

**University of Strathclyde**

**Department of Marketing**

THE GENERATIVE ROUTINE DYNAMICS OF  
INTERNSHIP/WORK PLACEMENTS:  
AN EXPLORATION OF PROCESS DYNAMICS FACILITATING  
KNOWLEDGE CREATING.

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Signed: Conor Horan

Date: January 2016

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## ***Abstract***

The role of knowledge in organisations has tended to be considered in the context of its transfer and to a lesser extent its creation. The university-industry relationship is predominantly relied on as an appropriate context for these discussions. However little by way of scholarly attention has focused on the concept of ‘knowledge creating’ per se or addresses the research question “*how can organisational processes facilitate knowledge creating over time?*” This research introduces and explores the concept of ‘knowledge creating’ within an often ignored and under researched theory-practice context – the internship/work placement.

Routines theory, and its generative claim, is relied on here to address the processual attribute associated with ‘knowledge creating’. Dialogicality has also been identified as an attribute of ‘knowledge creating’. This is understood as a sensitivity to otherness that leads to social interaction within dialogical exchanges. Consequently, the objective of this study becomes a question of unpacking process dynamics or generative routine dynamics by using a dialogical theory for knowledge creation. Dialogical exchanges that facilitate continuous articulations and productive relational engagement are assessed with dynamic aspects of routines. By combining routines theory with dialogicality a novel and robust conceptual lens guiding data collection and analysis is provided.

Data was collected over four separate internship/placement cycles in Ireland’s largest business school during the financial crisis from 2008 to 2014. A plurality of methods was employed for data collection; which included over 60 interviews, 18 hours of direct observation, and 50 separated documentary artifacts. Combined these minimise fragmented descriptions of the internship/placement, while highlighting novel processual dynamics that have previously been overlooked in empirical routines research. The empirical findings highlight three interlinked dualities which contribute to a nuanced understanding of generative routine dynamics; the presence/absence duality; the centrality/peripherality duality and the evaluating/quality duality. When combined these dualities reveal how dialogical exchanges can lead to continuous articulations, which in turn become productive when resulting in action. From this we gain an insight in what we understand as knowledge creating.

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## ***Abbreviations***

<i>AHP</i>	<i>Academic Head of Programmes</i>
<i>CGC</i>	<i>Career Guidance Counsellor</i>
<i>CV</i>	<i>Curriculum Vitae</i>
<i>EA</i>	<i>Employer Actor</i>
<i>ECTS</i>	<i>European Credit Transfer System</i>
<i>IA</i>	<i>Institutional Actor</i>
<i>IPA</i>	<i>Irish Parking Association</i>
<i>KM</i>	<i>Knowledge Management</i>
<i>PO</i>	<i>Placement Officer</i>
<i>RTÉ</i>	<i>Raidió Teilifís Éireann (National TV &amp; Radio Broadcaster)</i>
<i>SA</i>	<i>Student Actor</i>
<i>VIPS</i>	<i>Values, interests, personality and skills</i>

# ***1 Introduction***

## *1.1 Introduction*

The question ‘how is knowledge created?’ remains the subject of much debate (Kuhn, 1962). In fields of management the hegemonic approach to studying the role of knowledge, and how it is created, has predominantly been influenced by a knowledge transfer agenda i.e. the question ‘how do organisations create knowledge?’ is addressed by solving a problem of transfer and/or exchange. Recent attempts to explore ‘knowledge creation’ (Nonaka, 1994) have continued to rely on assumptions inherited from this knowledge transfer agenda. This presents theoretical, philosophical, and indeed methodological problems for researchers who argue different and often conflicting understandings of what ‘knowledge’ is and how it comes into being. This chapter firstly introduces and discusses how knowledge is created, within the hegemonic approach of the knowledge transfer agenda. Different aspects of knowledge transfer and creation are then outlined. An identified gap in the scholarly research relating to ‘knowledge creating’ is explored (Section 1.2). The argument for a shift to a processual perspective of ‘knowledge creating’, distinct from knowledge transfer and creation, is introduced here and subsequently developed (Chapters 2 and 3).

Various theoretical approaches relating to how knowledge is produced are relied on here to show how new organisational knowledge is created. These include the conversion of tacit into explicit knowledge in organisations as knowledge creation; the nature of generative processes; and a dialogical approach to new organisational knowledge. By combining these various approaches a conceptual and theoretical lens for exploring ‘knowledge creating’ is arrived at. Despite an increased focus on process theory (Section 2.1), and processual approaches to understand organisational phenomenon (Pettigrew 1997), the dynamics of ‘knowledge creating’ within processes remains poorly understood. Instead of focusing on events of knowledge creation or transfer, this research re-focuses the research question by asking ‘how organisational processes facilitate the creating of knowledge over time?’ In so doing many of the problematic assumptions borrowed from the knowledge transfer agenda, where knowledge is created at an event or at an observable point in time i.e. creatio

ex nihilo, are overcome. This research therefore considers a processual approach to 'knowledge creating' (Section 1.2).

Following on from this an appropriate context to provide substantive data on processes of knowledge creating was sought out. Arguments preoccupied with narrowing the theory-practice divide informed this search. As different university-industry contexts have received varying degrees of scholarly attention a gap in theoretical and empirical research relating to internships or work placements was identified. Notwithstanding the popularity of internship/placements in practice, little by way of empirical research on this theory-practice divide context could be found. Indeed, little by way of scholarly research considers internship/placements as a means to narrow the theory-practice divide or more specifically as a vehicle for knowledge creating. Because of this gap in the scholarly literature internship/placements were considered as an appropriate theory-practice divide context for studying 'knowledge creating' (Section 1.3). The rationale for the university-industry relationship as an appropriate context is further developed in Chapter 4. The approach taken here focuses our attention on these two identified gaps. By combining a processual understanding of 'knowledge creating' (Section 1.2), within an under researched theory-practice divide context i.e. the internship/placement (Section 1.4), we are in a better position to contribute to our understanding of how organisational processes facilitate knowledge creating.

But first two foundational arguments need to be addressed. The first argument addresses the implication of shifting the theoretical lens to that of 'knowledge creating' distinct from knowledge transfer or knowledge creation (Section 1.2). The problem of narrowing the theory-practice divide is conceived as a knowledge production problem whose solution lies in improving knowledge transfer. In contrast by adopting a knowledge creating lens the problem of knowledge production is addressed, not by improving knowledge transfer per se but by improving the relational engagement of academics and practitioners. The contribution here is therefore in exploring the implications of knowledge creating in a relational context (Section 1.2). The second foundational argument establishes the rationale for

considering the internship/placement; an under researched university-industry relationship (Sections 1.3 & 1.4), as an appropriate context for understanding knowledge creating. By addressing these two foundational arguments upfront a more nuanced understanding of the broad research question and contribution is arrived at. The final section of this chapter outlines the structure of this dissertation chapter by chapter (Section 1.7).

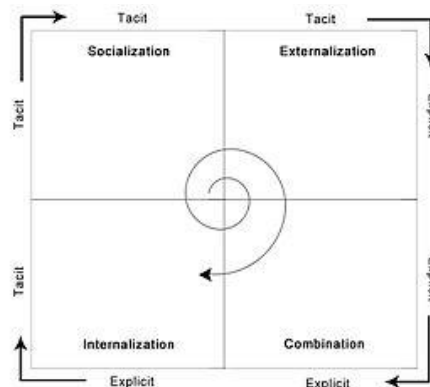
## *1.2 From Knowledge Transfer & Creation to Knowledge Creating*

The first foundational argument establishing a rationale for a knowledge creating research agenda is now discussed. Fields of management, including knowledge management (KM), have traditionally followed linear, causal and deterministic approaches to their treatment of knowledge. Within the knowledge management cycle (KM Cycle) the stages of managing knowledge are broken down into variations of ‘creation’, ‘capture’, ‘acquisition’, ‘storage’, ‘transfer’ and ‘dissemination’ (Awad & Ghaziri, 2004; Hislop, 2013). These linear descriptions find their origins in the information processing paradigm (Simon, 1973) as well as behaviourist approaches which emphasise the quality of inputs, processing and outputs similar to early systems thinking (Von Bertalanffy, 1972) and have been influenced by cognitive theories such as the garbage can model related to decision making (Cohen, March, & Olsen, 1972). These assume that by enhancing inputs and improving the management of transfer better outputs will result (Table 1.1).

While much of KM research emphasises the improving of knowledge transfer, little is known about the first stage in the KM cycle; ‘knowledge creation’. Attempts to address this lack of focus on knowledge creation (Nonaka, 1994; Nonaka, Byosiere, Borucki, & Konno, 1994; 1995; Nonaka & Takeuchi, 1996; Nonaka, Toyama, & Byosiere, 2001; Nonaka, Umemoto, & Senoo, 1996; Nonaka, von Krogh, & Voelpel, 2006) have highlighted that organisational ‘knowledge creation’ has been virtually neglected in management studies (Nonaka & Takeuchi, 1995 p.xiii). Reflecting the stages of the KM Cycle they argue that “at the core of the new theories is the acquisition, accumulation, and utilisation of *existing knowledge* [emphasis in original] they lack the perspective of “*creating new knowledge*” (Nonaka &

Takeuchi, 1995 p.49). One reason is that any focus on creation has arguably been subsumed and supplanted by a knowledge transfer research agenda. Whereas logically ‘creation’ is the first and most important part of the KM cycle, due to disciplinary constraints the KM field has tended to focus on measurable aspects e.g. inputs and outputs (Nonaka et al., 1996) across the stages of the KM cycle e.g. the transfer of patents (Agrawal, 2001; Agrawal & Henderson, 2002; Bogner & Bansal, 2007; DeCarolis & Deeds, 1999).

In establishing a need to shift the research agenda to creation, from knowledge transfer, they argue that the dynamic nature of the world says organisations should be studied from “how it creates information and knowledge, rather than with regard to how it processes these entities” (Nonaka & Takeuchi, 1995 p.15). Or that the managerial problem/goal becomes one of how organisations create rather than transfer knowledge (Table 1.1). Nonaka et al in attempting to address this present a theory for knowledge creation, popularly referred to as the SECI Model (Nonaka, 1994; Nonaka et al., 1994; Nonaka & Takeuchi, 1995), which focuses on processes of ‘socialisation’, ‘externalisation’, ‘combination’ and ‘internalisation’ (Figure 1.1).



*Figure 1.1 The SECI Model*

This model has gained acceptance as a dominant theory for knowledge creation and is presented as a form of knowledge conversion or interaction from tacit to explicit knowledge - the epistemological dimension - as well as being concerned with levels of social interactions between individuals and the organisation - the ontological dimension. It assumes that knowledge is thus created through a spiral or pattern of interactions starting with socialisation, externalisation, combination and

internalisation (SECI) of tacit-explicit knowledge which then requires amplification from the individual to the organisation (Nonaka, 1994). This theory was later described as “*the dynamic interaction of subjectivity and objectivity*” (Nonaka & Toyama, 2005). While this laudable endeavour successfully highlighted the question of ‘creation’ it arguably remains hampered by several problematic assumptions and shortcomings linked to its knowledge transfer heritage (Gourlay, 2006; Kaufmann & Runco, 2009).

Firstly, the SECI model assumes that knowledge is an object that is convertible from a tacit to explicit form. This assumes that the tacit nature of knowledge should or could be converted to explicit knowledge as a basis for knowledge creation. This has increasingly been criticised in the literature (Gourlay, 2006; Tsoukas, 2009b p.161). Gourlay notes that Nonaka & Takeuchi have implied that the traditional Western view of knowledge i.e. cartesian split between subject and object, has effectively prohibited questions about knowledge creation in favour of questions relating to transfer, as knowledge is something objective that already exists either in the environment or in the organism. This he claims has contributed to knowledge transfer becoming a dominant focus within KM research. Arguably if tacit knowledge is assumed to be entitive i.e. an object, this undermines the very definition of ‘tacit’. Conversion or convertibility within the tacit-explicit process (Figure 1.1) is also reminiscent of the input-process-output perspectives relating to knowledge transfer. Indeed, within the KM cycle those who discuss creation have tended to focus their data collection on transferring explicit entities i.e. patents, as inputs which they claim ‘create’ something dynamic after an event as outputs compared to the conditions before (Table 1.1).



	<b>Knowledge Transfer</b>	<b>Knowledge Creation</b>	<b>Knowledge Creating</b>
<b>Managerial Problem</b>	Improving the management of knowledge is a problem of transfer.	Improving the management of knowledge is a problem of creation	Improving the management of knowledge is a problem of facilitating knowledge creating over time (Grover & Davenport 2001).
<b>Management Goal</b>	Successful transfer, exchange or distribution of timely knowledge to those who need it. Measured using criteria of transfer events.	Successful creation of knowledge. Measured using criteria of events of creation i.e. patents (Agrawal 2001).	Successful knowledge creating by facilitating conditions for processual creating over time.
<b>Nature of Knowledge: Tacit versus Explicit Knowledge</b>	Knowledge assumed to pre-exist, is explicit/objective and capable of being codified ready for transferring (Nonaka & Takeuchi 1995, p.49).	Knowledge often assumed to pre-exist in a tacit form but requires conversion into explicit knowledge and amplification beyond the individual (Nonaka 1994, Nonaka & Takeuchi 1995). Creation is of explicit/objective objects converted from tacit knowledge or knowledge that is capable of being codified.	Knowledge does not necessarily pre-exist but is created and/or recombined processually over time and space i.e. knowledge creating (Chia 2013). Creating of knowledge is not confined to explicit knowledge but includes tacit knowledge which might not be converted or amplified.
<b>Research Methods / Data</b>	Data is explicit, causal, deterministic and measurable as events of transfer. Linear descriptions of inputs, process and outputs (Nonaka et al 1996) associated with the information processing (incl. systems thinking) paradigms (Simon 1973, Von Bertalanffy 1972).	Data is explicit and measurable as an event of creation - sometimes described in a linear fashion. Tacit knowledge as an input requires conversion into explicit knowledge to yield a quality output e.g. event of creation.	Focuses on data in non-linear processes, includes tacit knowledge which is difficult to measure. The focus is on how processes unfold rather than on the inputs and outputs.
<b>Conversion / Convertibility</b>	Transfer is of explicit knowledge i.e. knowledge that has already been converted to explicit codified knowledge.	Creation of knowledge is when knowledge is converted from tacit to explicit and/or amplified beyond the individual within an organisation (Gourlay 2006, Tsoukas 2009 p.161).	Creating is not reliant on the assumption of converting tacit to explicit knowledge or the need to amplify knowledge beyond the individual within an organisation.
<b>An Eventual Perspective</b>	Transfer understood as an event in time and space that can be measured using relevant criteria (Agrawal 2001).	Creation is understood as an event in time and space that can be measured using relevant criteria i.e. 'creatio ex nihilo' (Chia 2013, Tsoukas 2009a, 2009b).	Creating is understood as a process over time and space which may include but not dependent on an event of creation i.e. creating over time.
<b>Quality Control</b>	Transfer of measurable units of explicit knowledge.	Creation of measurable units of explicit knowledge.	The evaluation and quality of knowledge is distributed across multiple stakeholders including users of research.
<b>Nature of Interaction</b>	Interaction is uni-directional focusing on transferring / distributing timely knowledge to those who need it.	Interaction is uni-directional focusing on the creation of timely knowledge by converting tacit into explicit knowledge AND amplifying this knowledge from the individual to the organisation.	Interaction is understood as processual occurring over time and in multiple ways.

*Table 1.1 From Knowledge Transfer & Creation to Creating*

Secondly, despite Nonaka and Takeuchi's efforts to focus on the creation of rather than the transfer of 'existing' knowledge the SECI model also assumes that knowledge is pre-existing in its tacit form and that creation occurs when it enters the SECI process, is converted into an explicit form which is amplified and thus transferred or distributed across the organisation. Individually created knowledge as a basis of "unfettered individual creativity" (Tsoukas & Mylonopoulos, 2004 S4) is not acknowledged in Nonaka et al's SECI model as it requires amplification before knowledge creation can be identified (Table 1.1).

Thirdly, knowledge creation like knowledge transfer is understood as a single event occurring in space and time i.e. an eventual perspective of explicit knowledge creation (Hautala & Jauhiainen, 2014). This presents empirical challenges for observation research required to capture creation at an exact time and/or event and implies that conditions before and after this event are less important. Indeed the focus on events of creation, like events of transfer, causes difficulties from an ontological and epistemological perspective (Chia, 2013) implying something from nothing or what is termed 'creatio ex nihilo' (Tsoukas, 2009b). Research using an eventual perspective of knowledge creation must identify a criterion that clearly shows 'something from nothing'. This is demanding, potentially requiring longitudinal field work with fine-tuned data collection methods, requiring extremes in serendipity under experimental conditions. Identifying created knowledge and devising appropriate methods to capture this event still evades researchers especially within the social sciences and is compounded by philosophical discussions on the nature and quality of knowledge itself. Cognitive and linguistic research focused on the emergence of new meaning or distinctions also reflects this eventual conceptualisation of creation at a point in time. Whereas the discussion around 'creatio ex nihilo' can be seen as an epistemological discussion the practicalities linked to application focuses research around asking, 'what are the processes associated with knowledge creating over time?' For this reason this research is focused on identifying likely processes that facilitate the creating of knowledge rather than identifying a point of creation of new knowledge (Table 1.1).

Even within the field of KM such limitations have been acknowledged with increasing calls for a process framework focusing on the “*knowledge process and the context in which that process is embedded*” in organisations (Grover & Davenport, 2001 p.12) suggesting the need to broaden the debate beyond a mere focus on discrete transfer. In support of a focus on process Nonaka has stated that “*although a great deal has been written about the importance of knowledge in management, relatively little attention has been paid to how knowledge is created and how the knowledge creation process can be managed*” (1994 p16). This provides a rationale for considering a processual approach not linked to knowledge creation per se but instead knowledge creating. By distinguishing this research from a transfer/creation agenda several characteristics informing data collection and analysis are evident (Table 1.1).

- i. Knowledge creating occurs over time and while including events of creation does not require researchers to identify and measure events of creation i.e. creatio ex nihilo.
- ii. As within knowledge transfer, and often problematically assumed in the theory of knowledge creation, knowledge does not pre-exist and merely require transferring but emerges within processes over time.
- iii. The nature of knowledge is not confined to explicit knowledge but accepts that convertible tacit knowledge is present, but does not require conversion for creating to occur.
- iv. Similarly, the creating of knowledge does not require amplification beyond the individual to the organisation.
- v. Varying degrees of knowledge quality need to be catered for beyond criteria linked to events of creation (Gibbons et al., 1994 p.8).
- vi. Knowledge creating is associated with the facilitating of processes.

In conclusion of this first foundational argument the listed characteristics are used here to guide data collection and analysis. An identified gap in scholarly research provides a processual rationale for pursuing a knowledge creating agenda (Table 1.1). This research positions itself more in the area of incremental change or shifts rather than in the realm of creating new paradigms (Kuhn, 1962). Among these

characteristics, the focus on facilitating processes rather than on events of creation now becomes important as we need to consider what allows processes to unfold during analysis. Alongside the other characteristics, we can now contribute to the discussion by asking how do organisational processes ‘facilitate’ knowledge creating?

### *1.3 Producing Knowledge – A Theory AND Practice Perspective*

The context for studying knowledge creating is the topic of the second foundational argument to be addressed here. The university-industry relationship, a context for understanding the dynamics of how knowledge is created, has received significant attention in scholarly research (Agrawal, 2001; Agrawal, 2002a; Barnes, Gibbons, & Pashby, 2002; Etzkowitz, 1998; Gibbons et al., 1994; Medsker & Morrel, 1989; Nowotny, Scott, & Gibbons, 2001; Owen-Smith, Riccaboni, Pammolli, & Powell, 2002). Research on the dynamics of this relationship has tended to focus on three broad research threads reflecting varied assumptions about the research problem to be addressed;

- i. the importance of narrowing the theory-practice divide;
- ii. the difference between pure versus applied research;
- iii. and the reduction of perceived gaps between academics and practitioners (Agrawal, 2001; Ankrah & Al-Tabbaa, 2015).

As different university-industry relationships have received varying degrees of attention, discussions have been characterised by two main assumptions across the three research threads. Firstly, efforts to solve the theory-practice divide problem and reduce the gaps between academics and practitioners has been characterised as a knowledge transfer problem from science to society echoing the debate in the previous section (Section 1.2). Secondly, the problem to narrow the theory-practice divide remains the responsibility of the university. Empirical research on university-industry knowledge transfer has tended to focus either on firm or university characteristics (Agrawal, 2001). While the research agendas are similar they reflect different perceived research problems.

Research on firms focuses on improving knowledge transfer by improving their absorptive capacity. Here research questions relate to how efficiently firms can absorb new knowledge by taking advantage of geographically placed knowledge spillovers and their connectivity to universities (Cohen & Levinthal, 1989, 1990; Easterby-Smith, Graca, Antonacopoulou, & Ferdinand, 2008; Lane, Koka, & Pathak, 2002; 2006; Lane, Salk, & Lyles, 2001; Lim, 2009; Zahra & George, 2002). Firm's investment in resources that facilitate their ability to absorb new knowledge is focused upon here (Agrawal, 2002a; Nieto & Quevedo, 2005; Van den Bulte, Lievens, & Moenaert, 2001). One important investment activity relates to how firms engage with the development of research patents (Agrawal & Henderson, 2002) which were found to increase organisational performance (Bogner & Bansal, 2007; DeCarolis & Deeds, 1999), improve their ability to engage in joint research projects and build further capacity to absorb knowledge spillovers (Barnes et al., 2002; Cockburn & Henderson, 1998; Cohen & Levinthal, 1989, 1990).

Research on university activities to improve knowledge transfer, on the other hand, is preoccupied with improving engagement with society. To narrow the theory-practice divide and improve academic-practitioner relationships (Bartunek, 2007; Hughes, Bence, Grisoni, O'Regan, & Wornham, 2011; Rynes, Bartunek, & Daft, 2001) it is important that the transfer of knowledge, or indeed its conversion from pure to applied knowledge, should become a priority as this will speed up knowledge creation (Rynes et al., 2001 p.347). Again 'transfer' is conflated with 'creation' across these arguments that focus on improving academic-practitioner engagement (Section 1.2). With the need for increased social and financial accountability (Gibbons et al., 1994 pp.7-8), the appropriateness of many university based research activities has been called into question i.e. whether universities should focus on pure research, with no clear application or return on investment, versus doing applied research focused on opportunities for commercialisation and application. For example, as a metric measuring the success of knowledge transfer channels, the number and commercialisation of patents from university start-ups has been highlighted (Agrawal, 2001; 2002). Other research has focused on the role of incubation centres and supports for entrepreneurs (Agrawal & Henderson, 2002), as

well as the importance of collaborative R&D projects (Rogers, Carayannis, Kurihara, & Allbritton, 1998) to produce public knowledge (Agrawal, 2002a; Barnes et al., 2002; Cohen & Levinthal, 1989). Supplementing this focus on research activities other university activities such as teaching have also come under scrutiny. Hughes et al (2011) outline fruitful avenues to improve academic-practitioner engagements including; providing courses and programmes; publishing research; attending conferences; developing knowledge networks and promoting academic consultancy. They argue that engagement is simply about improving how close academics can get to the reality of business on a practical level so they can transfer knowledge to practitioners.

Bearing this in mind questions have been asked about the role of universities and specifically the agenda of business schools (Huff, 2000a; Huff & Huff, 2001). This is discussed as an issue of balancing the dual hurdles of ‘rigour’ and ‘relevance’ as a duality (Pettigrew, 1997a), based on the need for the relevance of research to industry and society (Gibbons et al., 1994; Nowotny et al., 2001; Nowotny, Scott, & Gibbons, 2003), as a means to narrow the theory-practice divide, improve academic-practitioner engagement, and facilitate continued innovation and creativity (Van De Ven & Johnson, 2006; Van De Ven & Poole, 1995). Only through facilitating close engagement can knowledge be effectively developed and exchanged (Van De Ven & Johnson, 2006). How we facilitate engagement within processes is important for knowledge creating. This is used to inform the research question. Three bodies of literature informing how research on knowledge creating should proceed were identified. These are now outlined.

The first body of literature argues that the university-industry relationship is an integral context for ‘knowledge production’. A modal theory of societal knowledge production (Mode 2) advances the need to increase the interactions between government, employers, and society to address the knowledge transfer problem by narrowing the theory-practice divide (Gibbons et al 1994). The application of Mode 2 attributes has informed much of discussions on university-industry relationships and are relied on for this study (Table 1.2). These include;

<b>Attributes Informing this Study</b>	<b>Mode 2 Knowledge Production</b>
<b>A Context of Application</b>	Knowledge production (Mode 2) is increasingly coming from a context of application rather than from research conducted in an isolated academic environ (Mode 1).
<b>Inclusion of Multiple Stakeholders</b>	Due to the massification of scientific knowledge, and increasing opportunities for transdisciplinary research, multiple perspectives should be acknowledged.
<b>Focus on Applied Knowledge</b>	By including diverse stakeholders a sensitivity to socially acceptable research producing applied knowledge increases in importance.
<b>Quality of Knowledge</b>	The quality of applied knowledge is assessed from multiple perspectives.
<b>Density of Communications</b>	Increasing the density of communications is argued as a basis for knowledge production.

*Table 1.2 Attributes from Mode 2 Knowledge Production Literature*

- i. First, knowledge production occurs in a context of application, distinct from Mode 1, where knowledge is produced in isolated academic environs removed from society. This attribute speaks to the pure versus applied debate where knowledge is evaluated i.e. quality of knowledge.
- ii. Second, societal knowledge production is increasingly being produced in practice due to the massification of education (Gibbons et al 1994 pp.3-4). This allows for and requires the inclusion of diverse stakeholders in research on knowledge production and in turn increases opportunities for transdisciplinary research (1994 pp.4-6).
- iii. Third, by including diverse stakeholders, the pressure for social and financial accountability increases. This encourages researchers to focus on applied and/or relevance based research questions. They claim that “*working in the context of application increases the sensitivity of scientists and technologists to the broader implication of what they are doing*” (1994 p.7) and raises complex questions about socially acceptable research and the quality of knowledge produced.
- iv. What is acceptable knowledge is thus broadened to “*incorporate a diverse range of intellectual interests as well as social, economic and political ones*” (1994 p.8). This contributes to the point on quality control raised above (Table 1.1) as the quality of knowledge and how it is evaluated is broadened.
- v. The density of communications between science and society across a “*triple helix*” of interactions between government, employers and HEIs, provides a starting point for commercialising research and improving university innovations (Leydesdorff & Etzkowitz, 1998).

Since the introduction of Mode 2 principles to the university-industry relationship there are “*more discussions of Mode 2 than illustrations of it in academic journals*” (Bartunek, 2011 p.556) than empirical papers. Mode 2 knowledge production, while stimulating thinking has alone been unable to narrow the theory-practice divide. For this reason, more empirical research is required (p.557). The solution in the university-industry literature to narrow this divide is heavily influenced, and arguably hampered by a knowledge transfer agenda. By understanding the theory-practice divide as a problem of knowledge transfer it assumes that practical knowledge is derived from research knowledge and that narrowing this divide remains a problem of improving unidirectional transfer of explicit knowledge from academics to practitioners (Section 1.2 & Table 1.1). Here the responsibility rests broadly on the ability of the university to engage with and transfer its knowledge to society (Peluchette & Gerhardt, 2015 p.415).

By way of summary these various discussions can be brought together under the need to overcome the ‘dual hurdles’ of rigour *and* relevance (Pettigrew, 1997a). By focusing our attention on the need to narrow the gap between science and society, between theory and practice, pure and applied research, and improve engagement between academics and practitioners, we can overcome the dual hurdles of rigour and relevance. Informed by this rigour and relevance debate the shortcomings of the knowledge transfer approach can be addressed. Two alternative arguments were found in the university-industry literature.

The first argument claims that the difference between practical and scholarly knowledge within the rigour versus relevance debate has been misunderstood. In its place a process of engaged scholarship focusing on a strategy of arbitrage is suggested (Van de Ven, 2007). While relational scholarship has been discussed elsewhere (Bartunek, 2007) the authors here claim that “*exhortations for academics to put their theories into practice and for managers to put their practices into theory may be misdirected because they assume that the relationship between knowledge of theory and knowledge of practice entails a literal transfer or translation of one into*



*the other*” (Van De Ven & Johnson, 2006 p.808). In response to criticisms of engaged scholarship (McKelvey, 2006) the authors distance themselves from the knowledge transfer agenda as a failed solution to narrowing the theory-practice divide (Van De Ven, 2006). Instead they argue for a pluralistic and complementary view of knowledge from science and society involving an approach of knowledge co-production or co-creation (Peluchette & Gerhardt, 2015 p.416) among academics and practitioners involving negotiation and collaboration where they draw upon a notion of intellectual arbitrage which they say “*represents a dialectical method of inquiry where understanding and synthesis of a common problem evolve from the confrontation of divergent theses and antitheses*” (Van De Ven & Johnson, 2006 p.809). They add that an “*arbitrage strategy is essentially a pluralistic methodology*”. They acknowledge that a problematic interpersonal aspect of arbitrage is the presence of conflict but that conflict as a duality between rigour and relevance represents the “*generative mechanism of a dialectical process of inquiry*” (p.809). By using this arbitrage strategy, the authors argue that the dual hurdles of rigour and relevance is surpassed and that the theory-practice divide is narrowed, not by knowledge transfer alone, but by engagement (Table 1.3).

<b>Attributes Informing this Study</b>	<b>Engaged Scholarship</b>
<b>Engagement as Arbitrage NOT Transfer</b>	Engaged scholarship involves a “strategy of arbitrage” that is relational with knowledge flows going in both directions rather than a unidirectional transfer of knowledge from universities to society. This incorporates knowledge coproduction, negotiation and collaboration.
<b>A Context of Implication</b>	The context of implication of research for users should be included (consistent with Mode 2 Knowledge Production arguments).
<b>Inclusion of Multiple Stakeholders</b>	Difference opinions of academics and practitioners (across the theory-practice divide) should be acknowledged to implement a strategy of arbitrage.
<b>Pluralism</b>	A pluralistic & complementary understanding of knowledge should be considered having methodological implications i.e. multiple methods should be considered.
<b>Dialectical Method of Inquiry</b>	A strategy of arbitrage involves a dialectical method of inquiry which is understood as generative.

*Table 1.3 Attributes from Engaged Scholarship Literature*

The second argument to overcome the dual hurdles of rigour *and* relevance as a duality has focused on the repurposing a Mode 2 knowledge production to ensure the relevance of university and business school activities i.e. the relevance of the academy debate (Bartunek, 2011; Huff, 2000a; Starkey & Madan, 2001). To maintain the role and relevance of business schools as knowledge producers in society various stakeholders’ interests should be aligned within research (Bennis &

O’Toole, 2005; Hambrick, 1994; Mohrman & Edward E. Lawler, 2012; Van Aken, 2005). This is consistent with the engaged scholarship debate. By advocating the application of a Mode 2 approach the authors ask what are “*the key issues that need to be considered in the discussion of relevance and knowledge creation*” and/or what impact has research from business schools had (Starkey & Madan, 2001 p.S4)? Three attributes, similar to the Mode 2 attributes, are suggested (Table 1.4);

- i. First, they call for increased dialogue between managers and academics about specific needs arguing that through a mutually beneficial process of “*joint development*” the nature of knowledge would emerge (2001 p.S4).
- ii. Second, the evaluation of knowledge should be connected to action. They argue that action should be informed by both theory and evidence within the decision making process (2001 p.S6).
- iii. Third, the need to acknowledge additional stakeholders as well as users of research at various stages of the research process is necessary so the process can respond to their increasingly sophisticated demands (2001 p.S13 & S18).

<b>Attributes Informing this Study</b>	<b>Relevance of the Academy</b>
<b>Increasing Dialogue</b>	By increasing the density of communications, dialogue between academics and practitioners can ensure a process of “joint development”.
<b>Focus on Action</b>	By focusing on knowledge related Action, knowledge is evaluated in relation to decision making, practice and a context of implication (consistent with Engaged Scholarship).
<b>Inclusion of Multiple Stakeholders to Ensure Relevance</b>	By including multiple stakeholders research interests can be aligned and the relevance of research to multiple stakeholders should be acknowledged. <b>Reflexivity &amp; Sensitivity</b> – due to the need for social and financial accountability sensitivity to the broader “implications” of research should be acknowledged.

*Table 1.4 Attributes from ‘Relevance of the Academy’ Literature*

In conclusion two foundational arguments are relied on here to provide insight and guidance on how to advance this study. ‘Knowledge creating’ was shown to be distinct from ‘creation’ and ‘transfer’ (Table 1.1); here knowledge is assumed not to pre-exist. Events of creation are important, but are considered within a broader focus on processes unfolding over time. Both tacit and explicit knowledge are accepted, without a need for tacit knowledge to be converted or amplified from the individual to the organisation. By including multiple stakeholders, the quality of knowledge creating will always remain variable. Being practical and actionable is but one important consideration (Peluchette & Gerhardt, 2015 p.414). In support of this

processual view of knowledge creating three additional arguments from the university-industry relationship literature were presented. Various attributes to inform how to proceed with a knowledge creating study were highlighted (Tables 1.2 – 1.4). How these attributes inform the research strategy adopted for this study will be discussed below (Section 1.6). Because of the prevalence of the academic-practitioner relationship, as a context for exploring knowledge creating, we now turn to consider the chosen context for this study (Section 1.4).

## *1.4 The Internship/Placement as a University-Industry Relationship*

### *1.4.1 The State of Internship/Placement Research*

Building on the debate above and relying on the same material, Narayanan et al (2010) claim that most attention on the relevance of business schools activities has been directed at the impact of academic research and how it can best be transferred to practitioners (Pfeffer & Fong, 2002). Other activities and relationships such as internships and work placements have been ignored (2010 pp.61-62). They claim that despite the growing importance of internships, little empirical research on the effectiveness of this academic-practitioner relationship has been conducted. Indeed, no discernible research considers internship/placements to address the theory-practice divide or as a way to overcome the dual hurdle of rigour and relevance. They also note that the literature *“lacks a dominant theoretical perspective, and is largely descriptive in most empirical studies. In addition, although internships involve complex relationships among three actors – student, faculty or school, and company – most research on internships has typically focused on only a small part of the overall process”* (Narayanan et al., 2010 p.62). By noting the variations in the form of placements they do however outline some consistencies that provide an agreed coherence. They describe internship/placements as follows;

*“...an internship involves a term-length placement of an enrolled student in an organisation – sometimes with pay, sometimes without pay – with a faculty supervisor, a company supervisor, and some academic credit earned toward the degree. Internship programs are a staple of many business schools as they provide students to with an opportunity to apply what they have learned in the class room to the “real world”, and work*

*experiences that may prove useful in finding full-time employment after graduation and useful in their success in their initial jobs. The company receives the benefits of temporary assistance and the student's knowledge and can even use internships as a screening device for future potential employees"* (2010 pp61-62).

This comprehensive description of an internship/placement highlights the complex nature of goals, roles and activities associated with the phenomenon. Given the lack or "paucity" (2010 p.62) of research and the anecdotal descriptive of fragmented aspects of the phenomenon, Narayanan et al felt the need to summarise the 21 published studies on internships they identified (note they claim 22 but one study was counted twice). Of the 21 published studies over half, they claim, provided empirical data. Of these many included observational data describing limited cases. 9 studies were survey based using a variety of analytical approaches reflecting basic descriptive statistics. Few tested formal hypotheses. Many focused on the singular perspective of a group of actors. From a theoretical perspective, various approaches were relied on including socialisation theory, learning theory and human resource theories. Across these systematic assessments of internships fewer were grounded in conceptual models. From their independent review, they noted these sources were published across various disciplines including communications theory. Only one source was arguably linked to the field of organisation studies and none were linked to knowledge or knowledge management. Within this disparate and empirically limited topic area Narayanan et al (2010 p.64) identified gaps which are relied on here to inform the contribution of this study.

First, no internship study "*simultaneously addresses the roles of the student, university, and company*" (p.64) and future research should include all three relevant actors within a single theoretical model to adequately assess the internship experience. In highlighting the role of multiple actors, the authors relied on communications theory to describe their roles as senders, receivers and carriers reflecting the university, industry and student respectively. They noted that each set of actors "*is likely to enter the internship with different goals and the extent to which those goals are aligned leads to positive outcomes for each party*" (2010 pp64-65).

This is consistent with calls to include diverse stakeholders (Section 1.3) and suggest that the commonality of goals across multiple actors is important for an internship success.

Second, to inform the development of a conceptual model the authors relied on personal transfer and inter-organisational learning literature to address the issue of knowledge transfer. Through this, and the inclusion of all actors within a conceptual model, they also argued that “*transfers should be conceptualised as a process rather than as an event*” (2010 p.64). Here they focus on preparedness of actors as antecedents, the form interactions take such as process indicators (Autio & Laamanen, 1995) and transfers over time resulting in benefits and goals (Rogers et al., 1998) as outcomes. This processual approach is reminiscent of an information processing paradigmatic view of inputs, process and outputs which underpins a knowledge transfer research agenda. This highlights the shortcomings in considering small parts of the internship/placement in isolation and reaffirms the need to shift focus from a fragmented view focusing on transfer to a more holistic view in a wider processual ‘knowledge creating’ context.

Third, Narayanan et al explicitly call for research to consider internship/placements as a process across organisations, with student actors as ‘carriers’ of knowledge. As a unit of analysis multiple actors should be included. This serves to highlight a more glaring gap in internship/placement research as broader processual perspectives have yet to be undertaken.

Because of the limited empirical research available, a rationale for selecting this university-industry relationship as an appropriate context for exploring knowledge creating is arrived at. Due to the ‘paucity’ of empirical research, the absence of any agreed theoretical approach, and the fragmented nature of previous research, a clear and obvious contribution can be made in the following ways;

- i. First more empirical research is required in relation to internship/placements. Previous research has focused on specific actor related topic such as career development (Callanan & Benzing, 2004) student experiences and

satisfaction (Cord, Bowrey, & Clements, 2010; D'Abate, Youndt, & Wenzel, 2009; Knemeyer & Murphy, 2002) and the importance of mentoring roles (Liu, Xu, & Weitz, 2011) and student ingratiation (Liu, Ferris, Xu, Weitz, & Perrewe, 2013) many prevalent gaps remain. For this reason, a processual approach focusing on all relevant actors across the full process is pursued here.

- ii. Secondly empirical research remains piecemeal, fragmented reflecting various loose theoretical approaches across multiple disciplines. By considering the effectiveness as a university-industry process from a 'knowledge creating' perspective a unified theoretical approach is advanced here.
- iii. Narayanan et al refer to the internship/placement as a means of transfer within a university-industry context. Still no research (as far as this researcher can determine) has targeted this phenomenon as an integral way to overcome the dual hurdles of rigour and relevance. Compounding this no empirical research has adopted a processual perspective across all three relevant actors.

Due to these significant gaps a clear approach for exploring knowledge creating in the context of the internship/placement is advanced. This provides the rationale for considering this university-industry context.

#### *1.4.2 Industry Perspectives on Internship/Placements*

Separate to and supplementing the academic research, industry and media reports reflect varied understandings of the internship/placement phenomenon. In the US, the term 'internship' is understood to imply an unpaid position, distinct from an entry level position, with the promise of relevant experience in return for student's work. This implies that an employer's responsibility is to expose students to an industry, provide relevant experience to improve employability and help with curriculum vitae (CV) development. In the UK and Ireland, the term 'placement' or 'work placement' is more prevalent and is broadly understood to be a paid position. This is most obvious in the accountancy field which defines an internship as a short-term summer internship whereas a work placement is a more long term position with opportunities for progression toward a trainee contract. Whether paid or unpaid,

internships/placements are linked to experience. In relation to an unpaid position the issue of quality experience becomes more acute. Paid work placements are increasingly being influenced and coming under the protections of employment law. This in turn raises issues as to the role of students as ‘interns’ or students on ‘work placement’ compared to students as ‘employees’. Employers wishing to decrease their wage bill appear to test the fine line between these roles as a way to circumvent large pay bills and/or employment law regulations. For example many employers in the fashion industry (Elliot, 2010) film and television industries (Bell, 2010), and in political and legal fields (Geraghty, 2010) have been found to be in breach of various UK and US working time regulations. In some industries, i.e. the fashion industry, where internships were found to last indefinitely, without an explicit offer for full time employment, they were found in the *London Dreams v Nicola Vietta* court case to represent ‘core work’ for the business. Under UK working time regulations the role of the student as ‘worker’ was found to apply. Similar cases across the US have found that interns as ‘workers’ have indeed a contract of employment and are thus entitled to terms of employment such as a minimum wage (Greenhouse, 2010). Another example illustrating the importance of roles, in this context, could be seen in Leuven, Belgium where two Irish students died tragically in a house fire. The house had not been registered as ‘student’ accommodation under Belgian law. However the Leuven Institute had claimed that as the students were ‘employees’ it negated the need to register the accommodation (Lynch, 2014). As the role of students on internships/placements remains under legal scrutiny, within the realm of employment law, we see here how the perception of roles has wider implications for different actions and processes that might be enacted.

Since 2009 paid internships in the US appeared to have dried up (Allyn, 2009; Chura, 2009). Indeed claims that paid entry level positions appeared to have been replaced by unpaid or low paid internships (Chura, 2009) most notably in the fashion and design industries (Wilson, 2009) have surfaced. This reflects two dynamic pressures faced by employers. At one extreme, it is argued that employers have turned to internships to evade/avoid restrictive employment legislation and regulations availing of cheap and/or free labour. At the other extreme employers

have utilised the internship as a long interview ensuring they get the greatest return on their investment by attracting, developing and ultimately (but not always) recruiting proven candidates for fulltime entry level positions. In turn this state of affairs is argued to decrease the availability of entry level positions for graduates who are undercut by those willing to take up unpaid work internships (Hill, 2010). From a Higher Education Institution (HEI) perspective unpaid placements have the potential to exploit and manipulate students who are desperate, in a depressed labour market, to seek out internships.

The lack of empirical research on internship/placements has highlighted a gap in the literature not only regarding internship/placement as a university-industry context worthy of study, but also as a context for exploring knowledge creating. From industry reports the multiplicity of perspectives relating to this phenomenon across the university-industry relationship also highlights a context to understanding how engagement, not as a problem of transfer, can be used to narrow the theory-practice divide.

### *1.5 The Rationale and Contribution of this Research*

From the previous sections three main gaps representing a potential for a contribution were identified. First, scholarly research has not considered a processual approach to knowledge creating. Current research on ‘creation’, is hampered by conceptualisations linked to knowledge transfer. Knowledge creation research focuses on events where knowledge is converted into an explicit form requiring amplification within an organisation. Paradoxically knowledge is assumed to pre-exist in a tacit form (Table 1.1). Whereas processual approaches have been called for, ‘knowledge creating’ as a concept has not been considered fully in scholarly literature. Here the research question becomes a problem of how knowledge creating is facilitated. For this reason, we look at process dynamics to understand how this is facilitated. The adoption of this ‘knowledge creating’ lens represents the main contribution of this research. This brings with it distinct assumptions which are relied on here to inform the research strategy (last column of Table 1.1).



Second, by focusing on improving the academic-practitioner relationship to narrow the theory-practice divide, and overcome the dual hurdles of rigour and relevance, the novel and under researched context of the internship/placement was found (Section 1.4). The scope of the contribution here is, first, in taking a holistic processual approach as is called for in the internship/placement literature; and second, in considering this university-industry relationship as a under researched basis for knowledge creating. Because of the limited and fragmented research available on internship/placement it was chosen for this study.

Finally, the research strategy adopted here is informed by identified attributes taken from the knowledge literature. Three intertwined bodies of literature on knowledge were presented; Mode 2 knowledge production; engaged scholarship; and the relevance of the academy. Common attributes with methodological implications were identified (Tables 1.2-1.4). These were consistent with the internship/placement literature. These attributes are now summarised;

- *A Context of Application:* research on processes facilitating knowledge creating needs to be conducted in a context of application or implication rather than an isolated environ (Tables 1.2 & 1.3). The university-industry relationship is prominently highlighted as an appropriate context.
- *Diverse & Multiple Stakeholders:* Multiple perspectives need to be accommodated in the research process to ensure the relevance of the research (Tables 1.2, 1.3 & 1.4). For this reason the internship/placement is an appropriate context.
- *Processual Understanding of Knowledge:* Knowledge is understood as being processual (Table 1.1), and reflects an emphasis on applied relevant knowledge for all stakeholder including users of research.
- *Evaluating Knowledge:* Consequently, the research must accept the variability in the 'quality' of knowledge (Table 1.2).
- *Dialectical Engagement:* A relational approach to engagement, or a strategy of arbitrage, should be accommodated by adopting a dialectical method of inquiry (Table 1.3) due to the increasing density of communications (Table 1.4). The

assumption that narrowing a theory-practice divide is a problem of transfer is not accepted. Data collection needs to be linked to engagement.

- *Action*: Knowledge creating is linked to action informed by theory and practice (Table 1.4).
- *Plurality of Methods*: Pluralistic approaches, beyond simple functionalist approaches, needs to be considered (Table 1.3). This is consistent with the processual understanding of knowledge reflecting variability in ‘quality’ (Table 1.2).

Two attributes especially influence the research approach taken here; the processual view of knowledge and the role of dialogue in the creating of knowledge. Combined these provide a novel contribution to researching knowledge creating. Finally, while many failed efforts have been made to narrow the theory-practice divide this research addresses this gap empirically by broaden the discussion under a knowledge creating umbrella to overcome the dual hurdles of rigour and relevance.

### *1.6 The Research Question & Research Strategy*

Following the introductory considerations regarding context and the shift in focus from the problem of knowledge transfer to that of knowledge creating the following question relating to the creating of knowledge in a theory-practice divide context can be asked.

#### **Research Question**

*How can organisational processes facilitate the creating of knowledge **and** what is the nature of organisational knowledge creating?*

#### **Research Objectives**

Informed by the context of university-industry relationships and the processual focus on ‘knowledge creating’ the following primary research objectives can be asked:

*How can interactions in university-industry processes facilitate the creating of new organisational knowledge?*

*How can internship/placements processes reveal knowledge creating characteristics?*

The dynamics of engagement among multiple actors reveal a deeper understanding of connections in processes. This raises questions about process dynamics and how they facilitate knowledge creating. Chapter 2 outlines the argument, by relying on routines theory, in support of the following question:

*How can routine dynamics be “unpacked” to reveal their generativity?*

The literature review will show that one way to unpack process dynamics is by relying on a dialogical exchange approach for knowledge creating. Chapter 3 outlines the argument, by relying on a dialogical theory for knowledge creating, in support of the following question:

*How can dialogical exchanges be used to “unpack” routine dynamics to reveal their generativity?*

By gaining an insight into the dynamics of processes the literature review focuses our attention on the nature of productive relational engagement as a basis for knowledge creating. The following question can then be asked:

*How can productive relational engagement facilitate generative actions informing our understanding of knowledge creating?*

With the research question and primary research objectives in place the following sections summarises the rationale, contribution and research approach that has been adopted for this study.

## 1.7 Conclusion

This chapter outlined the introductory principles and attributes for understanding how organisations organise for knowledge creating. The identified attributes also inform how to proceed in conducting research on knowledge creating (Section 1.2). In addressing questions relating to how organisations facilitate the creating of knowledge the university-industry context was presented as a fruitful context for this study (Section 1.3). The internship/placement process, herein referred to as ‘the placement’ throughout the remainder of this document, was selected as a neglected university-industry relationship (Section 1.4). The lack of empirical research in this area provides a rationale for considering this context (Chapter 4). From this the research question “*How can organisational processes facilitate the creating of knowledge?*” was arrived at (Section 1.6). To adequately address this question attributes to inform the research strategy were extracted and presented (Section 1.5).

Guided by this the next chapter considers the appropriateness of different processual theories (Chapter 2). Routines theory is highlighted as an appropriate processual lens due to its generative claim but also due to the theoretical consistencies with the attributes for knowledge creating. Chapter 3 further unpacks routines theory, as called for in the literature, by considering a dialogical approach to new organisational knowledge. This focus on dialogue is also consistent with the need to consider engagement as a strategy of arbitrage involving a dialogical inquiry. Chapter 4 presents the methodology informed by knowledge creating attributes outlined in this chapter. Explicitly informed by empirical research on routines the various methods, as called for in a pluralistic methodology, are presented. A pragmatist philosophy, linked to action, underpins, and provides context for analysis. Chapters 5, 6 and 7 present the findings from the empirical data collected. Dialogical exchanges were used to unpacked the variety and variations across three aspects of routines; ostensive, performative and material aspects (Chapter 5, 6 & 7). By way of theory building or theorising three prevalent themes, which emerged from the data are discussed (Chapter 8). The concluding chapter (Chapter 9) provides the implications and contribution to theory of knowledge creating and practice in placement management.

## ***2 The Generative Nature of Routines***

### *2.1 A Processual Approach to Knowledge Creating*

The purpose of this chapter is to argue that routines theory is an appropriate processual lens to address the research question of ‘how organisational processes can facilitate the creating of knowledge?’ i.e. ‘knowledge creating’ (Chia, 2013). Its main contribution centres on the use and application of ‘generative routines theory’ as a conceptual lens to guide and inform data collection and analysis. Hitherto both concepts have only received scant and inadequate attention in scholarly research. This chapter also addresses a processual gap in empirical research (Grover & Davenport, 2001) by providing a rationale for using routines theory as a processual basis for exploring knowledge creating, distinct from hegemonic approaches to knowledge creation (Nonaka, 1994; Nonaka & Takeuchi, 1995; Von Krogh, Ichijo, & Nonaka, 2000) and knowledge transfer (Table 1.1).

Routines theory is advanced here due to the claim that routines are inherently generative. The ostensive-materials-performative perspective of routines is adopted as it claims to encapsulate this generativity. By using this ostensive-materials-performative conceptualisation we can address calls in the literature to further ‘unpack’ the dynamics of routine generativity and better inform our understanding of how organisational processes can facilitate ‘knowledge creating’ (Section 2.4). Consistencies between routines theory and ‘knowledge creating’ attributes presented in Chapter 1 are highlighted. This conceptualisation of routines also provides guidelines for data collection and analysis (Section 2.5). But first it is useful to review and ground the concept of knowledge creating within a process oriented philosophy and to highlight the appropriateness of routines theory as a processual lens for this study.

Whereas processual thinking is not new (Whitehead, 1929) having contributed to such fields as systems thinking (Von Bertalanffy, 1972) its application to ‘knowledge creating’ is limited. Attempts within systems theory, for example, have tried to loosen the shackles of functionalist methods by acknowledging “open systems” (1972 p.412). Similarly attempts to characterise processual analyses (Jarzabkowski,

Lê, & Feldman, 2012; Langley, Smallman, Tsoukas, & Van de Ven, 2013; Pettigrew, 1997b; Van De Ven, 2007; 2007) alongside calls for increased emphasis on processes within typically functionalist fields such as KM (Grover & Davenport, 2001) have resulted in renewed interest in more diverse perspectives on processes rather than systems. As seen in Chapter 1 many process based attempts continue to be influenced by an entitive perspective where knowledge is convertible, as well as eventual perspectives i.e. events of knowledge transfer and creation (Section 1.2). Arguments for considering knowledge creation within a context of processes or systems, rather than as isolated events of creation have gathered some traction (Nonaka, 1994; Van De Ven & Poole, 1995). By acknowledging the need for a processual approach to knowledge creating a best fit process theory to reveal knowledge creating as a process rather than as a structure, event or thing was sought out.

