. That chapter undertook a review of the key texts and presented, in box 4.1, a summary of the requirements for innovation to happen. This is reproduced on the next page. It is not, itself, a contribution to knowledge as a piece of creativity but rather the result of a search for, and the assembly of, existing knowledge, as presented by Murray (2001) in chapter 3.

- Innovation requires a trigger, a real world problem that needs a better solution. The need for a solution must be made explicit (Scharmer 2001, Hamel 2006).
- Innovation requires a high level of existing knowledge (Johnson 1992, Von Hippel 1998).
- Solutions can be generated and implemented by individuals, but better solutions come from collaboration and interaction (Nonaka and Takeuchi 1995, Hoholm and Olsen 2012).
- Collaboration requires a shared understanding of the tacit and explicit skills (Polanyi 1966), with a shared understanding of the problem (Nonaka and Takeuchi 1995).
- Problems need time, space, resources, interaction and the conscious act of creating something new (Nonaka and Takeuchi 1995, Scharmer 2001, Hamel 2006).
- The participants work together on a solution (Nonaka and Takeuchi 1995). This solution is an iterative process (Kolb 1984, Scharmer 2001), it requires confrontation (Hoholm and Olsen 2012) and a deconstruction of the barriers to change (Hamel 2006).
- The participants reflect, (Schön 1983) and embed the new knowledge and skills.
- The new arrangements require a metaphor to carry the message. (Nonaka and Takeuchi 1995, Eraut 1994, Hamel 2006).
- The problem solving must occur in the right place (Nonaka and Takeuchi 1995, Kairisto-Mertanen et al 2011).

Box 4.1, The inputs to innovation: Reproduced for chapter 9

The key contributions to knowledge from the primary research were set out in chapter 7 and are reproduced here.

- 1 The professions are heavily locked-in to old knowledge. They provide little of any depth of learning about the soft skills that help to build relationships. There is an isomorphism across the activities of different professional associations, and their activity is heavily focussed at the institutional level, with a strong element of autopoiesis, that does not make a link to innovation at the personal level.

- 2 The professions commodify knowledge to reinforce their jurisdiction, and they operate through cultural norms that reinforce compliant practice and regulation. At the same time, their ability, and their partner universities' ability, to transfer knowledge about both practice and tacit knowledge is weak. Innovation depends on practice and tacit knowledge being made explicit, so this weakness undermines the ability to advance innovation. Furthermore, the pedagogy of commodified knowledge is in direct conflict with innovation pedagogy.
- 3 The professions are isolated from the influence of customers, clients and Government, and are therefore removed from the feedback loops that encourage innovation.
- 4 The professions' culture complements the existing UK culture of individualism which militates against collaboration, and therefore creativity. The technical knowledge used by the professions is used more as institutional and personal capital, rather than for the common good.
- 5 Innovation pedagogy is poorly understood. There is a weak theoretical underpinning of innovation in literature, its measurement is complex, and, together with the Government's singular focus on economic outputs, it results in only a weak understanding of the inputs to creativity for all agencies. The messages and signifiers about innovation are unclear and in turn, this creates tensions between the institutions of the professions, universities and government about teaching priorities. The uncertainty means the topic is not sufficiently thought through by the professions or their university partners, and so is not included into the curricula for educational programmes
- 6 The professions often use the word innovation inappropriately. They use it because it is fashionable, without understanding its definition or process. They see research as innovation, and although it is a contributor, it is only a small part of the process of creativity. In similar fashion, reflective practice is not well understood by the professions and its application is not well used to serve as a contribution to creativity.

- 7 Individual actors, in both the professions and in their university partners, are able to challenge the institutional norms, and so accelerate awareness of the need for innovation. There were elements of reflexivity triggered by this research process that contributed to challenging current practice.

It would be harsh to criticise professional associations in the light of these findings, but innovation is not a new topic. It has been written about as a management and academic study for 50 years, and it has had increasing relevance in the work of the World Economic Forum since 1971 (then the European Economic Forum). Professional associations are member organisations of well-educated individuals pursuing the art and science of their respective occupations; they are governed by well-educated boards and administered by well-educated staff, so it might have been expected they had a higher awareness of the context and importance of innovation as part of their educational activity.