Similar developments could be found in routines theory. The process oriented approach within early routines literature in evolutionary economics tended to focus on inert, stable and repeatable processes with defined measurable outcomes (Nelson & Winter, 1982) reflecting functionalist methods for data collection. While studying processes is integral to organisational and economic approaches previous research on work processes focused on inputs and outputs (Nonaka et al., 1996; Simon, 1973) rather than the process per se (Salvato, 2009 p.69). By doing so they failed to look at the internal dynamics transforming inputs into outputs (Rynes, McNatt, & Bretz, 1999). In contrast more recent conceptualisations of routines have tended to focus instead on variations, within a notion of novelty, as dynamic change within a stability-change duality (Feldman & Pentland, 2003). This recognition of the dynamic nature of processual theory represented a philosophical shift to understanding “*structuring as a process rather than structure as a thing*” (Feldman, 2000 p.613) and from focusing on organisation as an object to organising as a process (Pentland & Rueter, 1994 p.484). In addition Becker (2004 p.649) claims that because organisational routines are a processual unit of analysis they have an explanatory power in relation to organisational change (Feldman, 2000, 2003; Pentland, 2003) and occupy a “*nexus*” between structure and action. For this reason

research focused more on how organising is accomplished within patterned actions as structure.

By using routines theory, the question of ‘how organisational processes facilitate knowledge creating’ now becomes a question of ‘how do routine dynamics facilitate our understanding of knowledge creating?’ Due to its generative claim (Pentland & Rueter, 1994) the ostensive-materials-performative conceptualisation is used here. The consistency and appropriateness of routines theory to study process dynamics for knowledge creating is outlined. This research also addresses a dearth of empirical research using the routines perspective (Becker, 2004; Becker & Lazaric, 2009a). This gap has only received a tentative response (Iannacci & Hatzaras, 2012). More specifically, this also addresses a need to further unpack routine dynamics (Feldman & Pentland, 2008; Howard-Grenville, 2005) so as to better substantiate and understand this generative claim (Pentland & Feldman, 2008a; Pentland & Feldman, 2005b). This research addresses this gap. The next section (Section 2.2.) outlines in detail the reconceptualised notion of routines advanced by Feldman and Pentland (2003; 2005b) and highlights the appropriateness of routines theory for knowledge creating. The generative nature of the ostensive-materials-performative conceptualisation is described (Section 2.3). How routine generativity informs data collection and analysis is then addressed (Section 2.4).

## *2.2 A Reconceptualised Understanding of Organisational Routines*

To better understand routines four definitional elements are explored; the nature of repetition; recognisable patterns of actions; interdependent nature of actions; and the role of multiple actors. Previously routines, focusing on stability, were defined as “*repeated patterns of behaviour that are bound by rules and customs and that do not change very much from one iteration to another*” (Feldman, 2000 p.611). As introduced above (Section 2.1) early conceptualisations focused on cooperative and continuous interactions (Stene, 1940 p.1129), and were popularised in Nelson and Winter (1982) where they were conceptualised by using the metaphors of individual habits, as programs and/or routines as genes (Feldman & Pentland, 2003 p.97). The consequence is that “*as with any abstraction, the focus is on the central tendencies*

rather than variation. As a result, these metaphors highlight the inertial qualities of routines and tend to minimise the possibility of flexibility and change” resulting in “the image of routines as being relatively fixed, unchanging objects” (2003 p.97). However as routines were found to be a source of continuous change (Feldman, 2000) this assumption came under scrutiny. Feldman & Pentland redefined routines as “repetitive, recognisable patterns of interdependent actions, carried out by multiple actors” (2003 pp.95-96). In support of using routines theory as the processual basis for knowledge creating, the consistency between the four definitional elements and the knowledge creating attributes introduced above (Section 1.3) is highlighted.

- i. *The Nature of Repetition:* Becker (2005b p.256) notes that the starting point for empirical research relating to routines is that routines involve ‘recurrent action patterns’ relying on the phrase introduced by Cohen et al (1996 p.695). It is the understanding of ‘persistence’ that is the basis of the research agenda here (Becker, 2005b p.258; Howard-Grenville, 2005; Huet & Lazaric, 2009). Through repetition we can look for ‘instances as performances’ that fall within our understanding of a focal routine. Repetition is a prerequisite before we can gain an insight and understanding of a routine. The academic hiring routine is offered as an example where repeated and recognised patterns can be found (Feldman & Pentland, 2003 p.96). It doesn’t however, in itself, imply that routines can be repeated resulting in a definitional paradox (2003 p.105). It does however raise the question as to what is persistent and what coheres to a routine? For this reason, recognisable patterns leading to action are sought out.
- ii. *Recognisable Patterns of Actions:* In referencing Wittgenstein (1958), who highlights the importance of categories of meaning, Feldman & Pentland argue that “while the instances of hiring may differ, they bear a sufficient family resemblance to cohere as a recognizable category” (2003 p.103). It is “through repetition and recognition, organisational routines are created” (Feldman & Pentland, 2003 p.108) as tasks and activities persist. Persistent repetition, as a criterion, help us recognise connectivity and central aspects within a focal routine. As the connected nature of patterns become obvious



i.e. centralise, they provide us with comparative insights into different aspects of routines. The tasks and activities within a hiring routine, when enacted, cohere to that routine because they are repetitive, recognisable and thus persistent. Tasks and activities might include screening and selecting candidates, reviewing CVs, interviewing, the extension of an offer as well as induction training. Comparisons across hiring contexts will highlight differences as many instances build up into performances and reveal variations as they emerge. A second example is that of tasks associated with running a restaurant (Pentland, 2003). While instances are performed differently between a Michelin star restaurant compared to a diner. The process of seating customers might vary wildly between the two contexts but the process somehow remains coherent and recognisable across varied contexts (Feldman & Pentland, 2003 p.103). Based on the hiring and restaurant examples an explanation is suggested for why repetition and recognisability of routines leads to their persistent emergence. Routines are functional in nature, they minimise costs and improve control as well as legitimise tasks, activities and the organisation itself as they emerge through a trial and error process (Feldman, 2000). Continuous renegotiation and reinvention of routines is inefficient. The continuous reinvention of hiring or restaurant routines would take too much time and effort. Their constant change would delegitimise tasks and activities, the routines themselves and indeed the organisation (Feldman & Pentland, 2003 pp97-98). While change is important, too much can delegitimise a routine.

This provides the starting point for data analysis in this study. Patterns may become recognised by the actors themselves and/or by a researcher piecing together fragments of data to understand shared understandings and connections (Feldman & Rafaeli, 2002). This raises issues in relation to the benefits of direct observation over the subjective understandings of participant actors who only see partial 'instances' of performance. Feldman and Rafaeli (2002) note that when evaluating a routine on the basis of shared understandings or the connections produced "*there might be a gap in time between the particular instance of a routine and the recognition of*

*connections by participants of the development of shared understandings among participants. This may be why routines that do not lead to the accomplishment of immediate tasks are considered by participants to be a waste of time*” (Feldman & Rafaeli, 2002 p.326). This suggests that unobservable aspects of routines need to be sought out, and pieced together from data fragments (by a researcher). The implication here is that we can never get a full picture of a routine but efforts should be made to minimise our fragmented understanding (Pentland, 2003). This also has philosophical implications (Section 4.3).

- iii. *Interdependent Actions*: Consistent with the knowledge creating attribute of focusing on ‘action’ (Section 1.6), actions within routines, according to Feldman & Pentland, are “*not limited to the immediate actions of the participants. The parts of any routine are enmeshed in far-reaching, complex, tangled webs of interdependence*” (2003 p.104). In the hiring and restaurant examples actions are interdependent as the output of one action becomes the input of the next e.g. screening occurs before selection and a job offer is extended before acceptance can be received. Hiring and restaurant routines are carried out by multiple actors making them collective human activities (Feldman & Pentland, 2003 pp.96-97) and are thus “collective performances” similar to the way dancers respond to each other (2003 p.104). As recognisable patterns are interdependent the individual agency of the participant actors is “*moderated or attenuated to some extent*” (Feldman & Pentland, 2003 p.105). This means that participant actors cannot act as they please. As new entrants enter and become involved in unfamiliar routines e.g. students on placements; a process of learning about the persistent or recognisable pattern of actions occurs. As outputs become inputs the set of possibilities change in context. It is this interdependent variety in performance that underpins the generative quality in routines. This focuses our attention on the nature and complexity of connections and shared understandings which might explain embedded actions (Feldman & Rafaeli, 2002).

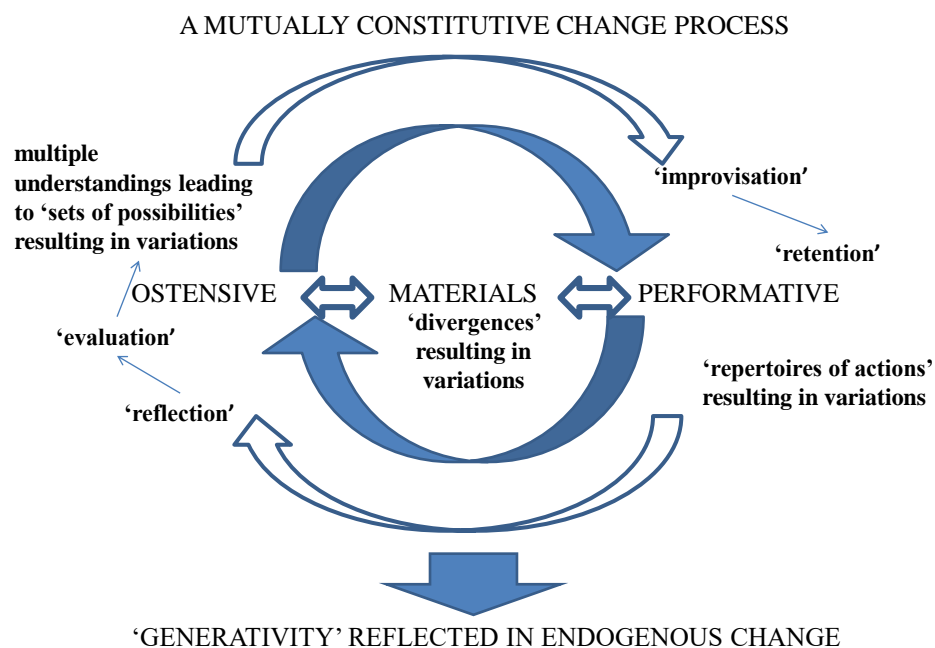
iv. *Multiple Participant Actors*: Feldman and Pentland (2003 p.96) in relying on seminal sources (Cyert & March, 1963; March, Simon, & Guetzkow, 1958) note that routines involve multiple actors engaged in interdependent actions (Cohen & Bacdayan, 1994; Cohen et al., 1996; Feldman & Rafaeli, 2002). With multiple participant actors involved abstract understandings of a routine are not ‘monolithic’ in nature but reflect and include multiple ostensive understandings. These subjective interpretations of tasks and activities that cohere to routines result in different patterns of actions being enacted i.e. variety and variation. This sensitises routines research toward appreciating the diversity of perspectives, the understandings of goals, roles and responsibilities as well as outcomes (as called for in internship research Section 1.4.2). Feldman and Pentland’s reconceptualised definition of routines initially remained silent and ambiguous regarding the form actors would take. However in expanding the role of actors materials were later acknowledged as playing a role to represent divergence and variations (Pentland & Feldman, 2005b). By focusing on multiple actors, a departure is made from previous routines research which tended to ignore agency, reinforced by the perspective that routines were inert stable monolithic objects. By including multiple stakeholders, the appropriateness of routines theory can be seen again as it is consistent with the need to include diverse and multiple stakeholders in knowledge creating research (Section 1.6).

These four definitional elements, consistent with the attributes for knowledge creating (Section 1.6) provide guidelines for data analysis. By looking at repetition and recognisable patterns as interdependent actions routines theory provides a processual lens for knowledge creating emphasising process dynamics over inputs/outputs. Routines also cater for the need to focus on action as a basis for knowledge creating. The inclusion of multiple actors is consistent with the need for diverse and multiple perspectives (Tables 1.2, 1.3 & 1.4). By relying on routines theory, we also address calls in internship/placement literature to research multiple actor perspectives in a holistic way (Section 1.4). While highlighting these

consistencies, it is the generative claim within routines theory which advances its suitability for this study. We now turn to consider the generative routine dynamics.

### 2.3 *The Ostensive-Materials-Performative Aspects of Routines*

It is claimed that routines are inherently generative. This is based on the argument that the dynamics of ostensive, material, and performative aspects are mutually constitutive. Because of this generative claim, routines theory was selected here as an appropriate processual lens for this study. The generative dynamics of the ostensive, materials and performative aspects are now explored with two issues in mind; consistencies between routines and the conceptualisation of knowledge creating (Table 1.1) and seeking out guidelines for data collection and analysis. As a comprehensive review of the arguments underpinning routine generativity is absent in the literature the following section combines and updates these generative arguments showing how they are mutually constitutive (Section 2.4). This provides a more complete understanding of generative routine dynamics.



*Figure 2.1 Ostensive-Materials-Performative Aspects as Routine Generativity*

### 2.3.1 *Ostensive Aspects Resulting in Variety*

The ‘ostensive’ is the abstract understanding or generalised idea that shapes our perception of a routine and reflects how actors ‘know that’ about the routine (Feldman & Pentland, 2003 p.103; Ryle, 1949 pp.27-32). Feldman & Pentland state that the “*involvement of multiple actors introduces the diversity of goals, information and interpretations*” (2003 p.105). This diverse understanding can be represented in narratives or scripts (Pentland & Feldman, 2005b p.796) which order tasks, and allow us to be guided by and understand what is going on. Through this information the goals of participant actors can be understood. This reveals many subtleties about routines illustrating that they cannot be conceptualised as being “*a single unified entity*” (2005b p.797). Diverse abstract understandings maybe fine grained, context and time dependent, may differ from person to person, and may also be distributed across various human and non-human actors. Indeed, scripts can become codified into artifacts which guide understandings that can constrain or enable how patterns of actions are enacted (Sections 2.3.3 and 3.2.3). For this reason “*multiple and divergent understandings are probably more the norm than the exception*” (Pentland & Feldman, 2005b p.797) with no one pattern being fully agreed upon (2005b p.804). With the presence of multiple actors including artifacts, routines cannot be understood as monolithic (cf. Dionysiou & Tsoukas, 2013 p.794; Feldman & Pentland, 2003 p.104; Pentland & Feldman, 2005b p.794). The language relating to a routine can therefore generate an “*infinite variety of sentences*” leading to varied action (Pentland & Rueter, 1994 pp.489-490). This is the first argument highlighting how ostensive dynamics are generative. By embracing this diversity, several implications for data collection and analysis become evident. These include;

- i. *Multiple Actors*: In accordance with the reconceptualised definition of routines multiple actors should be included for data collection and analysis. As noted this highlights the importance of agency, within the ostensive-materials-performative view of routines, which has previously been neglected in research where routines as seen as inert stable objects (cf. Feldman & Pentland, 2003 pp.99-100). Without multiple actors, only a fragmented picture of a routine can be arrived at. By including multiple actors, including materials, the role of agency is catered for. In Feldman’s Residential Life

research the perspective of students was not prominent (Feldman, 2000). By including student perspectives this approach builds upon and surpasses Feldman's research process (Chapter 4). Empirical research on placements fails to incorporate all perspectives i.e. employer, student and HEI perspectives, within a single study (Narayanan et al., 2010) highlighting a significant limitation. By building a more complete picture of the placement phenomenon across multiples perspectives this study contributes to placement research.

- ii. *Evaluation of Goals (Ideal & Actual), Benefits and Outcomes:* The ostensive nature of routines includes ideal goals as perceived by human actors and/or are codified within available materials. However, these may differ from actual goals or outcomes as they transpire. Routines relate to their goals rather than to their content, substance or parts which are reflected in related tasks and activities (Feldman, 2000; Feldman & Pentland, 2003; Pentland & Feldman, 2005b). How a goal comes about, is through the persistent commitment to an ideal in the face of competing goals (D'Adderio, 2014). While different actors engage in patterns of activities they might not have full access to information or insight and might not be seeking the same outcome or goal as others (Feldman & Pentland, 2003 p.104). While the ostensive nature of a routine might well remain stable, different abstract understandings can produce varied performances (Pentland & Feldman, 2005b p.805). This point is developed further below (Section 3.2.2). Actual outcomes are distinct from ideal and/or expected goals. This raises a number of questions; is the understood goal, as perceived by actors, revealed by how they 'refer' to the placement routine? How does referring to the placement reveal what the actors consider to be its goal? How might differences between outcomes, perceived goals reveal routine dynamics? How do understandings of 'perceived benefits', informing our understanding of goals, guide action? Feldman (2000 p.620) provides some insight into why different outcomes occur and how this can influence an emerging ostensive understanding. Firstly, the reason for why routines change is due to participant actor's involvement which she argues is 'dynamic'. Actions do not always produce

desired or intended outcomes representing a divergence between ideal versus actual outcomes. Secondly, new outcomes can result in new problems that require solving. Thirdly, outcomes can produce new resources and thus new opportunities. Fourthly outcomes, if met, can result in improvements being identified (Feldman, 2000 p.622). As goals might not be achieved there is a continuously enacted process of striving, repairing and expanding of a routine (Feldman, 2000). Here participant actors are reflecting upon and evaluating outcomes relative to ideal goals, benefits or values (Feldman, 2000 p.620 p.622-623). Whether striving, expanding or repairing occurs it is the outcome of how actors 'evaluate' a divergence between goals (ideal or actual) and outcomes. This reflects a process of variation and selective retention. If a performance is evaluated as surpassing an ideal goal it suggests that the tasks and activities involved will be selectively retained and repeated. The implication here is that 'evaluation' leading to retention underpins variation as ostensive aspects become more central to the routine (Figures 2.2. & 2.4).

- iii. *Perceived Coherence and Sets of Possibilities:* Some tasks or activities might be understood as being unrelated while others argued as integral or central to a routine. Accordingly, the coherence of tasks and activities relating to a routine will never be universally agreed and will remain contested. Indeed the 'routine' itself might also be questioned. With this being contested there undoubtedly will be variations in how the routine is understood or the way a goal is effortfully-accomplished and thus performed (Pentland & Rueter, 1994). The issue of effortful accomplishment also reflects the understanding of goals of the routine (Feldman & Pentland, 2003 p.106). For example the hiring routine in the Feldman's Residential Life research was understood differently from a student's perspective compared to the central administrators (Feldman, 2000). A software helpline routine was perceived to begin and end at different points by different participants reflecting variations in the kind of tasks and activities understood to cohere to that routine (Pentland, 1992). A commitment to hire underrepresented minorities was argued as only becoming a part of the hiring routine when it was enacted. However, the acknowledgement of 'action dispositions' in subsequent

research (Hodgson & Knudsen 2004 as cited in Pentland et al 2012) appears to expand this issue by allowing for a ‘set of possibilities’ to be more closely associated with routines i.e. falling within its porous boundary. These multiple understandings result in variations on coherence. This underpins the generative argument as multiple ostensives reflect a variety of tasks and activities that cohere and/or become central to the routine. It is retention, as observed, that highlights possible centrality or peripherality within a routine (Section 2.3.2)

These ostensive aspects facilitate questions such as “what should I do next?” and allows multiple actors to be guided into action by their understanding of goals. When asked, participant actors can respond to such questions as “why did you do that?” and thus account for their past actions, the roles they adopted, and the tasks and activities they enacted. From this we gain insights into how they refer to and legitimise actions through evaluation and retention. The ostensive aspect of a routine allows people to ‘create’ variations and “*to guide, account for, and refer to specific performances of a routine*” (Feldman, 2000; Feldman & Pentland, 2003 p.113). Guiding, accounting and referring can be used for data coding and analysis. These are now discussed.

- i. *Referring*: Questions such as “how do participant actors ‘refer’ to the routines they perceive?” can be asked. Referring results in rich descriptions of the processes multiple actors engage in. By referring to a pattern of actions or a routine actors can invoke the routine without detailing its specifics (Feldman & Pentland, 2003 p.107). Otherwise incomprehensible tasks and activities can be made sense of. Feldman & Pentland noted that “*we create a gloss that summarises and omits, a story that privileges some activities over others*” (2003 p.107). As descriptions of a routine emerge over time we gain an understanding of the labels used to provide a context for tasks and activities, how they are evaluated i.e. privileged, elevated in importance over others and possibly retained. Hiring for example invokes central activities and omits superfluous detail. Comparisons can be made with how other actors refer to that routine. Here coherence i.e. including or excluding tasks and activities can then be considered as centrality for data analysis.



- ii. *Guiding*: Routines as scripts provide a normative goal or template for guiding action. The analogy of a ‘routine as scripts’ is similar to that of a musical score guiding behaviour but not the specific details of performance (Feldman & Pentland, 2003 p.106). Questions such as “*how does the routine guide actors into action?*” can be asked. The hiring routine influences those who want to be hired differently to those doing the hiring. Actors from different perspectives see the routine as guiding their ‘sets of possibilities’ in different ways.
- iii. *Accounting*: Routines allow multiple actors to account for past actions. In response to the question “*why did you do that?*” participants can legitimise and justify the tasks and activities they enacted. We can thus ask “*how can actors use the routine to account for their actions?*” Accounting for past actions differs here from ‘guiding’ as the latter pertains to current and potential future actions. However, both require reflection (Figure 2.2) or “*retrospective sensemaking*” (Feldman & Pentland, 2003 p.106; Weick, Sutcliffe, & Obstfeld, 2005). As a readymade justification in context, accounts of actions can be associated with goals (ideal of actual), roles and related responsibilities (de)legitimising actions, or result in follow up queries as to “*why was that appropriate?*” Multiple contested understandings can then be compared and paradoxes explored (Feldman & Pentland, 2003 p.106).

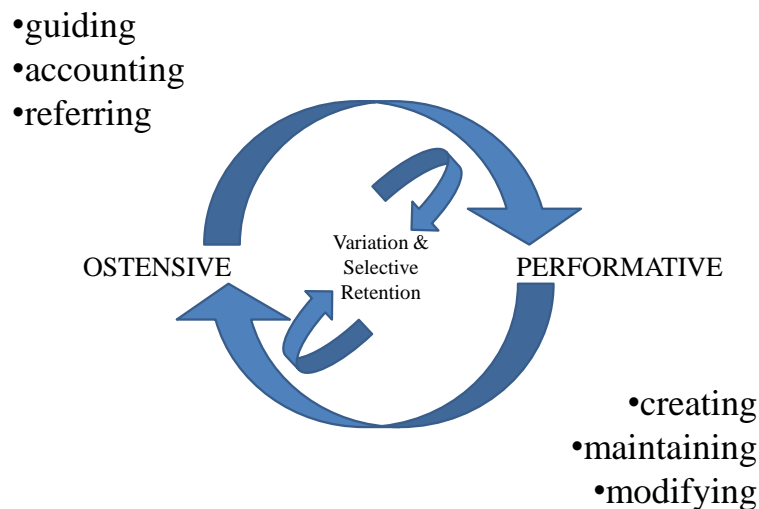
As our ostensive understanding continually fluctuates when striving to meet goals (Feldman, 2000), variations in outcomes are evaluated and retained tasks and activities can become persistent. Within the ostensive aspects there is a constant state of evaluating of outcomes relative to goals. Because of this routines have the “*inherent, endogenous capacity to generate and retain novel patterns of action*” (Feldman & Pentland, 2003 pp112-115). This endogenous capacity and process of variation and selection retention linked to the generative claim will be returned to below (Section 2.4). For evaluating to occur performative aspects are required. This is now discussed.

### 2.3.2 *Performative Aspects Resulting in Variety*

Without performances or patterns of actions the ostensive understanding of a routine might be forgotten. If so we do not have a routine (Feldman & Pentland, 2003 p.107). Performances are the specific actions or enactments which result when participant actors engage with tasks and activities they understand as cohering to the routine (Pentland & Feldman, 2005b p.796). Performances reflect “know how” (Feldman & Pentland, 2003 p.103; Ryle, 1949 pp.27-32) and represents how actions mutually constitute the ostensive. It is this idea that ostensive and performative aspects are mutually constitutive that is central to the generative claim (Figure 2.1). The importance of actions for knowledge creating was previously highlighted (Section 1.6).

As discussed above some actions can be habitual and automatic, others identified by the participant actors, might reflect new choices in novel situations falling within a coherent set of tasks and activities. Whereas the ostensive reflects the sets of possibilities it is the effortful accomplishments (Dionysiou & Tsoukas, 2013 pp.182-185; Pentland & Rueter, 1994) that reflects how participant actors construct and then enact the routine (Feldman & Pentland, 2003 p.102; Pentland & Feldman, 2005b p.796). For this reason actions, from a set of possibilities, are often improvised (Feldman & Pentland, 2003 p.102). As actors improvise their practices, “repertoire[s] of possibilities” are constructed (Bourdieu, 1977; Feldman & Pentland, 2003 p.102). Because outcomes can produce new resources and opportunities, how participant actors respond to them becomes important. Internal dynamics, according to Feldman, is based on inclusion of the routine participants as agents. By including the actors and their actions the routine becomes a “*richer phenomenon*” (2000). This relationship between sets of possibilities, improvisation and action is thus mutually constituted, suggesting how routines result in endogenous change, and repertoires of possibilities. Here the interdependence of actions “*blurs and opens the boundaries of routines to outside influence*” (Feldman & Pentland, 2003 p.105). In addition to the variations that are inherent in the ostensive aspect of a routine due to multiple understandings, variation can also be seen to originate when tasks and activities are improvised and performed. What falls within the performative aspect of the routine is subject to change and in turn influences the ostensive aspect (Figure 2.1). The idea of

improvisation relating to action (Bourdieu, 1977), within performative aspects, is in itself novel and at the centre of the endogenous change argument. For example, just as a musical score provides a script the performance may be differ in each context in relation to that script. Also as recipes list ingredients for baking different outcomes may result. Performances to achieve the ideal outcome might well result in different cakes as illustrated in the ‘twisted-stretch’ example highlighting the role tacit knowledge plays in informing action (Nonaka & Takeuchi, 1995). Feldman describes how performances differ within an academic hiring routine where interviews might be conducted using video conferencing instead of a face-to-face interview. She claims that performances “*generate a constant stream of variations and exceptions as the performers accommodate and innovate*” (Feldman & Pentland, 2003 p.102). These improvised variations when enacted have implications as they set precedents and expectations which in turn alter and develop the ‘ideal’ ostensive goal. By reflecting actors construct understandings of routine goals and associated repertoires of possibilities for further enactments (p.102) providing deeper understandings of how aspects of routines are mutually constitutive and relational.



*Figure 2.2 Theory for Data Collection, Coding & Analysis*

As an “*outcome of engaging in actions*” (Feldman & Pentland, 2005) performative aspects consider contextualised actions by specific actors in ‘creating’, ‘maintaining’ and ‘modifying’ routines. The goal is not to create, maintain or modify the routine

but to engage in actions to achieve the routine's goal. This affects and is affected by structures constraining and/or enabling future action and, as shown, shapes the ostensive (Feldman & Pentland, 2003). These three can be used during coding and analysis and are now discussed.

- i. *Creating*: Without a pattern of action we do not have a routine (Section 2.1). Even when a pattern of action repeats it must then become recognisable. Recognisability also applies to written procedures or ideas which need to be performed and repeated. Written procedures codifying abstract understandings only suggest sets of possibilities informing performances. When repeated and recognised we can see 'possibilities' for enactment. While instances of a performance can differ between enactments a recognisable pattern bearing a "*family resemblance to cohere as a recognisable category*" emerges (Feldman & Pentland, 2003 p.103). For this reason, repetition and recognition indicate the incremental and emergent creating of routines over time and can be used as codes for data collection and analysis. If repetition is found, we can then ask if multiple actors recognise it. This is important when considering new entrants such as students into an internship/placement. For example a commitment to search for underrepresented minorities when hiring if not enacted might remain outside the set of possibilities (Feldman & Pentland, 2003 p.108). If enacted the words relating to search for minorities takes on meaning and falls within a porous routine. Artifacts can also contribute to repetition and recognition. What falls within the possibilities remains confused and under researched within routine dynamics raising question about the blurred nature of a routine boundary (Section 2.3.1).
- ii. *Maintaining*: Performances can result in maintaining ostensive aspects of routines "*by exercising the capabilities to enact it*". The script of a play, the musical score or recipe when enacted can maintain this capability. If the script is not followed the "*air goes out of the balloon and it just collapses*" (Feldman & Pentland, 2003 p.108). Abstract ideas can then dissipate over time. Artifacts have the potential to slow this dissipation. Routine abstractions encoded to a script can maintain a routine over time e.g. an

ancient language recorded in scrolls but are no longer pronounced is maintained “*but without ongoing performance, it becomes meaningless*” (Feldman & Pentland, 2003 p.108). This is not without its difficulties e.g. DOS and Lotus 1-2-3 software manuals (Feldman & Pentland, 2003 p.108).

- iii. *Modifying*: Actors can choose to deviate from the ostensive part of a routine when they enact it by doing new things sometimes in response to external changes. However endogenous changes have been shown to modify the ostensive aspects gradually (Feldman, 2000; Feldman & Pentland, 2003; Pentland, Feldman, Becker, & Liu, 2012). Reflexive self-monitoring (Figure 2.2) can help to explain the endogenous nature of change. The introduction of videoconferencing in the hiring routine might represent ongoing modifications “*the potential repertoire of activities that creates and recreates the ostensive aspects of the routine*” (Feldman & Pentland, 2003 p.108). Variations such as videoconference may well be desirable but its impact may go unnoticed and while inadvertently incorporated into the routine the ostensive understanding might go unaltered. This raises questions such as when do variations modify the ostensive aspects of a routine?

Ostensive and performative aspects of routines separately provide insight into continuous and endogenous change. Ostensive aspects relying on multiple understandings can result in ‘sets of possibilities’. Performative aspects relying on improvisation can result in ‘repertoires of action’ as resources are created (Figure 2.1). When combined, we can see how they mutually constitute each other and how the ostensive-performative ontology provides a theoretical lens as well as appropriate codes to unpack during data collection and analysis where variations might occur (Figure 2.2). Reflection on repertoires of actions contributes to further developing the ostensive. The sets of ostensive possibilities are improvised for action. The importance of this is that when combined both aspects provide a rich foundation for empirical research into generativity and a means to explore the routine dynamics. This generative claim provides a compelling processual basis for exploring knowledge creating. How these aspects, alongside the use of materials, are combined is discussed in more detail below (Section 2.4). But first we turn to the third part – the material aspects of routines.

### 2.3.3 *Material Aspects Resulting in Divergence as Variety*

Material aspects supplement and expand the ostensive-performative theory of routines. As “physical traces” or manifestations of an organisational routine they act as “indicators” of both ostensive and performative aspects (Pentland & Feldman, 2005b p.805). The use of ‘artifacts’ is preferred here as they are subjectively understood and are always incomplete (Lazaric & Denis, 2005; Pentland & Feldman, 2005b p.803). We return to define materials as artifacts later (Section 3.2.3). Managers create artifacts to shape actual work practices. A reception area reflecting a visitor intake routine can be captured in various artifacts such as sign-in sheets and visitor badges. However the rule or procedure embedded in an artifact is often “*quite remote from its original design or intention*” (Pentland & Feldman, 2008a; Pentland & Feldman, 2005b p.797). They note that it would be incorrect to conceptualise the ostensive aspect of the routine as within a single object such as a standard operating procedure (SOP). Indeed, if routines become documented as formal rules or procedures these artifacts might not actually become central parts of the routine definition. Ostensive understandings maybe distributed across many artifacts which reflect abstractions (Feldman & Pentland, 2003 p.96). In themselves they do not determine performances. Similarly, artifacts cannot be conflated with the ostensive as any abstract understanding is subjective, unevenly distributed across various actors and thus non-monolithic (p.101). These two forms of divergence between artifacts and different aspects of routines resulting in variety and variations are now discussed.

Firstly, as artifacts can be understood as indicators of performances, while keeping track of work processes and patterns of activities they also highlight possible divergence with how a routine is performed i.e. artifact-performance divergence. Artifacts are argued to be at the centre of routines (D'Adderio, 2011). Artifacts, as codified rules, are not necessarily understood in a deterministic sense but more as “*recipes*” (Dionysiou & Tsoukas, 2013 pp.189, 192 N5) allowing for their dynamic adaptation (D'Adderio, 2008 p.776). In the absence of artifacts these recipes for guiding action might become absent, or indeed contested. Three issues illustrate artifact-performance divergence.

- i. The first divergence relates to the relative stability in artifacts in the face of observing novel changes in performance. Novel performances, often difficult to observe, might not prompt a need to change the content/rules contained in an SOP. The written rules remain stable here even when practices or performances alter. Even if artifacts change over time they most likely will remain stable over several iterations reflecting “*relatively fixed aspects of organisational performance*” (Pentland & Feldman, 2005b p.803). This relative stability of artifacts is also acknowledged from a technological perspective in science and technology studies (STS) (Orlikowski, 1992 pp.406,421).
- ii. Second, the specificity or detail of an artifact might also illustrate artifact-performance divergence as it is difficult to be accurate or explicit about every tasks and activities to be conducted in every eventuality, as well being explicit about rules governing how those actions should be enacted. This arises when artifacts are used to transfer or replicate specific rules to new contexts (D’Adderio, 2014). Actions such as “*twisted-stretch*” in the baking example required a process of making tasks explicit when working with prototypes (Nonaka, 1994; Nonaka & Takeuchi, 1995). This conversion of tacit knowledge into explicit codified steps is argued as problematic or even impossible (Gourlay, 2006). Combined with the first point artifacts are often outdated relative to actual performances are always inadequate, unreliable, and indeed risky in terms of capturing complete understandings of routines. However, artifacts play a role in maintaining routines as they make explicit the knowledge related to them (Gourlay, 2006; Nonaka, 1994; Nonaka & Takeuchi, 1995).
- iii. A third artifact-performance divergence arises when we considered how workplace technologies influence processes of work (Orlikowski, 1992; Pentland & Feldman, 2008a; Pentland & Feldman, 2005b p.807). Artifacts as technologies, machines as objects, are relatively stable resources for action. But they can be appropriated in many different unpredictable ways by different actors. This supports the idea that artifacts don’t determine action.

Secondly, the divergence between abstractions in artifacts and the ostensive understandings i.e. artifact-ostensive divergence, requires further study (Pentland & Feldman, 2005b p.807). Checklists, forms and SOPs act as indicators and physical traces of ostensive aspects of routines. The presence or absence of artifacts is relatively easy to identify compared to the challenge posed in teasing apart the *“multiple understandings and interpretations that might constitute the ostensive”* (Pentland & Feldman, 2005b p.803). For example, formalised job descriptions can be used as a primary indicator of how a routine ostensibly comes into existence (Miner, 1990, 1991). The presence of an artifact has often mistakenly been used to reflect ‘the’ ostensive aspect of a routine. Consensual understandings of routines might differ from that included in related artifacts i.e. the artifacts-ostensive divergence. A wall sign stating “the customer is always right”, might well be ignored (2005b p.807). Procedural manuals relating to a software implementation programme introduced to exact a desired change resulted in users reverting to old ways of doing things. Here the reliance on artifacts, introduced to bring about a desired change, had unintended consequences (Pentland & Feldman, 2008a) highlighting the ‘folly’ of trying to manage artifacts within routines. We can thus ask how integral or important are artifacts within routines? Does the ‘quality’ of the artifact or its contents as perceived by multiple actors influence its perceived role in any way? Do actors sufficiently rely on artifacts to bring about desired changes or do they ignore these guiding artifacts? The ability of artifacts to play a role in guiding action in the workplace warrants further attention and might help managers understand their central or peripheral roles in guiding desired action toward desired goals i.e. influencing routine dynamics. In short what is understood about tasks to be conducted within a routine often differs from the codified steps captured in SOPs or related artifacts. The presence of multiple actors compounds this divergence. Disagreements might be present between staff and management, lecturers and students or managers and interns. The ambiguous ontological status of available artifacts which are always in a state of becoming contributes to this confusion. The discussion on artifacts so far has assumed that artifacts already exist and as strewn about. However newly introduced artifacts, in response to an exogenous change or a re-alignment of the ostensive with the performative, has only been superficially



referred to. Newly introduced artifacts can serve to sharply modify routines with new standards i.e. software implementation (Pentland & Feldman, 2008a) if they are accepted as legitimate in guiding action. Similarly, new artifacts might be created to reaffirm existing goals. The role of artifacts will be further developed later (Section 3.2.3).

In summary, this section presented three aspects of routines. Each aspect provides distinct but complimentary arguments for highlighting variety and variation. These unpack routine dynamics in different ways (Figure 2.1). In addition, guidelines for data collection and analysis were provided (Figure 2.2). When combined their mutually constitute relationship further highlights how routine dynamics becomes generative in nature (Feldman & Pentland, 2003; Pentland & Rueter, 1994) and illustrates that routines are “generative systems” (Feldman & Pentland, 2008 p.302-304; Pentland & Feldman, 2005b pp.793-795; Pentland & Feldman, 2008b). The next section now combines the variety and variations identified across these three aspects of routines to build an account of routine dynamics with emphasis on generative dynamics (Section 2.4).

#### *2.4 Generative Routine Dynamics*

While much conceptualising has occurred around routine generativity surprisingly little by way of empirical research has been conducted to substantiate this generative claim per se. But the claim that routines are inherently generative has gained increased acceptance across routines literature (Becker, 2005b; Howard-Grenville, 2005). The papers accepting this claim are outline in Appendix 2.1. Notwithstanding the research illustrating continuous change (Feldman, 2000), and more recently empirical work showing endogenous change within an invoice payment routine (Pentland et al., 2012; 2011 p.1369), there have been continued calls for further empirical work (Becker & Lazaric, 2009a; Pentland & Feldman, 2008b) to “unpack” the complex structures within routines (Salvato, 2009 p.68) and further substantiate this generative claim (Iannacci & Hatzaras, 2012; Pentland & Feldman, 2005b p.794, 810). While theorising around routine generativity remains fragmented (Section 2.3) few attempts have been made to review and consolidate the arguments above into a

holistic conceptual approach. This section addresses this gap by firstly summarising how variety and variations across mutually constitutive aspects come together into a combined understanding of generativity. Considerations such as the nature of emergence, generative action as well as the role of dualities in data analysis for generativity are presented.

#### 2.4.1 *Variety and Variations across Mutually Constitutive Aspects*

Whereas the ostensive provides the ‘script’ for performances as language, these scripts generate “*infinite variety of sentences*” leading to varied action (Pentland & Rueter, 1994 pp.489-490). Performances in turn contribute to those scripts (Pentland & Feldman, 2005b p.795) ‘generating’ interdependent patterns of action (2009 p.48, 62, 92). This view was expanded to include how materials reveal divergences (Pentland & Feldman, 2005b). Here “*each part [of the routine] is necessary, but neither part alone is sufficient to explain (or even describe) the properties of the phenomenon we refer to as ‘organizational routines’*” (Feldman & Pentland, 2003 p.95). Each part or aspect presents different arguments for variety, variation and novelty within themselves (Section 2.3). For a full picture, ostensive, performative and material variations should be combined to fully appreciate their mutually constitutive nature as a source of variety and variation. With only a partial understanding of their mutually constitutive relationship we can only at best scratch the surface of routine dynamics and in turn knowledge creating. Generativity is thus understood when we consider this mutually constitutive relationship (Figures 2.1 & 2.2). For this reason, all three aspects need to be considered together to completely unpack variety and variations within routine dynamics.

In addition, because of the presence of multiple ostensive understandings, routines have been described as “*producers of ideas*” (Feldman, 2000). As flows of connected ideas are produced they in turn produce actions. When enacted these outcomes can produce new ideas (Section 2.3) contributing to “*sets of possibilities*” (Pentland & Rueter, 1994). The phrase “*sets of possibilities*”, while initially associated with ostensive aspects i.e. how grammars can inform different actions (Pentland & Rueter, 1994) has been extended in its use to account for variation within performative aspects illustrating the mutually constitutive nature of generative

routines. The concept of “(re)combination”, within discussions on the ostensive, is used to show how actors pull from different narratives and (re)combine them to inform action (Feldman & Pentland, 2003 p.102, 112; Pentland, 1999 p.722). Re-combination has also been extended to inform performative aspects i.e. the re-combination of actions (Pentland & Feldman, 2005b p.798) to highlight how actors improvise their practices (Bourdieu, 1977). Improvisation describes how variations as a “generative dance” (Garud, Simpson, Langley, & Tsoukas, 2015) emerges from performance (Feldman & Pentland, 2003 p.102). This “improvisational” nature of actions are adjusted to account for changing contexts allowing participant actors to construct routines from a “repertoire of possibilities” (Pentland & Rueter, 1994). Materials linked with “divergence” also contribute to producing both “sets of possibilities” within ostensive aspects and “repertoires of possibilities” within performative aspects (Figures 2.3). The implication is that we should be sensitive, as researchers, to the possible sets of ideas or repertoires for possible action that can be considered as it is here we can identify the possible variety and variations that underpin routine generativity.

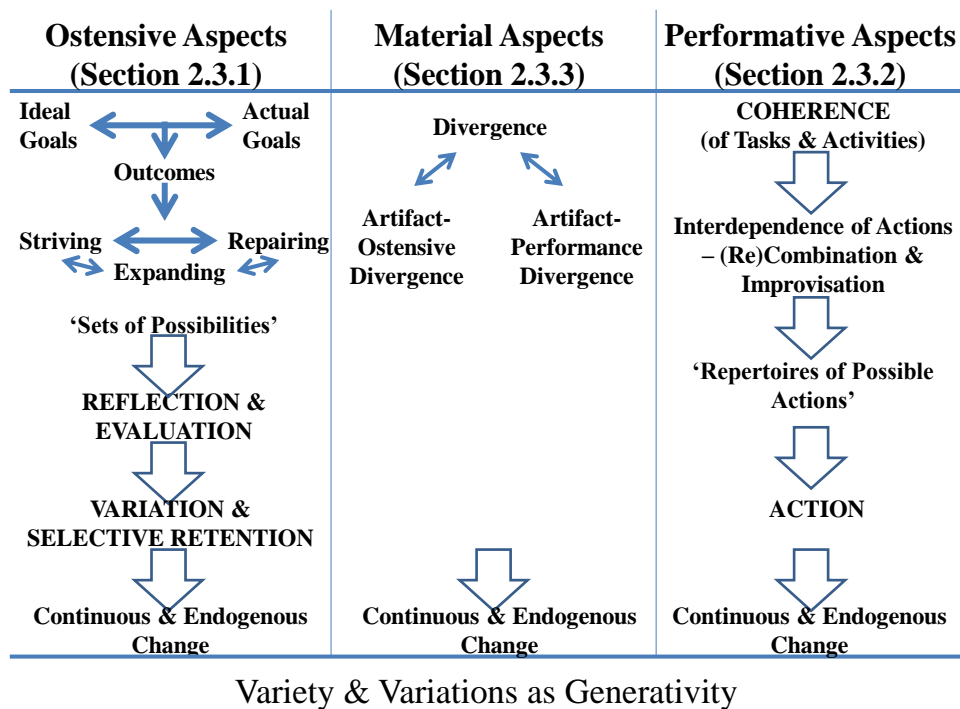


Figure 2.3 Routine Generativity Across Mutually Constitutive Aspects

A third conceptual line of thinking is that this mutually constitutive relationship involving interdependent actions (Feldman & Pentland, 2003 p.95) “*hold[s] the seeds*” for routine “*continuity*” (Parmigiani & Howard-Grenville, 2011 p.422). As this mutually constitutive relationship, between ostensive, material and performative aspects, ‘persists’ it can be said that continuity is generative. Building on illustrations of continuous (Feldman, 2000) and endogenous change (Pentland et al., 2012; Pentland et al., 2011) in routines we can ask what in routine dynamics facilitates continuity or persistence (Howard-Grenville, 2005)? The implication for this study is that dynamic aspects facilitating continuity should be sought out, during analysis, to distinguish generative routines dynamics from variety and variation that inhibit or prevent continuity.

#### 2.4.2 *Generative Emergence*

The claim that routines are inherently “*emergent*” has also garnered increased attention (cf. Garud et al., 2015 pp2-3; Nonaka & Nishiguchi, 2001). But the meaning of emergence remains unclear (Lichtenstein, 2014). In the field of strategy, for example, it has been suggested that less than deliberate strategising or “*thinking fast*” might be understood as emergent (Kahneman, 2011; Mintzberg, 1987). As noted above the emergent role of language, grammar and narrative networks (Pentland & Feldman, 2007; Pentland & Rueter, 1994) within ostensive accounts of routines, has been advanced as a means to unpack routine generativity (Iannacci & Hatzaras, 2012; Pentland & Feldman, 2007). Indeed ‘new distinctions’ from utterances has also been advanced as being emergent (Dionysiou & Tsoukas, 2013; Tsoukas, 2009a; Tsoukas, 2009b). Emergence specifically related to routines is associated with repetition, and offers a way to explain how recognisable patterns (Section 2.2) incrementally come about (D’Adderio, 2008 p.770; Feldman & Pentland, 2003 pp.97-98; Gao, Deng, & Bai, 2014). Here emergence is described in the context of our assumptions about space and time in processual analysis (Pettigrew, 1997b). Garud et al (2015) relying on Osberg et al (2008 p.223) describes that our interaction with our environment is constant and unending. They ask why unending? “*Because in acting, we create knowledge, and in creating knowledge, we learn to act in different ways and in acting in different ways we bring about new knowledge which changes our world, which causes us to act differently, and so on,*

*unendingly. There is no final truth of the matter, only increasingly diverse ways of interacting (Osberg et al 2008, p.223).*” Philosophically, as we never see the present, or seek out its truth, it can be interpreted as a future that is always unfolding (Section 4.3). Importantly emergence cannot be reduced down to any one actor, action or utterance but develops across relationships all at once over time (Lichtenstein, 2014 p.2). Emergence should not be reduced to single events but should be considered over time. This is also consistent with a need to avoid arbitrarily elevating any specific event at a point in time where knowledge is created (Table 1.1). This is consistent with the highlighted attributes of applied knowledge relevant for action which underpins ‘knowledge creating’ (Section 1.3, Tables 1.2 & 1.4).

#### 2.4.3 *Generative Action*

By focusing on knowledge related to action, knowledge is evaluated in relation to its relevance to decision making, practice and a context of implication within a context of engaged scholarship (Table 1.4). Consistent with this knowledge creating attribute (Section 1.6) the generative role of ‘action’, meaning the things that people do to accomplish tasks in routines, has received increased attention (Pentland et al., 2012). While the distinction of routines at the levels of representation versus the level of action has been the subject of much debate (Becker, 2005b), Pentland et al (2012) argue that by focusing on action we can contribute to our understanding of generative routine dynamics in five ways;

- i. Action, from the variation and selective retention of patterns, is sufficient to explain routine dynamics.
- ii. Second, that by breaking from the focus of actors, in favour of action we can overcome previous difficulties relating to the incompatibility of routines as dispositions and routines as patterns of action. With action as a common denominator we can remain agnostic about what causes it.
- iii. As action is distributed across actors and artifacts, respecting sociomateriality and agency, it is consistent with theories of practice, actor-network theory and developments relating to sociomateriality. By bringing action to the forefront this does not negate the importance of agency argued as missing

from early empirical routines research where routines were understood as inert, stable and inflexible (Feldman & Pentland, 2003).

- iv. By focusing on action, we can offer observable testable predictions.
- v. Finally by focusing on sequences of actions, as expressions of a routine, the variation and selective retention of patterns as seen through action is consistent with previous approaches grounded in an evolutionary theory of routines (2012 p.1485).

One worry is that a focus on action might over-emphasise ‘events’ instead of ‘processes’ as a basis of generativity (Section 1.2). Pentland et al (2012 p.1500) address this potential inconsistency arguing that by incorporating disposition and action in one model there is nothing essentially psychological about dispositions and that by focusing on action they acknowledge the role of “action dispositions” (Hodgson & Knudsen, 2004 p.286), which may or may not actually be expressed in current behaviour or be associated with observable action. What is understood by ‘action’ and its philosophical implication is developed later (Sections 3.4 & 4.3).

This research, consistent with Pentland et al’s argument does not break the “*methodological habit of insisting individuals are the foundation of social science theory*” (2012 p.1486). By placing action at the centre of routine generativity we can address calls to further explore properties of ‘action patterns’ (2012 p.21). By focusing on generative action and action dispositions, Pentland et al (2012) argue that the distinction between routines as dispositions versus routines and as patterns of actions (Becker, 2005a; Becker, 2005b; Becker & Lazaric, 2009a, b) is overcome and coupled with the understanding of emergence (Section 2.4.3) we have a theoretical framework that consistent with the attributes for knowledge creating (Section 1.6).

#### 2.4.4 *Dualities and Routine Generativity*

Farjoun (2010) highlights that dualisms focus our attention on opposing tensions and separateness during analysis. Instead he suggests that the complementary nature of tensions, while often paradoxical, provides a more fruitful approach. By ‘rejecting’ dualisms as a way of theorising in favour of interaction we can describe the mutually

constitutive relationship between ostensive and performative aspects as a recursively related duality (Farjoun, 2010; Feldman & Orlikowski, 2011 p.1241). Dualities provide a lens, during analysis, to appreciate generative routine dynamics as a basis for knowledge creating. The rejection of dualisms in favour of dualities is being acknowledged more in wider scholarly discussions on knowledge e.g. the relationship of tacit and explicit knowledge (Nonaka, 1994; Nonaka & Takeuchi, 1995); semantic versus syntactic learning (Carlile, 2004); knowledge and knowing (Cook & Brown, 1999; Cross, Parker, Prusak, & Borgatti, 2001; Duguid, 2005) and of course structure and agency (Giddens, 1984) to name but a few. Two related dualities, particularly relevant for routine generativity, have received the lion share of scholarly attention; the stability-change duality and more recently the social-material duality i.e. sociomateriality. These two are now discussed.

The stability-change duality has proved fruitful in unpack (Feldman, 2003; Pentland et al., 2011) and highlight routine dynamics (Feldman & Pentland, 2008; Parmigiani & Howard-Grenville, 2011 p.418) i.e. the generative claim from the mutually constitutive relationship between ostensive and performative aspects (Feldman, 2003; Pentland et al., 2011). Because routines have been previously understood as fixed and unified entities it has been difficult to explain their complex internal structures resulting in endogenous change. Exogenous aspects of change, being easier to recognise, have received greater attention (Feldman & Pentland, 2003 p.112). While establishing continuous change within routines Feldman offered a corollary in the context of budgetary routine which she found to be inert or stable. Stability, she found, can be influenced by an actor's 'idea' of the routine (Feldman, 2000, 2003). Where there are many goals and schemas present across different actors (Sewell Jr, 1992) desired routine change can be difficult to bring about. Feldman states that *"it is difficult to bring about change in organizational routines when the change is inconsistent with broader understandings about how the organization operates as these understandings are produced and reproduced by other performances in the organization"* (Feldman, 2003 p.749). Pentland et al (2011), using data on an invoice processing routine, addressed two competing theories on routine stability and change. The first, informed by a never-changing world

perspective of routines, is that routines generate “*patterns of action that are few in number and stable over time, and that atypical patterns of actions are driven by atypical inputs*” (Pentland et al., 2011 p.1369). The second theory, informed by an ever-changing world view predicts the opposite. Here they found empirically that routines generate many patterns and are not dependent on atypical inputs for this variation (Pentland et al., 2011 p.1369) i.e. endogenous change is inherent (2011 cf. pp1371-1372). Here routines are living generative systems “*where repetition can lead to variety and material artifacts can amplify this variety*” (p.1381). This finding “*contradicts the idea that change in organisational routines has to be imposed exogenously, or that you ‘need to break routines’ in order to change the behaviour or organisations*” (Pentland et al., 2012 p.16). Previous to this finding conceptual arguments claimed that endogenous change can occur “*simply as a result of engaging in a routine*” (Feldman & Pentland, 2003 p.112). Not only do routines reflect continuous change (Feldman, 2000; Feldman & Rafaeli, 2002) this change, rather than originating from exogenous factors, was now shown to originate endogenously (2011 p.1380). The implication here is that while exogenous factors, e.g. a financial crisis, may well be overwhelming we must also remain open to consider the role of endogenous factors in our analysis. The stability-change duality is catered for in data collection and analysis using ‘maintenance’ and ‘modification’ as noted above (Section 2.3.2).

The second duality focuses on the interaction of the social and the material i.e. sociomateriality. As materials have received increased attention (Pentland & Feldman, 2005b) at the centre of routines (D'Adderio, 2011) the social and material views of technology as oppositional views have come under scrutiny in favour of considering these as a sociomaterial assemblage; a duality contributing to action (Orlikowski & Scott, 2008). Pentland et al suggest that to fully understand generativity we need to “*respect sociomateriality*” (2012 p.18) when we try to unpack routines. This research is consistent with this rejection of dualities (Feldman & Orlikowski, 2011; Pentland et al., 2012 p.4). A socio-material perspective of routines is argued as being generative as it accepts that both human and non-human actors (social and material) can inform action (Gibbons et al., 1994; Orlikowski,



2007; Orlikowski & Scott, 2008). Endogenous change, underpinning routine generativity underscores the importance of sociomaterial assemblages as contributing to action in routines (Orlikowski, 2007). As noted above, Pentland et al's position argues that by focusing on action "*we remain agnostic about the ontology of actors – humans or otherwise – as long as they produce actions that contribute to patterns of actions*" (2012 p.1485). Here, consistent with practice theory, agency is understood "*as distributed [across] actors and artefacts, rather than being vested solely in humans*" (2012 p.1485). As agency is distributed across social and/or technological actors sociomateriality avoids giving "primacy" of one kind of actor over another. This agnosticism guides us as researchers in unpacking routines using a sociomaterial lens. By remaining open as to whom or what carries out actions we avoid a "*philosophical logjam*" and accept that "*regardless of who or what is acting, the action itself provides an observable, meaningful basis on which to proceed*" (Pentland et al., 2012 p.1487). This pushes us closer to a more complete picture of how to analyse generative routine dynamics. In further unpacking material aspects of routines, we return to consider the generative foundation of sociomateriality later (Section 3.4).

Guidelines informing data collection and analysis were highlighted here. Consistent with knowledge creating attributes (Section 1.6 & Table 1.4) the need to focus on generative action was highlighted supported by generative emergence and a rejection of dualisms, such as routines at the level of disposition versus action, in favour of dualities as an analytic approach. Ostensive, material and performative aspects, illustrating different but overlapping arguments for variety and variation (Section 1.3), when combined within a mutually constitutive relationship, provides a basis for generative routine dynamics (Section 2.4.1). All three aspects are required to show 'sets of possibilities' and 'repertoires for action' (Figure 2.2 & 2.4). The principle of continuity, alongside the need to focus on generative action, directs our attention to ask what facilitates or inhibits continuity? Aspects which inhibit action/continuity might not bare the hallmarks of generativity, while aspects facilitating action/continuity might. This refines our exploration of how organisational processes facilitate the creating of knowledge i.e. knowledge creating.

## 2.5 *Conclusion*

This chapter's contribution is in proposing routines theory as an appropriate processual lens for improving our understanding of the nature of organisational knowledge creating and addressing how organisational processes can facilitate the creating of knowledge. Definitional elements of routines were presented. Consistencies with knowledge creating attributes were outlined; that repetition of recognisable patterns as well as interdependent action is consistent with a processual view of knowledge creating; the acceptance of multiple actors in routines is consistent with calls for diverse perspectives when exploring knowledge creating. In addition, the focus on generative action is consistent with the focus on action in a context of application (Section 2.2). By relying on routines theory as an appropriate processual lens our attention is directed to focus on 'generative routine dynamics' to address the research question. Three aspects of routines; ostensive, material and performative, provide separate arguments around generative routine dynamics, highlighting different ways in how variety and variations can come about (Section 2.3). However routine generativity remains poorly understood and unsubstantiated in scholarly literature. This chapter addressed this gap through a review of 'generative' arguments in routines. When combined as being mutually constitutive we build a better understanding of the generative claim and arrive at guidelines for data collection and analysis (Section 2.4.1). 'Referring', 'guiding' and 'accounting' are adopted as appropriate codes to unpack the ostensive. 'Creation', 'maintenance' and 'modification' are used to unpack performative aspects. In Chapter 3 we consider materials aspects in more detail. The contribution made here is in adopting a holistic approach to understand generative routine dynamics. While partial aspects of this reconceptualised view of routines, offered by Feldman and Pentland (2003), have been addressed in research no empirical research has been presented that specially uses this mutually constitutive theory of generative routines.

### ***3 Unpacking Generative Routines: A Dialogical Approach***

#### *3.1 Introduction*

Because of its generative claim, routines theory was selected as an appropriate processual lens to address and answer how organisational processes facilitate knowledge creating (Section 2.1). However, limitations in our understanding of generative routine dynamics remain. One such limitation is that many sources cite the same original source (Pentland & Rueter, 1994) to substantiate the generative routines claim (Appendix 2.1). Also, notwithstanding predominant lines of inquiry into continuous (Feldman 2000) and endogenous change (Pentland et al., 2012) within routine generativity (Feldman & Pentland, 2008; Parmigiani & Howard-Grenville, 2011), further work is required to substantiate and unpack this claim empirically (Pentland & Feldman, 2005b).

This chapter addresses this by arguing for a dialogical approach to unpack generative routine dynamics. In Chapter 1 a dialectical method of inquiry or dialectical engagement was highlighted as an appropriate way to study knowledge creating (Section 1.6). Interestingly, Tsoukas (2009a) provides us with a dialogical theory for new organisational knowledge (NOK) arguing that dialogicality has been inadequately theorised and we have an unsatisfactory understanding of how new knowledge is created in organisations (Tsoukas, 2009a; Tsoukas, 2009b). He states that *“the essence of dialogicality is sensitivity to otherness; the realization that the categories we think and communicate with are no more individual creations but dialogically constituted through communication with others”* (Tsoukas, 2009b p.161). Guided by this Tsoukas (2009a; 2009b) proposes the use of three predominant dialogical exchanges; real other to real other; real other to imaginal other and real other to artifacts. Through these dialogical exchanges ‘new distinctions’ reflecting new knowledge can emerge. These dialogical exchanges are used to unpack the ostensive, material and performative aspects of generative routine dynamics in a novel way (Figure 2.3) and are relied on here for data collection and analysis (Section 3.2). This approach importantly supports the focus on mutually constitutive relationships in a relational way. This dialogical approach is argued here as an appropriate way to unpack generative routine dynamics.

Connections have already been made between dialogue and routines (Dionysiou & Tsoukas, 2013) but questions remain around the role dialogue plays in routine dynamics and indeed its generativity. Dialogical exchanges can highlight relationality or connectivity within routines. Through its use, we can begin to engage in a strategy of arbitrage (Table 1.3), build the density of communications between practitioners and academics (Tables 1.2 & 1.4) and ensure the relevancy of knowledge in application. In so doing a robust conceptual framework (Figure 3.1) to address the research question as to how organisational processes facilitate knowledge creating is arrived at (Section 3.2).

This chapter proceeds by reviewing how dialogue has been considered across related knowledge based theories to shed further light on how organisational processes can facilitate knowledge creating (Section 3.2). But first some additional considerations on how to proceed in unpacking generative routines were also identified in the literature. First, materials at the centre of routines, have been shown to reveal divergence between ostensive and performative aspects (D'Adderio, 2011; Pentland & Feldman, 2005b). There remains a lack of focus on the role of artifacts in routines (D'Adderio, 2011) which can now be addressed using the real other - artifacts dialogical exchange. How material aspects contribute to this mutually constitutive relationship between ostensive and performative aspects, the basis of the generative claim, needs to be addressed. A second consideration is jointly addressing the lack of agency and the use of observational data (Section 2.4) notably absent from early routines research (Feldman & Pentland, 2003). Generative action using a sociomaterial lens has been argued as a way to address these two shortcomings (Pentland et al., 2012). By "*respecting*" sociomateriality, i.e. using a sociomaterial lens, in the context of generative action the role materials play can be explored. By adopting this sociomaterial lens this research addresses the lack of agency in empirical routines. These considerations will be explored in more detail below (Section 3.3 and 3.4).

### 3.2 *Dialogue – A Basis for Understanding Knowledge Creating*

The SECI model for knowledge creation (Section 1.2) identified the role dialogue or communication plays as an “enabler” for knowledge creation (Von Krogh et al., 2000) and as a way for opportunities to be realised (Von Krogh, Nonaka, & Rechsteiner, 2012 p.260). Whereas the SECI model’s approach to ‘knowledge creation’ is paradigmatically different to ‘knowledge creating’ (Table 1.1) it conceptually acknowledges the role dialogue plays in a creating process. While disagreements regarding ‘convertibility’ and ‘amplification’ were highlighted the interaction of explicit and tacit knowledge might well be reinterpreted as a set of dialogical interactions around processes of socialisation, externalisation, combination and internalisation to inform ostensive understandings or encourage codification into artifacts (Nonaka, 1991, 1994; Nonaka et al., 1994; Nonaka & Takeuchi, 1995; Von Krogh et al., 2000).

In addition, the Mode 2 knowledge production theory (Section 1.3) suggests that by increasing the ‘density’ of communications as a means to narrow the theory-practice divide we can improve societal knowledge production and the relevancy of business school activities (Huff & Huff, 2001) by overcoming the dual hurdles of rigour and relevance (Pettigrew, 1997a). To qualify this engaged scholarship literature highlights that dialogue is not simply a question of transferring knowledge into a practice domain but is more a matter of relational engagement (Section 1.3) achieved through a strategy of arbitrage (Van de Ven, 2007). For this reason ‘*relational density*’ is an important factor to be considered during data analysis because “*communication density has increased in a dramatic fashion with the inbuilt heterogeneity providing a powerful predictor for further heterogeneous growth and its societal distribution*” (Gibbons et al., 1994 p.18). Where a density of communications is absent we might see opportunities for improving relationships and in turn societal knowledge production. An increase in density “*rests upon an interrelated three-tiered system, where each level depends upon the other two. In the production of scientific knowledge communication occurs between science and society at large, among scientific practitioners and also with entities of the physical [and] or social world*” [my addition] (Gibbons et al., 1994 p.35). This mutually

constitutive idea is consistent with the thinking in routines theory connecting ostensive, material and performative aspects. These three interrelated forms of communication mutually constitute each other but it is their difference i.e. heterogeneity, which facilitates this mutually constitutive relationship for producing knowledge. By focusing on the density of communications (Gibbons et al., 1994; Nowotny, 2005; Nowotny et al., 2001; Nowotny et al., 2003) we arrive at the first actionable guideline or criterion that informs data analysis relating to knowledge creating (Figure 3.4).

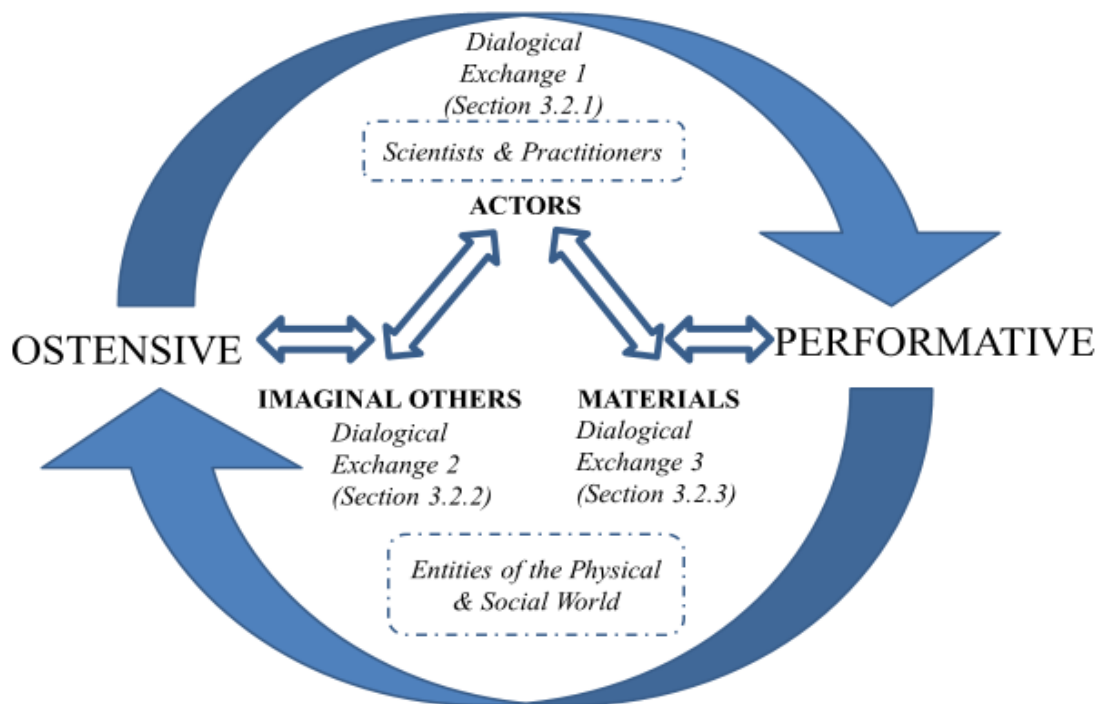
Tsoukas' discussion on a dialogical approach to new organisational knowledge (NOK) affirms the importance of mutually constitutive relationships consistent with routines theory. While the researchers outlined here have argued for dialogue as an important mechanism for change and emerging knowledge, Tsoukas argues that it remains inadequately theorised (Tsoukas, 2009a; Tsoukas, 2009b) e.g. dialogue as a basis for knowledge transfer instead of knowledge creating. In providing a solution for this gap Tsoukas advances the notion that the essence of dialogicality is a "*sensitivity to otherness*" and that the categories we use are mutually constituted through dialogical exchanges (2009b p.161). He claims that processually these exchanges are at "*the heart of interaction*" and are "*the basis for making new distinctions and, hence, developing new knowledge*" (Tsoukas, 2009b p.162).

To "*build on the hitherto available insights*", he recommends that we take "*a more fine-grained, process oriented theoretical account*" (2009b p.942). Indeed, this not only supports the use of generative routines theory as a processual lens it suggests that we need to call into question prevailing 'transfer' and 'eventual' approaches to 'creation' in favour of processual accounts around 'knowledge creating' (Table 1.1). Informed by this he asked two questions;

*"what are the generative mechanisms that lead to new organisational knowledge?" (2009a).*

and,

*"what is in dialogue that enables new knowledge to emerge in organisations?" (2009b p.942).*



**Sources:** Adapted and updated from Feldman & Pentland 2003, 2005; Gibbons et al 1994; Tsoukas 2009a, 2009b.

*Figure 3.1 Unpacking Generative Routines Using Dialogical Exchanges*

Similar to Gibbons et al's (1994) three interrelated tiers for communication, Tsoukas offers three dialogical exchanges; dialogical exchanges between human actors including scientists and practitioners (Dialogical Exchange 1, Figure 3.1) can be used to unpack ostensive and performative aspects of routines (Section 3.2.1); real others and imaginal others (Dialogical Exchange 2, Figure 3.1) can be used to unpack ostensive aspects (Section 3.2.2); and thirdly, real others and artifacts or epistemic objects (Dialogical Exchange 3, Figure 3.1) can be used to unpack the dynamics of material aspects (Section 3.2.3). It is across the dialogical exchanges 2 and 3 where entities of the physical and social worlds, as discussed by Gibbons et al's theory for knowledge production, are accommodated. Specifically, Figure 3.1 shows how dialogical exchanges will be used in this study to unpack process dynamics across the ostensive-material-performative aspects of routines where variety and variation has been highlighted. Two distinct theories, that speak to knowledge creating, i.e. generative routine theory and dialogical exchange theory, are now adapted and combined here to arrive at a more consistently robust conceptual framework for

‘knowledge creating’. This fusion of theory represents the theoretical contribution being advanced here in two ways;

- i. By combining dialogical exchange theory and generative routines theory, this study addresses Tsoukas’ call for a more fine grained processual approach to explore how new knowledge emerges.
- ii. By showing how dialogical exchanges can unpack generative routine dynamics this research illustrates how ‘dialogue’ and ‘routine’ complement each other.

By combining these two theories we are prompted to ask how dialogical exchanges can unpack generative routine dynamics and how this might contribute to our understanding of how process dynamics facilitate knowledge creating? Each of the three dialogical exchanges is now discussed highlighting consistencies with routines theory.

### *3.2.1 Dialogical Exchange: Real Other to Real Other*

Dialogical exchanges between real others i.e. human actors, represents face-to-face interactions such as those exchanges between scientists/academics and practitioners across the theory-practice divide (Gibbons et al., 1994). Aided by an increase in the massification of scientific education and a refocus of research priorities to address societal problems has resulted in industry’s increased ability to absorb graduates and increase commonalities which facilitates two way communications between academics and practitioners (Hughes et al., 2011; Rynes et al., 2001). As new forms of communication emerges networked communities (Granovetter, 1983; 1973) from different sub-systems, with different languages, or multiple ostensive understandings begin to interact more (Gibbons et al 1994 p.39). This is consistent with the focus on actor roles within the reconceptualised definition of routines (Section 2.2.1).

Real other to real other exchanges allow for continuous articulations and the emergence of new distinctions. In the bread making example (Nonaka & Takeuchi, 1995) a project manager through her interaction with a master baker could articulate the idea or goal of “twisting-stretch” (Tsoukas, 2009b p.166). As emergence has also been inadequately theorised (Tsoukas, 2009a p.942) we see how articulated meaning



as new distinctions comes about within dialogical exchanges (Section 2.4.3). Emergence, discussed above (Section 2.4.2) is thus linked to the facilitation of continuous articulations evident in the presence of new distinctions. To summarise the line of argument here, actors become objective and reflexive allowing them to exercise judgement. This results in self-distanciation and a form of intersubjectivity. New distinctions as ostensive abstractions or ideas become transposable. The objectivity within self-distanciation results in sensitivity to otherness within dialogical exchanges (cf. Dionysiou & Tsoukas, 2013 p.187-188; Tsoukas, 2009a).

But it is the idea of ‘continuous articulations’ (Tsoukas, 2009a p.941) which facilitates the continuity of routines that is mobilised here. Some tacit knowledge might be converted into explicit knowledge. However some tacit knowledge might remain “inarticulable” (Håkanson, 2007 p.58). We should not however assume that tacit knowledge should or could be made explicit (Gourlay, 2006). Whether explicit or tacit, ostensive ideas can become retained centrally within the routine. Other ideas become peripheral to a routine if not retained. We can therefore argue that continuous articulations facilitate ideas being made explicit, increasing their chances of becoming more centralised over tacit ideas which might otherwise become overlooked and remain peripheral. The way in which continuous articulations reveal peripheral or central ideas within routines becomes an important and actionable guide for data analysis.

Continuous articulation is understood as occurring in and against already constituted distinctions (2009b p.943) or an “inherited background” (Wittgenstein 1979 S94 cited in Tsoukas 2009b p.943). An employer imperfectly understanding their context might never be able to fully articulate its tacit dimension (Polanyi, 1966) to a new intern or student. But because an employer is “*subsidiarily aware*” (2009b p.943) it allows them to articulate a context of social practice, as an already constituted distinction, and communicate this through social interaction. Theorised from a routines perspective ‘continuous articulations’ contributes to how actors ‘refer’ to routines i.e. their ostensive understanding. By ‘referring’, descriptions of routines may include subjective perceptions which can become shared. Continuous

articulation thus facilitates commonality and shared understandings (Feldman & Rafaeli, 2002). Without articulating a social practice in dialogical exchanges, students as new entrants will find it difficult to understand the context of their placement. The absence of dialogical exchanges precludes continuous articulations and the emergence of new distinctions (Figure 3.2). Where dialogical exchanges are absent we can say there is a lack of ‘density’. On the other hand, the presence or ‘density’ of a dialogical exchange allows for continuous articulations and has a greater chance of facilitating the emergence of new distinctions (Tsoukas 2009b p.941). This provides a second actionable guideline for data analysis.

Even if continuous articulations are present and ideas become central there is no guarantee that these dynamics will improve ‘knowledge creating’ i.e. that the ideas are generative in nature. For this reason, we should ask if dialogical exchanges are productive and how they differ from non-productive dialogical exchanges? From generative routines theory the principle of continuity (Feldman, 2000) or indeed persistence (Howard-Grenville, 2005) comes into play here. This focuses our attention on how continuous articulations persistent and facilitate the continuity of routines as a basis of generative routine dynamics. How the density or presence of dialogical exchanges facilitating continuous articulations, generative emergence (Section 2.4.2) and generative action (Section 2.4.3) as the routine unfolds becomes important now for knowledge creating. All other things being equal, if a density of dialogical exchanges facilitating continuous articulations leads to something productive, we can therefore ask what process dynamics constrain or enable continuous articulations? This provides a third actionable guideline to inform data analysis.

The ‘modality’ of engagement, the tacit property of the dialogical situation reflecting the relational aspect of communication, rather than its content, has been offered as one way to address these issues (Tsoukas, 2009a p.944). The issue here is that an utterance’s content is not as important as the presence of the utterance itself. We might then ask how does the modality of interaction between participant actors contribute to productive dialogue? In support of this argument Tsoukas cites Bateson

(1973) noting that this modality of interaction constitutes “communication about communication” or “metacommunication”. In using Sawyer (2003) he also notes that this is also referred to as “metaconversation” or “metapragmatics” (Tsoukas, 2009a p.944). Here what is productive is equated with what is relational as we categorise what progresses, inhibits/constrains the relational aspect of dialogical exchanges.

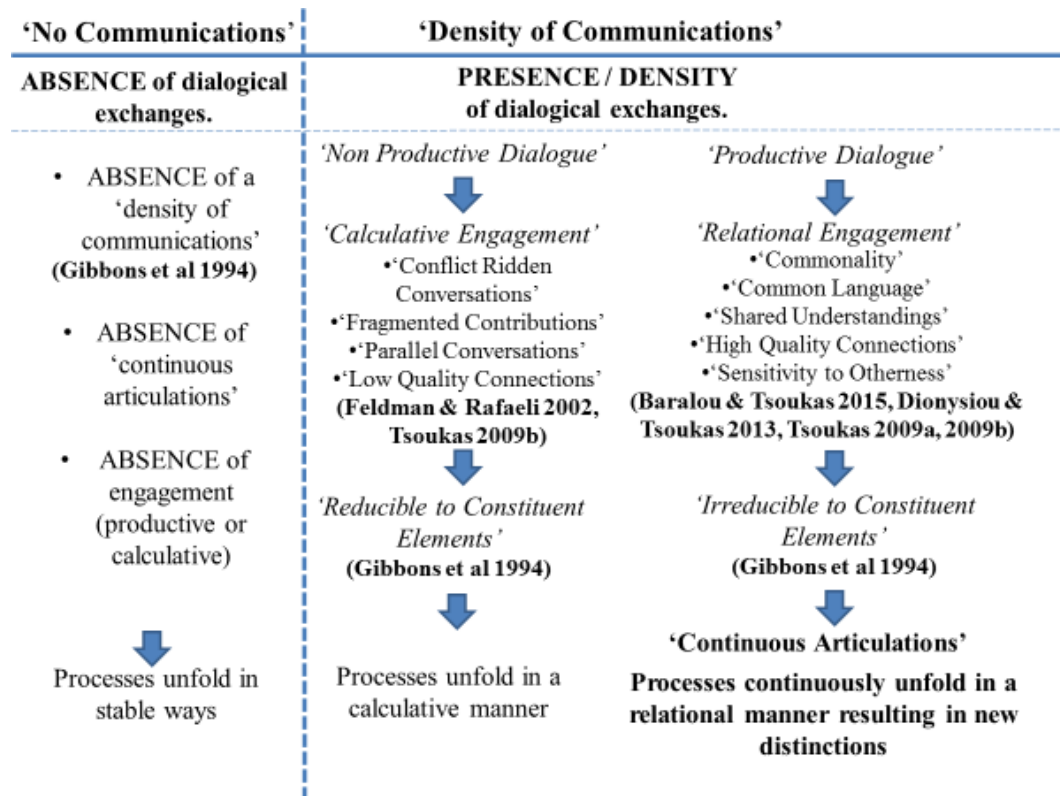


Figure 3.2 Productive Relational Engagement

As shown in Figure 3.2 two modalities of ‘calculative engagement’ and ‘relational engagement’ highlight this difference. By relying on Argyris (2002 p.7) Tsoukas outlines what we might understand as unproductive i.e. a modality of calculated engagement. Here actors engage in minimal cooperative behaviour or behaviour to maximise individual gains. This is characterised by conflict ridden conversations, with fragmented individual contributions, participants talking past each other or in parallel conversations. This can be thought of as an ‘absence’ of commonality, a common language, shared understandings or indeed shared schemas (2009a p.944). In a routines context because dialogue is suspended and closed with limited opportunities for shared understandings the connections between actors are limited and appropriate action is at best confused, lost or intentionally ignored (Feldman &

Rafaeli, 2002 p.311). Even if dialogical exchanges are present their inherent modality might not mean they are productive. Even if continuous articulations are present within these dialogical exchanges their inherent modality might not mean they are productive either.

In contrast when participants take active and joint responsibility, with another party, for enacting tasks and activities in a relationship, it is most likely to be productive (Tsoukas, 2009a p.945). Dialogical exchanges when present, facilitate continuous articulations toward commonality, a common language, and/or shared understandings i.e. productive relational engagement. Here high quality connections are more likely and have *“high emotional carrying capacity, be high in tensility, and have a high degree of generativity”* (Tsoukas, 2009a p.945). Starbuck (2006) linking the importance of dialectic thinking with knowledge production highlighted this tensility as a need to *“disturb oneself”* by seeking out contradiction and paradox during analysis (Starbuck, 2006 pp.143-146). Generativity is explained here as a high level of tension is in a context of openness or sensitivity to otherness which is at the heart of a dialogical theory for knowledge creating. Actors *“mutually experienced strangeness fuels the search for an ever-broader focal awareness and thus, for conceptual change, potentially bringing forth new distinctions”* (Tsoukas 2009a p.944). This provides a dialogical explanation for how different and multiple ostensive understandings emerge and indeed converge.

Productive relational engagement might also reflect an irreducible quality (Figure 3.2). Irreducible knowledge is produced among various actors in *“continuous negotiation”* (Gibbons et al., 1994 p.4) and new distinctions (Tsoukas, 2009b) are recombined (Feldman & Pentland, 2003) allowing for emergence and knowledge creating. Irreducibility means that the constituent elements that contribute to the recombination cannot be identified or reduced afterward as a process unfolds. One example is where transdisciplinary solutions to problems emerge beyond and become irreducible to any one discipline (Gibbons et al., 1994 pp.4-5). Dialogical exchanges reflecting a calculative engagement without commonality or shared understandings emerging remain reducible. Dialogical exchanges reflecting relational engagement

might prove more difficult to reduce to constituent elements as the routine unfolds. Irreducibility in relation to shared schemas (Sewell Jr, 1992) will be discussed in more detail below (Section 3.2.2).

In summary, several actionable guidelines for data analysis are arrived at. First, we gain an insight into how ostensive ideas are referred to within dialogical exchanges. Through continuous articulations we gain some insight into what ideas have been retained or central compared to other ideas that become peripheral. Second, the density of communications from Gibbons et al's (1994) modal theory of knowledge production can guide us to look for where dialogical exchanges and continuous articulations are present but also where they are unexpectedly absent in the data. Third, this leads to ask what process dynamics constrain or enable dialogical exchanges and continuous articulations? Continuity or persistence discussed in routines theory may well be threatened (Section 2.4.2). By identifying aspects which inhibit continuous articulations and/or constrain relationality we can build a better understanding of what is productive. Finally, where dialogical exchanges and continuous articulations are present we get an insight into what is productive about these engagements. Productive relational engagement (Baralou & Tsoukas, 2015 p.4; Dionysiou & Tsoukas, 2013; Tsoukas, 2009a), bears similarities with generative action advanced in routines theory as being relational (Pentland et al., 2012). What is relational and thus productive focuses our data analysis on what is generative.

### 3.2.2 *Dialogical Exchange: Real Other and Imaginal Others*

As introduced, communications between science and society increasingly reflect processes of the social world (Gibbons et al., 1994; Nowotny et al., 2001). For knowledge creating 'density' is evident in a university-industry context. Traditionally a unidirectional process, with scientists transferring knowledge to a lay public, has now increasingly become a two-way process. Societal expectations, especially in recessionary times, has increased the need for social and financial accountability impacting on the applied nature of research goals (Section 1.3). As researchers adapt their priorities, how their goals speak to societal problems becomes a matter of facilitating dialogue and engagement. Accountability has driven relevancy discussions in relation to business school activities (Bartunek, 2011; Huff,

2000a, b; Huff & Huff, 2001) with higher education institutions (HEIs) taking on commercial roles e.g. developing intellectual property (IP) (Agrawal, 2001; Agrawal, 2002b; Agrawal & Henderson, 2002) alongside employers increasingly engaged in academic research. Density is reflected in the blurring of “*older demarcation lines and boundaries*” which are “*more porous or break down altogether*” (Gibbons et al 1994 p.37) resulting in increased commonalities, relational engagement (Bartunek, 2007) and opportunities to overcoming the dual hurdles of rigour and relevance (Pettigrew, 1997a; Van Aken, 2005). Advances in enabling technologies also facilitates an increase in density and engagement (Orlikowski, 1992; 2007; Von Krogh et al., 2000) e.g. information communications technology (ICT), including email and the internet. As natural scientists aim to “*make nature speak*”, often through manipulation and control to improved how they approach the “*object[s] of their study*”, social scientists aim to “*make their subjects speak*” through a less forceful “*communicative practice*” (Gibbons et al., 1994 pp.40-42). They also note that “*there has been a stupendous growth of techniques, sophistication of concepts, instruments and tools that have increased the richness of the language in which scientific communication is carried out*” (1994 p.41). Philosophically text can be made to “*speak for itself and even against itself*” (Derrida, 1976). To move forward we must fill “*the interstices and gaps in ..[the]... dialogical form of communication with nature. The more sophisticated and complex society becomes, the more dense [sic] will be the context and form of the dialogue with nature*” (1994 p42). With this as an additional rationale for considering varied forms of dialogical exchanges we turn now turn to discuss the second dialogical exchanges with ‘imaginal’ or invisible others which help us to see richness in language, understand how texts speak for and against themselves and how research priorities such as ‘goals’ contribute dialogically to new organisation knowledge (Baralou & Tsoukas, 2015; Tsoukas, 2009b).

Tsoukas refers to these exchanges as “quasi-dialogical exchanges” due to the difficulties in reciprocating to utterances involving artifacts and imaginal others (2009a p.166). In routines literature Feldman notes that “*children must be turned into students to enable teachers to enact teaching schemas*” (Feldman, 2004 p.296). In acknowledging a broader view of dialogue a dialogical partner or ‘other’ is not just a

real other but also includes imaginal others reflecting roles as ‘teachers’ or ‘students’. Drawing on Mead’s (1934) concept of the ‘generalised’ other, the taking of roles occurs in three stages. The ‘play stage’ is where the individual imitates others without seeing the world from their perspective. The ‘game stage’ is where the individual adopts the attitudes of the others learning their worldview. The ‘generalised other’ is where the individual learns to adopt the attitudes, roles and relationships from a perspective of “*the whole community or social group*” (2009a p.162). Mead provides an example of a baseball player adopting and understanding the attitudes of the team as they learn the points of view and imagine the roles of others (Tsoukas 2009a, Dionysiou & Tsoukas 2013 p.187). The flute maker, deciding if a flute is of sufficient quality, might comment that it “*doesn’t feel or look right*” invoking an “organised attitude” (Mead 1934, Cook & Yanow 1996 cited in Tsoukas 2009 p.163) common to members of the flute player ‘community’. Without considering the response of the flute community e.g. a generalised other, to evaluation of the quality of the flute, in isolation, would become meaningless.

Another example is how a member of the public reacts to a painting of a woman in a gallery reflecting three steps; valuation, imaginal response, and counter-response. A valuation such as ‘thinking negatively’, about one’s life, might lead to an imagined response from the woman who might say ‘have more faith in people’. This might result in a counter-response incorporating this into a new valuation resulting in new distinctions (Tsoukas, 2009b p.167). The painting example shows that imaginal others are also intertwined with artifacts such as books which prompt dialogical exchanges (Tsoukas 2009a p.165). We return to this below (Section 3.2.3).

These examples (Table 3.1) highlight that we as individuals are never alone and are always in collaboration (Watkins, 2000; Wolf Shenk, 2014), always in a state of becoming (Costas & Grey, 2014) as we find ourselves “*talking, arguing and responding to others, such as critics, friends, gods, their own consciousness, photographs, figures in their dreams or in the media*” (Tsoukas, 2009b p.166). Mead’s concept of self is “*interactively shaped*” rather than being a “*self-contained, unitary entity*” (p.163) and reflexivity facilitates the emergence of a generalised other within hidden dialogues.

<b>Example</b>	<b>Imaginal Others</b>	<b>Description &amp; Implications</b>	<b>Sources</b>
<b>Residential Life Research</b>	'children', 'students' & the role of 'teachers'	Teaching schemas turn children into students - changing roles connecting related schemas.	(Feldman, 2004 p.296).
<b>Reading, Writing &amp; Reviewing</b>	'the writer', 'author', 'reader' as well as 'reviewer' of texts.	The varied roles in dialogical exchanges are linked to artifacts. Interviewing involves imaginal dialogues with authors open up "horizons of possibilities" (Kvale 1996 p.182) similar to "sets of possibilities" (Section 2.3.1).	Tsoukas (2009b p.165), Nonaka (1994), Nonaka & Takeuchi (1995), Kvale (1996 pp.182,184 & 186).
<b>A Painting</b>	'the woman' in a painting', the 'painter' as author, & 'admirer'.	Valuation of the admirer resulting in counter-responses across related roles can result in new distinctions.	Herman & Kenpen (1993 pp.158-161) & Tsoukas (2009b p.167).
<b>Reading Bank Statements</b>	'the banker' & the 'jealous spouse'	Illustrates how different roles in reading bank statements will result in different conclusions.	Tsoukas & Mylonopoulos (2004 S3)
<b>Thinking &amp; Theorising</b>	Talking to 'oneself' often in silence	Watkins (2000) relying on Plato claims that in thinking the soul is talking to itself and we can never be fully alone. 'The self' in a process of theorising results in conversations i.e. seeing things in the 'mind's eye'.	Ryle (1949 p.27) & Watkins (2000).
<b>Team Player</b>	'the player' & 'the team'	The individual's relationship with a social group highlights the 'organised attitude' as an imaginal other. A baseball player's role is controlled by individual and collective team roles altering responses during the game.	Mead (1934 p.154), Tsoukas (2009a) & Dionysiou & Tsoukas (2013 p.187).
<b>The Flute Maker</b>	the flute 'maker', 'player' & 'community'	A flute player's relationship with the community as a social group highlights that the generalised other and concept of self are mutually constituted.	Mead (1934), Cook & Yanow (1996), Baralou & Tsoukas (2015 p.5).
<b>Residential Life Research: Dorms</b>	'dormitories' versus 'residences' reflecting roles of 'building service provider' or 'aggrieved landlord'	How the ostensive understanding of roles link to related responsibilities and what should be enacted - influences service delivery i.e. enactments within a student housing complex.	Feldman (2000), Feldman (2004).
<b>Residential Life Research: Bulimia Case</b>	'landlord' versus 'educator' & 'individual event' versus a 'community event'	Roles and responsibilities influence service delivery to reflecting the broad role of educator rather than a narrow role of landlord. The bulimia case as a community issue rather than an isolated case bring difference meanings	Feldman (2000), Feldman (2004).
<b>Routine Dynamics</b>	'the little red riding hood' and interviewing characters	The methodological approach to seeking out ostensive aspects of routines by looking at narratives and roles is reaffirmed.	Pentland & Feldman (2008 p.289).
<b>Nuclear Bomb Damage Assessment</b>	'blast' versus 'fire' damage	The goal to assess damage from a nuclear bomb is evaluated using 'blast' or 'fire' damage. These concepts as goals to assess blast, influences what becomes selectively retained and the dynamics of the routine.	Feldman & Pentland (2008), Eden (2004).
<b>Radiology Dept.</b>	New Scanner in a Radiology Department	New technology provides 'scripts' that guide action	Feldman (2003)
<b>Hudson Bay Blankets</b>	"a means of keeping people warm"	An artifact suggests or symbolises an imaginal other that guides actors on how to use the artifact	Sewell (1992 pp11-12).
<b>Capitalism - concept</b>	"never in its history has capitalism obeyed uniform "laws of motion"	A label might not be consistent with its underlying regularity. Used as an example of being careful about structure of language alone as a basis for assessing action – emerging capitalism.	Sewell (1992 pp24-25).
<b>Nature - concept</b>	'nature' & 'society'	Entities of the social and physical world - artifacts making nature speak and making subjects speak.	Gibbons et al (1994 pp 40-41).
<b>Marketing</b>	'goods' versus	Labels for markets impact on understanding	Levitt (1960).



<b>Myopia - concept</b>	'people'	substitute products, separateness transport & the 'silver screen' versus 'entertainment' – influences routine performance.	
<b>Exercising Judgement</b>	Judging new distinctions	Articulations reflect exercised judgement revealing new distinctions and concepts as imaginal others	Tsoukas (2009b), Dionysiou & Tsoukas 2013)
<b>Master Baker</b>	'twisting-stretch'	To meet the goal of good bread embedded in a concept of twisting-stretch.	Nonaka & Takeuchi (1995 p.101).
<b>Economic Rationality - concept</b>	'consultants' (p.581) & 'managers' - being rational as a role (p.579).	Symbolic roles impacting the persistence of rationality in decision making. The implications of the 'economic man' and conventionalising the 'rational manager' in practice and in theory.	Cabantous & Gond (2011 pp.579 & 581).
<b>Identity theory - concept</b>	'the homeless' at the New York Port Authority.	Identity theory study on how employees use identity theory as imaginal others impacting on practices	Feldman & Orlikowski (2011 p.1240).
<b>Aircraft carrier Crew – identity.</b>	'crew' of an aircraft carrier	The 'crew' of an aircraft carrier.	Orlikowski (2010)
<b>Aircraft Manufacturing</b>	'crew' as 'us' versus 'them'	The 'use' versus 'them' reflecting a sensitivity to otherness linked to artifacts i.e. sitting arrangements.	Feldman & Rafaeli (2002)
<b>Org. Identity</b>	'the organisation'	The identity of the organisation and shared understandings of organisational identity	Feldman & Rafaeli (2002)
<b>Knowledge Transfer</b>	'land manager' versus a 'sea manager'	How perceptions of roles can impede knowledge transfer.	Empson (2001)
<b>Student Roles</b>	Student as 'intern' & as 'employee'	That student's roles transition during their time on placement	Gracia (2010)

*Table 3.1 Imaginal Others as Goals, Roles & Concepts*

It is evident here that routines theory is replete with references to imaginal others (Table 3.1). But this construct has received little attention in favour of focusing on goals, roles and schemas. But ostensive aspects of 'referring', 'guiding' and 'accounting' (Section 2.3.1) can be explained and unpacked further using the imaginal other concept as reflexive sensemaking (Dionysiou & Tsoukas, 2013; Weick et al., 2005) (Section 3.2.1). If transposable, shared schemas emerge. As resources they can become shared action dispositions (Hodgson & Knudsen, 2004) informing routine enactment (Section 2.2.1 & 2.4). By preserving a 'sensitivity to otherness', where we are never alone (Tsoukas, 2009b; Watkins, 2000 p.166) and are always in collaboration (Wolf Shenk, 2014), imaginal others can be used to unpack, and explain the link between ostensive, material and performative aspects (Figure 2.2).

Table 3.1 summarises examples of imaginal others that link 'goals' with 'roles' and available guiding 'concepts'. 'Concepts' will be considered under the umbrella of performativity theory below where artifacts such as books, paintings, canteen seats

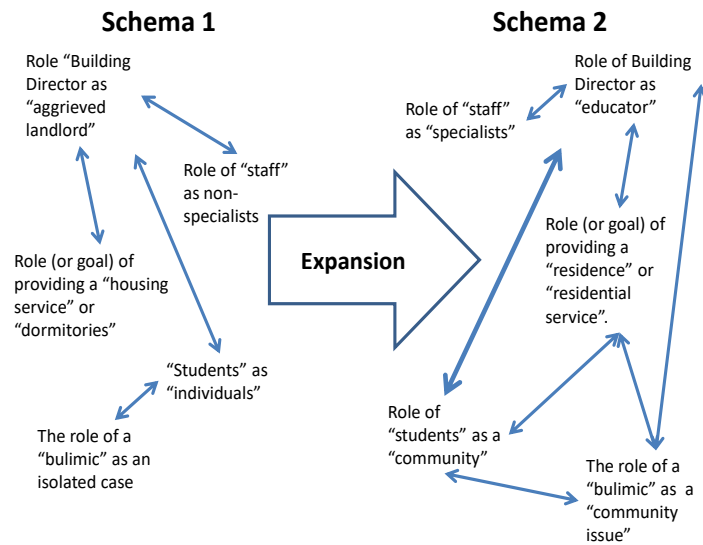
are shown to incorporate imaginal others (Section 3.2.3). Nonaka & Takeuchi (1995) also described how asking if ‘this bread tastes right?’ was conceptualised as ‘twisting-stretch’. Similarly a flute would meet an acceptable quality, as a goal, if accepted by the flute community (Baralou & Tsoukas, 2015; Mead, 1934). The goal to understand nuclear damage is influenced by concepts of ‘blast’ versus ‘fire’ damage (Feldman & Pentland, 2008). Such labels as ‘the homeless’, ‘the crew’ as well as roles of ‘consultants’, ‘managers’, ‘the child’, ‘students’, ‘teachers’, ‘educators’, ‘landlords’, ‘the community’, ‘the bulimic’, ‘the specialist’ and ‘the building director’ can all be found to be intertwined with goals, roles (Simpson & Carroll, 2008) and concepts reflecting benefits as ostensibly understood by actors and relied on in dialogical exchanges. This complexity can be illustrated by reinterpreting the bulimia case from routines theory.

*The Bulimia Case:* How routine performance alters can be illustrated by considering the imaginal other as a theoretical lens (Pentland & Rueter, 1994) to reinterpret the Bulimia Case where suspected cases of bulimia were found in a college housing complex (cf. Feldman, 2000; Feldman, 2004). This example can be deconstructed as follows.

After the first case of bulimia was identified the training routine was expanded and a new role of ‘specialist’ was developed. As the performative aspect of the training routine was expanded the ostensive understanding of the training routine remained the same. The second incident of bulimia, where the smell from public toilets was seen to impact on other students, information and advice to obtain medical assistance was provided locally by the newly trained specialist. Because this was handled locally by the specialist it was not considered a community matter i.e. it wasn’t considered an issue impacting on the ‘community of residents’ (cf. Feldman 2000 p.618).

In absence of being aware of the second case the role of the building director did not change. This frustrated the building director as it put him in the position of acting as an ‘aggrieved landlord’ providing a ‘housing service’ of ‘dormitories’. As the awareness of a ‘bulimic’ resulted in changes to the training routine with allocated resources for specialist roles it altered the role of the ‘buildings director’ and

hampered his ability to be an effective ‘educator’ providing a ‘residential service’. His ability to educate ‘the community’ and manage reactions to the suspected bulimic thus was hampered.



*Figure 3.3 Grammars of Action Influencing Routine Enactment*

This example illustrates the connectivity between goals, roles, concepts and their related responsibilities. Imaginal others incorporate multiple mutually constitutive concepts with definitional qualities i.e. the definition of a ‘dorm’, a ‘housing service’ or a ‘residence’. This influences and is influenced by perceived nature of roles either as ‘an educator’ or as a ‘landlord’. The former role suggested tasks, activities, and related responsibilities to educate residents regarding bulimia. The latter role of landlord might result in a narrow focus on responsibilities for such tasks and activities that might fall outside the housing routine and thus loose legitimacy. The goal to provide a residence can be seen to influence what tasks and activities fall within the coherence of a service provision routine.

Figure 3.3 shows how two interpretations can be understood as schemas (Feldman, 2000; Sewell Jr, 1992) reflecting narrative networks (Pentland & Feldman, 2007) or grammars of action (Pentland & Rueter, 1994). Schema 1 reflects a narrow vision of tasks and activities and indeed roles and responsibilities relating to a narrow goal to provide ‘a dormitory’ or ‘housing service’, which in turn de-legitimises a broader set of tasks and activities. The imaginal others of ‘aggrieved landlord’ suggests a detached role compared to those relating to being an ‘educator’. Schema 1 suggests a

narrower ‘set of possibilities’ or ‘repertoires for actions’ (Figure 2.2) alongside aspects of ‘calculative engagement’.

Schema 2 appears to expand the goal to provide ‘a residential experience’ and in so doing expands the understanding of roles and responsibilities and legitimises a broader set of tasks and activities relating to ‘students’ as ‘a community’ and the ‘building director’ as ‘an educator’. These suggest a wider ‘set of possibilities’ or ‘repertoires’ for possible actions. Arguably because of the potential for connections Schema 2 is more in line with descriptions for ‘productive relational engagement’. These connections and shared understandings illustrate emerging variations within routine enactment (Feldman & Rafaeli, 2002). As engagement shifted to a local specialist away from the building director perceived aspects of roles changed. Dialogical exchanges with multiple simultaneous roles might have encouraged the specialist to communicate more clearly with the building director i.e. presence of a dialogical exchanges to encourage continuous articulation, to ensure his role was not narrowed down to that of aggrieved landlord. The routine here became inhibited and constrained in the short run. Rather than the routine dynamics reflecting something relational it became more calculative, short term with concepts becoming peripheral.

*Irreducible Shared Schemas as Generative:* Feldman (2000) relies on Sewell’s discussion of schemas including organisational schemas (Rerup & Feldman, 2011) to illustrate differences in how routines are enacted. The bulimia case illustrates two grammars of action with goals including their benefits, roles, and their related responsibilities, as well as concepts, which legitimise various tasks and activities. Some are selected and retained for future enactment (Feldman & Pentland 2003 p.113). It is these networks or grammars ‘of action’ when combined using imaginal others that we can see a retaining influence (Pentland & Feldman, 2007; Pentland & Rueter, 1994). Similar to processes involving self-distanciation and reflexivity resulting in sensitivity to otherness and new distinctions, individuals develop “*schemata about objects, roles, situations, and events and their sequences, actions and so forth*” (Dionysiou & Tsoukas, 2013 p.191). According to Gibbons et al, as we are socially accountable individual actors “*cannot function effectively without reflecting – trying to operate from a standpoint of – all the actors involved*” (1994

p.7). Sewell's (1992 p.8) prefers an understanding of 'schemas' as 'inferred recipes' rather than deterministic rules (Dionysiou & Tsoukas 2013 p.192). Through engagement, ideas can become transposable and shared schemas or shared action dispositions as inferred recipes emerge (Dionysiou & Tsoukas 2013 p.193). Because of continuous articulations, shared schemas suggest commonality and thus centrality within a routine. As shared schemas are irreducible and "*cannot be reduced to their existence in any particular practice, or any particular location in space and time: they can be actualised in a potential broad and undetermined range of situations*" (Sewell 1992 p.8) they reflect generativity. Shared schemas or ensembles of dispositions are irreducible to any one participant actor once they emerge. This irreducibility, as emergence, combined with the lack of predictability reveals a generative quality (Section 3.3.1). For shared schemas to emerge, commonality from continuous articulations is present. If centrally understood it suggests something productive from that engagement.

*Shared Understandings of Roles as Guiding Scripts:* According to Tsoukas (2009a) if a person wants to become a manufacturing manager or a design engineer they enter into a "*social practice*" which brings with it a "*discursive practice*" whose role is "*constituted through the normative use of language*" (p.943). To be in a social practice "*is to experience one's situation in terms of already constituted distinctions, concerning basic tasks, notions of competence and quality, orientation to time, understandings of reciprocity and authority, etc., expressed through the discourse that defines the practice*" (p.943). Not only might the role(s) be subjectively or objectively held Tsoukas notes that if inter-subjectively held both individual's subjective and objective positions can become broadly understood or agreed and expressed openly or explicitly. Also evident is the multiplicity of roles held simultaneously. Role taking is argued as resulting in distinct selves leading to routine creation and re-creation (Dionysiou & Tsoukas, 2013). Humans can become objects of themselves. By taking on the roles of others, in anticipation rather than in 'position', they can place themselves in different lines of action which "*fit together to form joint action*" (2013 p.186). A 'self' emerges "*insofar as individuals interact in the context of a joint activity*" (2013 p.187) exemplified in Mead's baseball player

example (Table 3.1). A process of co-constituting is evident. These distinctions of roles from ‘student’ transitioning to ‘employee’ during a placement (Gracia, 2010), and from ‘building director’ to ‘educator’, suggests a script can change role structures (p.626) which can be understood as emergent. The acknowledgment of the housing director being an educator changes or expanded the role structure, the script, and the discursive practice. ‘Being the...’ or ‘the role of...’, if present in the data, are inherently linked to and can inform data coding processes (Saldaña, 2009). Feldman illustrates how the introduction of a scanner to a radiology department altered the scripts used to interpret role structures. In a manner, similar to how actual and ideal goals change routines, these scripts can influence change in organisations. According to Feldman they “*introduce the actions and reactions of agents into the otherwise inert structure*”. This structure is not solid and immutable but malleable (cf. Hodgson, 2008).

Imaginal others as a concept can also capture the idea of imaginal future selves or roles (Costas & Grey, 2014) in that “*power is exercised as individuals’ construction of future identities are targeted, placing them in a constant disciplinary state of becoming*” (2014 p.910-911). It is the processual treatment of roles as “becoming” rather than as a destination that is important here (2014 p.910). Articulated routine goals guiding enactment brings with them a perception of future roles and associated benefits. The goal to win a game is inextricably linked to the imaginal other of ‘the team’ (Mead, 1934 p.154) and the benefit of being in the role of ‘a winner’. By using goals, linked to future selves, and incorporating benefits, in a discursive practice we can influence social practices. Sets of possibilities in the discursive practice and repertoires of enacting tasks and activities in the social practice become aligned as these goals, co-constituting roles guide how a routine emerges. When newcomers become socialised to a new organisational reality, they establish situational identities and engage symbolic interactions with others. Mead contends that it is this process of symbolic interactionism as constituting a process through which “*meaning is created, shared, maintained, and changed*” (Dionsyiou & Tsoukas 2013 p.187). We will return to discuss symbolic interactionism below (Section 3.5).

*Imaginal Others as Hidden Dialogues*: Tsoukas draws on Bakhtin's work on utterances. He describes a dialogue between two persons where the statements of the second person are omitted but the general sense is not violated. The participant who an utterance is directed at i.e. the 'addressee', becomes during a conversation an "indefinite, unconcretised other". This other represents a "hidden dialogicality" (Bakhtin 1984 p.97 cited in Tsoukas, 2009b p.164). While a broad perspective on the imaginal other reflecting goals, benefits, roles, responsibilities as well as concepts, has been presented here, it is how imaginal others in dialogical exchanges can explain routine dynamics that reflects their explanatory power. This has been previously overlooked in routines literature.

In support of Tsoukas' conceptualisation of dialogicality Kvale (1996) also places interview as conversation, at the centre of informed analysis noting that broader dialogical research considers 'texts' as imaginal i.e. the imaginal appears within texts and that the relationship between a researcher and a transcript is a continued imagined dialogue which unfolds its "horizon of possible meanings" (1996 pp.182,184 & 186).

The contribution being made here is in acknowledging how these hidden dialogues can minimise fragmented pictures of generative routine dynamics (Section 2.3). By extension this has an implication for our understanding of knowledge creating. If knowledge creating is not dependent on convertibility, sharing or amplification (Gourlay, 2006), we see accept that knowledge can be created by individuals working 'alone', but who are never truly alone, as they engage imaginal others in dialogical exchanges (Section 2.1.1).