There are significant gaps in the understanding of innovation in management, government and academia. There are examples where the term 'innovation' is used inappropriately, in a rhetorical manner where innovation was not intended, planned for, occurred, or even understood. Perhaps Drucker's (1985:33) suggestions that it was "capable of being presented as a discipline, capable of being learned, capable of being practised" proved to be premature. Innovation pedagogy is not a new topic, and there are educational arguments about whether creativity is innate or can be taught, but Land (2011) has identified that we train ourselves out of creative habits. Innovation pedagogy is still not widely studied, diffused, understood or acted upon and it is perverse that innovation is encouraged for teaching practice, but not for professional practice. It is good news that there are individuals addressing innovation and innovation pedagogy despite institutional norms constraining and undermining their efforts, and they are now properly structuring innovation activity. It might only take a few nudges to establish formal activities to replace the current ad-hoc arrangements.

### **9.3 Theoretical and policy implications of the findings**

The findings suggest new a category of compelling and coercive forces can be added to the existing list of influences acting on the professions. Such forces also act on universities and government departments. The foundation of Porter's (1990) work, applied through the machinery of the World Economic Forum, is well established and ideologically dominant, and as a result, the drivers for more and better innovation activity will continue to grow. It will increase the pressure on markets, firms and governments to increase the awareness of innovation pedagogy as part of the search for better solutions. It will draw in the professions, perhaps not in a big way at first, because they are isolated and will still focus on existing knowledge and standards, but as the environment around them shifts, they will need to be more open to new ideas. If Einstein (1931) was right that "imagination is more important than knowledge" then their norms and activities will adapt. The shift will set expectations to force the professions to find space for innovation pedagogy in their curricula. Universities will include it in their curricula, and firms will embed the knowledge and skills to support it.

This research has identified that the requirements to support the innovation process (see box 4.1) are not well collated by individual authors, and the ingredients are not brought together to make them readily available in the public domain. Many of the requirements rely on tacit knowledge that is not readily codifiable. There is more to be done to help with a wider understanding of models from Nonaka and Takeuchi (1995) and others, and it requires a strong signifier for the information to be better diffused. It is a continuing process, and this research is only a small part of that process.

The findings are relevant to the work of the Department of Business, Innovation and Skills and the realisation, as a direct reflexive outcome of this research, that no recognition of the educational process was included in their Research and Innovation Strategy for Growth (BIS 2012) will trigger further exploration of innovation pedagogy. The full findings of this project have been reported back to that department.

#### **9.4 Limitations of the research**

The limitations of the research were addressed in the previous chapter, but it concluded the process was still appropriate for the task. Secondary research helped develop a conceptual framework that enabled primary research, through a multiple case study, to explore the interests and activities of the professions for the specific aspect of whether they advance innovation. The theoretical framework worked and, to a greater or lesser degree, met the expectations and tests demanded of practical research. There was a shortcoming of not accessing key personnel for interview (in the RTP), but this was overcome by many other successful interviews. The strength of using multiple sources of evidence helped bring to light a wider, and deeper, understanding of both the data explored and the wider social implications, and much of this was not expected at the start of the process.

#### **9.5 Recommendations for future work**

The research process throws up several avenues that require further exploration and these come from some of the theoretical and policy implications discussed above. There are perhaps six areas that should be highlighted as possible interest to researchers looking to explore or explain the findings of this thesis.

Firstly there is a need for better understanding of how government departments can work to advance innovation and promote innovation pedagogy to influence higher and adult education. This can result in support for a wider constituency to be actively engaged in innovation. That review can also be used to see how to extend government influence to a wider range of firms than are currently captured by their innovation measurement. Secondly, there is work to be done to deepen the understanding of innovation pedagogy generally and specifically with professional associations, which is where this research started. This applies to intervening directly in the work of universities and other education institutions and not just working through government. It needs a simple signifier.

Two further areas come from the literature review in chapter 2. It would be interesting to extend the research to consider the research subject's views on professionalism and its influence on standards, when compared to professionalisation and its influence on



monopoly and status. The posing of such a question requires a high level of prior knowledge from the participants and so may require briefings on the terminology and the concepts. Separately, further consideration can be given to the influences of isomorphism on the professions and this can be done across international borders where the work of both Porter (1990) and the World Economic Forum have been influential. It can be linked to a further exploration of the ideas of autopoiesis and the pressures exerted by government, management, clients and customers to shape institutions such as the professions.

The final two aspects to be highlighted for further work are a better understanding of how explicit and tacit knowledge influence creativity, and what drivers underpin the notable gender bias that indicates women are more interested in the teaching of creativity. All six of these avenues may prove to be interesting and illuminating areas for further research.