### 3.2.3 *Dialogical Exchange: Real Other and Artifacts*

The third quasi-dialogical exchange involves artifacts (Tsoukas, 2009b) and compliments exchanges with imaginal others. Pentland et al note that "human memory is not the only source of retention" (2012 p.20) and by incorporating artifacts we can reveal the constituents of knowledge creating processes. Whereas Gibbons et al (1994) refers mainly to physical objects or entities of the physical and social world, artifacts can evoke reflexive conversations (Schön, 1983, 1987) and as

epistemic objects are potential conveyers of knowledge (Pratt & Rafaeli, 2006 p.283) or rationalities (Cabantous & Gond, 2011) at the centre of routines (D'Adderio, 2011). Tsoukas (2009b) calls for a greater and more specific focus on artifacts in dialogical exchanges as they too can lead to new distinctions (2009a p.167 & 2009b p.953). Empirically artifacts are “physical manifestations” (Pentland & Feldman, 2008b p.289) that can be understood as “indicators” of the ostensive and performative aspects (Pentland & Feldman, 2005b p.803; Pentland & Feldman, 2008b p.286) (Section 2.3.3.). Building on this the abstractions or ‘concepts’, introduced as imaginal others above (Section 3.2.2), which are captured in artifacts, are shown to guide enactment and influence goals, roles and concepts. Being “risky”, what is captured or codified into artifacts might not reflect the original design intent of a routine i.e. goal. To recap divergences between artifacts and both ostensive and performative aspects of routines reflect imperfections in how a routine is represented in three ways;

- i. Records of actual observed or monitored performances can remain stable as novel performances occur;
- ii. Artifacts can be inaccurate failing to capture tasks, rules and actions which becomes obvious as procedures especially if transferred to new contexts
- iii. Finally, as technology’s objects can be appropriated in different ways these artifacts do not determine action (Section 2.3.3).

Divergences between artifacts and the ostensive relate to ‘meaning’. Artifacts embedded in routines should not be mistaken for the routines themselves and are not so much rules or prescriptions (Van der Steer, 2009 pp.160-162) but are ‘representations’, as imperfectly perceived by multiple actors (Section 2.2.1) of a routine itself (D'Adderio, 2011; Pentland & Feldman, 2008a; Pentland & Feldman, 2005b).

By including artifacts within data collection, we can gain additional insight into possible hidden dialogues and internal routine dynamics. D'Adderio (2008 p.771) has noted the lack of research here “*represents a missed opportunity to capture a fundamental issue in routines dynamics*”. She notes that artifacts as representations



of a routine is complicated because; “*while artefact-embedded representations of rules and routines are mostly introduced to design and manage routines, their outcomes often escape the agent’s original intentions*” (p.771). But artifactual manifestations can be used as “starting” or “reference” points for analysis even if routines cannot be fully captured or codified (Wenting, 2009 p.103). By including artifacts we can learn about the context of their production (Pentland & Feldman, 2008b p.290) and the nature of their roles in routines (D’Adderio 2011). Building on this D’Adderio outlines two additional points; firstly, in referencing Pentland & Feldman (2005b), artifacts act as proxies to observe the ostensive aspects providing “*ideal loci for observing abstract understandings and otherwise embodied views of routines; this is because they become more stable and visible, which in turn allows them to act as reference points against which variations occurring to performances can be easily detected*” (2008 p.770). Second, artifacts are “*privileged points of observation*” because abstract understandings are “*highly distributed across a complex web of people and everyday artifacts*” (2008 p.770). Echoing Pentland’s (2003) commentary on fragmented data in routines research, D’Adderio claims that if we neglect artifacts we can only “*at best*” get a “*partial picture*” of routine dynamics (D’Adderio 2008 p.770). By putting artifacts at the centre of routines we can also bridge the theory-praxis divide which is of particular interest in this knowledge creating study (D’Adderio 2008, 2011 p.582).

Similarly, the role of objects, artifacts as rationality carriers has also been neglected (Cabantous & Gond 2011 p.575). They claim “*few studies... have approached artifacts embedding rational models’ assumptions as ‘rationality carriers’ that regulate and support decision makers*” (2011 p.577). As rationality carriers, artifacts embed a priori decision processes reflecting past decision making that guide and account for decisions and patterns of actions. They note that “*rationality may be embedded in technological artifacts or tools that support actors’ decision making processes, making them more rational than they actually look to researchers*” (p.576). This is even more relevant in the context of previously excluded and hidden imaginal others. In support of this, mundane artifacts as rationality carriers have been

referred to as the “*missing masses*” or lost objects in organisational decision making (Cabantous & Gond 2011 p.576).

*Performativity & Performative Praxis:* Artifacts should not be equated with performances even though they “*may enable or constrain*” routine enactment (Pentland & Feldman, 2008b p.286). To expand upon this D’Adderio (2008) focuses on how artifacts inform the performativity of routines. Building on Pentland et al’s (2012) emphasis on generative action, the construct of performativity as a duality has potential to further inform knowledge creating as it too spans the cognitive-behavioural divide, described in routines theory as levels of representation and/or action (Becker, 2005a; Becker, 2005b). The rejection of dualisms in favour of dualities in ‘practice’ (Feldman & Orlikowski, 2011) furthers our ability to unpack this mutually constitutive relationship by looking at how artifacts interact with potential action performances (D’Adderio, 2008 p.771). This is consistent with the focus on shared action dispositions discussed earlier (Sections 3.3.2 and 2.3.1). We still have however a blurred understanding of the influence artifacts and imaginal others have on performativity. Similar to the discussion on shared schemas informing ostensive understanding, artifacts play roles in ‘framing’ performances e.g. when you have SOPs on one hand and performances on the other (D’Adderio, 2008 p.770). By referring to artifacts as intermediaries (Orlikowski & Scott, 2008 p.434) it implies that they mediate routine dynamics in some way by shaping “*the interactions between different sides of the routines*” (p.770). One example of this is how artifacts contribute to our understanding of distinct roles and how they frame action i.e. the bulimia case. As perspectives will always differ, due to the relative positions and roles within a routine, artifacts can consolidate our understanding of these roles and positions (Section 2.3.3). In the aircraft related examples two classes of workers saw the routine differently and a status of ‘us’ the ‘crew’ versus ‘them’ emerged. At lunchtime seating arrangements and service standards contributed to role distinctions consolidating a shared understanding of different influencing actions (Table 3.1). As artifacts are linked to action their mental models, ideas and concepts also inform performativity. MacKenzie et al (2006; 2007) have illustrated how economic models, as well as theories on derivatives impact action. Materials include embedded

assumptions reflecting theory informing activities and performative praxis (Cabantous & Gond, 2011). By relying and enacting daily activities we utilise theories or concepts within continuous articulations, codify them over time into artifacts, and turning such theories into social reality. Performative praxis thus requires the copresence and combination in action of three core elements; theory e.g. imaginal others, tools i.e. material, and actors (2011 p.578), bearing stark similarities to Tsoukas' (2009a) dialogical exchanges, to the ostensive-material-performative theory of routines (Feldman & Pentland, 2003), Gibbon's density of communications and the pragmatic consequence of action (Pentland et al., 2012).

*The Role of Artifacts in Maintaining and Modifying Routines:* Performances linked to achieving goals can maintain or modify routines. The maintaining role of artifacts has been addressed as codifying or anchoring the ostensive aspect of a routine where a “*significant tacit component embedded in procedural knowledge*” (Cohen & Bacdayan, 1994; Feldman & Pentland, 2003 p.101). But artifacts come in different forms such as written procedures, application forms, employment adverts, SOPs or checklists can contribute to keeping track of performances albeit imperfectly. Different roles in routine maintenance and modification are played out here. Some objects/artifacts play significant roles in bringing about routine uniformity. By centralising ostensive or performative aspects they can set down reference points for maintaining routines relative to novel performances. As reference points, variations can be compared with them so that performances can be maintained or stabilised. Nelson (2009) argues by relying predominantly on physical objects, greater uniformity can come about compared to those routines relying on social technologies. As ‘rationality carriers’ the production of an artifact also embodies a priori decision making that ‘engineers’ the artifact into production (Cabantous & Gond, 2011). Its recorded history might be clearer than abstractions that may or may not be in shared schemas. Multiple ostensives need management to maintain a desired routine goal. Narduzzo (1998) associates artifact creation with “*stabilising performances and institutionalising routines*” especially due to their relative stability over many iterations or performances. The presence or absence of objects or artifacts

is straight forward to observe compared to the presence or absence of complex multiple ostensive abstractions (Pentland & Feldman 2005 p.803).

Artifacts can also be introduced to initiate a desired change in how a routine is enacted reflecting a divergence between its content and performance (Pentland & Feldman, 2005b p.806). Feldman & Pentland (2003) highlight that; “...*ancient music or ancient languages that are no longer played or pronounced. The artifact that contains the ostensive definition exists, but without on-going performance, it becomes meaningless. A more recent example of the same phenomenon is an old manual for DOS or Lotus 1-2-3. One would have some trouble, now, following the installation procedure. These documents, like recipes from a medieval kitchen, are artifacts of routines that are no longer performed*” (2003 p.108). When artifacts exist without a performance they begin to lose meaning over time. Newly introduced policy documents or software products designed to bring about change can do so in an immediate way but outcomes may not reflect desired goals. Ideal goals can become problematic if actors revert to previous ways of doing things i.e. actual outcome (Pentland & Feldman, 2008a).

*Continuous Articulations with Prototypes:* The role of prototypes has been pointed out by many researchers (cf. Tsoukas 2009a p.167) to show things that cannot be verbalised or are too complex to remain as constructs in speech. The presence and use of prototypes in dialogical exchanges, as a special case, shows in a knowledge creating context how productive relational engagement can be informed. Prototypical objects allow for the continuous articulation of meanings and goals even in the absence of routine performance. Tsoukas (cf. 2009a p.169) describes in detail Schon’s (1983, 1987) work on architectural design where prototypes are commonly used to facilitate continuous articulations. Also in the Matushita break-making example (Table 3.1) prototypes helped “*make the individual’s handling of problems more cognitively efficient; draw together diverse specialists and provide a common language for problem solving; and crucially, provide opportunities for actors to see aspects of their tacit knowledge background*” (Nonaka & Takeuchi’s 1995 p.169). One prototype, used by many specialists, can instigate exchanges not just with the

object itself but also with the tacit knowledge retained in memory by those specialists. The prototype allowed verbalisations, continuous articulations and interpretations as productive relational engagement (Section 3.3.1). Being simultaneously stable *and* mutable artifacts have an ‘ambivalent ontological status’ (Tsoukas, 2009b p.167). As stable artifacts, acting as repositories and memory aids, they incorporate actors’ focal knowledge. But as mutable artifacts they also incorporate knowledge that is not focally known, and are thus always work-in-progress, open for further development and represent knowledge-in-the-making, are inherently incomplete and capable reflecting anticipation of being further developed (Tsoukas, 2009b p.167).

By way of contrast reports or policies that gather dust on shelves have less impact on facilitating continuous articulations and relationality. Here new distinctions cease to emerge and productive dialogue is absent (Figure 3.2). Why certain artifacts, objects or prototypes prolong or facilitate continuous articulations when others don’t becomes an interesting question? Money, as an object, provides an interesting insight into what might be understood as prototypical i.e. central (Sewell Jr, 1992 p.26). Money reflects transfers between participant actors in an economic exchange. In its simplistic sense its ‘absence’ inhibits dialogical exchange and/or continuous articulations. If their understood meaning is peripheral, older ways of acting might be reverted too (Pentland & Feldman, 2008a). Sewell (1992) draws on Lakoff’s (1989) prototype theory of categories to show that radial characteristics being non-prototypical remain peripheral. Central or prototypical characteristics within shared schemata and coherent action dispositions have greater opportunity to build connections and shared schemas. From this we can see the link between individual action and collective accomplishments in routines. Prototypes as physical objects not only facilitate continuous articulations, even after routines have ceased to be performed, they also allow for central and peripheral elements to be revealed. These in turn legitimise goals, roles, concepts to a greater degree than peripheral characteristics can.

### 3.3 *Respecting Sociomateriality*

The three dialogical exchanges outlined here are consistent with calls to unpack generative routines as they can be used to highlight where density of communications using both physical and social entities might be identified (Gibbon's et al 1994). By including previously overlooked 'hidden dialogues' (Figure 3.1, Dialogical Exchange 2), and by placing the 'missing masses' of materials at the centre of routines (Figure 3.1, Dialogical Exchange 3), we can minimise our fragmented understanding of routine dynamics, gain a better insight into how variety and variation contributes to the mutually constitutive aspects of routine generativity i.e. ostensive, material and performative aspects. In addition, by using dialogical exchanges to unpack routines this study addresses calls to respect sociomateriality, to incorporate performativity, emphasise the importance of dualities in analysis and place generative action at the heart of routine dynamics (Pentland et al 2012 p.18). This section now reviews the nature of materiality i.e. physical and social entities or technologies from a sociomaterial perspective, as it informs generative action.

*Routines as Physical and Social Technologies:* Routines have been described as a technology and as an organisational capability with an ability to coordinate action, similar to how recipes might coordinate action for a number of individuals (Nelson & Winter, 1982). Routines have been understood as 'physical' and 'social' technologies (Nelson, 2009 p.11).

A physical technology connotes "*physical inputs, apparatus, and procedures*" which are controlled with "*organisational aspects perhaps complex but largely derivative of the technology*" (2009 p.12). This considers routines from an entitive perspective, with an emphasis on inputs and outputs, and with a predictable transformative process under controlled circumstances similar to processes within systems thinking (Von Bertalanffy, 1972) and the information processing paradigm, discussed above (Section 1.2). Examples of routines dominated by technologies include Ford's production line or Toyota's approach to lean production (Womack, Jones, & Roos, 1990).

By contrast, as a social technology, human interactions are more prevalent and physical aspects of routines remain relatively simple. The normative complexity of

routines is linked to variation as opposed to its stability (Feldman & Pentland, 2003) and reflects a mixed perspective of technology as both physical and social constructions (Parmigiani & Howard-Grenville, 2011; Pratt & Rafaeli, 2006 p.280-285).

*The Concept of Materiality:* Early research elevated the role of physical technologies as an important basis for social change. This assumption began to be challenged from the 1980's with claims that social change was not because of new technology per se, but most likely as a result of choices made by people using technology. These two extremes of technological determinism and social constructivist thinking presented polarising problems and arguments (Kallinikos, Leonardi, & Nardi, 2012 p.3-5). A third and more recent approach, circumventing this polarising debate, focuses on how organisations are bound by their technology's 'materiality' focusing attention on how technologies influenced possible activities in different and hidden ways (Orlikowski, 1992, 2000; 2007 p.1436). The obvious identifiable intrinsic properties of physical prototypical objects, such as a hammer for example, related to its form (Leonardi, 2012 p.28). If the materials in a hammer are reshaped they might not fulfil their original function of hammering nails, but might be better suited as an implement for piercing holes in leather (Leonardi, 2012 p.28-29). With this distinction in mind materiality does not refer to the materials used in a technology or its physicality per se but refers to how its physical form is arranged, how it endures over space and time or has 'continuance' for multiple users. Informing our understanding of generativity, parallels can be drawn in relation to materiality to facilitate the continuance of dialogical exchanges, continuous articulations and in turn productive relational engagement (Section 3.2.1).

Consistent with this Leonardi claims that a fixed materiality facilitates constructivist theorising. Orlikowski (2000 p411-412) notes that seemingly stable technologies remain incomplete with an ambiguous ontology as they are always in a state of 'becoming' (Tsoukas, 2009b). Ashcraft et al (2009) note that generative theories in communication have over-emphasised symbolic attributes of artifacts to the detriment of their material aspects. Materiality is useful as it directs us to intrinsic

properties of technological artifacts. While appearing stable they do evolve over time. Properties of artifacts afford people the ability to do new things or old things in new ways and become “*implicated in the process of organising and social practice*” (Kallinikos et al., 2012 p.5). However, as the concept of materiality remains poorly understood the question remains as to how we delineate what is material from immaterial? Materiality relating to physical attributes directs our attention to form and affordances. Kallinikos et al comment that while production resonates with materiality alone, invention resonates less with the concept (2012 p.7). For this reason, we need to broaden our understanding of materiality.

More recently the ambiguous nature of material properties of software (Leonardi, 2010), of groupware (Orlikowski, 2000) and digital artifacts (Ekbia, 2009) compared to physical technologies has helped to broaden this understanding. Leonardi expands this understanding further by highlighting two additional properties. Firstly, that abstract ideals can be made material through instantiations in social practices and secondly that materiality can have significance, relevance or consequence (Leonardi, 2010). These properties highlight that materiality is inherently social, being created and interpreted in social contexts and that all social action is as a result of some materiality (Leonardi, 2012 p.32). Here we can see that the material aspects can be understood as having ‘affordances’. Immaterial aspects as ‘assemblages’ can be instantiated within performances resulting in material impacts or ‘consequences’ within social action (Leonardi, Nardi, & Kallinikos, 2012). It is its practical consequence that is central to our understanding of materiality’s contribution to generativity. Materiality in artifacts results in strategies being formed on the basis of how people use those artifacts (Leonardi, 2012 p.34) such as sharing information using powerpoint slides (Kaplan, 2011) or how checklists make a routine visible (D’Adderio, 2011).

*Sociomateriality and Sociomaterial Assemblages:* Sociomateriality has a distinct meaning relative to materiality and is a fusion of the social and the material. Sociomateriality reminds us constantly of the social and shifts the focus of analysis away from physical materials, their forms and/or properties of technologies per se to



how these are developed, used and enacted within tasks and activities (Leonardi, 2012 p.32 & 34). This focus on action is central to understanding generative routines (Pentland et al., 2012). Dialogical exchanges respect sociomateriality as integral to unpacking generative routines. As artifacts incorporate and are intertwined with abstract conceptualisations of concepts, goals and roles (Table 3.1) they are interpreted as ‘rationality carriers’ (Cabantous & Gond, 2011). The concepts, goals, and roles they embody are accounted for as ensembles in performativity theory. Here ‘concepts’ in addition to goals and roles highlight potential guiding within hidden dialogical exchanges. As human activities reflect social agencies, the materiality of technology allows people to do material agency. The intertwined agencies within sociomaterial assemblages have been described using the metaphor of ‘imbrication’ which suggests their mutual constitution and interdependence (Leonardi, 2011). As these agencies become ‘interlocked’ they produce “*empirical phenomena we call “technologies”, on the one hand, and “organisation” on the other*” (Leonardi, 2012 p.35). Artifacts exercise agency through their performativity (D’Adderio, 2008), through the things they do that users cannot control. In contrast to human agency, material agency lacks intentionality as these artifacts are devoid of having their own goals. For this reason, imaginal others become important alongside dialogical exchanges using artifacts. Artifacts carry rationalities alongside action dispositions. Combined these represent capacities for action. However, there are no guarantees that each is consistent in its contribution to this capacity (Leonardi, 2012 p.36).

By respecting sociomateriality inherent in routine generativity there are implications for the concept of ‘knowledge creating’. Orlikowski & Scott challenge the assumption that technology, work and organisation should be conceptualised separately and advance the notion that they are inherently inseparable under a sociomaterial perspective (Orlikowski & Scott, 2008 p.434). Rather than looking at the impact of technology as discrete entities or the interactions of technology as ensembles with taken for granted boundaries the authors argue for technology to be understood as “*composites and shifting assemblages*” (cf. 2008 p.455). This has two interesting implications for this study;

- i. The first is that technology and its role in knowledge transfer or diffusion is downplayed consistent with the processual approach to understand knowledge creating (Section 2.1).
- ii. A second implication is that if we perceived knowledge across levels of analysis we unduly impose a structure and separation on the data influencing our view of ensembles or relational ontology.

A relational ontology presupposes that the social and material are inseparable as a sociomaterial assemblage (2008 p.456). To fully respect sociomateriality we should remain agnostic about what causes action (Pentland et al., 2012). Sociomateriality, Orlikowski and Scott claim, is an ontological fusion where entities entail each other but remain hampered by our use of language which incorrectly imposes a suggestion of separation (2008 p.456 & endnote p.468). In addition the shift in focus from dualisms to dualities (Farjoun, 2010) as a basis of analysis also compliments this infused and relational ontological perspective (Feldman & Orlikowski, 2011). By adopting a sociomaterial ontological view, using dialogical exchanges to unpack generative routines, we account for both the social and the physical as they become recombined across dialogical exchanges. The understanding of assemblages blurs the boundary between artifact and imaginal others as both constitute the other. By adopting this approach “*artifact myopia*” is avoided. Instrumentality i.e. the extent to which an artifact inhibits or hampers performances, and symbolism i.e. the meanings and associations embedded within artifacts, as well as aesthetics, are therefore factors that are not precluded from analysis (Vilnai-Yavetz & Rafaeli, 2006). Coupled with sociomateriality, symbolism and instrumentality, we can reveal what “*hidden-from-view*” (Orlikowski & Scott 2008 p.465) within “*hidden dialogues*” (Tsoukas 2009a, 2009b, Dionysious & Tsoukas 2013) by incorporating the “*missing masses*” (Cabantous & Gond, 2011).

Finally, the concept of instrumentality is particularly relevant here as it accounts for the affordances the artifact provides and its impact it has on constraining or facilitating task and activities in meeting goals. In Vilnai-Yavetz & Rafaeli’s review of literature they note that an artifact’s impact on performances can be understood as either ‘high’ or ‘low’, direct and/or indirect (2006 p.12). Within combined

sociomaterial assemblages, associated meanings also have instrumentality, and we can ask how dialogical exchanges facilitate or constrain continuous articulations and productive relational engagement and whether high or low impact can reflect their central or peripheral influence on routine dynamics.

In summary, Feldman & Orlikowski (2011) recommend that we focus on dualities as a basis of ensembles as opposed to dualisms reflecting separateness. Pentland et al (2012) highlight the need to “respect” sociomateriality. This provides a foundation for using dialogical exchanges that include both ‘physical’ and ‘social’ elements. It highlights how assemblages can be used to unpack dynamics across ostensive-material-performative aspects of routines (Feldman & Pentland 2003, 2005). By remaining agnostic about what causes action we avoid giving primacy of one kind of actor over another. Here both artifacts and imaginal others potentially contribute to action (Pentland et al 2012). We now turn to consider patterns of actions in more detail.

### *3.4 Acting as (Social) Interaction, (Dialogical) Exchange, & (Relational) Engagement*

Within our empirical routines research we need to address, in a definitional way, the meaning of ‘action’ within recurrent action patterns (Becker, 2005b p.256). Tsoukas notes that there is no satisfactory answer to how new organisational knowledge (NOK) is created (2009a 2009b). He argues that “*scholars who have studied NOK have focused, quite rightly, on the social interaction through which new knowledge is generated, but have not specified what is in interaction that gives rise to NOK, nor what particular forms interaction takes*” (2009b p 160). He draws on the pragmatist philosopher Herbert Mead’s philosophy of social interactionism (Mead, 1934). The dialogical exchange approach, relied on here, is proposed as a basis for exploring this social interaction (Dionysiou & Tsoukas, 2013; Tsoukas, 2009a p.941).

Here acting as meaning making, facilitating new distinctions, is generative within and across multiple and shared ostensive understandings. The self, and by extension the other, only emerge through action as a basis for meaning making. Symbolic

interactionism assumes that people act based on meaning which can arise and/or be modified by social interactions as social acting is the basis of meaning making. Because “*through social engagements and actions we reinforce the commonalities of social structure but also probe explore and reconstrue meaning*” (Simpson, 2009 p.1334). Mead’s position is that “*the emergence of the self and the interrelating of individual lines of action in a context of joint activity represent mutually constitutive processes: a self develops insofar as individuals interact in the context of a joint activity*” (Dionysiou & Tsoukas, 2013 p.187). Interacting within social and/or dialogical exchanges is therefore generative. The density of acting as social interaction becomes the focus for data analysis (Figure 3.4). The concept of the ‘imaginal other’, informing how roles become co-constituted, is therefore relied on for data collection and analysis. As shown in Table 3.1 this is consistent with previous routines research. Within dialogical exchanges we see acting as articulating. If this becomes continuous we can begin to unpack how roles, such as the ‘the self’ and ‘the other’, guide how tasks and activities are enacted. If continuous the emergence of new distinctions is facilitated. If articulating continues the chances for engagement to become productive increases. Here acting as social interacting becomes ‘creating’ (Figure 3.4).

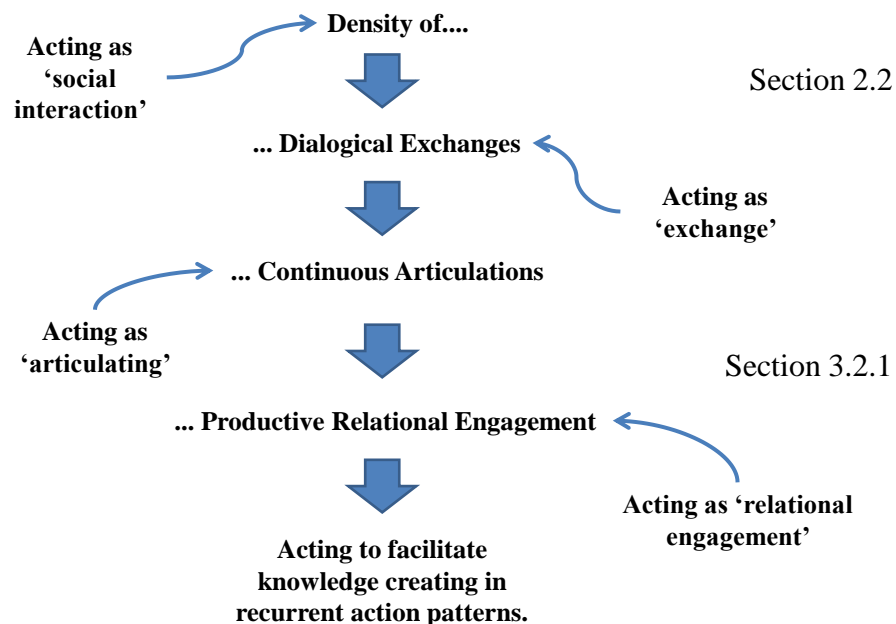


Figure 3.4 Acting as Interacting, Exchanging, Articulating & Engaging

Becker equates action in routines as interaction. Thus, the term ‘recurrent action patterns’ could be used more precisely as “recurrent *interaction* patterns [emphasis in original]” (2005 p.256). Thus, the use of Tsoukas’ dialogical exchanges is wholly consistent with Becker’s argument. Exchange as interacting reflects and indeed reveals connections in routines (Feldman & Rafaeli, 2002) and illustrates how across the ostensive-material-performative aspects meaning is co-constituted through dialogue. Acting is the basis for routine (re)creation (Dionysiou & Tsoukas, 2013). Informed by the discussion on materiality we thus consider ‘action’, ‘intra-action’ and ‘interaction’ as the basis for productive relational engagement. Within the sociomateriality discussion interaction is argued as “intra-action” (Shotter, 2013 p.33). ‘Inter-action’ as intra-action is seen from a Wittgenstein perspective as “*all in flux*”. Within the discussion of sociomateriality action has also been qualified as ‘intra-action’ and ‘interaction’ as a basis of understanding its relationality (Faulkner & Runde, 2012). Here unique ‘outcomes’ come from new distinctions which emerge from shared action dispositions (Hodgson & Knudsen, 2004). In combining dispositions with action within their generative model, Pentland et al (2012 p.17) tackle a protracted discussion on representation versus action as a basis for understanding routines. They say, rather than focusing purely on observable behaviour as action alone, we can also focus on disposition which they claim is not psychological in nature. Action disposition is an “*acquired propensity or disposition, which may or may not be actually expressed in current behaviour*” (Hodgson & Knudsen, 2004 p.286). In this case thinking is doing and are both inseparable (Leonardi, 2015). As outcomes are ‘relational’ and ‘unique’ they can also be irreducible. We return to discuss this later (Section 4.3).

This section serves to expand our understanding of generative action by respecting sociomateriality (Pentland et al., 2012) and relying on social interactionism as a basis of action (Dionysiou & Tsoukas 2013). Mode 2 knowledge production reflects interaction within the density of communications (Gibbons et al., 1994); the SECI model focuses on the interaction converting tacit into explicit knowledge (Nonaka, 1994; Nonaka & Takeuchi, 1995) as an enabler of knowledge creation (Von Krogh et al., 2000). The mutually constitutive relationship that underpins generative routines

theory (Feldman & Pentland, 2003) unpacked using dialogical exchanges (Tsoukas, 2009a; Tsoukas, 2009b) provides a more fine grained treatment of what we understand action to be (Figure 3.4). This is consistent with calls to progressively development sociomateriality, performativity and practice theory (Feldman & Orlikowski, 2011) and bears similarities to Cabantous and Gond's (2011) description of artifacts as carriers of rationalities. While remaining agnostic about what influences action we see attempts to move beyond simplistic causal explanations to more dialogical accounts of action as (social) interaction (Dionysiou & Tsoukas, 2013; Shotter, 2013). Figure 3.4 provides an overview for analysing how action facilitates knowledge creating in recurrent action patterns.

### *3.5 Conclusion: Unpacking Generative Routines Dialogically*

This chapter progresses our understanding of knowledge creating. As a process, knowledge creating is associated with our understanding of generative routine dynamics. By addressing calls to unpack routine dynamics a Tsoukas' dialogical exchange approach is utilised here (Section 3.2). Consistencies between both theories were highlighted. To address the research question as to how organisational processes facilitate knowledge creating a conceptual framework for data collection and guidance for analysis was arrived at (Figure 3.4). For data collection three mutually constitutive aspects of routines i.e. ostensive, materials and performative, identified as sources of variety and variation i.e. routine generativity, are relied on in this study (Pentland & Feldman, 2005b pp.801-808). These aspects are unpacked using three dialogical exchanges (Figure 3.1). Each theoretical approach is robust within itself, but together they provide a more comprehensive contribution to our understanding of the process dynamics facilitating our understanding of 'knowledge creating'. Tsoukas' concept of imaginal others, reflecting hidden dialogues, which has not previously been considered is explicitly relied within dialogical exchanges and continuous articulations to unpack possible variation within routine dynamics. Similarly, artifacts as the missing masses in dialogical exchanges are carriers of rationalities. Their inclusion is consistent with calls to respect sociomateriality. For data analysis purposes generative action is understood as exchange, articulating and engagement is relied on to show how acting facilitates knowledge creating in

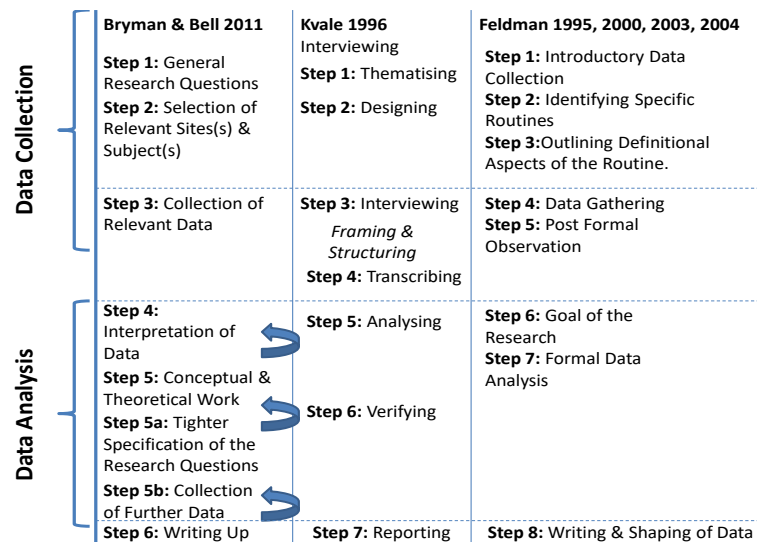
recurrent action patterns. This directs our focus to acting as interacting within dialogical exchanges where continuous articulating can lead to productive relational engagement (Figure 3.4). As processes unfold we see that social interaction and relationality (Section 3.2.1) can take on different forms toward productive relational engagement (Figure 3.4) – a basis for understanding knowledge creating.

## 4 Methodology

### 4.1 Introduction

This chapter outlines the research strategy, philosophy, and methods for data collection and analysis. To improve the quality of access and data collected the main steps (Figure 4.1) in qualitative research were followed (Bryman & Bell, 2007 pp.405-407). In Step 1 ‘knowledge creating’ attributes were identified to guide data collection and analysis (Section 1.2). The placement (Step 2), as an under researched university-industry relationship, was then selected (Section 1.3). From four categories of qualitative methods identified (Bryman & Bell 2011 p.404); qualitative interviewing; participant ethnographic observation; focus groups and language-based approaches. A plurality of methods, a knowledge creating attribute, was followed here (Section 1.6);

- i. interviewing (Section 4.5.3);
- ii. observation (Section 4.5.4) and
- iii. documentary methods (Section 4.5.5).



(Source: Adapted from Bryman & Bell 2011, 2007, Kvale 1996 and Feldman 1995, 2000, 2003, 2004)

*Figure 4.1 Steps in the Qualitative Research Process*

The underlying research philosophy and methodological issues were then addressed (Sections 4.3-4.4). Early in the data collection process the structure of the placement routine was identified around four cycles and three distinct stages. This was explored



further and found to be consistent with previous internship/placement research (Section 4.5). Comparisons across cycles and stages would show variations during analysis (Figures 4.4 & 4.5). These comparisons exposed conflicts, paradoxes, and tensions for analysis purposes (Step 5). Generative influences around productive relational engagement helped to focus the research objectives (Sections 4.2, 4.5 – 4.7). Collectively, by unpacking productive relational engagement, i.e. dialogical exchanges in routines, a unique understanding of process dynamics emerged. Computer aided qualitative data analysis software (CAQDAS) made the process of data collection, retrieval, and analysis more transparent, accessible, and efficient (Section 4.7). Writing up occurred concurrently with all steps of the research process (Step 6). This included memo writing, vignettes, and conference papers (Bryman & Bell, 2011 p.407; Feldman, 2000). While depicted in a linear fashion this was atypical as the process was iterative and circular involving constant comparisons (Pettigrew, 1997b pp.339-340 & 343) between provisional theoretical approaches, data, and the embedded researcher's pre-understandings (Martela, 2015 pp.543-551). These iterative cycles of conceptual and theoretical work, consistent with previous routines research (Feldman 1995), continued to inform data interpretation (Steps 3 & 4). Aspects central to generative routine dynamics emerged in the writing. Their centrality exposed how they were evaluated and retained. Absence and peripheral aspects i.e. not retained, were also exposed. This provided an insight into what was central to productive relational engagement and in turn knowledge creating.

#### *4.2 The Research Question & Objectives*

As introduced (Section 1.5) and building on the theory (Chapters 2 & 3) this section outlines the research question and objectives. The research question (Figure 4.1 Steps 1 & 5a) asks how can organisational processes facilitate the creating of knowledge **and** what is the nature of organisational knowledge creating? This question establishes the primacy of a processual approach to organisational knowledge creating. The primary objectives outlined show how this question is addressed as a question of unpacking routine dynamics using dialogical exchanges in a novel university-industry context. How action is linked to knowledge creating is understood as productive relational engagement (Table 4.1). Objectives 1 & 2

establish the importance of a processual context for data collection in relation to knowledge creating (Section 1.2).

	<b>RESEARCH QUESTION &amp; OBJECTIVES</b>	<b>KEY SOURCES &amp; SECTIONS RELIED ON</b>
<b>QUESTION</b>	<b>Research Question:</b> <i>How can organisational processes facilitate the creating of knowledge and what is the nature of organisational knowledge creating?</i>	(Tsoukas, 2009b), (Tsoukas & Mylonopoulos, 2004), (Chia, 2013), (Van de Ven, 2007). <b>Section 3.2</b>
<b>CONTEXT</b>	<b>Research Objective 1:</b> <i>How can interactions in university-industry processes facilitate the creating of new organisational knowledge?</i> <b>Research Objective 2:</b> <i>How can internship/placements processes reveal knowledge creating characteristics?</i>	(Gibbons et al., 1994) (Narayanan et al., 2010) <b>Section 1.4</b>
<b>ROUTINES</b>	<b>Research Objective 3:</b> <i>How can routine dynamics be “unpacked” to reveal their generativity (the ostensive-materials-performative theory)?</i>	(Feldman & Pentland, 2003) (Pentland & Feldman, 2005b) (Feldman & Pentland, 2008) <b>Sections 2.3 &amp; 2.4</b> <b>see Appendix 2.1</b>
<b>DIALOGUE</b>	<b>Research Objective 4:</b> <i>How can dialogical exchanges be used to “unpack” routine dynamics to reveal their generativity?</i>	(Feldman & Pentland, 2008), (Tsoukas, 2009b), (Tsoukas, 2009a) (Dionysiou & Tsoukas, 2013) (Baralou & Tsoukas, 2015) <b>Sections 3.2 to 3.4</b>
<b>ACTIONS</b>	<b>Research Objective 5:</b> <i>How can productive relational engagement facilitate generative actions informing our understanding of knowledge creating?</i>	(Pentland et al., 2012), (Tsoukas, 2009a), (Dionysiou & Tsoukas, 2013) <b>Section 3.2.1 &amp; 3.4, Figure 3.4</b>

*Table 4.1 The Research Question and Objectives*

The university-industry relationship of the placement is used as a fruitful and under researched context for exploring knowledge creating in organisational processes (Section 1.3). This processual study relies on the need to unpack routine dynamics to understand knowledge creating. Generative routine dynamics using the mutually constitutive relationships within the ostensive-materials-performative theory (Section 2.3) of routines is further unpacked using dialogical exchanges (Section 3.3). This robust theory for knowledge creating is operationalised using each of the three aspects of routines and three identified dialogical exchanges. The goal here is to understand routine dynamics and its link to facilitating and enabling action. Combined this represents the substantive theory to understand knowledge creating.

### 4.3 *'Knowledge Creating' - A Pragmatic Philosophy*

The attributes for knowledge creating (Section 1.6), use of routines and dialogical exchanges highlight a consistent reliance on a pragmatist philosophy illustrating how this research is positioned. The attributes for knowledge creating can be re-appraised from a pragmatist perspective informing data collection and analysis (Section 1.2 & 1.3). By way of introduction pragmatism as a philosophy attempts to reconcile the rationalist-empiricist dualism by accepting a subjective and objective ontology while accepting a subjective pluralist epistemology. Attempts to reconcile dualisms are considered. The indivisible relationship between meaning and action is then outlined. A social constructionist position on knowledge and meaning is then considered linking knowledge through meaning to action. Mead's social interactionism which underpins the dialogical approach is then discussed. Finally, 'knowledge creating' as a pragmatic concept is highlighted.

#### 4.3.1 *Reconciling Rationalist-Empiricist Perspectives*

Within epistemology, rationalists believe that reason is the sole source of reliable knowledge while empiricists believe that sensory inductive experience is more reliable (Bechara & Van de Ven, 2007 p.41). Kant, in attempting an early synthesis between rationalism and empiricism, argued that both approaches were required proclaiming "*though all knowledge begins with experience it does not follow that it all arises out of experience*" (1787). The pragmatist school of philosophy was born out of the need to reconcile this rationalist-empiricist dualism by arguing, that 'knowing' and 'doing' are indivisibly apart of the same process. Ontologically a pragmatic theory of 'truth' is understood in the context of practice or praxis (Bechara & Van de Ven, 2007 p.39) and is supported by Pierce's (1878) pragmatic maxim which states that "*the meaning of an idea is in terms of the practical consequences that might conceivably result from the truth of that conception*" (Bechara & Van de Ven, 2007 p.54). Pragmatic consequences tell us what we can expect from objects when we act (Meyers, 1999 p.594), is context bound and linked to practical solutions and outcomes (James, 1907). As truth is not a hard and fast absolute truth its discovery is a matter of accuracy, reflecting the relationship between belief and reality (Honderich & Masters, 2005) where opinions, supplemented by evidence,

require acceptance by the (scientific) community in context. Pragmatism was “*born in a period of rapid social change*” suggesting “*a plurality of shifting truths grounded in concrete experiences and language in which a truth is appraised in terms of its consequences or use-value*” (Scott & Marshall, 2012). Pragmatism’s ontological view therefore relies on a reconciling and accepting either a relativist and/or realist view of reality but accepts a subjective, as opposed to objective, means to generate knowledge i.e. epistemology. Its pluralist epistemology pragmatically accepts alternative theories or rival views as identical if their practical consequences are identical (James 1907). Only through practical difference are alternative theories challenged. So how we generate and evaluate valuable knowledge pertains to its practical context in application or implication, and being subjective requires evaluation.

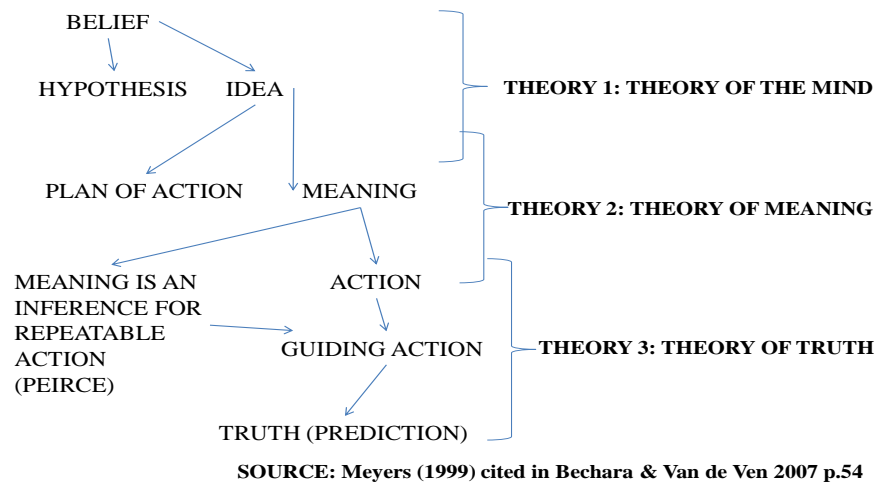
This is consistent with the line of thinking already presented regarding knowledge production in application or implication (Gibbons et al., 1994; Nowotny et al., 2001; Nowotny et al., 2003), engaged scholarship (Van de Ven, 2007) with multiple stakeholders involved to assess the practical consequence of ideas. Routines theory is consistent with this reflecting non-monolithic understanding of routines, their concepts, goals, roles, and related responsibilities. A pluralist methodology to capture these multiple perspectives in context (Table 1.3 & Section 1.6) result in a need for evaluating the consequence of knowledge derived from practice (Feldman & Orlikowski, 2011). This pragmatic standard of truth also provides a philosophical argument for narrowing the theory-practice divide, ensuring knowledge is evaluated as being both rigorous *and* relevant through a process of engaged scholarship and a strategy of arbitrage (Bechara & Van de Ven, 2007 p.67; Pettigrew, 1997a) or interaction (Dionysiou & Tsoukas, 2013). This has direct implications for how we understand and describe routines as we unpack them using dialogical exchanges, while respecting sociomateriality and emphasising generative action. By observing recursive patterns of activities we build more accurate approximations, or warranted assertions (Martela, 2015), toward but never reaching a realist goal. A realist perspective suggests that a routine exists independently of the mind (Nelson & Winter, 1982). However, actor’s relativist positions influence their ostensive

descriptions and understandings however imperfect. Through a realist approach within pragmatism we can only arrive at approximations of routines. Thus our understanding of routines will always remain fragmented based on subjective and inter-subjective understandings (Pentland, 2003).

#### 4.3.2 *The Indivisibility of Meaning & Action*

As noted pragmatist philosophers “take either objective or subjective views of ontology, but all adopt a subjective epistemology that emphasises the relation between knowledge and action” (Bechara & Van de Ven, 2007 p.40). In reconciling rationalism and empiricism pragmatism shows that knowing and doing are indivisible, thus linking meaning with action (Bechara & Van de Ven, 2007 p.54). The pragmatist assumption that meaning is important to inform action in context is illustrated by conceptualising pragmatism as three theories (Figure 4.2); the theory of the mind; a theory of meaning; and a theory of truth (Meyers, 1999). Here beliefs result in ideas which become understood as ‘plans of action’. As meaning emerges, similar to that described (Section 2.4.3), it is an inference to guide repeatable action resulting in an emergence of truth carrying with it practical consequences of that meaning i.e. constituting meaning of an idea in practice (Bechara & Van de Ven 2007). This is consistent with the focus on recurrence and recognisability within the definition of routines (Section 2.2.1). Pragmatism becomes a method to solve metaphysical disputes by comparing practical consequences with the adoption of alternative theories which “*are instruments not answers to enigmas*” (James 1907). Truth in ideas is shown when they work. This instrumentalist perspective, also known as nominalism (Burrell & Morgan, 1979 p.4), provides a philosophical basis for connecting mental models and theories for action. This assumption of indivisibility of meaning and action is borne out in the ostensive-performative theory of routines (Feldman & Pentland, 2003) where abstract ostensive ideas are shown to commit us to performances (Section 2.3). But also that knowledge from ostensive ideas should be combined with knowledge of action. Pragmatism provides us with a philosophical basis to by-pass cognitive versus behavioural as well as actual versus representational distinctions of routines (Section 2.4) i.e. the rejection of dualisms in favour of dualities informing data analysis (Feldman & Orlikowski, 2011).

### 3 Theories of Pragmatism (Meyers 1999)



*Figure 4.2 Three Theories of Pragmatism*

However, it should be noted that James’ pragmatism remains suspicious of verbal theoretical solutions as an end in themselves, echoing discussions in routines theory about the importance of performance (Section 2.3.2). When an idea is distinct we can separate it from other concepts highlighting the importance of comparing meaning, or new distinctions (Tsoukas, 2009a; Tsoukas, 2009b), and knowing as a way of generating new knowledge. Peirce’s pragmatic maxim becomes a theory of meaning in relation to consequences (Meyer 1999 p.594). When learning is verified it highlights pragmatism’s consequentiality. New distinctions may emerge during continuous articulations but it is their consequence which makes them productive. Arguably new distinctions are not enough unless their consequence is relational i.e. productive relational engagement (Section 3.2.1).

This assumption of indivisibility also provides a philosophical basis for how we unpack routine generativity. Cohen (2007), building on Dewey’s work (1922), argues that we return to ‘habits’ as a pragmatic way to reconcile divergent research, grounded in the Carnegie School’s distinction of cognition and action (2007 p.780). But as adopted here others argued that generative action respecting sociomateriality is what moves us forward (Pentland et al., 2012) while not to give “primacy” about who or what carries out actions i.e. physical and social technologies (Orlikowski, 2007; Orlikowski & Scott, 2008) reflecting the need to remain “agnostic” (Pentland

et al., 2012; Pentland et al., 2011) about roles in contributing to this action (Section 3.4). They argue that routines as dispositions and action, which were sometimes considered incompatible, indeed can work together as a generative perspective to explain action (Pentland et al., 2012 pp.17-18). If we define habits as an “*action disposition, rather than as the observable behaviour to which it might give rise*” (2012 p.17) where an action disposition (Section 2.3.1) may or may not actually be expressed in current behaviour (Hodgson & Knudsen, 2004). This would be consistent with Cohen’s preference to proceed by focusing on habits (2007 p.775). What we see here is that action provides the “*empirical hook*” for considering “*dispositions as conditional probabilities*” (Pentland et al 2012 p.18) leading to pragmatic consequences.

By using dialogical exchanges involving imaginal others, artifacts and real others the need to remain agnostic about what causes action is important. Here we can equally see how imaginal others have been overlooked as “hidden dialogues” incorporates knowledge and meaning (Section 3.2.2) as have artifacts as “missing masses” (Section 3.2.3) informing action. Empirical support for the indivisibility of meaning and action is now being shown where theories, or concepts, have performativity influencing praxis (MacKenzie, 2006; MacKenzie et al., 2007). Indeed the ideas of consequence and instrumentality resonate deeply in theories of materiality and sociomateriality (Leonardi et al., 2012) (Section 3.3). But actions, including action dispositions, are in the foreground without negating or ignoring disposition in the background. This is consistent with wider discussions on action as interaction (Section 3.4).

#### 4.3.3 *A Social Constructionist Perspective*

Mirroring the pragmatic emphasis on context the ‘apple fallacy’ argues that knowledge is not a collection of free standing items of low hanging fruit ready for the plucking but that it is constructed, in time and space, within social practices (Tsoukas & Mylonopoulos, 2004). Here pragmatism is distinguished from logical positivism focused on objective knowledge and an absolute truth (cf. Bechara & Van de Ven, 2007). In understanding knowledge and meaning social constructivists focus on an individual’s cognition and learning through group interaction where knowing

and meaning emerge within cognitive processes (Vygotsky, 1978) and learning through community engagement (Piaget, 1967). A social constructionist perspective additionally acknowledges historical and cultural meaning, constructed in social processes, that might be embedded in epistemic objects as well as actions (Harel & Papert, 1991). The implication of this wider social constructionist epistemology is accepting that objects carry historical meaning and too have an ability to influence action as discussed in relation to prototypes (Section 3.2.3). D’Adderio (cf.2011 p.200) highlights that materials such as artifacts are both ‘real ‘ and ‘constructed’, and argues that neither realists nor constructivists are able to account “*for the complex interactions between people and things*” (p.200). An overarching constructionist epistemology, in its pragmatic sense, takes into account a realist interpretation where artifacts can be shown to constrain or enable action but also a constructivist approach which discusses how representations held by actors can mediate what an artifact is and what it can do. Similar to expansive argument regarding action, including action dispositions, D’Adderio expands our conceptualisation of artifacts to include cognitive artifacts such as spoken language and text (p.208). By adopting this approach we see how the three dialogical exchanges, used here to unpack generative routines, reflect individually and jointly a social constructionist positioning within a pragmatic epistemology where ‘imaginal others’ within a sociomaterial argument become artifacts in their own right as guiding scripts (Section 3.2.2) while also seeing artifacts as carriers of rationalities (Cabantous & Gond, 2011) (Section 3.2.3). While this argument runs the risk of over conflating, this social constructionist argument leads us to include these missing masses alongside the hidden dialogues with imaginal others to reduce our fragmented descriptions of routines. This indivisibility, inseparability and indeed irreducibility are inherent in knowledge creating (Section 3.2.2).

#### 4.3.4 *Social Interactionism*

Pragmatism grew upon the assumption that we are active participants in a social world constructing and re-constructing social meaning which shape our thoughts and actions, as a basis for the philosophy of science (Elkjaer & Simpson, 2011; Simpson, 2009). Mead’s (1934) social interactionism represents the ongoing development of thought within this tradition reflecting a constructionist epistemology focusing on



meaning informed by role taking i.e. ‘imaginal others’ (Simpson & Carroll, 2008) within a dialogical perspective (Sections 3.2.2, 3.5 & Table 3.1). In linking pragmatism to dialogue, and within Tsoukas’ dialogical approach, the importance of the self, the roles of others as well as the treatment of the self as an object is highlighted (Dionysiou & Tsoukas, 2013 pp.186-187). Here self consciousness is exercised in the manner of “taking of the attitude of another and acting towards oneself as others act” or “seeing myself as others see me” (Tsoukas, 2009b p.162). It is through an interaction with such imaginal others as symbols that new distinctions can emerge to inform action. Social interactionism relies on Pierce’s theory of semiosis where signs and symbols are used to mediate our understanding and creating of meaning (Lorino, 2014 p.154-155). Signs can be analysed in relation to other signs (syntax), in relation to what they ‘represent’ in terms of meaning (semantics) and thirdly in relation to their users pragmatics (Arbnor & Bjerke, 2009). In addition schemas and shared schemas highlight a pragmatic approach when assessing symbolism within language. The relativist positions within dialogical exchanges merge to form inter-subjective meaning guiding action (Section 3.2.3). However imaginal others, or even shared schemas will never provide a true account of reality but only a reality that is contextual (Bechara & Van de Ven 2007 p.39). Tsoukas’ (2009a) dialogical approach, later incorporated into routines theory (Dionysiou & Tsoukas, 2013), explicitly relies on Mead’s social interactionist theory as a basis of understanding dialogue’s role in allowing for the (re)creation of routines and reconciling pragmatically the divide between meaning and action. From the three dialogical exchanges (Section 3.3) meaning reflects a pragmatic and social constructionist approach to knowledge accepting hidden dialogues and missing masses within dialogical exchanges as providing that meaning.

But what is our understanding of knowledge as it emerges within dialogical exchanges, social interactions and productive relational engagement (Section 3.5)? Kvale (1996) highlights how conversation as interview, is a basic mode for knowing suggesting that “*when we understand knowledge as the social justification of belief rather than as accuracy or representation, conversation replaces confrontation with nature*” (1996 p.37). Here knowledge is “*a matter of conversation and social practice, rather than as an attempt to mirror*” or confront nature. Conversation

becomes the “*ultimate context within which knowledge is understood*” (Kvale 1996 p.37) and conversational constructionism is lived in conversational realities (Shotter, 2013). Conversation as dialogism is not just a theory of knowledge but is a basis for social theory as we are always “*plunged into constant interaction with others*” and that the contexts for dialogue are limitless with no beginning or end but extending into “*the deepest past and the most distant future*” (Holquist, 1990 p.39). Indeed the Socratic method, long understood as a basis for knowledge creating, is underpinned by these conversational realities. With a loss in faith in universal systems of thinking and objective realities in social settings the primacy of the conversation as knowledge linked to action becomes evident (Kvale, 1996 pp.36-37 & 42-43). This supports the use of dialogical exchanges as sociomaterial assemblages to unpack conversational realities in routines.

#### 4.3.5 ‘*Knowledge Creating*’ - A Pragmatic Concept

In conclusion ‘knowledge creating’ as a processual concept is inherently pragmatic. Garud (2015) discussing pragmatic emergence argues that we can ontologically never know the present, and their events of creation, as it is always becoming the future. As a consequence our ontological view accepts that we can never fully reach a realist approximation of routines as our “*warranted assertions*” here will always remain fallible and open to revision (Martela, 2015 p.540). Garud, claims that this temporal view of emergence “*is rooted in pluralistic, anti-reductionist, and context sensitive thinking of the American pragmatists*” (2015 p.9). Here multiple actors are involved in a tangled relational web and we are concerned here with “*ways of participating in an ongoing, unfinished world than with discovering the realities of an already complete and stable world*” (p.9). Processes, such as routines, ontologically facilitate the creating of knowledge as they are constantly in a state of unfolding and becoming (Shotter, 2013). The indivisibility and irreducibility of knowledge, meaning and action, operationalised within the ostensive-materials-performative theory of routines unpacked using three dialogical exchanges is relied on here to elucidate this complexity. Knowledge creating studies benefit from an ontological perspective relating to practice and application (Section 1.6) consistent with this pragmatic maxim, where knowledge is evaluated by its consequence and that processes while subjectively understood have a realist quality (Martela, 2015

pp.541-543). By including multiple actor perspectives consistent with routines theory which suggests a pluralist methodology we can show how meaning emerges. The principles for knowledge creating (Table 1.2), distinct from transfer, are also consistent with pragmatism as we consider (dialogical) exchange, (social) interaction and (relational) engagement within a process of arbitrage, highlight relationality and routines as truce. It is through a process of continuous articulation within dialogical exchanges where conversation is a basic mode of knowing. Here again we accept the fallibilism of our theories (Martela, 2015 p.540) and remain open, through an abductive process to the potential for other theories to emerge and revise our 'knowledge' which we hold as 'warranted assertions'.

#### *4.4 Context: The Placement Routine*

In describing the context two steps representing preliminary data analysis were undertaken. The first step, consistent with qualitative research (Step 2, Figure 4.1) required a description of the relevant site and related subjects to aid data analysis (Bryman & Bell, 2011). Informed by empirical routines research this required 'routine identification'. As the structure of the placement emerged inductively from the data a second step to investigate 'analytical separateness' was required. These are now discussed.

##### *4.4.1 Routine Identification*

The Links/Placement Office, within the largest College of Business, and the largest Higher Education Institution (HEI) in the Republic of Ireland, placing about 300 students on specialised work placements annually was relied on for data collection purposes. This office specialised in placing over 120 students from the penultimate year of a four-year Business and Management undergraduate course. Students were placed with employers across a range of industries and sectors where data was also collected. Employers sought to recruit students from the HEI for periods of 16 to 24 weeks – March to September each year. The hours per week were between 35 to 40 but this was, in most cases, at the discretion of the employer and was dependent on the work being completed by the students.

At the commencement of this study Ireland, and indeed the world economy experienced an international financial crisis. Ireland officially went into recession in September 2008 only to emerge four and half years later in the second quarter of 2013. This recession was to have a persistent influence on the data throughout the study as the pressures from a contracting labour market was acutely felt. This dynamic impacted on the availability and length of paid placements resulting in changes to the placement routine. For example, the banking and finance sectors were severely impacted on by the recession resulting in little of no placements.

Data collection commenced at employer’s sites in June 2009 and continued across a total of 39 months until September 2012 (Step 3, Figure 4.1). This is consistent with and surpasses the periods of time other researchers spent at similar sites (Feldman, 2000 p.614). Feldman spent 1750 hours in observation, participation and conversations of various sorts averaging 5 to 10 hours per week (Feldman, 2000). This also exceeds the time spent by embedded researchers pursuing similar topics e.g. one and a half years (D’Adderio, 2008), 3 years (D’Adderio, 2014 p.1236), 2 years focused data collection (Empson, 2001) and 8 months (Kaplan, 2011). A preliminary structure of the placement routine began to emerge, reflecting placement cycles, distinct stages and specific processes associated with each stage (Figure 4.3) .

## The Placement Routine

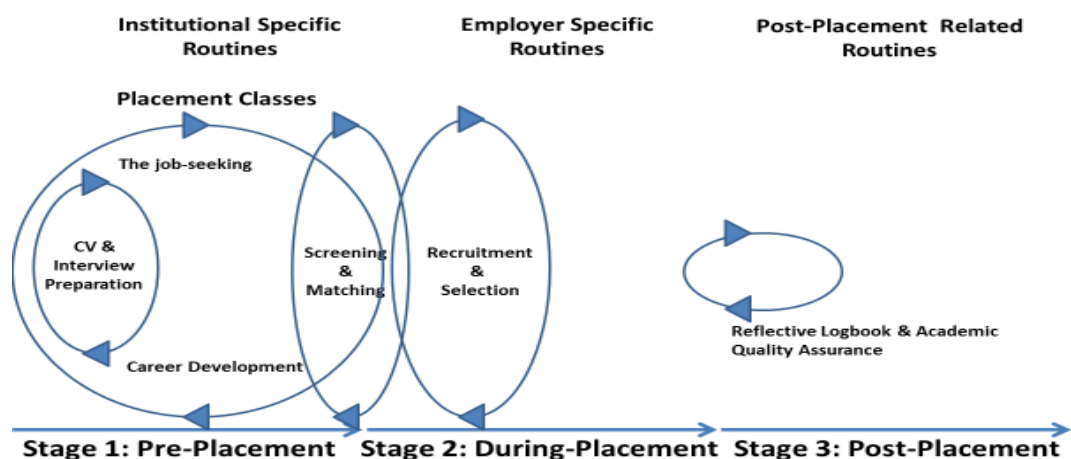


Figure 4.3 Preliminary Description of the Placement Routine

*Placement Cycles:* The placement repeated on an annual basis within an academic calendar with new ‘cycles’ commencing each September. On review this was consistent with previous anecdotal descriptions in the literature (Burke, Griffin, Bourke, & Flanagan, 2010; Liu et al., 2013; Liu et al., 2011; Narayanan et al., 2010; Sheridan & Linehan, 2011). Data was collected across four recurrent, and overlapping cycles consistent with descriptions of annual cycles in previous routines research e.g. fashion and catwalk show cycles (Wenting, 2009 p.113) and the student ‘moving in’ routine (Feldman, 2000). Repetitious answers reflecting saturation began to appear in Cycle 3. Sufficient depth i.e. quality, in the data collected, was aided by the embedded nature of the researcher within and across the overlapping and often chaotic cycles. Four cycles, i.e. four academic calendar years, were deemed necessary so as to meet the Feldman & Pentland’s (2003) and Becker’s (2005b pp.255-257) definitional criteria of ‘similarity’ and ‘recurrence’ within identified patterns of activities (Section 2.2.1).

*Three Placement Stages:* Each September new cohorts of students commenced weekly 2 hour ‘placement classes’. The content of these weekly classes focused on preparing students for their placement i.e. *guiding* students in CV and interview preparation. These processes which emerged during initial coding ran from late September through to March across Semester 1 and 2 of each academic year (Figure 4.3). Associated administrative processes, such as one-to-one interviews with the Placement Officer (PO) accompanied these classes. Here the PO would screen and match students to available placements. Students were also consulted regarding their preferences. Because of the recession banking placements were non-existent in 2009 and 2010. The lack of availability of banking placements would place increased pressures on the PO to successfully ‘match’ banking students to employers offering banking placements. Travel and tourism placements would also become difficult to find. Accountancy and consultancy placements could still be found with employers with established relationships. Bio-pharmaceutical internship/placements were found across all placement cycles. Social media marketing placements also appeared in the data. For this reason, “*screening and matching*” as a process was identified as being important. Like other processes that were coded this would require further attention.

The PO worked hard to develop strong university-employer relationships. Many long-term partnerships were established with employers. However newly formed relationships were also common. Relationships reflected varying degrees of commitment from employers to the university-industry relationship. Variation in the level of commitment was evidenced across a variety of documents, pro-forma, records, and employer procedures contributing to action. The various processes referred to here were grouped as Pre-Placement Stage i.e. Stage 1 during initial coding.

From late March / early April through to September students commenced their on-site placements with employers i.e. the second half of Semester 2 and summer months. Both students and employers engaged with the placement in different ways reflecting different levels of understanding of the placement goal. For example, larger employers such as the Big 4 accountancy firms already had established recruitment and selection routines specific to students seeking placements. Smaller organisations often did not have established processes. Student experiences would also vary depending on the sector or firm consistent with industry and new media commentary around issues of pay and experience as described previously (Section 1.4). The various processes referred to here were grouped as the During-Placement Stage i.e. Stage 2.

On completion of the placement in September each year students returned from employer sites and submitted reflective logbooks for academic credit (15 ECTS). Many students had developed strong relationships with their employers and these connections would endure. This was an unexpected and unforeseen stage in the data collection process. The various processes referred to here were grouped as the Post-Placement Stage i.e. Stage 3.

To improve routine identification and minimise a fragmented description of the placement (Pentland, 2003) a number of issues were taken into account. First multiple actors were included, as called for in internship research and consistent with routines theory (Section 2.2.1). Second, multiple sources of data within a pluralistic

methodology were relied on (cf. Pentland & Feldman, 2008b pp.290-293). Both are consistent with the guidelines for data collection and analysis arrived at in Chapter 1 for knowledge creating research. Third, the definitional standard of “*recurrent action patterns*” (Section 2.2.1) was met and observed in the data (Becker 2005 p.255-256).

Furthermore, Pentland & Feldman (2008b p.292) suggest that routine identification is aided by focusing on routine outcomes i.e. budgeting is to produce a budget. Outcomes were focused on by asking ‘*what are you doing now*’? In answering this Pentland argues that actors, as informants, tend to describe tasks and activities rather than processes e.g. librarian and travel agent examples (Cohen & Bacdayan, 1994 p.556; Pentland, 2003 pp.532 & 538). This was evident during the early stages of data collection where tasks and activities were discussed ahead of process. As routine identification developed the emphasis naturally shifted to that of ‘process’. While measurements within routines are argued as inaccurate when informant responses conflate content and process (Pentland 2003 p.538), in a qualitative sense it allowed for ostensive and performative aspects to be distinguished.

By using a holistic processual perspective, a structure aiding data collection and analysis emerged during this process of ‘routine identification’. By taking this holistic perspective, a previously identified gap in internship/placement research (Liu et al., 2011) was addressed. This allowed for a broader description of the placement process which more specific research on this context have tended to ignore.

While consistent with previous anecdotal descriptions of stages, little empirical evidence is offered previously in the literature in support this description i.e. routine identification (Burke et al., 2010; Narayanan et al., 2010; Sheridan & Linehan, 2011). The description of empirically supported stages also represented a potential contribution to internship/placement research. The analytical separateness of the three placement stages, while only anecdotally supported in the internship/placement literature, now required further attention. For this reason, empirical support for this description, i.e. routine identification, and the analytical separateness of these stages

was required (Dionysiou & Tsoukas, 2013). Analytical separateness of the placement stages is now addressed.

#### 4.4.2 *Analytical Separateness*

Consistent with the definition of routines (Section 2.2.1), Marsden's (1990) decision 'rules' were used to further investigate the analytical separateness of identified cycles and placement stages that emerged from the data. The first decision was to distinguish actor attributes and define membership. The second was to focus on relations as interlocking units between actors. Dialogical exchanges were used here as the interlocking unit. The third issue was to identify sets of events associated with the actors. Events reflected tasks and activities as discussed in routines theory. Informed by these decisions during coding NVivo queries were then run to investigate this separateness (Dionysiou & Tsoukas, 2013 p.192 N.5). If separateness was present coded data would not overlap. If connections were present coded data would overlap i.e. the same data would be coded to multiple nodes. As recognised routines rarely overlapped the separateness of placement stages was confirmed in the coded in the following three ways;

- i. *Membership, Contributions, and Attributes of Participant Actors*: Membership was linked to distinct activities or actions associated with specific university-industry actors whose contributions varied across each identified stage of the placement supporting analytical separateness. Narayanan et al (2010) called for joint focus on the roles of students, employers and HEI staff in the placement process to address a gap in the fragmented nature of internship research (Narayanan et al., 2010; Sheridan & Linehan, 2011). One shortcoming in Feldman's Residential Life research was that she did not interview students preferring to rely on field notes and observations to understand alternative and multiple perspectives (Feldman, 2000). To address this identified gap students, employers and HEI staff as multiple stakeholders were all included. In so doing this research also addresses the 'knowledge creating' attribute to include multiple stakeholders (Section 1.2 & Table 1.1). By focusing on dialogical exchanges as 'connections' (Feldman & Rafaeli, 2002), actor roles became more important across different stages revealing the extent of their shared understandings (2002



p.312). Snowball sampling was employed to identify additional actors extending the membership criteria to careers service, HEI staff in their role as mentors and a wider group of placement professionals. Membership reflecting roles and responsibilities provided an initial basis for understanding ostensive aspects of the placement. Distinct roles of students, employers and HEI staff were identified within each distinct stage in support of analytical separateness. These were used as a basis for 'attribute coding' and were later used as a basis for comparative distinctions during analysis (Appendix 4.1 & Section 4.6).

- ii. *Dialogical Exchanges as Interlocking Units*: Dialogical exchanges across the theory-practice divide would prove important for analysis. Prominent dialogical exchanges, as events, were characteristic within each identified stage suggesting analytical separateness. The 'pre-placement' stage (Figure 4.3, Stage 1) was predominantly informed by student-HEI dialogical exchanges. These were linked to processes such as job seeking, screening, and matching activities. The 'during placement' stage (Figure 4.3, Stage 2) was informed by employer-student dialogical exchanges and highlighted mentoring and processes associated with normative duties at employer sites. The 'post-placement' (Figure 4.3, Stage 3) broadly focused on student-institutional exchanges linked to academic quality assurance. Specific actors played greater or lesser roles across these stages i.e. most data from employers was collected during Stage 2. The interlocking nature or connectivity of dialogical exchanges, reflected specific events which were embedded within distinct stages. Dialogical exchanges as events identified different process as routines (Pentland & Feldman, 2008b p.296). By focusing on dialogical exchanges as the 'interlocking' aspect that brings about connections and shared understandings this research addresses a lack of focus on the role of people within routines (Feldman & Pentland, 2003) and provides a means to identify stage specific dialogical exchanges. Dialogical exchanges as events linked to process allowed for analytical separateness to be revealed. Specific routines appeared to be linked more closely with different stages of the placement.
- iii. *Patterns of Activities as Events*: 'Recurrent action patterns' highlighting the nature of the patterns of activities involved in the placement could now be

identified using dialogical exchanges as events across each placement cycle i.e. academic year (Becker, 2005b pp.255-256; Cohen et al., 1996 p.695). Comparisons across placement cycles and stages regarding the content of dialogical exchanges could now be made. In addressing Becker's discussion (cf. 2005b pp.256-257) by identifying these recurrent sets of events or patterns of activities what was 'similar' or 'different' between stages across cycles became obvious (Figure 4.3). Events, as milestones, were thus interpreted not in isolation but within the context of the process as they contributed to its unfolding or becoming.

During early coding and guided by Marsden's three decisions, NVivo coding queries confirmed the analytical separateness of the three placement routine stages. Placement stages reflected the following characteristics. Specific actors contributed more to data collection within stages. Dialogical exchanges as interlocking events among specific actors revealed specific tasks and activities linked to processes inherent within placement stages. Specific actor roles altered between stages i.e. as student moved to employer sites. As a result, processes were found to be specifically linked to each stage. Through routine identification fragmented descriptions of the placement routine were minimised. This was aided by including multiple actors engaged in dialogical exchanges. This was further minimised using a plurality of methods which are now discussed.

## *4.5 Data Collection*

### *4.5.1 Chronological Phases of Data Collection*

Within the 4 placements cycles data was collected across 9 chronological but overlapping stages (June 2009-September 2012). Each stage represented a different 'phase' of data collection over the course of the study. Phases were numbered 1 to 9 (Figure 4.4). As described the 'pre-placement stage' (Stage 1) included preparatory placement classes and ran from late September through to March/April in each placement cycle (Figure 4.4, Phases 2,5,8). From mid-March to September students work at employer sites (Figure 4.4, Phases 3,6,9). Stage 3 commenced from September and was an unexpected phase that emerged from the data. (Figure 4.4, Phases 1,4,7 & partial data from Phase 9). Collected data was organised in NVivo in

accordance with this approach (Figure 4.4 screenshot). Numbering phases within cycles allowed for three forms of comparisons to be made within the data.

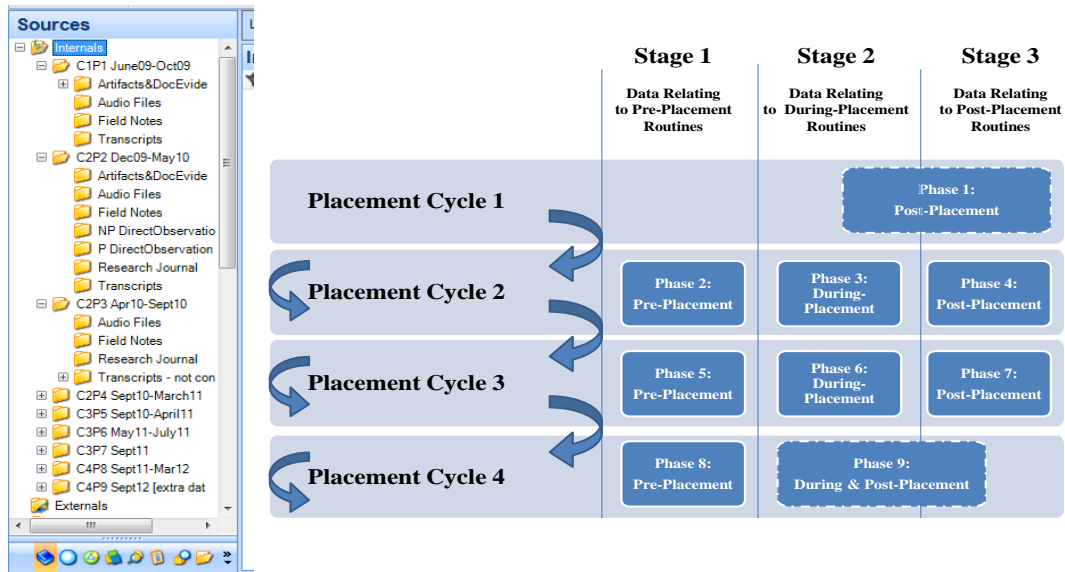


Figure 4.4 Structure of the Data & NVivo Screenshot of Data Sources

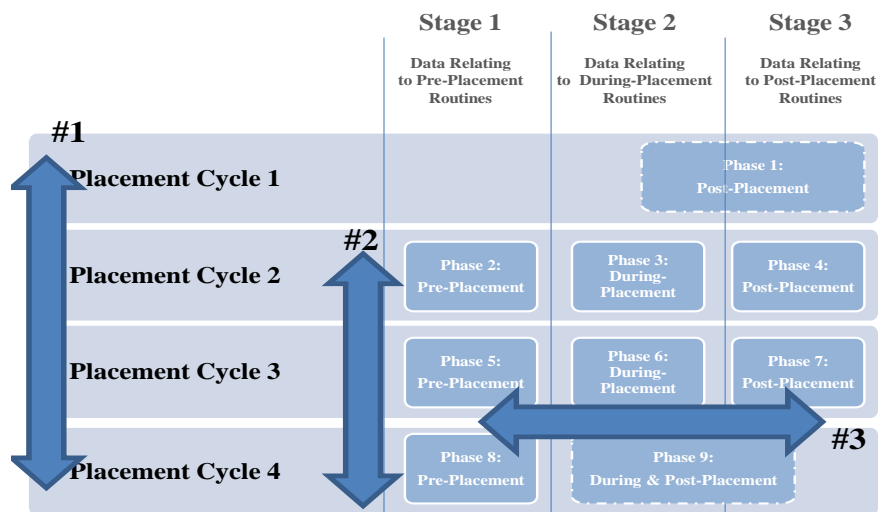


Figure 4.5 Comparative Analysis Across Placement Cycles & Stages

- i. First, broad comparisons could be made by comparing variations in the data between placement cycles (Figure 4.5 #1). This will be most evident in exploring and describing the broader context (Chapter 6).

- ii. Second, data from similar stages across each cycle could also be compared (Figure 4.5 #2). This would help identify specific variations in routines (Chapter 5).
- iii. Third, routine dynamics within placement cycles could be shown by comparing data from ‘pre’ and ‘post’ placement stages (Figure 4.5 #3) where variations in the meanings of goals and roles and emerging ostensive understandings can be assessed (Chapter 5).

Data relating to different stages was often collected concurrently i.e. overlapping phases. For example, as students submitted reflective logbooks (Stage 3) a new cohort had already commenced placement classes in a new placement cycle (Stage 1). Also, while some students started working (i.e. during placement stage 2) others were still seeking out placements and interviewing for positions (Stage 1). For the purposes of transparency, a ‘key’ was developed (Table 4.2). For example, Cycle 1 included data linked to during and post placement stages and were combined as ‘Cycle 1, Phase 1’ data. ‘C3P6’ denotes a source or quote collected in ‘Cycle 3 Phase 6’. Data collection of pre-placement data in Cycle 3 (C3P5 Stage 1) overlapped and ran concurrently with data collected linked to activities in the preceding cycle (C2P4 Stage 3). This would later help in identifying patterns in the data during analysis.

KEY	Explanation / Overlapping Dates	Stages
C1P1	Cycle 1, <b>Phase 1</b> , June 2009 – Oct 2009 <i>*During + Post Placement Data Combined</i>	Stage 3 post-placement
C2P2	Cycle 2, <b>Phase 2</b> , Dec 2009 – May 2010	Stage 1 pre-placement
C2P3	Cycle 2, <b>Phase 3</b> , April 2010 – Sept 2010	Stage 2 during-placement
C2P4	Cycle 2, <b>Phase 4</b> , Sept 2010 – March 2011	Stage 3 post-placement
C3P5	Cycle 3, <b>Phase 5</b> , Sept 2010 – April 2011	Stage 1 pre-placement
C3P6	Cycle 3, <b>Phase 6</b> , May 2011 – July 2011	Stage 2 during-placement
C3P7	Cycle 3, <b>Phase 7</b> , September 2011** <i>**Note: from Cycle 3 onwards field notes &amp; research journal entries were entered as ‘memos’ and ‘annotations’ within NVivo.</i>	Stage 3 post-placement
C4P8	Cycle 4, <b>Phase 8</b> , Sept 2011 – Dec 2011	Stage 1 pre-placement
C4P9	Cycle 4, <b>Phase 9</b> , September 2012 *** <i>***Note: Includes additional material from Webexone Intranet communications, LinkedIn &amp; email correspondence with students while on placement.</i>	Stages 2&3 during & post placement

*Table 4.2 Structure of Cycles, Stages, and Phases within the Data*

#### 4.5.2 Data Collection Methods

Data was collected using three approaches; interviewing (conversational unstructured); observation (ethnographic) and documentary evidence. This pluralist

strategy was supplemented with meticulous record keeping using field notes. A separate research journal captured reflections on data collection. A summary of the data collected by type is provided (Table 4.3) and broken down by cycle and phase (Table 4.4). In addition, the list of organisation and number of actors by type is provided in Appendix 4.2 & 4.3. A full schedule of data collected is in Appendix 4.5. These approaches are now discussed.

<b>Data Sources</b>	<b>Notes</b>	<b>Totals</b>
<b>Interviews</b>	Total number of separate interviews conducted (Section 4.5.3)	67
<b>Observation</b>	Total direct observation sources (Section 4.5.4)	19
<b>Documentary Evidence</b>	Total documentary sources (Section 4.5.5)	53
<b>Field Note Entries</b>	Total number of entries capturing primary data (Section 4.5.6)	109
<b>Research Journal Entries</b>	Total number of entries (Section 4.5.6)	73

*Table 4.3 Summary of Data Sources by Type (321 Sources)*

<b>Key</b>	<b>Data Source</b>	<b>Total</b>	<b>Notes</b>
<b>Cycle 1, Phase 1 (C1P1)</b> <b>June 2009 – Oct 2009</b>	Interviews	<b>10</b>	8 recorded, 2 unrecorded
	Documentary Evidence	<b>9</b>	4 Logbooks, 5 Documents - (6 Primary Sources, 3 Secondary Sources)
	Field Note Entries	<b>13</b>	
	Research Journal Entries	<b>2</b>	
<b>Cycle 2, Phase 2 (C2P2)</b> <b>Dec 2009 – May 2010</b>	Direct Observation	<b>6</b>	5 Non Participatory Direct Observation 1 Participatory Direct Observation
	Documentary Evidence	<b>15</b>	8 Formal Email Communications (specific to placement), 5 Job Specs, 2 REAP Conference Presentations
	Field Note Entries	<b>18</b>	
	Research Journal Entries	<b>17</b>	
<b>Cycle 2, Phase 3 (C2P3)</b> <b>April 2010 – Sept 2010</b>	Interviews	<b>40</b>	
	Documentary Evidence	<b>2</b>	Primary Research
	Field Note Entries	<b>39</b>	
	Research Journal Entries	<b>27</b>	
<b>Cycle 2, Phase 4 (C2P4)</b> <b>Sept 2010 – March 2011</b>	Interviews	<b>2</b>	Student Post Placement Interviews
	Direct Observation	<b>1</b>	ADHEC Conference Observation
	Documentary Evidence	<b>3</b>	2 Logbooks, 1 IPA Research Report
	Field Note Entries	<b>3</b>	
	Research Journal Entries	<b>5</b>	
<b>Cycle 3, Phase 5 (C3P5)</b> <b>Sept 2010 – April 2011</b>	Direct Observation	<b>10</b>	9 Non Participatory Direct Observation, 1 Participatory Direct Observation
	Field Note Entries	<b>19</b>	
	Research Journal Entries	<b>13</b>	
<b>Cycle 3, Phase 6 (C3P6)</b> <b>May 2011 – July 2011</b>	Interviews	<b>15</b>	13 Recorded, 2 Unrecorded
	Field Note Entries	<b>9</b>	
	Research Journal Entries	<b>7</b>	
<b>Cycle 3, Phase 7 (C3P7)</b> <b>Sept 2011</b>	Documentary Evidence	<b>10</b>	10 Logbooks
	Field Note Entries	<b>1</b>	
<b>Cycle 4, Phase 8 (C4P8)</b> <b>Sept 2011 – Dec 2011</b>	Direct Observation	<b>2</b>	
	Documentary Evidence	<b>4</b>	
	Field Note Entries	<b>7</b>	
	Research Journal Entries	<b>2</b>	
<b>Cycle 4, Phase 9 (C4P9)</b> <b>Sept 2012</b>	Documentary Evidence	<b>10</b>	10 Logbooks

*Table 4.4 Summary of Data Collected by Cycle and Phase*

### 4.5.3 Interviewing

Kvale (1996 pp.81-81, 90-91) seven stages in qualitative interview research were followed here (Figure 4.1). The first three; thematising; designing; and interviewing are discussed here. The stages of transcribing; analysing, verifying and reporting are discussed below (Section 4.6). Thematising the ‘what’ and the ‘why’ involves incorporating “*pre-knowledge of the subject matter*” (1996 p.95). What is of interest and why it is of interest helped to clarified the content and purpose of the study in advance. Pragmatically this researcher’s pre-knowledge, as an embedded academic in the university-industry context distanced this process from a grounded theory approach (Hutchison, Johnston, & Breckon, 2010). What is of interest evolved into a processual focus on knowledge ‘creating’ using dialogical exchanges to unpack routine dynamics. Generative action informed by respecting sociomateriality became a dominant focus. By addressing the ‘why’ we are forced to challenge any a priori assumptions we might bring to the research process and together with asking ‘what’ the research objectives were clarified. To address the ‘how’ question techniques to obtain access and improve data quality were considered (Kvale 1996 p.85-105). While interviewing was predominant in the limited empirical research on placements (Liu et al., 2011; Narayanan et al., 2010) it failed to account for the tripartite perspectives of participant actors and/or the three stages within placements (Narayanan et al., 2010; Sheridan & Linehan, 2011). The qualitative interviews were used when topics of interest “*do not centre on particular settings but their concern is with establishing common patterns or themes*” (Warren, 2002). The epistemology of the qualitative interview is constructionist in nature as the participants are “*meaning makers, not passive conduits for retrieving information from an existing vessel of answers*” (Warren, 2002). An ethnographic lens was reflected here and focused on the “*lived experience, set in an eternal present. The lens of the intensive interview is verbal – what people say and mean – but it’s temporal range is biographical, extending into the past and the future*” (Warren, 2002).

*The Interview Situation and Process:* Kvale’s third step is the interview situation itself (1996 p.125) focused on the ‘social interaction’ between employers, HEI and student actors (Warren, 2002). While procedures and techniques were designed in

advance the best laid plans required the framing and structuring of the interviews to be adapted.

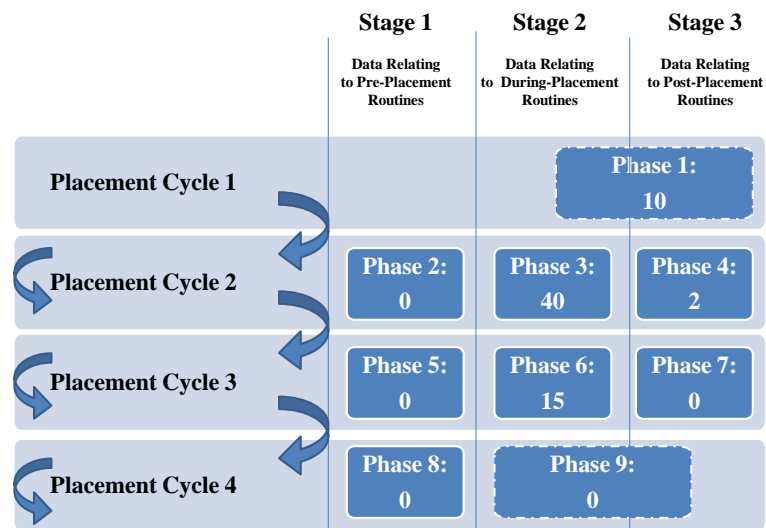


Figure 4.6 Interview Data (across Placement Cycles & Stages)

During the planning and design of the interviewing process the following issues were addressed;

*Interview Subjects:* To improve the qualitative research process the question as to ‘who’ to talk to and how many interviews should be conducted was considered (Kvale 1996 p.101). The gap that “no [my emphasis] *internship study simultaneously addresses the roles of the student, university and company*” (Narayanan et al., 2010 p.64) coupled with the need for multiple participants (Gibbons et al., 1994) informed this decision (Liu et al., 2013; Liu et al., 2011; Sheridan & Linehan, 2011) and is consistent with definitional requirements for routines research (Pentland & Feldman, 2008b p.288). It is important to include actors because they perform different roles across different stages of the placement. In accordance with the definition of routines “no single individual may be aware of the overall sequence” (Pentland & Feldman, 2005b). HEI staff, the PO and Academic Head of Programme (AHP) provided a cyclical overview of the placement including industrial and educational policy as well as day-to-day operations and quality assurance issues (Stages 1 & 3). Employers and students providing data about the placement itself (Stage 2). Students, as new entrants, were observed in placement classes (Stage 1), were interviewed across various stages of the routine especially while onsite (Stage 2). Interviews were

supplemented by reflective logbooks (Stages 2 & 3). During interviews actors were asked about all stages of the placement process consistent with Warren's focus on the temporal range of the lived experience. The cyclical nature for employers and institutional actors contrasted with the linear understanding of the routine as perceived by student actors. The academic calendar provided a structure and timeline for planning interviews.

*Quantity of Interviews:* The interviews highlighted recognisable patterns regardless of time of collection, across all stages, and were coded accordingly. As described above Feldman conducted 20 (1 hour long) formal interviews (Feldman 2000, 2003, 2004) while D'Adderio conducted 36 in-depth semi-structured interviews (D'Adderio, 2014 p.1329). This process was followed with 67 formal unstructured interviews being conducted. Over 50 occurred during Stage 2 at employer sites (Figure 4.6). The interviews focused on how participant actors performed their jobs. Additional interviews with the PO, as anecdotal conversations, were captured in field notes (Stages 1 & 3). Whereas the quantity of interviews was acknowledged across the stages and phases of the routine the quantitative presupposition as noted by Kvale (1996 p.103) was not always followed. The improved quality of the interviews allowed for "*penetrating interpretations*" (p.102). When new insights did not materialise within each phase i.e. saturation occurred, further interviews were not sought out.

*Negotiating Access & Improving Data Quality:* Improving the interview quality by improving access was a constant concern. As the stages of the routine emerged, reflecting the specific temporal characteristics (Kvale 1996 p.99), planning was required to focus on interviews that would yield the best quality insights. While reviewing employer data from Cycle 1 an absence of an overview of employer-university interactions became obvious. Employers working with students on a day-to-day basis did not provide this overview. Senior managers who engaged with the PO were then targeted. This distinction has not previously been acknowledged in internship literature and was invaluable in highlighting additional dialogical exchanges (Stage 2 Phases 1, 3, 6 & 9). Additional time to gain access to elusive managers was planned for subsequent cycles. The PO and AHP who had developed good working relationships aided in negotiating access to senior managers. In



negotiating access the quality assurance and mentoring routines provided a pretext for approaching employers and students (Stage 2). While at employers sites the researchers' embedded role on campus changed to reflect that of a 'mentor' reviewing the experiences for quality assurance purposes. Fact sheets with dates and times were developed on a central basis by the PO. Interviews at employer sites (Stage 3, Phases 1, 3, 6 & 9) for the most part were conducted under the pretext of the quality assurance and mentoring sub-routines. Interview length was influenced by employer and student availability (Appendix 4.5). Formally arranged campus based interviews (Stages 1 & 3) with HEI staff were social due to professional familiarity as an embedded researcher. Campus based student interviews were also social. Snowball sampling was used to identify memberships, different actor accounts and potential dialogical exchanges across different stages that might be of interest. Pilot interviewing served to develop this study in two ways; providing data rich on descriptive ostensive accounts of the routine and its ecology. 'Referring' data was naturally emphasised at this point (CIP1) providing a rich understanding of ostensive aspects where an initial conceptualisation of the placement emerged. The iterative and reflective processes allowed procedures and researcher skills to be improved. Broader understandings of performative aspects were targeted and interview theme sheets / topic guides could be developed (Miles & Huberman, 1994; Miles, Huberman, & Saldaña, 2013).

*An Egalitarian Interview:* The need to reflect an egalitarian philosophy was identified early in the pilot phase (CIP1) so as to reduce any residual issues that a lecturer-student dynamic might bring to bear on data quality. Warren (2002) in discussing sensitive post-hospital interviews noted the importance of "*building a context for sociability, rather than data gathering*" to improve data quality. Early interviews conducted in the researcher's office in Cycle 2 appeared strained reflecting a student hesitancy to provide open and honest commentary on their experience. All subsequent on-campus student interviews were conducted in open communal campus spaces. My roles as lecturer, researcher, and mentor, was managed to ensure students were comfortable. For example, clothing worn mirrored student attire to minimise perceived notions of status symptomatic of a typical lecturer-student dynamic (Kvale 1996 p.125). In addition, the authoritative lecturer

voice and academic jargon were avoided in favour of an egalitarian conversational approach to elicit and draw out unfettered descriptions of their subjective lived experiences.

*When Not to Interview:* In some instances, interviewing was avoided in favour of observation and/or other methods such as shadowing and anecdotal conversations (Kvale pp.104-105). The researcher's embedded role and professional relationship with the Placement Officer (PO), the key participant and informant, meant that direct observation in placement classes, and anecdotal hallway conversations, captured in field note entries represented timely fresh accounts ensuring rich supplements to interview data. Data through anecdotal hallway conversations captured what has been referred to as "*moments in flight*" and proved to be an invaluable procedural technique (Arbnor & Bjerke, 2009). Here the quality of the data offset quantity reflecting the 'craftsmanship' within the interview process allowing new perspectives to be accessed (Kvale 1996 pp 105-108).

*The Interview Situation - The Aide Mémoire:* Bryman (2008) distinguishes an 'interview guide' from an 'interview schedule'. The most important aspect is that the questions allow "*interviewers to glean the ways in which research participants view their social world and that there is flexibility in the conduct of the interviews*" (2008). The interview guide is broader with memory prompts while a schedule is more specific (Bryman 2008 p442-450). Bryman's (2008) addresses some basic elements for the interview guide consistent across Kvale (1996) stages of thematising, design and interviewing. The interview guide often took on characteristics of a focused interview schedule (Appendix 4.6). For this reason, a broader term of 'aide memoire' is used (Kvale 1996 p.95). The coding framework (Figure 2.2) overlaid with three dialogical exchanges (Figure 3.1) provided the outline for the aide memoire. Topics were not discussed in a linear fashion and the starting point and sequence of issues varied greatly reflecting an unstructured nature of the interviews with different informants. Some order resulting in a reasonable and natural flow to the questioning was evident. Chronological descriptions often emerged. While early data collection phases focused more on ostensive aspects of the routine in 'referring', 'guiding' and 'accounting', subsequent phases probed into performative aspects with more specific questions about action, change and the

process rather than specific tasks and activities (Pentland, 2003). As noted above individuals are particularly unreliable in their ability to describe processes (Pentland 2003 p.532 & 537) and that “*methods that rely on subjective responses [alone] from individuals are inherently flawed [my insertion]*” suggesting the need for alternative pluralistic approaches. Stock was periodically taken, after phases and full cycles, regarding changes to the aide *mémoire* to facilitate a review and to maintain an audit trail of how questions might have changed. This in-depth qualitative interviewing facilitated a highly inductive process and was more flexible than suggested by using interview protocols (D’Adderio, 2014 p.1330). The unstructured nature of the sequence of questions allowed for unexpected answers to be probed further allowing for richer descriptions. All questions contributed to understanding the rich context but thematically contributed to each ‘topic’ in the conceptual framework presented (Appendix 4.6, Figure 3.1).

#### 4.5.4 Observation

	Stage 1 Data Relating to Pre-Placement Routines	Stage 2 Data Relating to During-Placement Routines	Stage 3 Data Relating to Post-Placement Routines
Placement Cycle 1		Phase 1: 0	
Placement Cycle 2	Phase 2: 6	Phase 3: 0	Phase 4: 1
Placement Cycle 3	Phase 5: 10	Phase 6: 0	Phase 7: 0
Placement Cycle 4	Phase 8: 2	Phase 9: 0	

Figure 4.7 Observation Data (across Placement Cycles & Stages)

In addition to the lack of focus on agency it is also argued that there is a lack of observational data used to understand routines (Feldman & Pentland, 2003; Pentland et al., 2012; Pentland et al., 2009). Feldman & Pentland argue that “*we need a way of conceptualising organisational routines that enables us to accommodate these observations*” (2003 p.99 p.110-112). This research includes ethnographic observational data to address this methodological gap to illustrate routine variability.

By addressing this omission, we can tackle in more detail questions of routine flexibility and change rather than stability and inertia (Feldman & Pentland 2003 p.99). By including observational data, we can gain a deeper understanding of emergence alongside data illustrating agency.

Serendipitously opportunities to observe placement classes presented itself during data collection. Two distinct forms of observation were used in this study; participant and non-participant observation. Participant observation is inherently linked with ethnography (Bryman & Bell, 2007 p.440). Bryman & Bell (2007 pp.454-455) classify the role of the ethnographer as an observer. Non-participant observation is not typically included in approaches to qualitative research however this was used at early stages to supplement the ethnographic approach of participant observation (Bryman & Bell, 2011). During placement classes the initial role adopted was that of a ‘complete observer’ remaining detached and keeping interactions to a minimum. My presence was however overt and noticed by students speculating as to my role in the class. As classes progressed, and sometimes at the behest of the PO, my role altered to that of ‘observer-as-participant’. The PO requested that this researcher introduced students to the LinkedIn platform which provided an opportunity to supplement data collection and engage with students while on placement. 18 placement classes lasting about 1h 30 minutes (Stage 1, Phases 2, 5 & 8) were attended across three placement cycles (Figure 4.6). These were recorded, transcribed, and supplemented with field notes (and NVivo memos). This provided insights into dialogical exchanges between the PO and the students. The content of these classes provided data coded to ‘guiding’, ‘referring’ and ‘accounting’ as their purpose was to prepare students for imminent interviews and assessment centres. Here the researcher became a complete participant, interacting with the student group while being explicit about the purpose and motivation of the research. At no stage was the covert complete participant role represented in this study (Bryman & Bell, 2007). Bryman & Bell (2011) comment that caution is required in treating ethnography and participant observation as synonyms but they involve “*similar if not identical approaches to data collection*” (p.404). Ethnography / participant observation involves the researcher being immersed in a social setting. As an

embedded researcher immersed in the academic environment due my role as lecturer, academic, researcher and later mentor required careful management. This observation on campus, in placement classes represented a serendipitous ethnographic aspect of this study which was not originally planned for.

Alongside the PO and AHP participation in the placement included engagement on academic and quality assurance issues, administrative tasks regarding placement documentation and mentoring of students. This was consistent with principles associated with ethnography. The benefit was an improve understanding of PO-AHP interactions and their dialogical exchanges with students. Attendance at the ADHEC placement officer conference (C2P4) and an employer conference where student research was presented was also captured. Participant observation allowed for follow up interviews, anecdotal conversations and field notes broadening the overall process to reflect a wider ethnographic approach (Bryman & Bell 2007 p.441-442). On campus interviews (2007 p.441) with the PO and the AHP, as well as associated field notes (2007 pp.461-465) could be interpreted under this ethnographic umbrella. This was possible due to benefits accruing from immersion and the egalitarian tone achieved in supplemental interviews.

The inclusion of observational data reflects a pragmatic philosophy providing a more realist, objective or inter-subjective understandings of the placement routine minimising bias from purely subjective understandings (Parmigiani & Howard-Grenville, 2011). This reduces the impact of any unreliable accounts of routines and is consistent with calls for a pluralistic methodology (Table 1.1). While no single account is reliable complimentary observations are recommended to provide alternative pictures and minimise fragmentation (Pentland, 2003 p.532). This allows for comparing and contrasting of data within analysis of recurrent patterns. What we understand as action in its observable sense has too been challenged with efforts to distinguish observable action from action dispositions or the acknowledgement of knowing as doing (Cook & Brown, 1999; Knudsen, 2008; Leonardi, 2015). It is with a pragmatic lens that this wider understanding of action is acknowledged here (Section 3.5).

#### 4.5.5 Documentary Evidence

Documentary evidence including materials and artifacts were collected and coded for in this study due to their potential for increasing the density of communications (Gibbons et al., 1994) as missing masses (Cabantous & Gond, 2011) in quasi-dialogical exchanges (Baralou & Tsoukas, 2015; Tsoukas, 2009b) within the ostensive-materials-performative relationship (Pentland & Feldman, 2005b; Pentland & Feldman, 2008b p.286). As reference points materials are central and have in themselves a material agency or performativity (D'Adderio, 2011) which might otherwise be overlooked (Section 3.2.3). 53 distinct primary research artifacts were collected across the four cycles reflecting actor-artifactual exchanges within the routine (Figure 4.8).

	Stage 1 Data Relating to Pre-Placement Routines	Stage 2 Data Relating to During-Placement Routines	Stage 3 Data Relating to Post-Placement Routines
Placement Cycle 1			Phase 1: 9
Placement Cycle 2	Phase 2: 15	Phase 3: 2	Phase 4: 3
Placement Cycle 3	Phase 5: 0	Phase 6: 0	Phase 7: 10
Placement Cycle 4	Phase 8: 4	Phase 9: 10	

Figure 4.8 Documentary Evidence (across Placement Cycles & Stages)

Artifacts referred to and actively engaged with by participant actors were followed up on during data collection and received greater attention during data analysis. Additional artifacts including emails, intranet and LinkedIn correspondence were captured within field notes. In addition, as a basis of secondary desk research, archival sources were collected across placement stages;

- i. In Stage 1 (Phases 2,5,8), employer job specifications and recruitment materials including employer presentations were collected. Sample CVs were requested from students. Placement documents including brochures,

communications and quality assurance documents linked to the placement were also gathered.

- ii. Stage 2 (Phases 2,6,9) materials included mentoring documentation and a range of artifacts that were referred to in on-site interviews that warranted follow-up.
- iii. Stage 3 (Phases 1,4,7,9) reflective logbooks, with entries covering a minimum of 16 weeks supplemented interview and observational data.

Pentland's point about content versus process was evident in logbooks collected during Cycle 1 (Pentland, 2003). Consistent with his assertion logbook entries were limited in detail, repetitive and lacked description. To improve student accounts of processes they experienced, steps were taken to improve logbook entries by providing writing prompts in subsequent logbook templates. These encouraged students to move past mere description and focus on less granular perspectives. For example, writing prompts also asked how tasks were connected. Hand writing was replaced with electronically submitted logbooks. This improving the coding process conducted now without separate transcription. Typed logbook book entries proved to be more comprehensive and expansive compared to hand written entries. These played a similar role to self-administered action sheets used previously to capture routine activity (Pentland, 2003 pp.534-536). While self-reporting, using action sheets might be intrusive (2003 p.538) the reflective logbook was less so due to the requirement for academic credit on submission. Archival data including work flow data and event sequence analysis data have previously been used to address shortfalls in observational data (Pentland et al., 2012; Salvato, 2009). The lack of access to specific day-to-day employer-student interactions meant direct observation was not feasible. Reflective logbooks were invaluable here in supplementing interview data capturing tasks and activities as they were performed at employer sites (Pentland, 2003). Archival data such as 2000 invoices (Pentland et al., 2012) manufacturing documents on a 'freezing' routine at an automotive manufacturer's plant (D'Adderio, 2008 p.771) have been used before to unpack the complexity of ostensive aspects of routines i.e. the replication of processes to new sites (D'Adderio, 2014 p.1330). Secondary sources relating to the placement and employment markets were also collected. The ADHECS conference on career guidance (C2P4) provided a broader

platform for understanding the internship market and issues around government policy. Industry reports on JobBridge, an industrial internships programme, introduced in response to the financial crisis, were also collected and coded for during analysis. Notwithstanding this empirical work increased calls to acknowledge artifacts and material agency has produced little by way of empirical research (Leonardi, 2012). Specifics around the role of artifact's within the ostensive-materials-performative aspects of routines (Kaplan, 2011) are lacking with contributions remaining ancillary and inconsequential (Rafaeli & Pratt, 2006). Also the use of documentary evidence has not been utilised in internship research (Narayanan et al., 2010 pp.63-64 Table 1). Artifacts reflecting dialogical exchanges within the placement provide an appropriate theoretical lens to understand how participant actors socially construct meaning. As imperfect anchors, they help reveal divergence and variation, but their inclusion also helps minimise fragmented descriptions of the placement (Pentland & Feldman, 2008a pp.283 & 285).

#### 4.5.6 *Field Notes & Research Journal Entries*

Field notes, capturing processes of theorising, and research journals entries, capturing reflections on data collection were diligently recorded (Holton, 2007). The importance of field notes, especially from interview and direct observation research has been long established (Becker, 2008; Becker & Lazaric, 2009a; D'Adderio, 2008; Kaplan, 2011) and allowed for rich descriptions to supplement interview transcripts and the methods outlined above (Pentland & Feldman, 2008b p.281). According to Warren *"it is a hallmark of qualitative interviewing that "unrecorded" data of this kind [comments made post interview in what might be termed 'off the record' but not necessarily] are as important as those derived from tape recordings"* (2002 p.92). Memo and journal entries were also coded. Appendix 4.4 provides the list of NVivo Memos. This reflected the blurred line between data collection and analysis (Feldman, 2000 pp.614-615) and explains why the number of entries tapers off from Phase 6 (Figures 4.8 & 4.9, Table 4.5). These entries were invaluable for comparing interpretations at the time of collection with memos developed at the time of analysis. 109 separate field note entries were captured (Figure 4.9). Over 250 emails, intranet and LinkedIn postings and communications, descriptions of additional artifacts, anecdotal hallway conversations, and unrecorded interviews



were captured. As noted, anecdotal conversations were often preferred over formal interviewing, to capture day-to-day moments in flight. The PO's genuine opinion provided insights into how participant actors 'referred' to the placement and she provided accounts of dialogical exchanges which could not be captured due to the absence of the researcher and/or in formal interviewing. Field notes also captured broader industry topics especially in relation to the financial crisis as well as topics of discussion at conferences i.e ADHECS and IPA conferences. The time spent doing this was on average about 5 hours per week however this would vary greatly.

	Stage 1 Data Relating to Pre-Placement Routines	Stage 2 Data Relating to During-Placement Routines	Stage 3 Data Relating to Post-Placement Routines
Placement Cycle 1			Phase 1: 13
Placement Cycle 2	Phase 2: 18	Phase 3: 39	Phase 4: 3
Placement Cycle 3	Phase 5: 19	Phase 6: 9	Phase 7: 1
Placement Cycle 4	Phase 8: 7	Phase 9: 0	

Figure 4.9 Field Notes Entries (across Placement Cycles & Stages)

	Stage 1 Data Relating to Pre-Placement Routines	Stage 2 Data Relating to During-Placement Routines	Stage 3 Data Relating to Post-Placement Routines
Placement Cycle 1			Phase 1: 2
Placement Cycle 2	Phase 2: 17	Phase 3: 27	Phase 4: 5
Placement Cycle 3	Phase 5: 13	Phase 6: 7	Phase 7: 0
Placement Cycle 4	Phase 8: 2	Phase 9: 0	

Figure 4.10 Research Journal Entries (across Placement Cycles & Stages)

73 research journal reflexive entries were diligently captured during the four cycles providing a maintained audit trail relating to data collection (Figure 4.9). Over 100 pages detailing the process were developed. As an embedded researcher reflecting on the research process these entries provided a conceptual record and rationale for problem solving. This was used to reflect on how data collection would influence interpretation, meaning, theorising and analysis. Many of the methodological sources on qualitative research, coding as analysis highlight the importance of reflexivity within this process (Bazeley, 2007b; Bazeley & Jackson, 2013; Hutchison et al., 2010; Richards, 2009; Saldaña, 2009). In latter stages NVivo memo writing facilitated theory building and deeper conceptual analysis of the data. These entries showed progression in conceptual and theoretical thinking.