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## **Annexe 1**

### **Schedule of interviews conducted for case studies**

#### **Chartered Institute of Housing interviews**

- Interview 1.1- Adamczuk, H. (2013) Interview, 8 November 2013.
- Interview 1.2- Breese, A. (2010) Interview, 3 August 2010.
- Interview 1.3- Chivunga, M. (2010) Interview, 6 August 2010.
- Interview 1.4- Coatham, V. (2013) Interview, 8 November 2013.
- Interview 1.5- Hook, A. (2010) Interview, 20 July 2010.
- Interview 1.6a- Keller, R (2013a) Interview 11 November 2013.
- Interview 1.6b- Keller, R. (2013b) Email exchange 12 November 2013.
- Interview 1.7- Manzi, T. (2013) Interview, 5 November 2013.
- Interview 1.8- Maunders, G. (2010) Interview, 13 July 2010.
- Interview 1.9- Queen, A (2010) Interview, 3 August 2010.
- Interview 1.10- Webb, S. (2010) Interview, 6 September 2010.
- Interview 1.11- Winter, A. (2013) Interview, 13 November 2013.
- Interview 1.12- Gough, S (2014) Interview, 13 January 2014.

#### **Royal Institution of Chartered Surveyors interviews and correspondence**

- Interview 2.1- Evans, N (2012) Interview, 14 June 2012.
- Interview 2.2- Ewbank, C, (2011) Response to questionnaire, 1 August 2011.
- Interview 2.3- Goodhead, T.(2011) Interview, 1 August 2011.
- Interview 2.4- Maloney, N. (2013) Telephone interview 4 November 2013.
- Interview 2.5- Osman, O. (2013) Telephone interview 28 November 2013.
- Interview 2.6- Packer, A. (2011) Interview, 27 November 2011.
- Interview 2.7- Percy, J. (2011) Response to questionnaire, 1 August 2011.
- Interview 2.8- Sayce, S (2012) Notes from email exchanges, 10-12 November 2012.
- Interview 2.9- Strong, G. (2011) Interview, 3 October 2011, and follow up April 2014.
- Interview 2.10- Wilcox, J. (2013) Telephone interview, 27 November 2013.

#### **Royal Town Planning Institute interviews**

- Interview 3.1- Smith, N. (2013) Telephone interview, 7 June 2013.
- Interview 3.2- Townsend, T. (2013) Telephone interview, 10 June 2013.
- Interview 3.3- Webb, D. (2013) Telephone interview, 6 June 2013.
- Interview 3.4- White, A. (2013) Telephone interview, 7 June 2013.

#### **Royal Institution of British Architects interviews**

- Interview 4.1- Biggs, R. (2013) Interview, 12 December 2013.
- Interview 4.2- Gloster, D. (2013) Telephone interview, 11 December 2013.
- Interview 4.3- Gough, T. (2013) Telephone interview, 15 July 2013.
- Interview 4.4- Parnaby, R. (2013) Email exchanges, 28 November 2013.
- Interview 4.5 – Stevens, J. (2013) Telephone interview, 4 December 2013.

### **Institute of Residential Property Management interviews and correspondence**

- Interview 5.1- Ashley, M. (2013) Email correspondence, 21 November 2013.
- Interview 5.2- Bean, C (2013) Email correspondence, 21 November 2013.
- Interview 5.3- Croft, A. (2013) Telephone interview, 25 November 2013.
- Interview 5.4- Gough, S (2013) Telephone interview, 27 November 2013.
- Interview 5.5- Hubbard, P. (2013) Telephone interview, 24 November 2013.
- Interview 5.6- Maloney, N. (2013) Telephone interview, 4 November 2013.
- Interview 5.7- Mescini, M. (2013) Email exchanges, 9 December 2013.
- Interview 5.8- Platt, J. (2013) Personal interview, 18 December 2013.
- Interview 5.9- Strange, J. (2013) Telephone interview, 3 October 2013.
- Interview 5.10- Wilcox, J. (2013) Telephone interview, 27 November 2013.
- Interview 5.11- Williams, S. (2013) Email correspondence, 21 November 2013.

### **Government departments and agencies**

- Interview 6.1- Franks, M (2013) Telephone interview, 19 August 2013.
- Interview 6.2- Pettitt, D. (2013) Correspondence, 17 September 2013.
- Interview 6.3- Woolley, E (2013) Email correspondence, July 2013.