#### *4.6 Data Analysis: The Coding Process as Analysis*

In accordance with the iterative approaches recommended in qualitative research procedures (Bazeley, 2007a, b; Hutchison et al., 2010; Saldaña, 2009) four overlapping and complimentary forms of data coding using computer aided qualitative analysis software (CAQDAS) were relied on. Consistent with Feldman's observation the line distinguishing data collection from analysis was ambiguous (Feldman, 2000 p.615). During data collection, analysis commenced using initial/open coding using the first order concepts identified in the literature review. The second step involved identifying attributes for data sources, such as actor type to facilitate the use of the coding queries function in NVivo. As relationships and patterns in the data emerged axial coding was then used. Axial coding was mostly employed at the end of each of the 9 phases of data collection (Section 4.5.1). To capture theory building the fourth step in the analysis process involved extensive memo writing. Throughout the four steps of data analysis the need to move beyond a simplified 'code and retrieval' process, to more complex 'code and query' processes, was an ever-present goal in accordance with best practice and the need to provide a contribution to theory. Each of the four steps in coding as analysis are now outlined.

*Initial/Open Coding:* Informed by the conceptual framework arrived at in the literature (Figure 3.1) initial coding began by using the first order concepts as a basis

of the node structure (Corley & Gioia, 2004 p.184). Coding attaches meaning labels to data segments (Hutchison et al., 2010 p.289; Saldaña, 2009). Initial nodes were based on the three aspects of routine dynamics, each of which inform the structure of the findings chapters in this study (Table 4.5).

<b>Routine Dynamics</b>	<b>1<sup>st</sup> Order Concepts</b>	<b>Sources</b>
Ostensive Aspects	<ul style="list-style-type: none"> <li>• Referring</li> <li>• Guiding</li> <li>• Accounting</li> </ul>	Feldman & Pentland (2003) <b>Section 2.3.1 &amp; Figure 2.2</b>
Performative Aspects	<ul style="list-style-type: none"> <li>• Creation <ul style="list-style-type: none"> <li>○ Recognition</li> <li>○ Repetition</li> </ul> </li> <li>• Maintenance</li> <li>• Modification</li> </ul>	Feldman & Pentland (2003) <b>Section 2.3.2 &amp; Figure 2.2</b>
Material Aspects	<ul style="list-style-type: none"> <li>• Artifacts (in dialogical exchanges)</li> <li>• Imaginal Others (in dialogical exchanges)</li> <li>• Real Others (in dialogical exchanges)</li> </ul>	(Pentland & Feldman, 2005a, 2008a; Pentland et al., 2012). <b>Section 2.3.3 &amp; Figure 2.3</b> Baralou & Tsoukas 2015 Tsoukas 2009b. <b>Section 3.2</b>

*Table 4.5 Initial Coding Data Structure*

Informing Chapter 5 ‘REFERRING’, ‘GUIDING’ and ‘ACCOUNTING’ were used as initial codes to understand ostensive routine dynamics (Figure 2.2). These were supplemented by the data coded to ‘IMAGINAL OTHERS’. This brings routines theory and dialogical exchange theory together for data analysis. In response to the question ‘how did the participant actors refer to the tasks and activities they perceived?’ data about tasks and activities was coded to ‘REFERRING’. What guided, or how actors accounted for their actions, were coded under ‘GUIDING’ and ‘ACCOUNTING’. In this way descriptions of routines within each stage of the placement cycle would be arrived at. Actor goals and roles were also coded to ‘IMAGINAL OTHERS’. Constant comparisons of ostensive understandings could be made across placement cycles and stages to understand variety and variations e.g. ostensive understandings of placement goals of ‘PAY’ and ‘EXPERIENCE’ to guide action could be compared between Stage 1 and Stage 3 and/or Cycle 1 and 4, to identify variety or variations in meaning (Appendix 5.1 & 6.1). Recursive and recurring patterns of actions were confirmed (Becker, 2005b) aided by Marsden’s three decision ‘rules’ of actor membership, dialogical exchanges as interlocking relationships and events reflecting patterns of activities consistent with previous

placement research (Burke et al., 2010; Liu et al., 2013; Liu et al., 2011; Narayanan et al., 2010; Sheridan & Linehan, 2011). Multiple ostensive understandings across multiple actors are identified across all four placement cycles (June 2009-September 2012) to reveal variety and variation as ostensive understandings (Figure 2.3). This analysis would form the basis of unpacking ostensive routine dynamics in Chapter 5.

‘Creation’, ‘maintenance’ and ‘modification’ were used as initial codes to understand performative routine dynamics (Figure 2.2). The repetitious and recurrent nature of performance of the placement routine highlighted what cohered to the placement across all 4 placement cycles. Informed by Figure 2.3 data was coded under ‘CREATION’, in accordance with the definitional understanding of the recognition of repetition in routines (Section 2.2.2). Data was coded to ‘MAINTENANCE’ and ‘MODIFICATION’ highlighted variety and variations in how tasks and activities were enacted as a basis of routine generativity (Figure 2.4). The enacting of tasks and activities were initially found to either maintain ‘or’ modify the existing placement routine. It soon became clear that by focusing analysis on the stability-change duality rather than as a dualism a deeper understanding of performative dynamics emerged. For example, new tasks and activities coded to ‘MODIFICATION’ could also be coded under ‘MAINTENANCE’ as it maintained the overall integrity of the placement reflecting an issue of granularity in analysis. This analysis would form the basis of unpacking performative routine dynamics in Chapter 6.

The material routine dynamics, viewed through the lens of dialogical exchanges, was coded using the initial codes of ‘artifacts’, ‘imaginal others’ and ‘real others’ (Baralou & Tsoukas, 2015; Tsoukas, 2009b). While artifacts were associated with something material, imaginal others reflected something social i.e. sociomaterial. This analysis would form the basis of unpacking material routine dynamics in Chapter 7.

Initial coding developed into open/topic coding with the inclusion of additional nodes within ostensive-performative-material aspects. The ‘coding trap’ of over coding rather than working toward analytical coding was painfully experienced here

(Richards, 2009; Saldaña, 2009). Extensive memo writing was used to capture ideas about emerging categories and themes [Appendix 4.4. CIP1 MEMO 19]. As the node structure became overly complicated it was reviewed after each 'phase' or 'cycle' of data collection and/or after a period of intense coding where early axial coding was engaged with.

*Descriptive/Attribute Coding:* Descriptive attribute coding allows for analysis to extend beyond that of 'code and retrieval' to 'code an query' using assigned values (Saldaña, 2009) so as to "facilitate future analytical procedures, such as asking questions of the data and making constant comparisons to advance theory development" (Holton, 2007; Hutchison et al., 2010). Richards (2009) argues that the gradual assignment of descriptive attributes to data sources, nodes, participant actors and organisations needs to be transparently outlined. A full list of attributes can be found in Appendix 4.1; the salient attributes are discussed here.

Descriptive attributes were gathered from various sources. Placement literature (Liu et al., 2011; Narayanan et al., 2010; Sheridan & Linehan, 2011) and industry sources (Chapter 1) highlighted different placements types, such as paid or unpaid placements. Unpaid placements suggested the enacting of different tasks and activities compared to paid placements. These distinctions could be further explored using coding queries and the constant comparison method of analysis. Also, placements secured by students independent of the PO were captured under the attribute 'screening'. Placements screened by the PO were associated with the enacting of different tasks and activities around quality assurance compared to placements secured by students where screening tasks and activities were not enacted. The absence or presence of enacted tasks and activities became a focus when trying to understand generative routine dynamics.

Participant actors were assigned codes; "EA" for "employer actor", "SA" for "student actor" and "IA" for "institutional actor" allowing for queries to assess which participant actors contributed to specific nodes (Appendix 4.1). Questions such as "what did employer actors say about 'pay' compared to student actors?" could be

asked of the data. Industry sectors as well as organisational functions were assigned to actors as well as age and gender to open potential lines of analysis. Emerging attributes which “*behaved differently*” e.g. ‘functional focus’ (Hutchison et al., 2010 p.289) which might open up meaningful ‘new’ distinctions in practice were added during the process reflecting the influence of pragmatic meaning on data analysis. Descriptive attributes were also applied to data sources and their characteristics so that queries could be run that might reveal, through ‘flip flop analysis’ (Hoover & Koerber, 2011) if data specific inconsistencies might influence meanings and interpretations. For example, are negative opinions about the placement predominantly coming from field note data? And if so why? This would reveal bias but also aid in confirming interpretations through a triangulation of meanings. As described in Figure 4.5 above, the cycles and stages of data collection provided distinctions that facilitated constant comparisons between the data from early parts of the routine (Stage 1) to data from latter parts (Stage 3) as well as across placement cycles to assess change/stability. This helped with comparing how understandings of goals of ‘pay’ versus ‘experience’ at the beginning of a placement changed compared to understandings at the end of the cycle. Descriptive/attribute coding complemented open/initial coding as it allowed for chaotic data to be ordered and compared in an efficient manner to reveal routine dynamics that might otherwise go unnoticed. This spurred further analysis and facilitated comparative queries which were particularly useful in unpacking performative routine dynamics (Chapter 7).

*Axial/Analytical Coding:* While remaining open to the emergence of new distinctions during analysis the initial node structure remained consistent throughout iterative coding cycles suggesting a good match between data and theory (Dionysiou & Tsoukas, 2013; Tsoukas, 2009a; Tsoukas, 2009b). As new data was imported axial categories emerged. The term ‘axis’ related to the axle of a wheel (Bazeley, 2007a, b; Saldaña, 2009). Merging and redefining of the nodes resulted in the development of analytical rules for inclusion and exclusion captured in node properties and was accompanied by extensive memo writing [Appendix 4.4 - MEMO CODE 12, 23 to 28; C1P1 MEMOS 03 TO 05; C2P2 MEMOS 02 to 04; C3P5 MEMOS 07 to 12, C3P7 MEMOS 03 to 07]. Analytical/axial coding requires interpretation and the “*reassembling*” of

initial, open or topic nodes that might have been “*fractured during open coding*” (Hutchison et al., 2010 p.291). This coding “*comes from interpretation and reflection on meaning*” (Richards, 2009).

Several examples illustrate the handling of axial nodes. For example, difficulties emerged in distinguishing data coded to ‘GUIDING’ and ‘ACCOUNTING’ (Table 4.5). These were combined into the node ‘CLARIFYING’ after careful consideration and memo writing [Appendix 4.4 MEMO CODES 08, 09 & 12, C1P1 MEMO 14; C2P2 MEMO 05]. Similarly, as the coding process continued, it became clear that coding data to ‘REPETITION’ and ‘RECOGNITION’ was becoming increasingly difficult (Table 4.5). Consistent with Feldman & Pentland’s (cf.2008b p.288) these were merged into the parent node ‘CREATION’. A third example was that axial codes relating to different forms of ‘IMAGINAL OTHERS’ reflected how rules for inclusions were combined. A consistency in relation to roles coded using ‘being a’, ‘goals’ and ‘concepts’ emerged and was captured in memos during analysis. Ideas such as ‘being the’, ‘being a’, the ‘role of’ were combined as rules for inclusion into ‘ROLES’ representing a theoretical contribution to our understanding of the concept of the imaginal other [Appendix 4.4. MEMO CODE 28, C1P1-MEMO 04 & C3P6 MEMO 02. MEMO CODE 28 &]. A further expansion of the rule for inclusion was the acknowledgment that actor ‘goals’ were also imaginal others in that they reflected an ideal future self which was supported by the literature (Costas & Grey, 2014). Performative ‘concepts’ (MacKenzie et al., 2007) also expanded the rule for inclusion when they were used in dialogical exchanges to guide action [Appendix 4.4 C3P5 MEMO 02; C3P7 MEMO 09].

Finally, levels of granularity influenced the reassembling of axial codes. As data was added from new organisations commonalities relating to organisational functions were combined in axial nodes. Unique organisational functions were kept separate. Whereas many processes were specific to placement stages some placement processes, which could not be associated with any one placement stage, were reassembled into distinct axial nodes (this is evident in Figure 5.1 below).

The concern that axial coding can potentially “*cast a technological overlay on the data*” and force data into a predefined framework (Hutchison et al., 2010 p.291)

remained an ongoing concern. This was managed by capturing the emerging axial nodes in an audit trail (Appendix 4.4 & 4.8). If it became difficult to code data to multiple nodes a review would prompt the question “should this data actually be grouped?”. This was managed in three ways.

- i. First, as data could be interpreted in many ways i.e. at different levels of granularity, ‘sets’ were utilised to group the data to cater to Hutchinson’s concerns. Most notably this occurred when attempting to code for ‘processes’ and for obvious ‘dualities’ in the data e.g. text relating to ‘MODIFICATION’ was found to reflect ‘MAINTENANCE’ of the focal routine (Farjoun, 2010; Feldman & Orlikowski, 2011). These paradoxical nuances were captured in memos (Appendix 4.4).
- ii. A second concern related to “*researcher judgements such as the granularity of the coding scheme and the boundaries on the process*” (Pentland 2003 p.535 & 538). The repetitive nature of the placement routine focused attention on ‘process coding’ as analysis (Saldaña, 2009). Axial coding can inadvertently focus attention on specific levels of granularity. By using memos theoretical coding was used to disrupt an over reliance on any one level of granularity.
- iii. Thirdly categories, as axial codes, can result in a standardisation of terminology with routine labels naturally focus on normative aspects, including shared understandings, rather than variation reducing researcher bias on how the placement should work. Memos were written to account for alternative perspectives forcing a need to provide more complete explanations in the face of fragmented accounts of routines (Jarzabkowski et al., 2012; Pentland, 2003).

*Theoretical Coding:* To be able to deepen and enrich theorising, coding procedures need to be pushed to “*disturb oneself*” (Starbuck, 2006 pp.143-145) by seeking out comparisons, contradictions and new distinctions (Tsoukas, 2009b). In addition to the principle of granularity which has already been discussed in relation to axial coding, the following principles helped to deepen and enrich data analysis;

- pushing toward ‘code and query’



- constant comparison
- the acceptance of dualities while rejecting dualisms

‘Code and query’ surpasses ‘code and retrieval’ as a basis for theory building (Fielding & Lee, 1991, 1998). As theoretical coding became more mature recurring themes and categories were captured in memos. This reflection prompted a search for comparisons by using both coding and matrix queries to shape chaotic qualitative data for theory building. Coding queries reveal the overlapping nature of data, much like a venn diagram (Hutchison et al., 2010 p.294). By querying we can demonstrated the “*interrelations between concepts, to create a theory from which ... [questions can then] be generated*” [my clarification] (Hutchison et al., 2010). For example, a coding query could be run to answer the question “what did ‘STUDENTS’ say about the relationship between ‘ACTION’ and ‘CHANGE’?” By using the attribute code ‘STUDENTS’ or ‘SA’, data coded to node A ‘ACTION’ that is also coded to node B ‘CHANGE’ would focus attention on what students said about both action and change. This approach was particularly useful when trying to understand how emphasis shifted in the data from ‘PAY’ to ‘EXPERIENCE’ as goals for the placement (Chapter 5). Patterns in the data, aiding theory building could also be found using matrix coding queries. This was useful in simultaneously highlighting stability and change by comparing how data coded to ‘MAINTENANCE’ and ‘MODIFICATION’ was distributed across all 4 placement cycles. This could show a picture of change and stability as a duality which might otherwise have gone under explored is stability and change were treated as a dualism. Matrix and coding queries helped to make comparisons between phases and across placement cycles (Figure 4.4) forcing analysis beyond pure descriptions from ‘code and retrieval’ in favour of “*taking off from the data*” (Arbnor & Bjerke, 2009) and ensuring richness in analysis based on code and query (Richards, 2009). As will be seen matrix coding queries were most helpful in unpacking performative routine dynamics (Chapter 6).

Constant comparisons were made between coded interviews and field notes to validate meaning and as a basis for writing memos. This validation helped refine the node structure. Associated with the constant comparison method is that of the flip

flop method (Hutchison et al., 2010 p.294) of turning concepts inside out and upside down to force different perspectives (Strauss & Corbin 1998). This encouraged a focus on ambiguities and contradictions within the data resulting in a more nuanced understanding of themes without over simplification of those themes (Starbuck, 2006 p.146). Nuanced meanings across placement cycles and phases was important to gain insight into change and stability and how the placement unfolded. This was also useful to gain insights in actual short term and ideal long term goals for the placement (Chapter 5).

Prior to data collection the relevance of dualisms/dualities to unpack mutually constituted relationships was noted in the literature (Sections 2.4.4 & 3.2.3). Distinctions as “*mind and body, cognition and action, objective and subjective*” (2011 p.1242) or indeed routines as disposition or action (Becker, 2004; 2005b) as oppositions are rejected in favour of analysing phenomenon as dualities. During the process of constant comparisons difficulties arose in distinguishing enacted tasks and activities designed to change the routine i.e. ‘MODIFICATION’ from those actions designed to maintain stability i.e. ‘MAINTENANCE’ (Chapter 6). This substantiated the argument for dualities and a rejection of dualisms (Farjoun, 2010; Feldman & Orlikowski, 2011). This is also aligned with the various arguments associated with a pragmatist philosophy where relativist-realist positions are not seen as oppositional (Section 4.3).

In conclusion, while the analytical processes relating to coding as analysis toward theory building are presented as logical linear steps (Hutchison et al., 2010 p.285), in reality these were overlapping, circular and often chaotic. Residual linear depictions evident in this chapter should be assessed in the context of trying to provide a transparent account of the qualitative research process.

#### *4.7 Credibility and Trustworthiness in the Data*

In a qualitative context, the constructs of reliability and validity are understood as credibility and trustworthiness. Reliability pertains to the ‘reliability’ of data collection and analysis procedures. This was ensured using computer aided qualitative data analysis software (CAQDAS). Validity is concerned with the

appropriate use of constructs to explore what is claimed to be explored. This was ensured by reviewing the constructs as outlined in Feldman's Residential Life research process within routines theory. The use of CAQDAS and Feldman's research process are now discussed.

Nvivo10 aided analysis. CAQDAS, a term coined by Fielding & Lee (1991), made handling of multiple data sources efficient and transparent to facilitated theory building (Bringer, Johnston, & Brackenridge, 2004 p.248; Fielding & Lee, 1998 pp.1-2; Hoover & Koerber, 2011 pp.73-76). While some debate around the use of CAQDAS lingers i.e. computerisation as quantification, fragmentation and distance from the data, Nvivo facilitated transparency in analysis (Bringer et al., 2004 p.248; Fielding & Lee, 1998 pp.1-2). The case for using CAQDAS centres on the issues of multiplicity, efficiency, and transparency.

First, NVivo was used due to its ability to quickly and powerfully collate, manage and make sense of a multiplicity of 'complex relations' among multiple data sources to help structure analysis within each of the three aspects of dynamic routines used here (Hoover & Koerber, 2011 p.70; Hutchison et al., 2010 p.288). Multiple data formats included, audio files, text transcripts, powerpoint, adobe pdf and image files were coded increasing the scope and comprehensiveness of analysis. This addressed methodological gaps in relation to observation, agency and material agency while remaining agnostic about what was causing action (Feldman & Pentland, 2003; Pentland, 2003). Second, the coding and retrieval process was more efficient using CAQDAS than with a manual pen and paper across the complex forms of data (Hoover & Koerber, 2011) making transcription, analysis, verification and reporting (Kvale 1996, Figure 4.1) more efficient. The concern that computerised automation by using autocoding might diminish analysis, eliminate reflection and interpretation (Bringer et al., 2004 pp.249-250; Hutchison et al., 2010) was unfounded here. The unstructured nature of the data in this study did not lend itself to any form of autocoding. The computerisation as quantification criticism is grounded in a qualitative versus quantitative paradigmatic view and finds its origins in early content analysis software using frequency analysis (Bringer et al., 2004). CAQDAS

does not quantify qualitative data artificially as might otherwise have been argued (Bryman & Bell, 2011). On balance the efficiencies allowed for greater focus on interpretation and analysis moving past ‘*code and retrieval*’ to that of a ‘*code and query*’ which better underpins theory building (Bazeley, 2007b). While powerful NVivo did not substitute for the researcher’s judgement in setting the parameters and/or the choices made in coding, querying and/or interpretation. A third advantage is that CAQDAS “*encourages qualitative researchers... to be more explicit in describing their sampling methods, suggesting that this transparency might help our [qualitative researchers] findings achieve greater credibility and visibility among interdisciplinary audiences*” (Hoover & Koerber, 2011 p.76). This was facilitated through extensive memo writing and the maintenance of an audit trail. Finally, NVivo encouraged analysis beyond mere “*thick descriptions of the studies phenomena*” closer to accounts that are induced by querying the data with specific questions (Bringer et al., 2004). This is most evident in Chapters 5 and 6.

Due to the similarities with Feldman’s Residential Life research (Feldman 1995; 2000, 2003; 2004) her process of collection and analysis was closely followed to ensure credibility and trustworthiness (Table 4.6). With particular emphasis on Feldman’s work the final four steps (Figure 4.1) of transcribing, analysis, verifying and reporting were addressed (Bryman & Bell, 2011 p.405-407; Kvale, 1996) (Table 4.6). Like Feldman’s initial interviewing (Table 4.6, Step 1), 10 pilot interviews (Figure 4.4) were conducted (C1P1). As actors ‘referred’ to routines, ostensive descriptions emerged. Subjectively identified routines that were “*central to the work*”, commonly held or “*broadly recognised*” by participant actors (Feldman 2000 p.614), were focused on. This idea of centrality was to provide a starting point for considering central and peripheral routine dynamics across ostensive (Chapter 5), performative (Chapter 6) and material aspects (Chapter 7) of the routine.

The idea of ‘sub-routines’ has long been referred to in routines literature (March et al., 1958; Pentland & Rueter, 1994). Following Feldman’s empirical lead, regarding the ‘moving in’ routine, it was relied on here to distinguish processes from the focal placement routine highlighting possibilities that certain tasks and activities might be

peripheral to the dynamics of the placement routine. Feldman identified 5 ‘sub-routines’ that inductively emerged from the data. While the description of this process remains vague, in Feldman’s research, NVivo coding queries was used to help supplement this guidance by transparently showing connectivity between routines rather than the researcher describing ‘sub-routines’ as a biased attempt to impose an arbitrary structure on the data. Marsden’s decision ‘rules’ and coding queries to confirm analytical separateness aided the identification and definition of specific routines (Table 4.6, Steps 2 & 3). Some “*foreknowledge*” or pre-understanding of routines must be acknowledged here (Kvale 1996). The process of data collection deepened “*the understanding of what organisational members know and feel*” (Feldman, 2000 p.614) as “*potential dialogues*” (Arbnor & Bjerke, 2009) were used to unpacking each of the three generative aspects of routines (Pentland & Feldman, 2005b). This step provided the structure for the three findings chapters (Table 4.6, Step 4).

## Feldman’s Residential Life Research (1995, 2000, 2003, 2004)

### Data Gathering

**Step 1: Introductory Data Collection:** As an introductory step formal interviews (20) were conducted throughout the organisation (2000 p.614 & 2004 p.297). Questions were simple reflecting day-to-day practices and roles (2000 p.614).

**Step 2: Identifying Specific Routines:** Specific routines were focused on as they were identified by participants as being “central to the work” (2004 p.297) and “broadly recognised” (2000 p.614). Feldman (2000 p.614) relied on the perspective of unit involved in all of her selected routines.

**Step 3: Outlined Definitional Aspect of the Routine:** Repetition and recursive nature of the focal routine outlined (2004 p.297) in relation to data collection.

**Step 4: Extensive and Embedded Data Gathering:** 4 years, 1750 hours, 5-10 hours per week on average , across multiple sources including 10,000 emails etc (1995 p.1, 2000 p.614, 2003 p.731 & 2004 p.297). The embedded nature of the research and extensive use of field notes was highlighted (2000 p.614). The importance of this stage is that it “deepens” the understanding of how organisational members think and feel (2000 p.614). The author acknowledges her role across the four years as primarily as that of a participant observer (2003 p.731).

**Step 5: Post Formal Observation:** Data collection continues informally. While not relied on heavily Feldman acknowledges the value of this (2000 p.615).

### Data Analysis

**Step 6: Goal of the Research:** Data Analysis was informed by the goal of the research i.e. to find out as much about work practices (2004 p.297 & 2000 p.615). While the separation of collection from analysis is acknowledged as unclear “conscious analysis of these data waited until the formal observation period ended” (2000 p.615).

**Step 7: Formal Analysis :** 3 concurrent steps over 4 (several) years.

**I. Manuscript Writing :** to pull together all of the information and detailed descriptions of the routines, their participants and observations about what was done (2000 p.615, 2003 pp731-732 & 2004 p.297). This manuscript was circulated among the participants for commentary (2003 p.732).

**II. Approaching the Data from a Meta-theoretical Perspectives:** Consistency of the theory with the data was considered. Consistency of the theoretical approaches with each other was also considered. Different theoretical lens provides new understandings without going beyond what was observed (2000 p.615 , 2003 p.732 & 2004 p.297). She notes the reason for this is that it ‘*break[s] the order of information as it had been presented to me. I did not discount the original order; but sought to develop alternatives*’ (2000 p.615)

**III. Organising Observations of Routines:** Useful theories were selected and utilised to help organise observations of routines in this ethnographic research (2000 p.615, 2003 p.732 & 2004 p.297) and these observation as “*are tangled and woven into the fabric of everyday life*” (2003 p.732) are open to further interpretation.

**Step 8: Ongoing Writing & Shaping of the Data:** Ongoing writing helps to shape an understanding of the data using various theoretical perspectives (2000 p.615 & 2004 p.297) “without violating the sense of the observations” (2000 p.615).

*Table 4.6 Data Collection & Analysis – The ‘Residential Life’ Process*

Feldman noted that “*conscious analysis of these data waited until the formal observation period ended*” (2000 p.615). Whereas this may be considered a weakness in the research process she argues that it allowed her to fully understand and reflect and allow for the development of her research questions (Table 4.5, Step 6). Notwithstanding the concurrent collection and analysis experienced here a similar gap between the two was present. Like Feldman’s process (in)consistencies between the theories were sought out and this helped to “*break the order of the information as it has been presented*” (Feldman 2000 p.614). Routines dynamics could be considered across all three aspects simultaneously and unpacked using tensility within dialogical exchanges.

The coding process highlighted theoretical (in)consistencies prompting the need for memo writing. Departing from Feldman’s research process, the theories relied on here (Chapters 2 & 3) provided a broad and consistent conceptual framework in advance of data collection ensuring the data was more consistent with the context. While Feldman’s research was based on “*ethnographic research which yields observations that are relevant to many points of theoretical interest*”, this process allowed for observations to be better aligned with the research goal “*without violating the sense of the observations*” (2000 p.614). The iterative nature of the coding as analysis process allowed for alternative questions to be raised consistent with Feldman’s research, ‘strands’.

The writing up process (Table 4.6, Steps 7 and 8) was consistent with Feldman’s research. Extensive memo writing (Appendix 4.4) on themes and events were developed to make sense of the data (Jarzabkowski et al., 2012). Conference papers were presented at the following conferences;

- The Industrial Marketing & Purchasing (IMP) Conferences 2010-2012
- The British Academy of Management (BAM) 2011
- The Process Symposium (PROS) 2013
- EGOS 2014

- The Academy of Management (AOM) Conference 2014
- The Technology Transfer Conference 2015.

Professional conferences such as the Roadmap for Employer-Academic Partnerships (REAP) 2009 (C2P2) and the Association for Higher Education Careers Services (ADHEC) Conference 2013 (C2P4) allowed me to mix with career professionals in the placement market. Employer events were also attended, where placement research was presented, such as the Irish Parking Associations (IPA) Conference (C2P4).

For the purpose of transparency where possible informed analysis and interpretations as warranted assertions (Martela, 2015) are illustrated in four ways;

- First, quotes and direct interpretations are supported with direct references from the data using the following format i.e. [C3P6 May11-July11 Interview-EA14-14<sup>th</sup> July 2011] - Cycle 3, Phase 6 interview with employer actor EA14. The context for these data sources are listed by organisation (Appendix 4.2) and by actor type (Appendix 4.3).
- Second, the sources and references behind summaries of specific themes from nodes are shown as i.e. [21 Sources, 40 References] - 21 data sources with 40 references across these sources informed the summary presented in the findings chapter.
- Third, queries (coding and matrix) used to reveal distinctions and themes are supported by referencing how the query was constructed in NVivo (Appendices 5.1, 6.1 & 7.1).
- Finally, discussions illustrating theory building are supported by referencing memos (Appendix 4.4 & 4.8).

#### *4.8 Ethics & The Role of the Researcher*

From a pragmatist perspective inquiry has increasingly been referred to an ethical practice. As an embedded researcher, whether the intent is present or not, invariably influenced the beliefs and expectations of the informants. As an embedded researcher with a technical understanding of the academic context (D'Adderio, 2008) access to

data, data quality and ‘closeness’ during analysis was ensured (Miles & Huberman, 1994; Miles et al., 2013; Richards, 2009). Martela highlights that we are always acting morally (2015 p.555). With this in mind it is important to note the role and values adopted as a pragmatist researcher as outlined by Martela (cf.2015 pp.553-558) in accordance with ethics approval from both the awarding institution and the institution where this research was conducted.

- First, an ends-in-view approach connected to practice to explore knowledge creating was adopted.
- While remaining focused on the identified problem anchored in practice, an abductive process expanded the research problem to that of knowledge creating, and routine dynamics unpacked using dialogical exchanges.
- This process was consistent with pragmatic fallibilism and the need to reflect on theories as a best fit.
- Finally, this process was described to the wider academy to facilitate a collective dimension of inquiry (Section 4.7.1., Step 8).

The ethical guidelines for both the awarding institution and the institute where this research was based were complied with. Ethical procedures for access and consent were also followed with consent forms handed to all participants at the commencement of the interviews (Appendix 4.7). The signed consent form was then collected consistent with Kvale (1996 pp.109-123). The openness in relation to the purpose of the interview (Kvale, 1996 p.127) was aided by the nature of the mentoring and academic quality assurance routines which served as a pretext for interviews at employer sites. Similarly, my presence and role in placement classes was explained to students with a view to establishing long term open relationships. Ethical concerns over the awareness of the PO of the purpose of the research were reflected on and proved to be unfounded [**Appendix 4.4, C2P2 Memo 08, Memo Code 27**]. The theoretical and conceptual purpose was disguised without prejudicing the interviews (Saunders, Lewis, & Thornhill, 2011). At the end of all interviews participants were again afforded the opportunity to ask further questions e.g. research purpose, storage and use of data etc. Employers often requested more detail about the study resulting in additional conversations and serendipitous data which were written



up as field notes (Warren, 2002). Institutional guidelines required that anonymous data was stored securely and this was complied with.

#### *4.9 Conclusion: Structuring the Findings*

The structure for the findings chapters was driven by the need to unpack three aspects of generative routine dynamics; ostensive (Chapter 5), performative (Chapter 6) and material aspects (Chapter 7). Dialogical exchanges were used as a theoretical lens to unpack these aspects. These hidden and missing dialogical exchanges would minimise the fragmented picture of generative routine dynamics (Pentland & Feldman, 2008b p.283). How dialogical exchanges aid productive relational engagement and influence generative routine dynamics was assessed. The process was to provide a descriptive account of placement dynamics e.g. to understand what was happening, and to theory build around dynamics that facilitated productive relational engagement as knowledge creating.

Chapter 5 focuses on unpacking ostensive routine dynamics i.e. understandings held by multiple actors relating to the placement. For this reason, descriptions of routines within each stage of the placement are presented. The variety and variation in actor perspectives on imaginal others such as goals, roles and related responsibilities for enacting tasks and activities are explored. This raises questions about the centrality/peripherality of routine goals and roles.

Chapter 6 focuses on unpacking performative routine dynamics i.e. what was done. For this reason, the stability-change dynamics over four placement cycles are described. Variety and variations to performative aspects would provide a context for understanding changes in ostensive accounts due to their mutually constitutive nature. The introduction of different placement options was to highlight aspects of the routine that would be actively maintained in the face of exogenous changes in the market. This suggested a more central aspect to the placement compared to others and warranted further attention.

Chapter 7 focuses on unpacking material aspects of the placement. By focusing specifically on dialogical exchanges involving material artifacts this compliments the dialogical exchanges involving imaginal others in Chapter 5.

## ***5 Findings: Unpacking Ostensive Routine Dynamics***

### *5.1 Introduction*

This chapter asks how can dialogical exchanges be used to unpack ostensive routine dynamics to reveal generativity within the placement routine (Research Objectives No. 3 & 4, Table 4.1)? Informed by the literature, ostensive understandings are captured within a ‘set of possibilities’ that can guide action (Section 2.3.1).

Fragmented and conflicting descriptions of tasks and activities relating to specific routines were found. This was done through the process of routine identification, where descriptions of processes, as understood by the actors themselves, are presented. ‘REFERRING’ data supplemented by data coded to ‘CLARIFYING’ captured actor accounts of tasks and activities from which routines were identified. In many cases tasks and activities were absent from actor accounts of the placement. Both students and employers were found to have limited descriptions of tasks and activities compared to institutional actors. The scope of actor ostensive understandings, and why tasks and activities might be ‘present’ or ‘absent’, from their accounts was found to influence how they refer to and/or clarified their actions (Section 5.2). Ostensive routine dynamics was further unpacked using hidden dialogical exchanges involving data coded to ‘IMAGINAL OTHERS’. Multiple ostensive understandings of goals, roles and responsibilities are presented. Commonly held or shared understandings or goals, roles, and related responsibilities, were found to be more central to ostensive routine dynamics having greater influence on routine performance and productive relational engagement, compared to understandings that are not shared or commonly held (Sections 5.3 – 5.6).

The main finding here is that routine dynamics is influenced by the ‘presence’, ‘absence’ and ‘centrality’ of ostensive understandings. Central, shared and/or commonly held understandings arguably have a greater influence on routine performance and can be understood as being associated with relational engagement.

## 5.2 Unpacking Multiple Ostensives – Describing the Placement Routine

By relying on the steps taken to identify the routine and confirm the separateness of its three stages this section provides a more detailed description of the placement as understood by the actor groups. Figure 5.1 builds on the preliminary description of the placement routine provided in the methodology chapter (Figure 4.3).

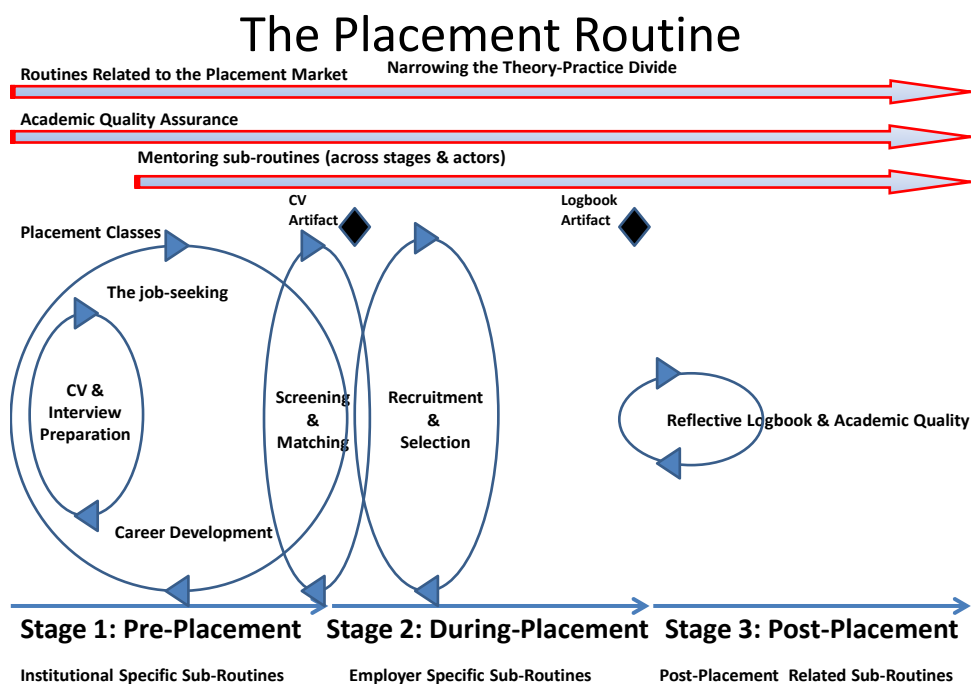
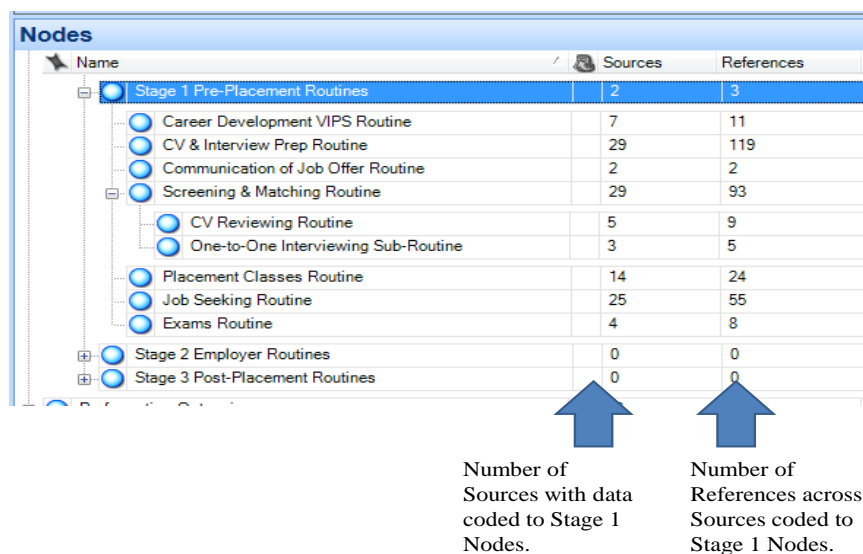


Figure 5.1 The Unpacked Ostensive of the Placement Routine

### 5.2.1 Pre-Placement Stage Routines [Stage 1, Phases 2,5 & 8]

The following recurrent pre-placement routines (late September - March/April), focused on preparatory routines including placement classes [Figure 6.1 Phases 2, 5 & 8], management activities highlighting institutional expectations regarding the placement goals, issues relating to academic credit, employer and student expectations in preparing and reviewing CV's, interview skills as well as long term career development reflecting goals as imaginal others within dialogical exchanges. Over the four cycles resources were allocated to different aspects of the placement reflecting how the PO's perceived the challenges based on her engagements with employers and students. This included activities relating job seeking which was influenced by changes to the supply and availability of placements in a turbulent financial and labour market. The processes of, and responsibility for, job seeking

changed drastically during the four placement cycles altering the PO's responsibility for screening and matching. As illustrated the salient routines as perceived by different actors are now described (Figure 5.1 & 5.2).



*Figure 5.2 Pre-Placement Routines (Stage 1)*

**Placement Classes Routine [14 Sources, 24 References]:** The main forum for engaging with students involved weekly two hour placement classes (September-March) in each academic year. Delivered by the Placement Officer (PO) and the Academic Head of Programmes (AHP), the goal here was to prepare students by discussing placement aims and goals, highlight employer expectations as imaginal others and to communicate day-to-day operational challenges. The content of placement classes included updates on job seeking, the screening and matching of candidates with confirmed employers, guidance on CV preparation, job applications and the interview process. Discussions on business etiquette e.g. dress code [24 Sources, 64 References] and professionalism guided students toward expectations i.e. imaginal others, of appropriate behaviour. In later cycles as job seeking became more difficult discussions on the impact of the financial crisis, the state of the labour and placement markets and the wider economy adjusted guidance of student expectations. Changes to the placement structure i.e. placement options (Table 6.2), in response to the recession from 2008 were communicated during these classes. The careers service also used placement classes to discuss long term career development goals such as student 'values', 'interests', 'personality' and 'skills' or VIPS [6 Sources, 10

**References]**; imaginal others used to guide CV and interview preparation. Employers also used placement classes to discuss and pitch placements to students.

*CV & Interview Preparation Routine [29 Sources, 119 References]*: Placement classes guided student CV and interview preparation. Students were asked to use the VIPS as guidance to produce CVs. CVs would subsequently be used during one-to-one interviews where the PO to screen the suitability of a student candidate and match that candidate with employers. This artifact passed to employers if initial screening and matching was successful. Outside consultants were hired to guide students on 'how to develop CVs' in placement classes. The Careers Guidance Counsellor (CGC) also addressed this alongside topics such as interview skills, and employer expectations when reviewing CVs as well as issues of long term career development. Students, in the short term, expressed difficulties in relation to CV development. Similarly, the PO often expressed dismay at the poor quality of CV content as this would impact on her relationship with employers.

*Long Term Career Development Routine [7 Sources, 11 References]*: As noted placement classes run by the CGC were dedicated to the goal of long term career development. The content of these classes overlapped and guided CV and interview preparation and introduced the VIPS model which emphasised the need to be reflexive about 'values', their 'interests', their 'personality' and 'skills' that would, as imaginal others, be used to guide CV and interview preparation.

*The Job Seeking Routine [25 Sources, 55 References] & Employer Relationships [21 Sources, 40 References]*: Alongside placement classes the PO was engaged in a process of job seeking i.e. sourcing placements through her engagement and reliance on employer relationships. Within this university-employer relationship the PO relied in long term established partnerships to negotiate placement, related requirements and adopt responsibilities for job seeking in the short term. The goal of job seeking in Stage 1 was to ensure a sufficient supply and availability of placements for each student cohort and was dependent on the goal to effectively management employer relationships by properly screening and matching candidates.

*The Screening & Matching Routine* [29 Sources, 93 References]: When placements were sourced, the PO conducted one-on-one interviews with students to review completed CVs. Appropriate candidates were then selected and matched with employers based on suitability i.e. if CV's were of a sufficient quality, and candidates were evaluated as being suitable, could meet employer expectations and secure the position during interview. The matching of student preferences to available placements also required ongoing management. Without appropriate CVs students would not be matched to the specific employer and the process of selection would not proceed. The screening & matching routine also emerged as an important relationship building process with employers with the PO adopting the role and responsibilities of a 'recruitment specialist' [7 Sources, 10 References] on behalf of employers rather than students. This also illustrated the level of employer's commitment in terms of resource allocation to the placement by 'outsourcing', to varying degrees, recruitment and selection tasks and activities to the PO. As a result, screening and matching was often conducted on behalf of employers as a first screening prior to CVs being passed to employers who would then select candidates for interview. The relative degree of outsourcing, of screening, or matching varied depending on the commitment of employer resources toward the development of their own recruitment processes [21 Sources, 64 References] and selection [36 Sources, 119 References].

*Employers Pre-Placement Planning Routines*: Employer planning activities in advance of both recruitment and selection was found in the data. For employers who regularly engaged with the placement routine evidence of early planning was found. The General Officer manager [EA 02 HB] of 'Pharma A' (Appendix 4.2) noted that requirements for placement students had become an annual item agenda at planning meetings. Her ongoing relationship with the PO made the General Office manager aware of the need to "act early to get the best students" [CIP1 June09-Oct09 Interview EA02 HB 12<sup>th</sup>Aug 2009]. By fostering a good relationship with the employers, the placement evolved into a regular and recognised pattern of activities evidenced by its inclusion in Pharma A's planning agenda. For some employers, their engagement with the placement began to gain legitimacy internally. Evidenced by its inclusion in

planning meetings, recruitment artifacts emerged reflecting an allocation of resources. This would have a knock-on effect, in turn, on the outsourcing of their recruitment and selection activities to the PO who would screen candidates on their behalf.

### 5.2.2 *During-Placement Stage Routines [Stage 2, Phases 3,6, & 9]*

From mid-March to September in each placement cycle students worked at employer sites. Due to the number of employers in the dataset (Appendix 4.2) it was expected that these routines would be more dispersed and specific to employers. Specific organisational routines remained separately coded (Figure 5.1 & 5.3) while common routines as standardised functions were merged into axial nodes. Routines which might have fallen outside the placement routine were also coded to account for a broader ‘set of possibilities’ from multiple ostensive understandings and connections in a wider placement context (Sections 2.2 & 2.3.1). This informed what cohered more closely to the placement. Important university-industry routines received more focused for this reason (Figure 5.3). These included recruitment [21 Sources, 64 References], interviewing [27 Sources, 94 References], selection and induction [36 Sources, 119 References] and placement management including ongoing training [19 Sources, 40 References] as well as mentoring [30 Sources, 76 References].

Name	Sources	References
Stage 2 Employer Routines	0	0
Abbey-Cancellations Routine	3	24
Abbey-Final Document Prep Routine	5	142
Abbey-Foreign Individual Travel	2	5
Abbey-FundingApplicationRoutine	1	4
Abbey-Hand Over Routine	1	1
Abbey-Preparing Itineraries	4	137
Abbey-Reservation & Booking Routines	5	120
EA Approval & Compliance Procedures	10	31
EA Funct Accounting&Finance	17	73
EA Funct Consultancy Routine	4	9
EA Funct Contracting Purchasing & Ordering	3	8
EA Funct Corporate&Business Planning	10	20
EA Funct HR-CareerLearning&DevRoutine	2	8
EA Funct HR-Flexitime Routines	1	2
EA Funct HR-Interviewing Routine	27	94
EA Funct HR-Recruitment&Applic Routine	21	64
EA Funct HR-Selection & Induction Training	36	119
EA Funct Intern-Graduateship-TrainingCt	19	40
EA Funct IT&Tech DataMgmt	3	8
EA Funct Mktng & Sales Routine	12	39
EA Funct Normative Work & Admin Routines	23	79
EA Funct Post Delivery Routine	4	19
EA Funct SiteVisits BookingFlights	2	5
EA Meetings & Project Events	6	6

Figure 5.3 *During-Placement Routines (Stage 2)*

*Employer Recruitment and Interview Routines [21 Sources, 64 References]*: Following on from the PO’s screen & matching activities, the employer recruitment and application procedures reflected how employers allocated resources to accommodate



the placement. As noted many employers outsourced recruitment responsibilities to the PO in her role of “recruitment specialist”. In latter cycles evidence from larger accountancy and financial services employers illustrated how they began to retain much of the activities associated with pre-screening with the adoption of online application software altering the mediating role of the PO and the links/placement office. This illustrates that by including or retaining specific tasks and activities within employer recruitments processes responsibilities for certain tasks and activities would shift from the PO. We return to discuss shifting tasks and its impact on roles later (Section 5.6). After appropriate CVs were forwarded to and screen by the PO suitable candidates were evaluated by employers and selected for interview [27 Sources, 94 References]. This process did not happen in such a regular predictable fashion and variations were evident in how this was enacted especially as students began to adopt greater responsibility for the tasks and activities relating to job seeking and apply for placement positions independently of the PO. This was compounded in latter cycles by larger firms with established recruitment processes utilising online recruitment tools.

*Employer Selection and Induction Routines* [36 Sources, 119 References]: Candidates were evaluated by employers on foot of their CVs and performance in the interview. This evaluation reflected an assessment of imaginal others from the CV e.g. their ‘values’, their ‘interests’ and ‘skills’ reflected in the CV artifacts and their ‘personality’ displayed in the interview. Students were selected and upon commencing the placement a form of induction training was often, but not always, provided. This reflected employer’s commitment and allocation of available resources. Smaller employer inducted student while ‘on the job’ and students on placement would ‘hit the ground running’ [36 Sources, 119 References].

*Managing the Internship and Ongoing Training* [19 Sources, 40 References]: The 16 weeks of a standard placement required ongoing management and training where necessary. This was associated with the data coded to various nodes reflecting day to day practices at employer sites such as administration routines, normative work practices, and functionally related activities (Figure 5.3).

### 5.2.3 *Post-Placement Stage Routines [Stage 3, Phases 1,4,7 & 9]*

Post-placement routines (September-November) unexpectedly emerged and overlapped with the commencement of the subsequent placement cycle (Figure 5.1 & 5.4). For Higher Education Institution (HEI) staff the post placement phase refocused attention on the academic quality assurance routine based on student submissions of their reflective logbooks for academic credit (15 ECTS) [17 Sources, 33 References]. Whereas it was expected that this placement cycle was over, students commented on the possibility of using current employers to help with final year research projects. Employers rarely acknowledged or associated this engagement with the placement (Stage 3). For them planning had already commenced for the following years placement. This revealed some differences in short term versus long term understandings of the placement goal, and differences in how connections of routines would become evident. In contrast to Stages 1 & 2 students began to discuss the long-term benefits or goals of the placement i.e. help with research projects, potential future employment, and long term career development. This reflected a shift to long term perspective on benefits becoming evident in student data (Section 5.3) and resulted in previously unseen tasks and activities cohering to the routine.

*Final Year Dissertation & Research Routine [24 Sources, 62 References]:* Many students would use their placements to gain further access either for final year research projects and/or for future employment – a significant concern for students entering a recessionary labour market. Students would engage with the placement once within their course of study while employers and HEI staff would repeat the placement cycle annually. As noted many employers commenced recruitment and selection processes for the following year while current students were still on site. The relevance of this was that perceptions of the placement routine were often expanded in the mind of students, including a wider range of tasks and activities which would cohere to the routine from a student perspective. This in turn would allow for expanded long term goals. In contrast pre-placement tasks and activities were overlooked by students in their descriptions of the placement. In most cases descriptions of the start of the placement were associated with interviews and starting to work at employer sites rather than the tasks and activities relate to CV and

interview preparation. One interpretation of this might be that students were focused on short term goals due to immediate pressure of sourcing placements and securing interviews while waiting on the PO to find placements on their behalf. As student goals began to reflect long term aspects an expansion of the tasks and activities that cohered to the placement could be interpreted as students accepted wider responsibilities for career development. This variation might be explained by a presence of learning and reflection increasing relational engagement by adopting responsibility for additional tasks and activities and in turn expanding the dialogical exchanges engaged with by students.

Name	Sources	References
Stage 2 Employer Routines	0	0
Stage 3 Post-Placement Routines	0	0
Post Placement Routines incl Final Yr Project	24	62
Logbook Routine - Quality Assurance	4	6
Performative-Ostensive		
Research Methods		

Sources                      References

*Figure 5.4 Post-Placement Routines (Stage 3)*

*The Quality Assurance/Reflective Logbook Routine* [4 Sources, 6 References]: Reflective logbook artifacts [29 Sources, 52 References] were used to ensure employers-student engagement while on placement. The logbook content supplemented student accounts of their time on placement. For students, the submission of the logbook was mandatory for academic credit [17 Sources, 33 references] in September and without it students could not progress to their final year of study. Through this logbook employers were exposed to the academic requirements that students would need to meet to get academic credit. Employer sign-off of weekly logbook entries ensured student engagement. However, this was done in a haphazard manner. This artifact was used to uphold academic quality assurance standards, the goals and integrity of the placement. The routine to maintain quality assurance, and the over quality of the placement, was evident in how the AHP and PO focused their attention on various issues during the four placement cycles such as terms of employment [12 Sources, 28 References] and pay [9 Sources, 10 references] as market conditions changed and

pressures to maintain the integrity of the placement increased [11 Sources, 26 References]. The goal for academic credit proved to be more significant influencing choices for enacting various tasks and activities. This will be discussed in more detail below (Section 5.5).

#### 5.2.4 An Overview of the Placement Routine

By relying on the principle of granularity for data analysis a broader less granular perspective of processes across all three stages was conducted. Here analytical separateness was not found (Dionysiou & Tsoukas, 2013). For this reason these are described separately.

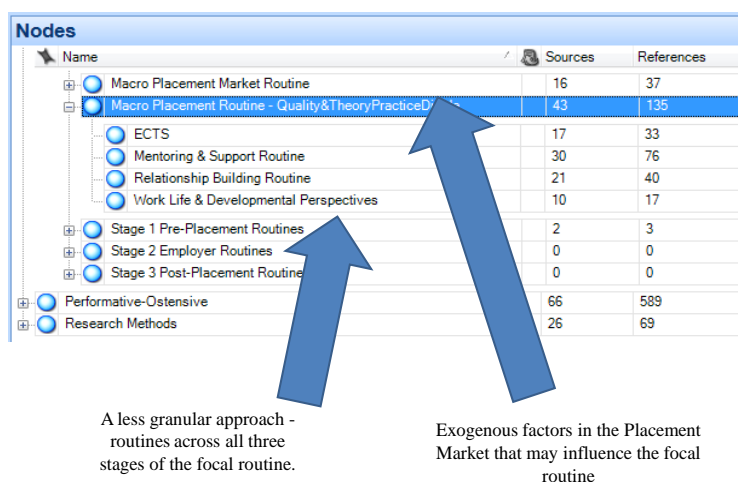


Figure 5.5 Overview of the Placement Routine within the Placement Market

**Relationship Building Routine [21 Sources, 40 References]:** Building university-industry relationships (Figure 5.1 & 5.5) represents an integral part of the placement guiding student preparation and job seeking tasks and activities while maintaining the HEI's reputation and integrity. By building good relationships with employers the PO and AHP could gain an understanding of employer credibility and their commitment to offer pay and good experience and facilitate student development [C2P2 Dec09-May10 IA02 EOG 6<sup>th</sup> Mar2010]. For this reason, student performance in interviews and on placement was understood as influencing the integrity of the placement [C2P2 Dec09-May10 DO2-Placement Class 4<sup>th</sup> Feb2010]. For this reason the PO to conduct one-to-one screening interviews with students to assess their suitability for important employers [C2P2 Dec09-May10 DO3-Placement Class 11<sup>th</sup> Feb2010] with whom the PO could

negotiate and engage with over issues of pay [C2P2 Dec09-May10 DO4-Placement Class 18<sup>th</sup> Feb2010]. From an employer perspective, as evident in recruitment artifacts, a good relationship would ensure a steady supply [C2P3 Apr10-Sept10 Interview EA07 NR 13<sup>th</sup>July2010] of reliable students [C3P6 May11-July11 Interview EA14 PG 14<sup>th</sup> July2011]. Previous efforts to maintain employer relationships included a business breakfast [5 Sources, 8 References] to bring employers in to meet students. This however was discontinued.

*The Mentoring & Support Routine* [30 Sources, 76 References]: The PO took the responsibility for arranging a formal mentoring programme. Recruited academic staff visited employer sites during the summer months to ensure that both employers and students were satisfied. This mentoring routine was directly linked with maintaining university-employer relationships, ensuring quality assurance crucial for the integrity of the placement and the integrity of the academic institution itself. Its immediate goal was of course the welfare of the students. While primarily associated with Stage 2 other forms of mentoring was evident throughout placement cycles. Employer mentoring was immediate relating exclusively to Stage 2 and focused on the short term usually enacted by immediate line managers. This process varied in relation to how formal/explicit or informal/implicit it was. This routine was also connected to employer training routines [36 Sources, 119 References] which varied from employer to employer. In contrast a long-term perspective to mentoring was adopted by the HEI staff, including the CGC across all stages of the routine. This was connected to pre-placement data which discussed reputation, career goals, personal development, and work-life development [10 Sources, 17 References] as well as employability. More broadly, support in the context of changes in placement and labour markets was also provided (Figure 5.5).

*The Placement as an Academic Quality Assurance Routine* [42 Sources, 135 References]: The placement was predominantly discussed as a quality assurance routine which informed an administrative goal, a broad goal to narrow a perceived divide between theory taught in the classroom and practice experienced at employer sites. Within this, academic standards [36 Sources, 124 References] were coded

separately in relation to the European Credit Transfer System (ECTS) [17 Sources, 33 References]. Aspects of the placement relating to the placement market, industrial and educational policy were coded separately as this represented data pertaining to the goals of the placement within wider less granular societal context [13 Sources, 15 References] such as the placement market [16 Sources, 37 References] and employment markets. These highlighted issues relating to terms of employment and how it impacted on the quality of the placement [12 Sources, 228 References]. Wider exogenous factors will be discussed below (Chapter 6).

The first step in analysis i.e. routine identification (Section 4.4.1) was presented here. Descriptive accounts of the placement emerged inductively from data coded to ‘REFERRING’ and ‘CLARIFYING’. As a finding, and contribution to internship/placement research, empirical evidence supported the three-stage understanding of the placement. Where analytical separateness was not found processes across the placement cycle were described. By being sensitive to issues of granularity in analysis we can minimise fragmented descriptions of the placement. The main finding was that ostensive descriptions of routines varied across actors who placed different emphasis on tasks and activities i.e. their understandings of sets of possibilities varied. Student and employer ostensive descriptions of tasks and activities were more narrowly focused compared to HEI actor descriptions. This prompts the question as to why certain tasks and activities were absent or present in how actors referred to routines? It also prompts the question as to what tasks and activities were commonly acknowledged or understood? How do shared descriptions which cohere centrally to the routine come about? For this reason, what was ‘absent’, ‘present’, or ‘centrally’ understood across all actors became an avenue for unpacking ostensive routine dynamics. Armed with descriptions of identified routines we now turn to unpack ostensive understandings of placement goals and roles.

### *5.3 Unpacking Multiple Ostensives – Actor Perspectives*

Reflecting analytical separateness, the second step in data analysis, actor involvement varied across the three stages of the placement i.e. dialogical exchanges between students and the HEI informed Stage 1, while student-employer dialogical

exchanges predominantly contributed to Stage 2 (Section 4.4.2). HEI actors and employers with established relationships reflected a cyclical ostensive understanding of the placement. Students, as new entrants going through the process once, reflected a narrow linear ostensive understanding of tasks and activities. This variation in what tasks and activities cohered to the routine in turn reflects variations in the goals, roles and related responsibilities for enacting tasks and activities that are become legitimised (Section 3.2.2). Coding queries as analysis accompanied by constant comparisons across stages and across placement cycles were used here to unpack actor perspectives (Appendix 5.1).

The cyclical nature of the academic calendar influenced PO and AHP perceptions of the placement. The long-term goals of the placement, and its coherence, were driven by the need to maintain academic standards, employer relationships and to source enough placements annually i.e. job seeking. However, the enactment of tasks and activities was also guided by short term goals within routine stages i.e. immediate goals for job seeking, screening and matching of candidates in Stage 1. HEI staff held both long and short-term placement goals simultaneously [**Appendix 5.1 Coding Query No 1 & Matrix Coding Query 1**].

In contrast student cohorts engaged with the placement annually. As new entrants, their ostensive understanding reflected a narrow linear quality as they lacked previous experience and recognition of discernible pre and post placement patterns of activities resulting in a truncated interpretation of the placement and what cohered to it [**Appendix 5.1 Coding Query No 2**]. The starting point of the placement as perceived by students was around the time of interviewing and not around placement classes as might have been expected. Unless prompted students rarely referred to pre-placement routines suggesting that tasks and activities linked to the CV and interview preparation did not cohere to the placement as might be expected. Even when asked directly many student actors could not recall a 'self' preparatory routine where they took responsibility for tasks and activities linked to CVs, interview skills, or focusing on long term career development. Therefore, goals, roles and related responsibilities for enacted tasks and activities linked to these routines were absent in their

descriptions of the placement. Placement interviews prompted students into action consistent with focusing on the immediacy rather than long term goals to guide action (Section 5.3.2). One supporting interpretation was that placement classes did not carry academic credit which reduced attendance and acknowledgement of the importance of the tasks and activities cohering to Stage 1.

Using constant comparison, Stage 1 data showed that students perceived the placement as ending in September. This suggested something short term and calculative in the perspectives of students – suggesting a focus for further analysis. But in Stage 3 data their perspective changed to reflect more long term goals relating to career development. This effectively extended the length of the placement, the scope for recognised tasks and activities that would cohere to the routine and the set of possibilities in relation to roles and the related responsibilities they would adopt. We return to discuss this in more detail below (Section 5.3)

Employers revealed a more truncated understanding of the placement with no acknowledgement of pre-placement or post-placement stages. However, some notable patterns of activities across the four cycles were found [**Appendix 5.1 Coding Query No 3**]. Some employers engaged with the placement through resource planning [**10 Sources, 20 References**] in advance of negotiating with the PO in her role of ‘recruitment specialist’. This allowed them to negotiate pay, the development of job specs, length of placement, and screening of CVs by the PO on their behalf. For many employer actors, tasks and activities commenced on receipt of CVs from the PO. Employers dealing with students while on the job showed little or no understanding of the broader placement. While some were involved in screening and interviewing, many had little involvement until students arrived on-site. In larger organisations HR staff managed the placement, but were removed from the daily experience of students. Employers who dealt with the PO reflected a more strategic understanding of the placement goal as a university-industry relationship. Both students and employers held narrow short term descriptions of the placement. In turn, their interpretations of goals, roles and related responsibilities influenced the scope of tasks and activities which they understood cohered to the placement.



Consequently, many tasks and activities did not cohere and/or hold legitimacy from their perspectives. From these different ostensive understandings or goals and roles we can see variety and variation within ostensive routine dynamics.

#### *5.4 Unpacking Multiple Ostensives – Routine Goals*

From industry and media sources the goal of the placement was found to reflect a varied emphasis on ‘pay’ and ‘experience’. Tacitly it is assumed that without pay a placement would provide experience. If experience is absent, pay would be forthcoming. Wherever the emphasis would fall between the two, the placement would be understood to fail if neither materialised in some way i.e. if both ‘pay’ and ‘experience’ were absent (Section 1.4). Descriptions of goals reflecting multiple understandings e.g. short term versus long term goals, were coded as articulated goals within dialogical exchanges. Roles were interpreted as future imaginal selves i.e. ‘IMAGINAL OTHERS’ guiding action. This section unpacks the sets of possibilities by describing the placement goals as understood by multiple actors.

##### *5.4.1 Institutional/ HEI Perspectives on ‘Paid Experience’*

*Goals – Seeking Paid Placements:* The PO’s discussion of placement goals was found to be consistent with industry and media sources focused on variations of ‘pay’ and ‘experience’ or ‘paid experience’ (Section 1.4). Paid experience was explored using coding queries [Appendix 5.1 Coding Query No 4, 8 & 10]. Both the PO and AHP discussed a preference to prioritise paid ahead of unpaid placements. This guided their understanding of the importance of tasks and activities relating to job seeking, academic quality assurance and relationship building routines (Section 5.1). The PO, referencing the changing economic climate, made the following comment to students;

“I sent CVs and I sent the letter and the brochure and obviously in there I put a paid placement. They both came back and said they’re not taking anyone because they thought it was free, like they’ve had from other colleges, all right? So this is, that’s a very bad start to things... but that’s the climate out there, they’re very nice companies but, and they were small companies, but they were ‘free’, so obviously I just ignored them after and we’ll go back if we are desperate in April but we’re not going there yet except for the RTÉ one because I think one outweighs the other. Okay?”

[C2P2 Dec09-Mar10 DO1 Placement Class 17<sup>th</sup>Dec2009]

The AHP also indicated the importance of sourcing paid placements in terms of how it influenced student actions;

“It's always been the case the students have been paid. But in large part we would intuitively feel that both parties would treat the whole process more seriously, if there is a monetary transaction. If the students know they are getting paid. Intuitively, we know that they would turn up on time, and you would work harder etc. And the employers, if you're giving the money would give them tasks and challenge them to do [sic]. And that is an intuition”.

**[C2P2 Dec09-Mar10 Interview IA02 EOG 6<sup>th</sup>March2010]**

The nature of a paid placement was also perceived to influence employer actions;

“I would see them [students on placement] as employees. It is, because of course, it is of course, because there is a monetary transaction there. The employers are paying the students. As a result, the employers take the relationship more seriously. They want to get something back from the students because they are paying them. And the students take it more seriously, because they see it as some sort of a professional relationship. And they might see it slightly less so, if they weren't getting paid”.

**[C1P1 June09-Oct09 Interview IA02 EOG 4<sup>th</sup>Sept2009]**

The paid placement, reflecting a monetary transaction, would ensure that all parties would take the placement seriously and contribute to its integrity. On the ease of placement management and improve engagement the AHP commented;

“...even when an employer has been paying the student I'm glad to say that the placement officer ... has no need to be too involved. In my experience ... the students are working very very well. There is no need for the company to contact the placement officer to complain about a student that they are not working. Because the student is going in and not seeing just as a chore to get 15 ECTS but is an opportunity to learn an opportunity to impress and so on”.

**[C2P2 Dec09-Mar10 Interview IA02 EOG 6<sup>th</sup>March2010]**

When pay is present it was perceived as important to ensure a productive rather than a calculative mode of engagement as actors engaged seriously with the process by adopting appropriate roles and responsibilities for tasks and activities e.g. turning up on time. By sourcing paid placements as a job seeking task the PO and AHP would strive for an efficient placement programme, reduce the need to mediate between students and employer while also developing good employer relationships. As a goal by exhausting paid placements first, the PO prioritised employers offering payment within the job seeking and screening and matching routines. Unpaid options would be not be prioritised until paid options were exhausted. This suggests an ambiguous ranking of ‘pay’ over ‘experience’ as goals guiding the enacting of job seeking tasks and activities.

However, RTÉ the national TV and radio broadcaster in Ireland mentioned in the quote above, was known as a reliable credible employer providing good experience without pay was also prioritised within the job seeking routine. Therefore, unpaid placements offered by credible employers guaranteeing good experience, where a good relationship had been established, were also considered earlier in the process before paid placement were exhausted. This interpretation was confirmed in the data across other employers where a good relationships had been established and who consistently provided good experience e.g. a financial services/fund management employer and a tour operator (Appendix 4.2). The PO's perception of (un)paid placements would alter as she prioritised employers based on credibility while enacting job seeking tasks. Finding paid placements appeared here as a central goal. The offer of experience from a credible employer was understood as a close but secondary goal.

In support of this interpretation a contrasting but consistent interpretation was found using the attribute coding for unpaid placements. As noted above (Sections 5.1.2 & 5.2.3) smaller employers, new to the placement programme were sceptically viewed i.e. no credibility, when offering unpaid placements. To avoid this the AHP recommended a standardisation approach to pay for all placements to avoid potential employer abuse, overcome shortcomings, and maintain 'quality' and ensure a level playing field with competing HEI's when sourcing placements. This standardised approach was also supported in student data commenting on inequities relating to different placements especially relating to pay [C1P1 June09-Oct09 Interview SA02 LOG on Pharma 1 versus Pharma 2]. Their credibility was under scrutiny due to the absence of an established relationship i.e. relationship building tasks and activities had not been enacted with these smaller employers. As these employers ran a risk of not delivering on a quality experience these unpaid placements required additional management i.e. tasks and activities to maintain academic credit standards. The fear was that smaller companies might abuse placements, during the recession, as a cheap/free source of labour. Here unpaid placements were perceived as not providing

a good experience for the students [C2P2 Dec09-Mar10 Interview IA02 EOG 6<sup>th</sup>March2010].

*Goals – Seeking Good Experience:* At the height of the recession in Ireland [February 2010, Placement Cycle 2] the PO experienced increased difficulties in sourcing paid placements. The focus on ‘pay’ during job seeking became more difficult when selling the idea of the placement to employers (Cycles 3 & 4). She explicitly shifted emphasis from ‘pay’, as a default, to emphasising ‘experience’ as being more advantageous for employers and students [Appendix 5.1 Coding Query No 8, 11 & 12]. In the event of not being able to source a paid placement, sourcing a placement with guaranteed experience from a credible employer was preferred to meet the job seeking goal by shifting activities to ensuring quality of experience from credibility employers with established relationships. Naturally larger employers with established relationships were treated differently compared to smaller employers without established relationships. This change in emphasis to experience was highlighted in the Business & Management promotional brochure as a benefit and goal for students;

“THE BENEFITS TO STUDENTS OF PLACEMENT

- An opportunity for real hands-on business experience.
- An exposure to everyday business routines.
- The challenge of working to deadlines, pursuing objectives and meeting and exceeding targets.
- Enhancement of their education by relevant contact with the business community”

[C1P1 June09-Oct09 Placement Brochure -Received 9<sup>th</sup>Feb2009]

The AHP referred to gaining ‘experience’ as something to be added to the CV however the data remained vague in specific terms about the meaning of ‘good experience’ [C1P1 June09-Oct09 Interview IA02 EOG 4<sup>th</sup>Sept2009]. Few explicit examples of good experience could be found in the data [C2P2 Dec09-Mar10 DO4 Placement Class 18<sup>th</sup>Feb2010] but it was distinguished in the data by providing examples of poor experience e.g. doing menial day-to-day tasks such as filing or making coffee.

*The Ideal Goal to Source Quality Placements:* The goal for sourcing paid placements and good experience, and the shifting emphasis between the two as a dualism was found to only reflect a partial picture. ‘Paid experience’ interpreted as a duality was

interpreted within a broader goal which emerged i.e. sourcing ‘quality placements’ [Appendix 5.1 Coding Query No 7]. Pay was associated more with the integrity of a ‘good quality placement’ than experience. The lack of pay is associated with poor quality placement [Appendix 5.1 Coding Query No 12];

“...a small company that ..... would take on one student unpaid....and I was talking with Stacy [the Placement Officer] and it was totally about making coffee and/or making tea. That student isn't just,.... they can run the risk of falling into that scenario. Do you think that can happen? And how do we control against that?”

[C2P2 Dec09-Mar10 Interview IA02 EOG 6<sup>th</sup>March2010]

When pay was absent experience was assessed in relation to a ‘good quality placement’. Employers taking the placement seriously would avoid scenarios typically associated with poor quality placements such as coffee/tea making, filing or photocopying [C2P2 Dec09-Mar10 Interview IA02 EOG 6<sup>th</sup>March2010]. These analogies of tea and coffee making, filing and photocopying associated with poor tasks prompted further analysis targeting the meaning of a ‘poor quality placement’ [Appendix 5.1 Coding Query No 12]. The data, mainly unsolicited from employers and from reflective logbook entries actually highlighted the importance of these perceived menial tasks for day-to-day operations [C2P3 Apr10-Aug10 Interview EA05 KMD 2<sup>nd</sup>June2010; C3P6 Mar11-Aug11 Interview EA14 PG 14<sup>th</sup>July2011; C1P1 June09-Oct0 Interview EA04 JD 27<sup>th</sup>Aug2009; C3P6 Mar11-Aug11 Interview SA08 GB & SA07 BH 12<sup>th</sup>July2011; C3P7 Sept11-Nov11 Artifacts&DocEvidence SA52 DR ATours2011]. The PO reassured students that “*they won’t just be making coffee*” [C2P2 Dec09-Mar10 DO3 Placement Class 11<sup>th</sup>Feb2010]. This perceived distinction appeared as a safeguard and was acknowledged as not reflecting reality;

“AHP: I don't think any company is just got to have students making coffee making tea and or photocopying and stuff. I don't think any, maybe a little bit, I don't think any company would do that were they are paid. There is, it would be naive for me to think that companies where the students are not getting paid, that there is a more lackadaisical attitude towards work. And for sure, against that, we have students who were working unpaid last year there was nothing but positive feedback in relation to them \*inaudible\*..”

[C2P2 Dec09-Mar10 Interview IA02 EOG 6<sup>th</sup>March2010]

Maintaining integrity and reassuring students and employers through a monetary transaction ensuring experience was understood to leading to a good quality placement avoiding a “*lackadaisical*” approach. In evaluating quality placements pay was understood as central to evaluating quality. In its absence experience from

credible employers was then preferred. Experience from less credible employers would be exhausted last.

*The Actual Goal to Place All Students:* As a proxy for ‘paid experience’ the sourcing of quality placements represents an ideal goal. However, the actual goal was to place all students. The goal to “place all students” differs from but further unpacks the goal to source quality placements. As a long term goal it does however compromise and conflict with the goal to screen and match all students in the short run. The promotional brochure, circulated to all students, described placement ‘benefits’ guiding students and employers on how to engage with the placement. In addition to the point for students highlighted above the benefits for employers included;

“THE BENEFITS FOR YOUR COMPANY OF PLACEMENT: An additional resource for your company, so often needed at peak periods or to carry out special projects. An opportunity to free-up high-salaried professionals from time consuming but essential tasks. An ideal way to evaluate possible future employees. Specialist back up is available from faculty mentors in areas such as market research support”.

[C1P1 June09-Oct09 Artifacts& Doc Evidence Placement Brochure –Received 9<sup>th</sup>Feb2009]

For students, the placement provides ‘experience’, builds confidence and would “*produce a graduate with the knowledge and skills to work.*” In addition the AHP noted how the placement matures students as a benefit in the long run [C1P1 June09-Oct09 Interview IA02 EOG 4<sup>th</sup>Sept2009]. With varied goals captured in a promotional artifact questions relating to how they guide and allow action to be accounted for can be raised. The use of ‘benefits’ as a basis for understanding good experience caters for the possibility that participant actors might otherwise be unable to express a monolithic ‘goal’ for the placement. A mature student [SA05 CD] was matched to a tour operator [A Tours], a field where she had previously worked professionally. She was understandable unhappy about the experience she would get [C2P2 Dec09-Mar10 Interview SA05 CD 23<sup>rd</sup>March2010] raising concerns. As placements became scarce the goal to place all students with employers, as a short-term measure, became more important than the ideal goal to source quality placements.

#### 5.4.2 *Student Perspectives on 'Paid Experience'*

*Goals - Student Perspectives on Pay:* Short term goals relating to 'pay' preoccupied students. Student fears and concerns about completing CV, developing interview skills, finding a placement through the PO and getting called for interview, exams and concerns regarding the recession all contributed to [Appendix 5.1 Coding Query No 5, 13 & 15] a tendency to focused on the immediacy of pay in the short term (Stage 1). Leaving a part-time paid position for an unpaid placement became an increasing worry for students especially within a recession where employers could not promise to hold positions. Many students could not differentiate the experience gained in their current role compared to the uncertain promise of 'good experience' with an unknown employer. Leaving a paid part-time position would most certainly result in losing that position permanently.

Newly introduced placement options with shorter timeframes at employer sites supplemented by additional project work were later introduced (Table 6.2). This caused students, worried about pay, to ask if they could remain in their current employment and have that accepted as an appropriate placement [C1P1 June09-Oct09 Interview SA03 PG 27<sup>th</sup>Aug2009]. This scenario impacted on student engagement with the placement process [Placement Cycles 3 & 4] and the PO who was struggling to maintain the routine in uncertain economic times. The new placement options were created in response to a contracting placement market (these are outlined in Chapter 6). Students now considered the benefits of remaining in current part-time employment against deteriorating conditions without pay. Going out on placement was understood as having a long-term financial impact on student's ability to fund themselves through college. Being able to 'live' became a more immediate goal and finding a paid placement was the only alternative to remaining in current part-time position.

*Goals - Student Perspectives on Experience:* The student data provided insights into experience where institutional data was limited. Prospects for gaining experience were uncertain. Discussions were overshadowed by a short-term focus on 'pay' (Stage 1). In contrast getting experience represented an unclear long term goal with

unclear guidance on how to achieve it [C2P2 Dec09-Mar10 Interview SA05 CD 23<sup>rd</sup>March2010]. This differed from comments about gaining experience which became more prevalent in Stage 3 data at the end the placement cycle when students began to articulate the importance of experience in a long term context [C1P1 June09-Oct09 Interview EA04 JD 27<sup>th</sup>Aug2009].

Unusually one student, who felt he had a very positive experience at a pharmaceutical employer, noted that pay wasn't as important as he valued experience, above all else, as a long-term benefit [C1P1 June09-Oct09 Interview SA03 PG 27<sup>th</sup>Aug2009]. He was sceptical however about companies making large profits while not willing to pay students on placement. In reference to shorter placement options which impacted on engagement;

“PG: ...ammmm, it's a really vague area. Because amm,... I think the experience, in hindsight, I probably would have done it for free. But I didn't know I was going to get this experience. I could have done anything. And amm,... like, JP Morgan announced record profits there. Their profits are reaching back to pre-bubble, sorry bubble levels. And it's, like, like, they've had them there for a few weeks. And, I don't know, when you left, I don't know if they reward them at all?”

[C1P1 June09-Oct09 Interview SA03 PG 27<sup>th</sup>Aug2009]

This statement typified how students balanced experience with pay and/or understood experience in the context of pay [Appendix 5.1 Coding Query No 13 & 14]. While experience was discussed in pre-placement data, students could not articulate what experience meant, being overwhelmed by the need to focus on the immediacy of pay.

Good experience was associated with being properly paid for the work expected [Pharma A] and was associated with good working conditions, being given good projects as ‘quality work’ and having the employer’s understanding and appreciation of ‘the role of the student on placement’ [17 Sources, 37 References]. Poor experience was associated with not getting paid well and being expected to fulfil the role of a fulltime paid employee [Pharma B]. Inequities in placement pay across different students from different institutions was also highlighted [C1P1 June09-Oct09 Interview SA02 LOG 27<sup>th</sup>Aug2009]. ‘Poor experience’ was associated with forgetting the role of student on placement in favour and having unreasonable expectations treating



students as ‘fulltime employees’ expecting them to work over time for little or no pay [Pharma B]. This was compounded if mentoring was absent [30 Sources, 76 References]. Poor experience was also associated with the lack of induction training [36 Sources, 119 References], and exclusion from groups going to lunch etc. Where mentoring or engagement was absent and the context of project work was not outlined [SA25 FQ] students felt their experience was poor as their work was not valued by employers or they were not given interesting projects i.e. ‘quality work’.

Where the importance of a task or activity was not explained students began to question and evaluate their experience. Non-engagement and a lack of ‘guiding’ (Section 2.3.1) or inducting on the ‘inherited background’ resulted in dissatisfaction (Section 3.2.1). Where guidance was provided, through mentoring, induction etc, even if the work was menial students accepted it as worthwhile and would not question inequities or organisational issues such as profits. Employers over emphasising productivity in the absence of care for students caused students to question employer motives consistent with the HEI perception that employers might ‘take advantage’ of students and not take the placement seriously.

Experience was also discussed in relation to narrowing the theory-practice divide. Gaining experience was associated with having confidence to learn on the job while also assessing employer expectations. What a student should know on commencing a placement illustrated a reflexive (Figure 2.4) understanding of their roles and an acceptance with engaging with ‘gaining experience’ as an imaginal other linked to their future selves (Section 3.2.2) and dialogical exchanges around ‘experience’. Being aware of one’s job or role illustrated the adopting of responsibilities and a shifting from being the ‘student’ to being the ‘employee’ (Section 3.2.2). Coupled with the need for managers to understand the roles of students the following comment was made;

“I was surprised at how...like about how much we learn in college and then how little we needed to know where we come in like, they don’t...you’re not really trusted with having to know all this information like, so they kind of almost assumed when you come in first that you don’t know anything about accounting or tax”

[C3P6 Mar11-Aug11 Interview SA08 GB & SA07 BH 12<sup>th</sup>July2011]

He drew the distinction between an academic and on the job learning;

“Yeah, I guess it’s no pressure on how you know.... I felt like I...like I’ve been reading the tax book for months before I started ... and there was no...that was all completely unnecessary”

[C3P6 Mar11-Aug11 Interview SA08 GB & SA07 BH 12<sup>th</sup>July2011]

This was also captured in logbook entries;

“During the first two weeks I only spent one day in Audit but when I was there I analysed a client’s financial statements I realised how similar they were to the theory we study in college but how different the method was in achieving this end product. This realisation was of course expected as theoretical calculations aren’t practical in the real life working environment but it was interesting to see the system they use in practice”.

[C3P7 Sept11-Nov11 Artifacts&DocEvidence Logbook SA20 DS 2011]

This student, in taking on responsibility to read tax manuals, attempted to achieve a goal relating to ‘experience’. He noted that his efforts were futile as his accountancy employer assumed that students on placement would have no prior knowledge adopting a developmental responsibility. New distinctions were emerging here as students completing their placement distinguished experience in terms of ‘on the job learning’ from ‘academic learning’. This was aided by an understanding of being ‘employees’ and the responsibilities that came with this emerging role as opposed to ‘students’. The benefits for students became more tangible as they made connections and engaged with employers in a relational way. But this was dependent on the actions of employers as described above. We return to focus on the difference in employees and students as roles below (Section 5.5).

Experience as ideal goal allowed students to expand their view of the placement in a relational way. Students began to discuss using employers to aid in future research projects and as sources for potential future employment i.e. long term goals regarding employability and career development. These were all linked to a future role of ‘employee’ as an imaginal other. The ability to reflect and arrive at a long-term perspective was also associated with a good experience [C3P6 Mar11-Aug11 Interview SA08 GB & SA07 BH 12<sup>th</sup>July2011].

### 5.4.3 *Employer Perspective on 'Paid Experience'*

*Goals - Employer Perspectives on 'Paid Experience'*: The employer's perspective on 'paid experience' was conditioned by their focus on productivity i.e. filling the gap, using seasonal workflow to free up staff for more important tasks [C1P1 June09-Oct09 Artifacts& Doc Evidence Placement Brochure –Received 9<sup>th</sup>Feb2009]. This productivity goal while not always explicit superseded providing a good experience. The overarching goal was to decrease costs while also increasing productivity. Employers focus on experience was shrouded in discussions of resource allocation.

For employers, levels of pay was engaged with so as to reduce costs while simultaneously increasing productivity [Appendix 5.1 Coding Query No 6, 16, 17 & 18]. One employer, a large Irish based tour operator [A Tours], did not pay interns from other countries such as France and Germany where it was not a cultural norm to pay 'interns' [C2P3 Apr10-Aug10 Interview EA07 NR 13<sup>th</sup>July2010] while at the same time paying Irish students. For foreign students, the emphasis was placed on experience and learning English, as a substitute for pay as an overarching goal. This varied treatment of pay was also found in other employers [Pharma B, L Technologies – Appendix 4.2]. This suggested that payment was not perceived as a priority but as a negotiable cost to be minimised where possible.

More broadly the goal to minimise the allocation of resources to the placement was not only evident in relation to pay but also in relation to the recruitment and selection routine where many tasks were outsourced to a willing PO performing the role of 'recruitment specialist' (Section 5.1.1). The commitment of resources was also outsourced or minimised in relation to preparing job specs. The PO preferred not to ask employers for job specs as it was a barrier to sourcing placements. There was also an implicit suggestion that by providing a job spec the employer might be compelled to promise and be bound by a level of experience explicit in the job spec. The recession compounded this giving rise to more unpaid placements. In this context, the PO adopted more responsibilities such as writing up job specifications on behalf of employers with increasingly limited time and resources. There was little thought or suggestion that employers might commit additional resources to the

process. This was consistent with a position of providing ‘experience’ as a goal in the absence of ‘pay’. Discussions around skill development e.g. interview skills [EA04 JD], and a possible co-op version of the placement where students would work and study at the same time [EA03 DC] placed a focus on a need to adapt the placement to suit employer needs. Changes would firmly be rooted with the HEI and PO to improve communications and coordination for and on behalf of employers with little or no reflexive thinking from employers evident in the data [C1P1 June09-Oct09 Interview EA04 JD 27<sup>th</sup>Aug2009; C1P1 June09-Oct09 Interview EA03 DC 27<sup>th</sup>Aug2009].

The data revealed that employers were only peripherally concerned that students would have a good experience while on placement. This could be found in the following comment;

“JD: ....it’s great for them, to get experience. It’s great for us as well to have the help. They’re solely missed (emphasis). When they go...”  
[C1P1 June09-Oct09 Interview EA04 JD 27<sup>th</sup>Aug2009]

This was not a strategic goal for employers in terms of their involvement in the placement and was not explicitly acknowledged as a clear goal [C1P1 June09-Oct09 Interview EA03 DC 27<sup>th</sup>Aug2009; C1P1 June09-Oct09 Field Notes Field Notes – Pilot; C1P1 June09-Oct09 Interview EA04 JD 27<sup>th</sup>Aug2009]. Some employers discussed ‘experience’ as something students lacked when entering the workplace [C2P3 Apr10-Aug10 Interview EA07 NR 13<sup>th</sup>July2010], and that gaining experience was an opportunity they as employers provided [C3P6 Mar11-Aug11 Interview-EA13 CM 12<sup>th</sup>July2011]. There was however a separation of goals here. Employers rarely acknowledged their own responsibilities in improving experience as this would require resources. Most lacked any understanding of the academic goals related to the placement. One employer who took the time to come speak to students in the placement classes emphasised experience as an ‘accelerated learning curve’ and as a selling point to introduce students to international financial transactions [L Technologies – Appendix 4.2]. He noted that a student [SA10 LS] from a previous placement cycle was now employed part time and had gotten as much experience during her placement as a government internship candidate got in seven years. This employer traded on ‘experience’ in the absence of ‘pay’ [C3P5 Sept10-Mar11 DO10-PlacementClass EA15 IL from L Technologies

21<sup>st</sup>Oct2010 – this interpretation was supplemented with FIELD NOTES]. Many of the Big 4 accountancy and financial services firms with established trainee contracts programmes used the placement in this way. The General Office Manager [EA02 HB], of a major pharmaceutical company [Pharma A], commented that over the 5 or 6 years working with the PO, they have developed a better understanding of their own long term requirements for the placement. As noted above this was now factored annually into the assessment of staffing needs [Appendix 5.1 Matrix Coding Query No 2 & 3].

#### 5.4.4 *Summary - Multiple Ostensive Understandings of Goals*

The pragmatics of oscillating between ideal and actual goals resulted in tasks and activities being combined and recombined in different ways (Section 2.3.1 & Figure 2.4). The PO's process of evaluating employers impacted on how various routines were enacted resulting in variation. The ideal goal of the job seeking and matching routines to source 'quality placements' was compromised to meet the actual short-term goal to 'place all students'. Selecting and matching students for quality placements was replaced when placements were scarce with a focus on placing all students. Here tasks and activities were ranked and recombined in an ever-changing context. This variation would continuously alter reflecting how the multiplicity of shifting goals, as imaginal others, was relied on across multiple dialogical exchanges. By considering goals as imaginal others (Section 3.2.2) we find they are not monolithic, and as action disposition are continuously compromised and reinstated through a fluid process of unfolding articulations.

While absent in HEI data, the student data provides insights into the meaning of 'good experience'. While initially focusing on short term goals of 'pay' by the end of the placement students showed signs of being more reflective as they shifted focus to long term issues such as career development, help with their research projects and potential future employment [Appendix 5.1 Matrix Coding Query No 2 & 3]. By engaging with goals as 'imaginal others', pay was found to be associated with short term goals while experience was linked to long term goals in the data. In addition, students changed roles from being 'students on placement' to 'employees'. This was reflected in the adoption of a broader set of responsibilities and more scope for productive relational engagement (we return to this in Section 5.5). Arguably a focus on pay, as

the beginning of the cycle, reflected a calculative relational engagement in the short term while experience at the end of the placement reflected productive relational engagement (Section 3.2.1 & Figure 3.2). Long term ideal goals reflected ambiguity but carried a sense of relationality and sensitivity to otherness compared to short term goals that were tangible, immediate and lacked relationality with the ‘other’ and were thus calculative.

‘Productivity’ reflected a consistent short term goal for employers. While some had long term goals for their engagement with the placement it was to improve long term recruitment by treating the placement as a risk free 6 month interview. By finding good candidates, through a risk-free process, employers would not need to commit resources to salary or wage costs [EA15 IL]. Employer understandings of ‘experience’, and a ‘quality placement’ was understood solely in the context of improving productivity. While students and HEI perspectives appeared to converge, employer perspective on the placement goal continued to remain separate. On further analysis, this appeared to be linked to academic quality assurance, standards and academic credit which we now turn to (Section 5.4).

The main finding here was that goals are continuously being evaluated, ranked, and recombined resulting in variations of what tasks and activities are enacted (Figure 2.4). The sets of possibilities which emerge result in pragmatic consequences for performance and supports a non-monolithic ostensive understanding of routine dynamics. This process of evaluating warranted further attention during analysis as could be used to explain how goals can become commonplace or ‘centralised’ within the routine as noted in the previous section above. In turn tasks and activities are themselves linked to perceived roles and goals and how they suggest responsibilities for their enactment. Evaluating and recombination of goals results in improvisation i.e. repertoires of actions, across interconnected routines e.g. in job seeking, screening and matching, academic quality assurance and relationship building.

### 5.5 *Unpacking Multiple Ostensives – Academic Standards*

The goal of maintaining academic quality assurance, academic credit or standards is treated separately here as it related to the placement as a whole i.e. analytical separateness was not found in data collected across all three stages of the placement (Figure 5.1). The goal to maintain academic quality assurance was found to be an immutable goal from an HEI perspective [**Appendix 5.1 Coding Query No 19**]. The placement process accounted for 15 ECTS [**C1P1 June09-Oct09 Interview IA02 EOG 4<sup>th</sup>Sept2009**]. The goal to achieve credits was understood alongside the goal to maintain academic standards through the academic quality assurance routine (Section 5.2). The goal to maintain academic standards guided HEI staff in the tasks and activities they engaged with especially in response to exogenous pressures from a recessionary labour market. Placement documentation outlined the basic requirement for academic credit i.e. achieving ECTS credits;

“As many of you will be aware, the Year 3 students on the B.Sc. Business & Management programme are required to complete a 4 – 6 month work placement during the April – September period. This contributes 15 ECTS of the years’ 60 ECTS”

[**C1P1 June09-Oct09 Artifacts&DocEvidence Email-HelpWithStudentPlacements 9<sup>th</sup>Feb2009**]

This was reiterated in emails and communications to students by both the AHP and PO [**C2P2 Dec09-Mar10 Artifacts&DocEvidence Email-Letter to Students 11<sup>th</sup>Feb2010**];

“No student will progress to Year 4 in September next without having completed 60 ECTS including the 15 ECTS attributable to the work placement. We have no discretion in this regard. If you do not complete 60 ECTS by September 2010, we will have no option but to delay your entry into final year until you have so completed 60 ECTS. In this event, the earliest you could commence Final Year would be September 2011”

[**C2P2 Dec09-Mar10 Artifacts&DocEvidence Email- IA02 EOG 16<sup>th</sup>Feb2010**]

[**C2P2 Dec09-Mar10 Field Notes**]

The AHP also said that “*we have no discretion in allowing a student go into 4th without 15 ECTS credits...we can't do that*” [**C2P2 Dec09-Mar10 DO4-PlacementClass 18<sup>th</sup>Feb2010**]. The PO also confirmed this statement [**C2P2 Dec09-Mar10 DO6-PlacementClass 4<sup>th</sup>March2010**]. The immutable nature of the ECTS credit goal was explained in relation to the changes that would need to be made at Faculty level and at Academic Council. If changing the ECTS credits was pursued it would have a radical impact on the structure of the undergraduate programme. Additional credits

would need to make up the shortfall [C2P2 Dec09-Mar10 Interview IA02 EOG 6<sup>th</sup>March2010]. The retention or maintenance of 15 ECTS credits suggests a centralised goal for the placement routine alongside the long term ideal goal to sourcing quality placements and the short term actual goal to placement all students. By not considering changes to ECTS credits alternative approaches would be needed to place all students in the short-term. The AHP connected the goal for gaining ‘experience’ to the broader economic context;

“the placement is increasingly important given the current economic climate. Having that on the CV would give you an advantage over graduates who don't have that”.

[C1P1 June09-Oct09 Interview IA02 EOG 4thSept2009]

Whereas students understood their need to ‘pass’ modules, the need to understand academic credit (ECTS credits), was only obvious in the data when students requested flexibility regarding current part-time roles which they would need to leave to go on placement. Assigning academic credit to the placement was seen to ensuring student engagement in the process. In contrast, academic credit was not assigned to placement classes and the lack of attendance and engagement in those classes was noted. The AHP commented how academic credit motives action in a similar way to the role of pay;

“We are effectively contributing to their 15 ECTS's, we're looking after that, the whole management of that, the whole appraisal of that. I think there are better for fostering relationships with companies. It is good going forward, because they're more likely to stay involved in the process.”

[C1P1 June09-Oct09 Interview IA02 EOG 4thSept2009]

In contrast the PO commented a number of times that strict ECTS credit wasn't good for the placement as it encouraged students to think in terms of getting it done “*like any other subject*” i.e. short term, rather than thinking strategically i.e. long term, about the placement [C2P2 Dec09-Mar10 Field Notes; C2P3 Apr10-Aug10 Field Notes]. The AHP also noted that students shouldn't think strictly about the ECTS credit as their goal should be to impress employers [C2P2 Dec09-Mar10 Interview IA02 EOG 6<sup>th</sup>March2010]. Employers showed little understanding of academic quality assurance or the academic goal of the placement focusing instead on short term productivity. The PO highlighted the complexity of clarifying academic goals for the placement with employers as evidenced in an anecdotal conversation where she recounted a



disagreement with a member of academic staff who expected employers to manage academic standards on behalf of the institution. The PO commented that she did not even like asking employers for 'job specs' as she got a sense that it would be too cumbersome and a drain on employer resources. This requirement of resources represented a barrier to engagement and a reduction of placement numbers [C2P2 Dec09-Mar10 Field Notes]. The finding here is that on one hand employers show little understanding of academic goals for the placement on the other hand the PO illustrated a reluctance to use 'academic credit' to engage with employers. This immutable goal, to attain academic credit, in contrast to the understandings of paid experience, was found not to overlap with employer's goals and this perception influenced the PO's actions accordingly.

### *5.6 Unpacking Multiple Ostensives – Roles & Related Responsibilities*

Goals as imaginal others can be used to understand roles and related responsibilities for enacting tasks and activities as perceived by actors. This influenced the connections and understandings of responsibilities for enacting tasks and activities. In a pragmatic sense imaginal others connected to goals roles and concepts and related responsibilities highlight what coheres to the placement. The most prevalent roles are now explored by focusing on related responsibilities linked to enacting tasks and activities.

#### *5.6.1 'Being the Student' – Shifting Distinctions & Varied Engagement*

Date coded to the axial node of 'being a student' [17 Sources, 37 References] presented various distinctions impacting on the understanding of a student's role and related responsibilities that legitimised tasks and activities.

*'The Student as Intern'*: HEI actors (Stage 1) tended to perceive students with negative characteristics, borne out in the data collected during placement classes, such as being 'unresponsive' or 'not engaged' with the placement. This resulted in nervousness on the part of the PO and AHP in managing the placement [C1P1 June09-Oct09 Interview IA02 EOG 4thSept2009]. The PO provided a descriptive list of negative behaviours or actions of students such as wearing inappropriate office attire; dressing casually such as wearing Doc Martin boots and inappropriate t-shirts during casual

Friday, inappropriate earrings in the office, too much makeup to list just a few. In addition, the PO recalled examples of students falling asleep at their desks, placing feet on tables and having a poor understanding of professionalism or business etiquette [24 Sources, 64 References] while at employer sites. She also noted their lack of using voicemail or using inappropriate voicemail messages. Not being contactable was personally raised by the PO as reflecting poor professionalism [5 Sources, 8 References] [C3P5 Sept10-April11 DO12 Placement Class 18<sup>th</sup>Nov2010]. Student actors also interpreted the PO's understanding of 'the student' role in negative ways with students "listening to music at their desk" or "students with their ear phones on" [C1P1 June09-Oct09 Interview SA03 PG 27<sup>th</sup>Aug2009] or as students who don't do their work [C3P6 May11-July11 Interview SA08 GB & SA07 BH 12<sup>th</sup>July2011]. Peter [SA03 PG] interpreted the PO's negative view as being presented in an attempt to motivate students to improve their professionalism, to get "the job", and to keep students "on their toes" but this did not represent the opinions of the wider student cohort [C2P2 Dec09-May10 Field Notes].

At the same time in contrast to this negative view, the PO encouraged students to view themselves as "employees" [C2P3 Apr10-Sept10 Field Notes; C2P3 22<sup>nd</sup> Mar-29<sup>th</sup> Sept10 Field Notes] and that a "good student" wasn't "militant", which was interpreted as a negative form of engagement [C2P2 Dec09-May10 Field Notes; C2P2 Dec09-May10 Research Journal]. She also commented that employers understood a good student as having a "bit of get up and go" and that they don't want any "assholes" [C2P2 Dec09-May10 DO3-PlacementClass-11<sup>th</sup>Feb2010]. HEI staff noted how students at the end of the placement (Stage 3) had "a maturity about them" [C2P3 Apr10-Sept10 Field Notes; C2P3 Field Notes-22<sup>nd</sup>Mar-29<sup>th</sup>Sept2010].

The student themselves linked being 'an employee' with a positive understanding of 'the student'. A student as 'employee' was understood as being "a part of the family" [SA02 LOG] or "a part of the company" [C1P1 June09-Oct09 Interview SA01 NB 12<sup>th</sup>Oct2009] or a "member of the team". Being an equal employee was accompanied by employers being open and "chatty". This positive interpretation [Pharma A] was contrasted with an experience by another student in a similar company [Pharma B]

where the student was seen negatively and not as a member of the team often eating lunch alone [C1P1 June09-Oct09 Interview SA02 LOG 7thAug2009]. Interestingly the latter was an unpaid placement where the former positive experience was in a paid placement. The employer in Pharma A [EA02 HB] commented on her need to start planning and preparing for the placement earlier and earlier every year so as to attract “good students” or a “good grouping of students” to maintain quality and standards [C1P1 June09-Oct09 Interview Memo EA02 HB 12<sup>th</sup>Aug2009].

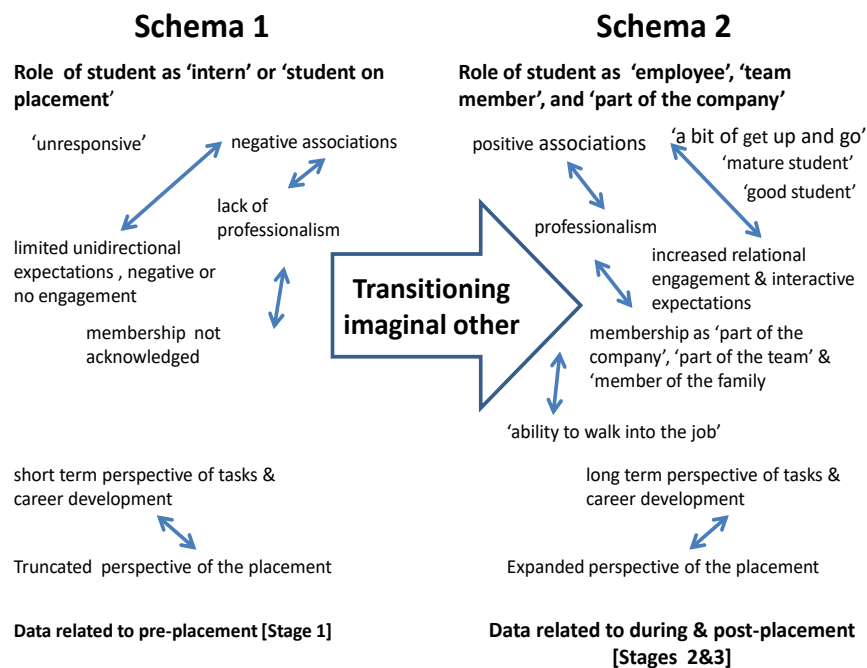


Figure 5.6 The Transitioning Imaginal Other of 'the Student'

As each placement cycle progressed negative distinctions of the student were replaced with expanded positive distinctions. Negative distinctions appeared to reflect non-engagement or narrow understandings of student roles and responsibilities as in Schema 1 (Figure 5.6). Positive distinctions reflect expanded roles and responsibilities reflecting relational engagement associated with the student transitioning to the role of employee with greater responsibilities as reflected in Schema 2 (Figure 5.6).

*'The Student as Employee'*: Being an employee, part of a team or as an equal employee was associated positively with relational engagement. The data showed a transitioning in student roles consistent with previous research (Gracia, 2010) from

the beginning (Stage 1) to the end of each placement cycle (Stages 2 & 3). The AHP noted that where employers treated students as employees it was perceived as that the employer was taking the placement more seriously, involved pay as a “monetary transaction”, and reflected the need of the employer to “get something back from the students”, while sometimes using the placement as a long interview (within the recruitment and selection routine). As employees, students were similarly perceived as taking their role more seriously. This transition is consistent with changes in student perspectives on goals from short to long term. The term ‘employee’, as opposed to ‘student on placement’ was thus associated with ‘being professional’ [C1P1 June09-Oct09 Interview IA02 EOG 4thSept2009]. One student actor commented on the implications of being perceived as an employee by providing two examples; firstly, her relationship with fellow employees and secondly her interaction with suppliers or clients. Niamh [SA01 NB] described her concern of being introduced as “our intern.. here on internship”. She captured this dynamic when she said;

“I found it that I had to ring this person [a supplier] now, and they're not used to dealing with me.... and one of the suppliers came in, and Jamie actually introduced me as one of the students. And I thought maybe they won't take me seriously as some of the rest of them”

[C1P1 June09-Oct09 Interview SA01 NB 12<sup>th</sup>Oct2009].

She noted that until she dealt with the supplier a few times the perception of being a “laid back” student was “difficult” to overcome. During a follow-up interview Niamh reflected on her transition and growth from ‘student on placement’ to ‘employee’ saying;

“..because suppliers that I would have worked with at the start would have known that I was the placement student. And then suppliers that I would have been introduced to ..... [as] ... 'my colleague Niamh will help you with this' ..... . Like one of the designers didn't know I was one of the students until I told him when he came to meet me”

[C1P1 June09-Oct09 Interview SA01 NB 12<sup>th</sup>Oct2009].

Only until a “strong relationship” was established with suppliers did she feel that a narrow perception of her role and responsibilities as a ‘student’ was overcome.

This illustrated how employers expressed differences in their understanding of ‘the student’ role as an imaginal other [Stage 2, Placement Cycle 2, 3 and 4]. Some referred to students as ‘employees’ or ‘new employees’ while others used ‘the interns’ or ‘the

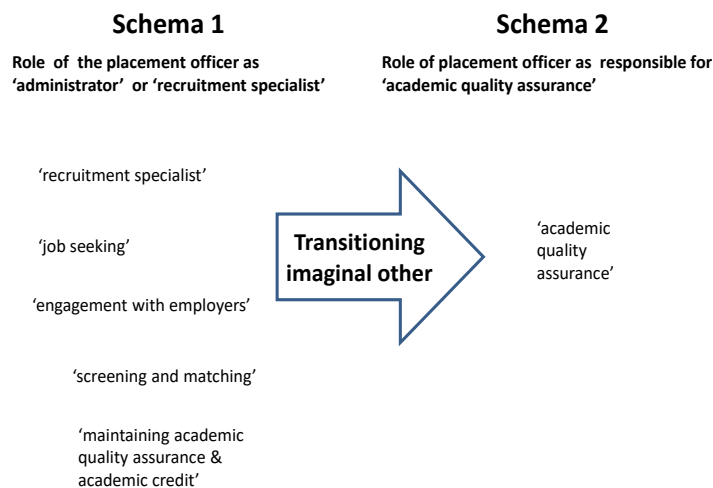
student on placement' which influenced the scripts associated with roles and responsibilities. This was consistent with how students reflexively perceived their own roles and accounted for their actions. Accountancy employers noted the importance of treating students as "valued member[s] of the team" especially during the summer when some staff were away. They valued the ability of students "to walk into the job" [C3P6 May11-July11 Interview EA17 LK 12thJuly2011]. One employer [L Technologies] in a small start-up supported that mentioned that he would be very angry (more explosive words were used) if he overheard students saying they were "on placement". The student also confirmed the importance of seeing her role as "being professional" and being "a part of the team" as "an employee" [C2P3 Apr10-Sept10 Field Notes 22<sup>nd</sup>Mar-29<sup>th</sup>Sept2010]. This was particularly significant in the context of a start-up where suggesting larger staff numbers to establish market credibility was important. Employers noticed how students grew in their roles, reflecting changed perceptions as they proved to complete tasks on time without being reminded [C1P1 June09-Oct09 Interview EA03 DC 27<sup>th</sup>Aug2009] or learning from mistakes or the ability to "fit into the position" [C1P1 June09-Oct09 Interview EA03 JD 27<sup>th</sup>Aug2009]. The distinction from pre-placement [Stage 1] and post-placement [Stage 3] data was more obvious in student perspectives of their role. Paul [SA40 PS] and Joanna [SA28 JG] both commented on seeing themselves as "employees" at the end of the process in contrast to their pre-placement perceptions as evidenced in emails sent to the PO [C2P3 Apr10-Sept10 Field Notes 22<sup>nd</sup>Mar-29<sup>th</sup>Sept2010].