### **MBA lecturers**

- Interview 7.1- Beckman, S. (2013) Notes from email exchanges, 10 August 2013.
- Interview 7.2- Borodzicz, E. (2013) Telephone interview, 14 September 2013.
- Interview 7.3- Hagen, R. (2013) Notes from email exchanges, 6 November 2013.
- Interview 7.4- Smith, D. (2013) Notes from email exchanges, 6 November 2013.



## Annexe 2: The growth curve

The growth curve (Ainsworth-Land 1984) or sigmoid curve (Handy 1994) model, forms a useful template for understanding that different pressures exist at different times in an organisation's development. Powell and DiMaggio (1983) used the term 'life cycle' in relation to organisational development, and Baldwin and Cave (1999) used it in relation to the role of regulators.

The growth curve (see figure A.1 below) is formed on two axes. The X axis represents the passage of time, and the Y axis growth. The mapping of one axis against the other identifies the rate of growth.

Ainsworth-Land and Handy both identify particular phases in the growth curve although these do not precisely overlap. Ainsworth-Land (1984) identifies three particular phases, formative, normative and integrative.

- Phase one is the conception, formative, stage where resources are absorbed without growth occurring. This is the parasitic stage where the organism/organisation is dependent upon a host for sustenance.
- Phase two is the youthful stage, where the organism/organisation starts independent growth, requiring inputs from the external environment. Over time organisations become more independent. The decisions they make affect their ability to progress. This stage marks the end of experimentation, and a narrowing of focus towards replicating what is successful.
- Phase three is the mature or normative stage, where organisations optimise growth by replicating established successful patterns and behaviours, and so contributing to further growth.

Phase four is the decline (death) stage which can be slow or rapid depending on the structure or the external environment. The organisation develops internal weaknesses and is less able to respond to pressures from the external environment.

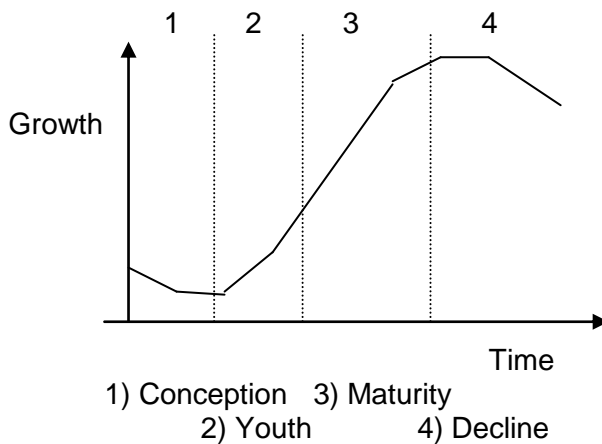


Figure A.1 The growth or sigmoid curve, after Ainsworth-Land (1984)

Ainsworth-Land (1984) identifies this last phase as an opportunity for integration - for organisations this presents the opportunity to use elements of spare capacity or energy to form a new body. The timing of this is relevant as, if the organisation reaches the top of the growth curve and enters the decline phase, there are fewer resources and less time available to invest in the new body. This is identified as the integrative phase and is illustrated in Figure A.2 below.

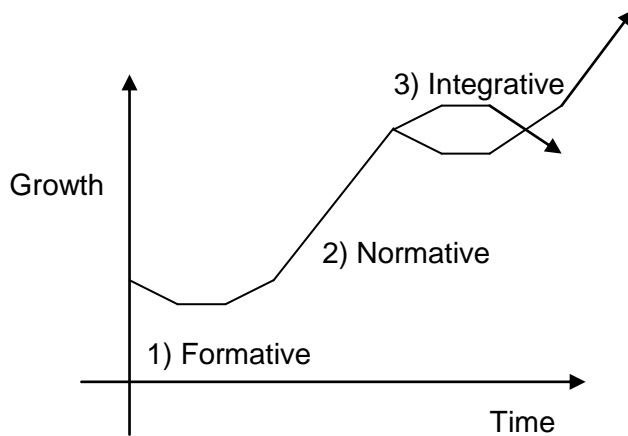


Figure A.2 The integrative phase of growth curve (Ainsworth-Land 1984).

If it is recognised that at some point in the mature stage of development an organisation which is too heavily focused on the formalisation of jurisdiction (Abbott 1988), or too heavily maintained by autopoietic activity, is misdirecting resources away from its primary purposes, and could be more vulnerable to external threat.

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