Students on returning to college were seen by the PO and AHP as more "mature". Employers commenting that they missed their employees when they returned to college [C1P1 June09-Oct09 Interview IA02 EOG 4<sup>th</sup>Sept09] and how employers explored options to retain the students on a part-time basis post-placement [C1P1 June09-Oct09 Interview EA03 DC 27<sup>th</sup>Aug2009; C1P1 June09-Oct09 Interview EA04 JD 27<sup>th</sup>Aug2009]. This growth and transition in roles had resulted in an expansion of responsibilities for enacting more complex tasks and activities. Some insight into how this transition to 'student as employee' occurred suggested a distinction between 'new intern' and 'old intern' as student gained experience during their time on placement [C3P6 May11-July11 Interview SA08 GB & SA07 BH 12<sup>th</sup>July2011]. As students transitioned long term

perspectives became evident. However, many students still understood their own role as students on placement such as Farshad [SA25 FQ] and Emma [SA29 EH] at the Irish Electricity Utility. Farshad's placement while in industry used office space in the HEI and while mentored by this researcher had difficulty in taking on responsibilities and ownership of this role of "consultant" for the IPA [C2P3 Apr10-Sept10 Field Notes 22<sup>nd</sup>Mar-29<sup>th</sup>Sept2010; C2P4 Sept10-March11 Field Notes Sept2010-Nov2010]. Not leaving the college environs appeared to reinforce his student role as he had not changed his attire and held erratic office hours, reflecting many of the negative issues discussed by the PO. The nature of this internal dialogue as "consultant" became the subject of many meetings with this student alongside my role as "mentor". Farshad [SA25 FQ] had difficulties divorcing my role as lecturer with my role as mentor / researcher. Similarly, Emma who worked with the Irish Electricity Utility, the main one utility in Ireland [EA29 EH], saw her role as that of a "student on placement" and that the placement only served a short-term purpose to facilitate her returning to college and would end in September. The long-term perspective on gaining experience for career development and employability was not evident in her interview data reflecting a truncated view of the placement. Both interviewees illustrated a narrow understanding of goals and roles, resulting in a narrow acceptance of responsibilities for tasks and activities which suggested a more calculative form of engagement. In contrast Jason [SA06] at a Big 4 Accountancy Firm saw the internship as a stepping stone as part of a long-term plan for career building similar to Peter [SA03 PG] in [Pharma A] [C2P3 Apr10-Sept10 Field Notes 22<sup>nd</sup>Mar-29<sup>th</sup>Sept2010]. Another student at an accountancy firm commenting on the need to engage with early application dates and the need to be proactive as opposed to be reactive with a long-term view of career development [C3P6 May11-July11 Interview SA08 GB & SA07 BH 12<sup>th</sup>July2011] leading to a more expansive acceptance for enacting tasks and activities. This suggested a more relational form of engagement. In conclusion, we see how the use of different imaginal others can be associated with short or long term goals and roles. In turn these reflect a narrow (Schema 1) or expansive (Schema 2) understanding of the responsibilities for enacting tasks and activities (Figure 5.6).

### 5.6.2 *'Being the Placement Officer' – Shifting Distinctions & Varied Engagement*

The Placement Officer's (PO) role was also found to change or transition from the first to the last placement cycle [Placement Cycles 1 to 4]. The PO revealed in her first formal interview the understanding of her own role as working primarily for the employer much like that of a "recruitment specialist" [7 Sources, 10 References]. She noted how students didn't understand this distinction in her role. She drew a parallel with an estate agent's role working on behalf of the seller rather than the buyer (Figure 5.7). Her role as recruitment specialist allowed her to account for enacting tasks and activities connected to several routines; job seeking; screening and matching including one-to-one interviews; and building employer relationships (Section 5.2).



*Figure 5.7 The Transitioning Imaginal Other of 'the Placement Officer'*

By placement cycle 4 students engaged less with the placement process possibly in their attempts to minimise the placements disruption of paid positions they currently held. Some students enacted job seeking tasks and activities themselves as the responsibility for finding placements gradually shifted away from the PO. Some employers facilitated direct contact from students using online recruitment tools. For these reasons the PO's role altered due to increased difficulties in negotiating for placements based on 'pay' meant that many traditional tasks and activities linked to her role of recruitment specialist, job seeking on behalf of students and screening on

behalf of employers started to become redundant. The represented a shift in the density of communications away from student-PO to student-employer dialogical exchanges. The PO no longer mediated many student-employer relationships. Increasingly the PO role narrowed in focus around administrative tasks linked to the academic quality assurance routine away from building employer relationships (Figure 5.7).

### 5.6.3 *'Being the Employer' – Shifting Distinctions & Varied Engagement*

Imaginal others representing sensitiveness to others of 'the employer' and 'the student' were prominent within discussions about CV developed and the application of the careers guidance counsellor's VIPS model reflecting 'values', 'interests', 'personality' and 'skills' [21 Sources, 51 References], which highlighted employer organisational values as imaginal others (Section 5.2). These values illustrated stereotypical employer expectations from stereotypical students. The 'employer', 'the company' or 'the organisation' as well as 'the profession', reflected expectations and values represented in recruitment materials including job specs. The CGC [IA06 LW] and PO [IA01 SMC] guided students on how to prepare their CVs using VIPS. The CGC highlighted the need to consider employer goals, values and expectations from recruitment materials as imaginal others. He noted that these values could be turned into questions which the students would need to address. Employers would evaluate if their values are reflected in submitted CVs. Imaginal others, embedded in artifacts, were directly acknowledged here as informing multiple dialogical exchanges (see Chapter 7).

Differences between short or long term perspectives of 'the employer', as an imaginal other appeared to co-constitute the meaning of 'the student', like how the teacher co-constitutes the role of the student (Section 3.2.2). As noted above, being just 'the student on placement' resulted in students taking only immediate responsibility for tasks and activities. Students as 'employees', especially evident in the data relating to accountancy placements, resulted in the adopting of broader and set of possibilities relating to tasks and activities and in turn more long term perception of the role of 'the employer' beyond the immediate placement. Within the accountancy placement the imaginal other of 'the profession', as a proxy for 'the employer' reflected a long term perspective and was present in the data alongside



students who referred to themselves as ‘employees’. This contributed to how students perceived the accountancy routines in the long run toward future trainee contracts i.e. becoming ‘the trainee’ and ‘being employable’. In this context ‘the employer’ played a central co-constituting role in the long-term career development goals for individual students. This was consistent with the CGC’s advice to inform CV and interview preparation. The use of the ‘profession’ by accountancy students, in contrast to the wider student cohort, highlighted a long-term perspective guiding these students toward exam completion i.e. accountancy exemptions during college and tasks and activities to bring them closer to their goal of a trainee contract. The data from accountancy students was noticeably structured by these imaginal others as goals informing responsibilities and highlighting clearly structured tasks and activities to meet these goals. Long term goals were found to be present in more structured professions such as accountancy. This was in stark contrast to the data found in other fields such as social media placements which were less professionalised. The absence of a long-term perspective or perceived goal for the placement routine was found in the data with students who referred to their own roles as ‘interns’ or ‘student on placement’. It suggested a confused understanding of roles and was more prevalent in industries without professional qualifications i.e. emerging digital media and social media marketing.

The main finding here is that short-term actual goals appeared to be linked to imaginal others as roles with a narrow set of possibilities compared to long term ideal goals linked to imaginal others with a broader set of possibilities. Short term goals appear to influence the roles adopted by actors and the scope of responsibility for enacting tasks and activities. This increases the chance for a calculative form of engagement compared to a relational form that might be linked to long term goals.

### *5.7 Conclusion*

The objective of this chapter was to unpack the ostensive routine dynamics of the placement routine using hidden dialogical exchanges. Rich descriptions of interconnected routines were presented. We learned that multiple ostensive understandings of how actors referred to the tasks and activities were present

(Section 5.2). Dialogical exchange theory was then used to further unpack these ostensive descriptions around routine goals and roles and related responsibilities (Section 5.3 – 5.6). The main finding was that when ostensive descriptions are present related ideas fall within a routine's set of possibilities. Absence delegitimises tasks and activities as well as goals, roles, and responsibilities that might guide action. To understand ostensive routine dynamics, if ostensive accounts are present, evaluated and commonly shared, it suggests coherence. If actively maintained, such as the goal for academic credit, it suggests something more central to placement dynamics. For this reason, there are implications for the presence/absence as well as the centrality of shared understandings for how we unpack ostensive routine dynamics. If ostensive understandings are present, evaluated and requiring maintenance and shared by all actors it reflects something central. It is here that we can identify what is relational within routine dynamics. If relational we can then ask what is productive about that relational engagement. This theorising is further explored as we turn now to look at unpacking performative routine dynamics.

## ***6 Findings: Unpacking Performative Routine Dynamics***

### *6.1 Introduction*

The aim of this chapter is to show the variety and variation in enacted tasks and activities within the repertoire of actions across four placement cycles. While remaining agnostic about who or what causes action, we ask ‘who or what is influencing how tasks and activities are enacted?’ This findings chapter specifically addresses Research Objectives No. 3 & 4 (Table 4.1). By focusing on stability i.e. data coded to ‘MAINTENANCE’, and change i.e. data coded to ‘MODIFICATION’, we gain a deeper insight and unpack the performative aspects of the routines described in Chapter 5. Constant comparison of data coded to different placement cycles is used here to show us what changed or remained stable. As described in Chapter 4, matrix coding queries were particularly helpful with identifying patterns across the data (Appendix 6.1). Each placement cycle is described in detail to reveal its internal dynamics (Sections 6.3-6.5). Due to the prominence of exogenous changes in the data these are included to provide context for understanding variety and variations in the repertoire of actions.

The main finding in this chapter is that academic quality assurance was actively maintained suggesting its centrality to the placement routine. Modifications were made to the tasks and activities across many routines such as job seeking and screening and matching. This suggested that these tasks and activities in themselves were more peripheral in nature. In presenting the repertoires of actions evidence was also found here to suggest that the PO roles was becoming more peripheral to the routine as the density of dialogical exchanges shift away. This would make it increasingly difficult to manage the placement during a difficult economic environment.

### *6.2 An Overview of Stability-Change across Placement Cycles*

Using matrix coding queries and its colour coding function comparisons can be made across placement cycles to reveal patterns that might otherwise go unnoticed in the data. Using constant comparisons across placement cycles, predominant changes, and indications of stability were identified [APPENDIX 6.1, Matrix Coding Query No 1 &

No 2]. These patterns are presented in a tabular format (Figures 6.1 & 6.2) and then in a visual processual format (Figure 6.3 & 6.4). This approach provides a richer insight into performative aspects in three ways;

- i. *Total coded references within each placement cycle:* Vertical totals indicate the prevalence of change or stability coded within each placement cycle relative to other cycles. To aid analysis for example Placement Cycle 1 data coded to MAINTENANCE [52 References] (Figure 6.2) can be compared to data coded to MODIFICATION [64 References] (Figure 6.1). By considering each vertical total individually processual comparisons can be explored.
- ii. *Total coded references to each identified node across all placement cycles:* From horizontal totals a less granular and more processual picture can be arrived at. The influence of persistent change can be seen across all 4 placement cycles relative to other nodes. Colour coding illustrates during the extend of change occurring i.e. In Figure 6.1 data coded to unpaid placements suggests this as a persistent issue of variety and variation [39 references]. Most changes were coded to the node during Cycle 2 [28 references]. This provides a context for the interpretations to follow in this chapter.
- iii. *Persistence of Change-Stability:* By presenting changes separately and in chronological order (comparing horizontally) we only get one processual perspective. However, the inter-connectedness or persistence of changes across related nodes within each cycle is also evident (comparing vertically) suggesting credibility and consistency in the data. This provided avenues for further interrogation.

*'Change' in the Data:* Using the colour coding feature significant variations relating to the placement routine node could be found in Cycle 1 [23 References] (Figure 6.1). Similarly changes, i.e. data coded to 'MODIFICATION', to the economy and markets node [19 References] was also found consistent with the Irish economy going into recession in 2008. The data for Cycle 2 showed the most references coded to MODIFICATION [100 references] indicating a period of increased change relative to Cycle 1 [APPENDIX 6.1, MATRIX CODING QUERY NO 1]. This again was consistent with the economy going into recession and its impact on the employment market

from 2009. Ongoing pressures relating to the economy [11 References], and the placement market [11 References], with residual issues regarding terms of employment [4 References] and levels of employment [4 References] were found. Importantly this had a significant impact on paid/unpaid placements node [28 References].

Data Coded to MODIFICATION across Placement Cycles	Placement Cycle 1	Placement Cycle 2	Placement Cycle 3	Placement Cycle 4	TOTAL
IA Business Breakfast	3	3	1	0	7
IA Changes in Job Seeking Routine	0	14	9	6	29
IA Changes to Placement Routine (overview)	23	8	1	3	35
IA Changes to Placement Routine (day-to-day)	4	15	6	3	28
Market Change: Ash Cloud		2	1	0	3
Market Change: Change in the Placement Market	3	11	3	4	21
Market Change: Economy Markets & Competition	19	11	9	1	40
Market Change: Levels of Employment	5	4	3	3	15
Market Change: Paid/Unpaid Placements	5	28	5	1	39
IA Changes in Terms of Employment	2	4	1	1	8
TOTAL	64	100	39	22	

Figure 6.1 'Change' Data Coded to MODIFICATION (across Placement Cycles)

Data Coded to MAINTENANCE across Placement Cycles	Placement Cycle 1	Placement Cycle 2	Placement Cycle 3	Placement Cycle 4	TOTAL
Bureaucracy as Stability	2	0	0	0	2
Maintaining Compliance Procedures & Approval	15	0	0	0	15
Maintaining Functional Operations	30	7	9	0	46
Maintaining Placement Conditions (Academic Standards & Pay etc)	5	17	0	4	26
TOTAL	52	24	9	4	

Figure 6.2 'Stability' Data Coded to MAINTENANCE (across Placement Cycles)

Significant changes also appeared in Cycle 2 across such topics as the day-to-day management of the placement [15 References], the overall placement process [8 References] and how job seeking was performed [14 References]. Changes relating to the job seeking continued into Cycles 3 and 4 [9 + 6 References] raising questions as to what had changed? This approach can also be applied to the placement itself across the four cycles [35 References]. Figure 6.1 suggests that changes were discussed during Cycle 1 and implemented quickly in response to the recession by using new placement options for Cycle 2. Little by way of further changes were required subsequently in Cycle 3 and 4. Only by looking across placement cycles do we see a

fuller picture of persistence, the connectivity of change and a consistent story illustrating credibility in the data. Similarly, persistent changes related to paid placements [39 References] matched with data coded in Cycle 2 [28 References] suggests this as a topic requiring further attention. Interestingly the impact of the ash cloud [2 References] also appeared in the data evidencing the themes that emerged from the tourism employers in the dataset. In Cycles 3 and 4 the changes related to the economy [9 + 1 References] persisted in the data. But across all 4 cycles persistent changes relating to the economy was also found [40 References]. While this might otherwise have gone unnoticed, combining this provides compelling support for the persistent impact of these exogenous changes on the placement.

*'Stability' in the Data:* Attempts at maintaining the placement appeared across all placement cycles (Figure 6.2) relating to compliance and approval [15 References] as well as the day-to-day functional operations of the placement [46 References]. Combined this matrix output suggests efforts to maintain an understood 'goal' for the placement which centred around academic credit (Section 5.5) in the face of exogenous changes relating to the Irish economy. Stability or maintaining the placement was found to be connected to maintaining goals and pay as these were linked to the ideal goal for finding 'quality placements'. Active steps were found to maintain academic standards or academic quality assurance across the 4 placement cycles [26 References]. Maintaining academic quality in relation to the placement was also associated with sourcing paid placements [APPENDIX 6.1, MATRIX CODING QUERY NO 2, CODING QUERY NO 1] consistent with the interpretation in Chapter 5. These exogenous changes placed pressures on compliance [15 References] but this tapered in subsequent Cycles 2 to 4 suggesting efforts to handle exogenous changes were successful.

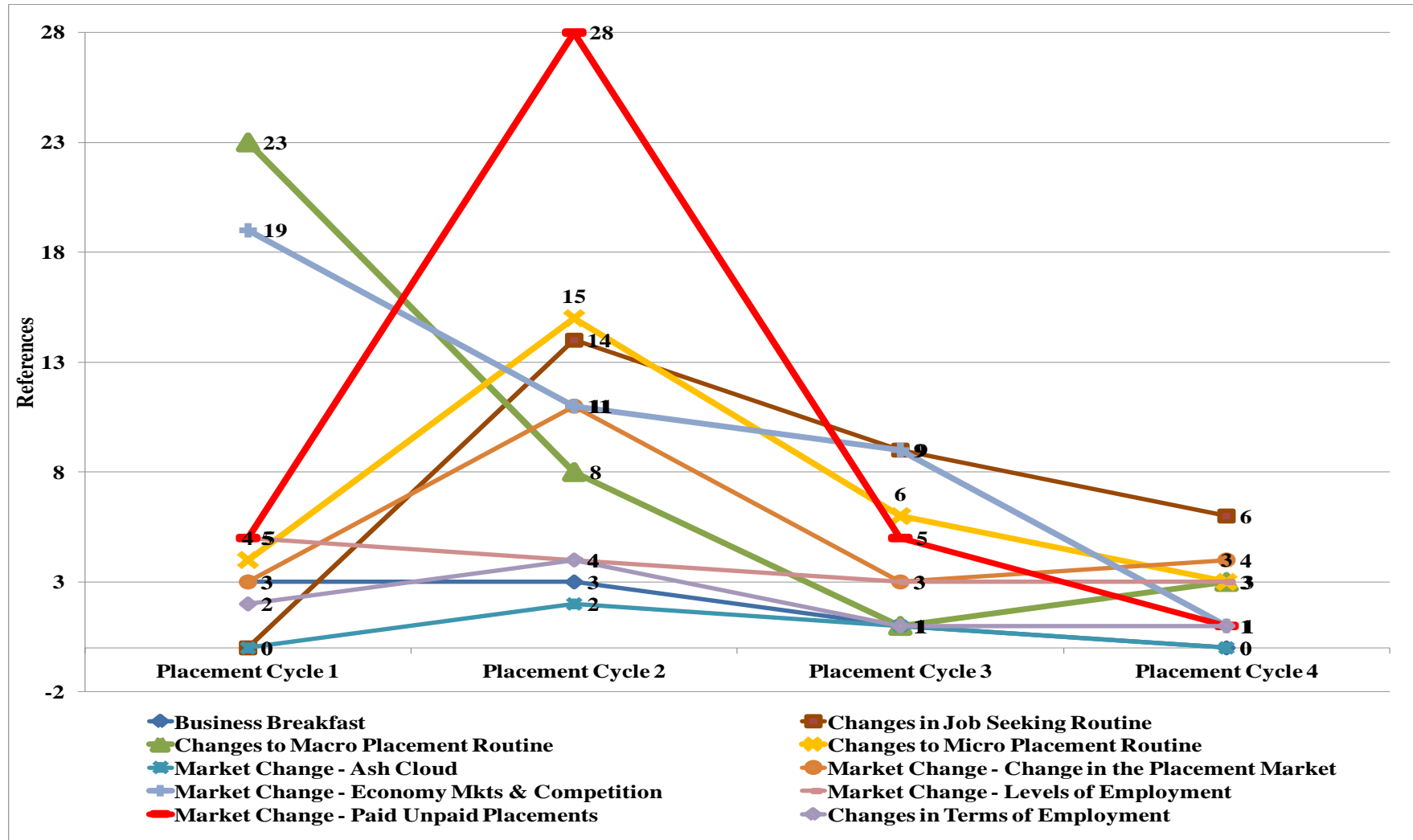


Figure 6.3 Processual Flow of Data Coded to MODIFICATION

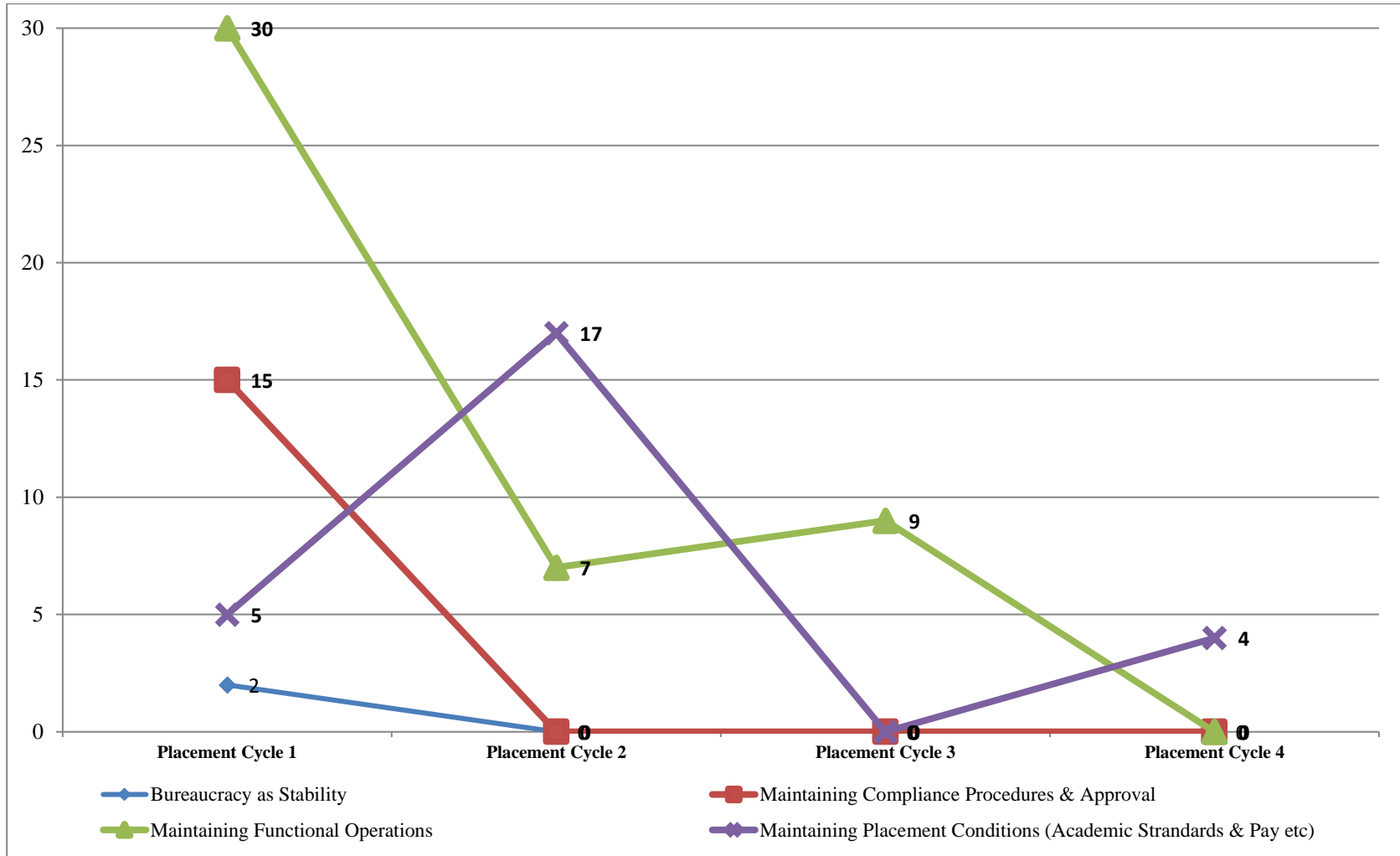


Figure 6.4 Processual Flow of Data Coded to MAINTENANCE



This comparative approach provides an overview of the performative dynamics of the placement. Figures 6.3 and 6.4 visually show the data coded to different nodes within maintenance and modification. Some nodes appear to have a significant amount of data coded to them at the beginning i.e. Cycles 1 and 2 and little data in Cycles 3 and 4. Change relative to unpaid placements was persistent across the four cycles especially (Figure 6.3 RED LINE). A persistent effort to maintain functional operations can be seen in the data coded to this node over the four cycles (Figure 6.4). Concerns over quality assurance appear more prevalent in the coded data in Placement Cycles 1 and 2 compared to the last two cycles (Figure 6.4). This is consistent with the interpretations offered in Chapter 5. These visual aids provide an overview of persistence and continuity focusing our attention on aspects of variety and variation from a less granular perspective such as pay, academic quality assurance and actions taken to preserve the integrity of the placement routine. These two issues provide a focus for understanding variation over the four placement cycles.

### *6.3 Variations During Placement Cycle 1 (June – Oct 2009)*

#### *6.3.1 Exogenous Changes Impacting on the Placement*

The ‘standard’ or ideal placement from an institutional perspective was a minimum of 16 paid weeks (Table 6.1, Placement Option 1), or as required by employers between March and September in accordance with the academic calendar. As the four cycles progressed changes to this default performative aspect were introduced in response to market forces. This resulted in changes to ostensive understandings relating to pay and the goal to maintain placement quality (Section 5.4). Cycle 1 data was dominated by market changes which is now described.

*Changes to ‘The Economy’ [20 Source, 41 References]:* The Irish economy went into recession in 2008. The recognition of this exogenous change and its impact was evident in the data, being widely acknowledged by all interviewees. This became a persistent change across all cycles (Figure 6.1 & 6.3). These changes were found in the data in several ways. The deterioration in the ISEQ Index was commented on as were deteriorations in the construction industry, the mortgage industry as well as the

banking and finance sectors where a noticeable and immediate reduction in the availability of placements was found. Many redundancies were experienced in those sectors (Figure 6.5). In the tourism and travel sector issues as the volcanic ‘ash cloud’ [2 Sources, 3 References] reduced demand in the market and in turn reduced the need to recruit placement students for the high season [C2P3 Apr10-Sept10 Interview EA07 NR 13<sup>th</sup> July2010; C3P7 Sept11 Artifacts&DocEvidence SA18 NT Logbook 2011]. Specific issues were commented upon such as the behaviour of creditors, who in recessionary times “are looking for earlier payments than normal” [C1P1 June09-Oct09 Artifacts&DocEvidence SA03 PG Logbook 2009]. Consistent references to increasing unemployment [11 Sources, 15 references] were found across all four cycles placing greater scrutiny on placement terms of employment [18 Sources, 41 References]. This frustrated the PO’s job seeking activities even with ‘credible’ employers where good relationships were established.

## Exogenous Changes Across Cycles

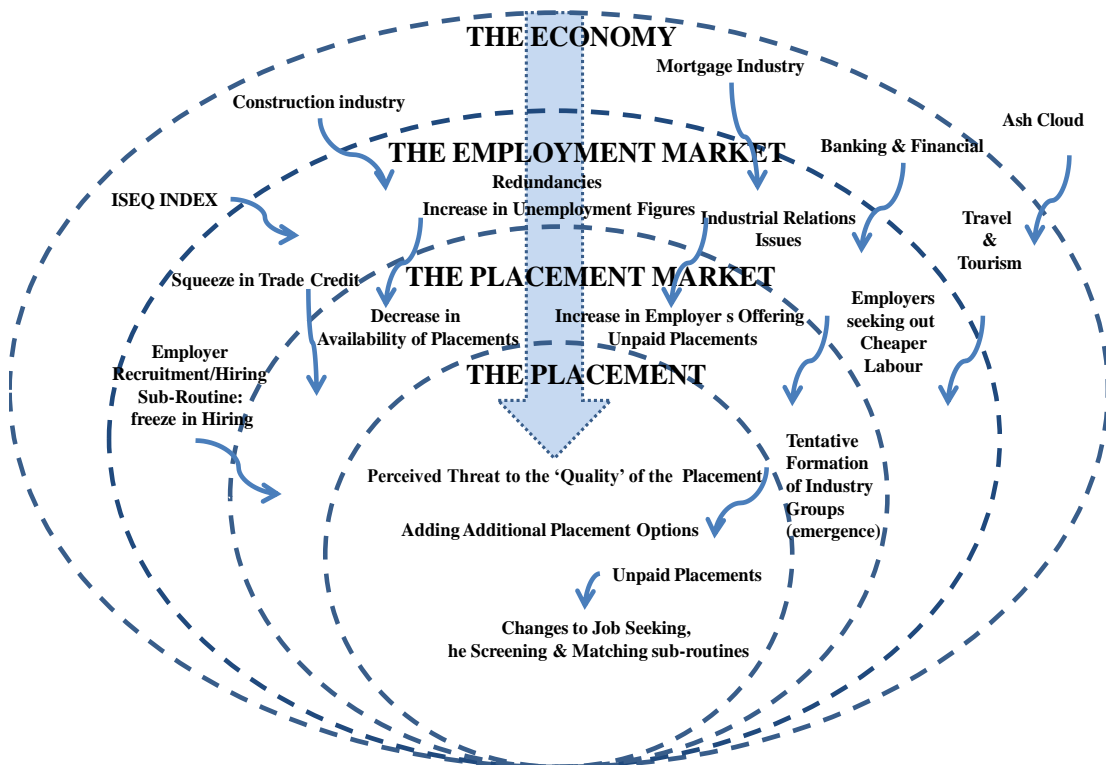


Figure 6.5 Exogenous Changes Influencing Routine Performance

*Pressures in ‘The Employment Market’* [11 sources, 15 References]: The recessionary environment had a significant impact on unemployment which increased by nearly 100% in one year from 5% in January 2008 to 9.6% in January 2009 (Figure 6.6). This continued to increase reaching 15.1% (October 2011 - March 2012) during the last placement cycle.



Source: Central Statistics Office Ireland (CSO) – [www.cso.ie](http://www.cso.ie) .

*Figure 6.6 Ireland’s Unemployment Rate (Jan 2008 – Dec 2012)*

This echoed the pressures faced by employers across various industries and was evident in two ways; “the credit crunch” or a squeeze in trade credit and a reduction in employer’s operational budgets. The lack of trade credit, tightened operational budgets resulted in increased scrutiny across other budgets e.g. personal expenses. Compounded by the reduction in the number of employees, changes were evident in hiring decisions with the introduction of hiring freezes [C1P1 June09-Oct09 Interview SA03 PG 27<sup>th</sup>Aug2009; C1P1 June09-Oct09 Interview EA03 DC 27<sup>th</sup>Aug2009]. For many employers, the issue of placements moved to the centre of industrial relations with disputes over employer attempts to find cheaper labour while simultaneously making fulltime staff redundant (Section 1.4).

*Pressures in the Placement Market* [15 Sources, 36 References]: To compound the pressures in the placement market the government introduced a retraining and industrial placement initiative, called JobBridge, during cycle 3. This was widely seen as increasing competition in an already shrinking employment/placement

market. Employer related pressures could be seen to impact on the placement market in three ways;

- i. *Reduction of Available Placements:* The availability of placements reduced most notably in the banking and finance sectors where redundancies were significant (2008-2013). Those employers who could hire faced industrial relations issues and concerns over the role of interns e.g. terms of employment, raised doubts over their participation in internship/placement programmes.
- ii. *Reduction in Duration of Placements:* Where placements were still available employers were now offering shorter placements than the 16 week default (Table 6.2, Placement Option 2 & 3). The goal of ‘productivity’ was now in the context of employers seeking to access cheap or free labour and/or use the placement as an extended interview and reduce risk if hiring. By reducing the length of the placement employers could potentially meet more candidates. This became more evident in the banking and finance sector in later placement cycles.
- iii. *Shifting to Unpaid Placements:* Where placements were still offered many employers only offered unpaid placements. One Fund Management company now offered shorter 10 week unpaid placements much to the criticism of some students.

The reduction in the availability of placements and increased emphasis on unpaid placements when combined provides an explanation for why long term ideal goals to source quality placements was replaced by actions to meet short term actual goals to place all students. The interconnected nature of the placement now becomes obvious as we turn to focus on the routines associated with it.

### 6.3.2 *Challenges to Managing the Placement*

The Academic Head of Programmes (AHP) acknowledged a “*whole range of external factors*” from the economy to employer actions impacting on how tasks and activities would be enacted [C1P1 June09-Oct09 Interview IA02 EOG 4<sup>th</sup>Sept2009]. The shrinkage in the employment market; the reduction in available placements; the preference for unpaid placements; as well as the introduction of a competing

industrial placement programmes all combined to impact on the ability to maintain the viability of the goal to source ‘quality placements’ in the long run and supports the interpreted shift in focus to the goal of ‘pacing all students’ in the short run (Figure 5.1 & Section 5.3.1). The result was an inevitable acceptance of unpaid placements. The PO anecdotally noted the increased in queries from employers offering unpaid placements supporting the interpretation that employers were attempting to source free labour raising questions about what a ‘quality placement’ entailed, as well as the merits and demerits of paid versus unpaid placements (Section 5.3). In Cycle 1 the shift in emphasis from paid to unpaid placements was found to be increasingly important in highlighting a central goal toward maintain academic quality and credit (Section 5.4). In response to these shifting goals different placement options were developed (Table 6.2).

<b>Cycle 1</b>	<b>Change/Consequence</b>	<b>Related Routine</b>
Change 1	Acceptance of Unpaid Placements	Academic Quality Assurance
Change 1a	Diminished need to Negotiated Pay (altering Role of PO)	Academic Quality Assurance & Job Seeking
Change 1b	Altering University-Employer Relationships	Job Seeking
Change 2	Diminished roles in Screening & Matching	Screening & Matching Routine
Change 2a	Students accept unpaid placements.	Screening & Matching Routine
Change 2b	Student tacitly encouraged to Job Seek, source their own placement (paid if possible) – if screening isn’t important then the need for an approved CV diminished.	Job Seeking Routine
Change 3	Collapse in availability of Banking & Finance Placements and changes to Screening & matching in this Sector	Screening & Matching Routine
Change 4	Collective Shifting of Roles and Perceived Responsibilities	Various Routines
Stability 1	Rejection of Mini Thesis as an option	Job Seeking & Screening & Matching Sub Routines
Stability 2	Distributing role of seeking placements to staff and tacitly to students	Job Seeking Routine

*Table 6.1 Summary of Persistent Changes & Striving for Stability*

*Changes to Building University-Industry Relationships:* Good relationships with these employers would help to maintain placement numbers. In previous years, a business breakfast meeting [5 Sources, 8 References] had been organised to facilitate development of better relationships. The failure to continue this event also diminished the ability to maintain existing relationships (Figure 6.1). The shift from paid to unpaid placement would also diminish the ability of the PO to build and maintain a deeper ‘density’ of interactions with employers. Paid placements reflected a commitment of employer resources to treat the placement seriously. The presence of pay could be interpreted as a way in which relationships with employers was maintained (Table 6.1, Change 1b). In the context where finance and banking employers dropped out of the placement market due to the financial crisis [C1P1

**June09-Oct09 Interview IA02 EOG 4<sup>th</sup>Sept2009]** maintaining good relationships would ensure their preference to continue to work with the PO upon re-entering the placement market. The Fund Management company was a case in point even though they optioned to only offer unpaid placements.

*Changes to Job Seeking:* The goal of job seeking underpinned by a need to source “quality placements” began to change during Cycle 1 with increased recognition of the need to ‘place all students’ (Section 5.2). The PO’s goal when job seeking therefore changed. Instead of relying on ‘paid placements’ she now had to rely on providing ‘experience’ even though this was not ideal and feared it would result in lesser ‘quality placements’. The AHP acknowledged the need to adapt to this new reality by trying to identify students willing to be matched to employers offering unpaid placements;

“EG: And may be that we have no option. As what happened this year, with some students, to, to allow our students, we had to ask students, because you can't oblige them, to ask students, to request students and then to allow them to do an internship, if you want to call it that, for no pay. You know if that happens, we did come to a solution there, and the solution was that we wouldn't oblige them to do 12 to 16 weeks. Instead they would work for no pay for a shorter period of time, and do a work related project subsequent to that...”

[C1P1 June09-Oct09 Interview IA02 EOG 4<sup>th</sup>Sept2009].

By accepting the reality of unpaid placements, the knock-on effect was to alter the structure of the placement itself (Table 6.1, Change 1). Paid placements were normally negotiated for, by the PO on behalf of students. Accepting unpaid placements diminished the negotiating tasks within job seeking (Table 6.1, Change 1a) as well as diminishing the ability to maintain relationships with employers. Similarly, students began enacting job seeking tasks and activities for themselves and were thus increasingly involved in direct dialogical exchanges with employers, bypassing the PO as a mediator with employers. This change in the responsibility for enacting job seeking would continue in later cycles.

*Changes to Screening & Matching:* During Cycle 1 the inability to “match” students to placements in the sector was most prevalent in banking and finance. This impacted on the ability of the PO to play the role of “recruitment specialist” on behalf of employers and enact related tasks and activities. The following comment illustrates

how matching students, within a specialism, became more challenging (Table 6.1, Change 2). This was to inform our understanding of ‘experience’ underpinning a ‘quality placement’ (Section 5.3.1);

“With the students major, if you like or the stream that they are following in year three and subsequently in year four. Like, we have a lot of accountants, for example. I'd say 45 to 50 of the students are doing that pure accountancy and finance stream. They want a career in accountancy and finance. And it isn't always possible to get them positions in the financial services sector. Particularly this year would be a case in point. So that would be ideal that we would have more than enough employers for each student. That is, that the job is the students are given are in line with their preferences and in line with the subjects they are actually studying...”

[C1P1 June09-Oct09 Interview IA02 EOG 4<sup>th</sup>Sept2009]

Students now had to agree not only to be available for unpaid placements but also to be matched to employers in different disciplinary areas. The implication here was that students were now also tacitly encouraged to find placements for themselves i.e. take responsibility for enacting job seeking tasks and activities for themselves in the hope of finding appropriately matched paid placement. Interestingly as students began to adopt job seeking responsibilities they did not need to consult with the PO to have CVs reviewed, to engage with one-to-one meetings or to be screened and matched to ever decreasing numbers of placements (Table 6.1, Change 3).

*Academic Quality Assurance – Maintenance in the Face of Modification:* In the context of change striving to maintain academic quality (Table 6.1, Changes 1, 1a, 1b) become prominent (Section 5.4). Two ways of thinking influenced performance;

- i. Reducing the number or demand for placements:
- ii. Broaden what was acceptable as a placement.

Both aimed to build increased flexibility into the routine to achieve its goal, now a short term actual goal, to place all students. The data revealed disagreements about the alternatives to “*placing ‘all’ students*”. One discounted option in the ‘repertoires for action’ was to allow students to opt for a ‘mini thesis’ instead of the placement. A mini thesis would reduce the number of students seeking placement. Arguably this would undermine the placement routine itself (Table 6.1, Stability 1) and was understandably argued against by the PO according to the AHP;

“EG: ....many of our comparable programmes, if you want to call them that, simply made a decision early in the year that it was going to be impossible to place every student... was to introduce an alternative very early. In most cases, an alternative was a mini thesis. Now Stacy's [The PO's view] view, Stacy felt very very strongly that bad [sic], but that would have been the wrong thing to do. She, she feels from her experience, that if you introduce the option of a mini thesis as an alternative to the work placement that many of the students will go for that option. And that is, we don't want that to happen”.

[C1P1 June09-Oct09 Interview IA02 EOG 4<sup>th</sup>Sept2009]

By including this option, the legitimacy of the overall placement would come into question. Any changes that would be introduced to increase availability of placements and/or reduce the numbers of students to be placed would simultaneously need to maintain the academic standards and credit for the placement routine.

The main finding here is that the change in enacting job seeking, screening and matching tasks and activities altered the central role of the PO who mediated student-employer engagement. As unpaid placements increased managing employer relationships would become challenging. The reduction of available placements diminished her ability to enact screening and matching tasks and activities as the goal became short term focused around placing all students. As students began job seeking for themselves she would no longer have sole responsibility for enacting those tasks and activities. As the density of dialogical exchanges changed it suggests that PO's role was now becoming more peripheral. The density of dialogical exchanges can be applied to suggest centrality or peripherality of roles to unpack performative routine dynamics. Also important was that maintenance through modification as a duality was evident. As exogenous changes impacted on the routine efforts were made to maintain academic credit. As active steps were taken to maintain this aspect of the placement it suggests that academic credit is immutable i.e. a central goal to the placement (Section 5.5). The goal to maintain the integrity of the placement i.e. academic credit and quality assurance, resulted in modifications being made to other tasks and activities. This resulted in the introduction of 'Placement Options' in Cycle 2.



## 6.4 Variations During Placement Cycle 2 (Dec 2009 – March 2011).

### 6.4.1 Minimising Demand for the Placement

After much debate (Cycle 1) new placement options (Table 6.2) began to be introduced (Cycle 2). The immediate actual goal to ‘place all students’ was to be met by reducing the demand for placements i.e. reducing student numbers, while maximising availability or supply of placements i.e. building in flexibility to increase options. Three approaches reflecting repertoires for action were considered to minimise demand;

- i. *The Mini Thesis Option:* As noted in Cycle 1 the option of a mini thesis was discounted. The PO disagreed with this option as she felt that most students would choose a mini dissertation over the placement and would require a major redesign or ‘major change’ to be sanctioned by academic council. This would require the enacting for a protracted academic quality assurance routine altering the enacted tasks and activities to meet with quality assurance standards. Additional resources to mentor and supervise student progress would be required. Not to mention this would radical alter the PO’s role and job.
- ii. *The Co-Op Option:* An alternative to the traditional placement was a co-op option where students would work a 2 or 3 day week while studying during term. This would allow student to keep part-time positions. This was rejected due to the changes to teaching that would again need to be approved by academic council. There were also obvious disadvantages for students unable to find appropriate positions. For employers, the advantage would be to have productive staff who “know” the company with less turnover over time [C1P1 June09-Oct09 Interview EA03 DC 27<sup>th</sup>Aug2009]. Both options could arguably be linked to increasing the density of communications between the employer and the HEI to improve ongoing coordination [C1P1 June09-Oct09 Interview EA04 JD 27<sup>th</sup>Aug2009].
- iii. *The Erasmus Option:* The Erasmus programme was also considered to reduce the demand for placements. This was accepted as an alternative during Cycle 2 to reduce student numbers seeking placements as it was already approved by academic council and would only require a minor change. However, this would only come into effect for students during Cycle 3. Due to the difficulty in getting

placements many students opted for the Erasmus option. Student sentiment suggested that optioning for this was to avoid the placement altogether as they began to perceive the placement experience as a negative one. Reflecting arguments presented in Section 1.4 many felt that the institutions was “farming the student out to work” while “taking the money” even though students were not paying fees for their undergraduate courses.

These efforts were perceived as undermining the efforts of the links placement office in sourcing placements i.e. job seeking. It also increasingly highlighted the extent of student non-engagement in the process as students became frustrated and confused as to the alternatives being offered. This sentiment of non-engagement made planning for sourcing unpaid placements more difficult for the PO. Students were holding out for shorter placement options with project work so as not to disrupt their part time positions [C2P2 Dec09-Mar10 Field Notes 10<sup>th</sup>Mar2010 - Anecdotal Conversation with the PO]. Other students did not engage assuming it was the sole responsibility of the PO to source placements in the job seeking routine on their behalf. Subsequent analysis would confirm this interpretation. Students already in paid employment would have indeed preferred the mini thesis option, or indeed any option with increased project work as it would;

- Reduce time at a new employer site and away from current employer.
- Reduce and avoid perceived risks relating to gaining experience in an unpaid placement with an unknown employer.
- Reduce financial worries.
- Reduce the risk of losing current paid positions permanently due to the uncertainties of the recession.

These actions are consistent with the analysis on short term goals in the student data (Section 5.6). This also provides an explanation for student non-engagement, as perceived by the PO, who was increasingly finding it difficult to match students to unpaid placements. Student non-engagement also illustrates a resistance to adopting responsibilities for enacting job seeking tasks and activities.

#### 6.4.2 *Maximising the Supply of Placements*

Three actions to expand the supply of placements were found in the data;

- i. *Distributing Responsibilities for Job Seeking*: Email communications [3 Sources, References 4] from the Director of the College of Business [IA04 PO] asked the faculty to pursue their own industry links. It asked;

“Can I ask if you can help the various placement programmes by generating referrals to friends in the corporate world. All students are paid but we could probably assist where the placement is with a not for profit organisation. As we have more than 250 students to place any assistance would be greatly appreciated”.

[C2P2 Dec09-Mar10 Field Notes 1<sup>st</sup>Feb2010].

This email reveals attempts to maintain the availability of placements (Table 6.1, Stability 2) in the face of exogenous changes by modifying and expanding the responsibility for job seeking and distributing the roles to the wider faculty i.e. a wider group of actors who would now enact these tasks. Interestingly this attempt reflected the preference again for paid placements.

- ii. *Build and Maintain Employer Relationships*: The need to maintain and develop relationships with employers was also focused on to counteract reductions in available placements. The maintenance of good working relationships was crucial in the context of the actual goal to place all students rather than the ideal goal to source paid ‘quality placements’. As the goal of the placement shifted the need to maintain established employer relationships compounded and contributed to the interpretation of goals relating to the acceptance of unpaid placements. On this shift of goal the AHP noted that;

“Because the student is going in and not seeing it just as a chore to get 15 ECTS ... is an opportunity to learn; an opportunity to impress and so on. There is a system whereby we visit students, and we contact the company, ammm, and we get them to complete an appraisal form on, on the students and we and that evaluation would remain the same on unpaid placements. We are as much concerned that the students will learn as much as possible and will contribute and act as an ambassador for the course. Whether they are getting paid or unpaid...” [C2P2 Dec09-Mar10 Interview IA02 EOG 6<sup>th</sup>Mar2010]

The maintenance of employer relationships in the face of unpaid placements, which was understood to de-legitimise the seriousness of the placement, placed renewed attention on the mentoring routine [30 Sources, 76 References]. By placing additional resources into mentoring of students at employer sites the goal of the

process, was to further develop employer relationships in addition to meeting the initial goal of mentoring which was linked to academic quality assurance. It is perceived that unpaid placements needed to be bolstered for fear that they would not be seen as legitimate by students or employers.

- iii. *Placement Options*: The introduction of new placement options to expand and build flexibility within the placement process. The different options introduced from Cycle 2 are now considered.

#### 6.4.3 *The Introduction of Placement Options*

As performative aspects of the placement were altered it revealing a central or immutable goal to maintain academic credit by building in increased flexibility [C2P2 Dec09-May10 DO3-PlacementClass 11<sup>th</sup>Feb2010]. Driven by the need to address shifting goals while maintaining academic quality assurance placement options were proposed. Several ‘concepts’ and ‘ideas’ could be seen to inform the repertoires of actions taken here;

*Maintaining Academic Credits* [17 Sources, 28 References]: The option to reduce the 15 ECTS (European Credit Transfer System) credits [17 Sources, 33 References] was considered and discounted as it delegitimatised the placement routine in part and/or in whole. This indicated the central nature and importance of maintaining academic credit and quality to legitimise the routine. This decision was made firstly, as noted above; it would prove difficult to make up additional ECTS credits with new modules. Secondly the procedure to get academic council approval for a “major change” to the programme was perceived as arduous involving tasks and activities to re-validate the programme, involving multiple actors such as the course teams and committees, faculty meetings as well as the presentation of proposals to academic council within the academic quality assurance process. While maintaining the 15 ECTS credits options to modify the length and type of the placement were thus preferred. This allowed for increased flexibility consistent with the short-term goal to increase the number of available number of placements i.e. ideally paid ‘quality placements’ [C2P2 Dec09-Mar10 DO2-Placement Class 4<sup>th</sup>Feb2010]. Throughout Cycle 2

the confusion and lack of awareness of students became evident as discussed above [C2P2 Dec09-Mar10 DO4-Placement Class-18<sup>th</sup>Feb2010].

*Acceptance of Unpaid Placements:* This first ‘ostensive’ change to the placement during Cycle 2, was the acceptance of the reality of unpaid placements (Option 2, Table 6.2). The PO explained the pressures to students in the placement classes;

“...up to the 1st June we are working on a 10 week no pay, up to then I will be looking for a jobs on a daily basis for ye [sic] ...tearing my hair out at the same time. We will have to change our tac [sic] if we haven't got everybody out by the 1st of June, we will have to go looking again...right...then it will be 4 weeks unpaid...we will bring it down to 4 weeks unpaid if we have to..”

[C2P2 Dec09-Mar10 DO2-Placement Class 4<sup>th</sup>Feb2010]

During Cycle 1 the PO commented that if an unpaid placement became available she would return to it in April as a last resort as ‘a back-up’. The pressures in Cycle 2 meant that tasks and activities relating to unpaid placements became more the norm [C2P2 Dec09-Mar10 Interview IA02 EOG 6<sup>th</sup>Mar2010] within the ‘sets of possibilities’. This indicated an ostensive shift allowing additional flexibility in response to market forces much like videoconferencing altered the Feldman’s hiring routine. ‘Credibility’ and established relationships became ways to gauge ‘experience’ in the context of unpaid placements within the sets of possibilities informing action. These ostensive understandings would alter performative actions directing actors toward ‘repertoires of action’ that previously might not have been considered. The PO and AHP now focused on tasks to meet short term actual goals to ‘place all students’ rather than the luxury of an ideal long term ideal goal to source ‘quality placements’.

*Length/Timeframe of Placements:* The default length of placement was 16-24 weeks (Option 1). Shorter placements of 10 weeks with a minor project were considered to increase placement numbers (Option 2, Table 6.2). Even shorter placements with more extensive project work as alternatives were also introduced (Options 3 & 4, Table 6.2). The 16 week requirement wasn’t just for students but was as much a academic credit guide for the PO’s management of the placement. These new options were presented verbally in Placement Classes without supporting slides. The absence of any supporting documentation at that time contributed to ongoing confusion e.g. no guiding artifacts. To rectify this a portfolio of supporting artifacts were

subsequently created – this will be discussed in Chapter 7. The PO commented on how newly introduced options might reduce student engagement as she feared students would hold out in the hope market conditions would improve. Unfortunately for the PO and AHP this contributed to student confusion even more about the role of the PO in job seeking etc, and concerns over pay and leaving current paid positions as discussed above.

*Type of Project Work Required:* With the introduction of shorter placements additional project work was used to make up any perceived shortfall in achieving 15 ECTS credits (Table 6.2). Students who had to complete course work felt aggrieved by the additional requirements especially as they saw other students with slightly longer placements not have to write-up additional project work. These issues influenced student engagement with the placement. Questions over the extent of project work were now raised. Notwithstanding student concerns many students hoped to hold out for 6 to 10 week placements with increased project work to match with their circumstances.

Central to the placement was academic credit as the basis for quality assurance. Its immutability suggests it cohered more to the routine than concepts of pay and quality of placement which changed within the set of possibilities. Unpaid placements had previously fallen outside the set of possibilities before the financial crisis. The changes introduced by Placement Option 2, 3 and 4 codified the altered understanding of the quality placement by accepting unpaid placements. The timeframe of the placement was also shortened with increased project work. Combined these would influence student engagement, the integrity of the placement, and the inability of the PO to enact tasks and activities relating to both job seeking and screening and matching.

#### *Variation in the Enacting of Roles and Responsibilities*

*Student Roles Relative to the Placement Officer:* The changes outlined above impacted on perceptions of roles and related responsibilities during Cycle 2 (Table 6.1, Change 4). The AHP noted that the absence of the PO, for a period of time due

to personal illness, during Cycle 1 (Table 6.1, Change 2) highlight the importance her role in guiding mentoring and job seeking for the students. Students also commented on this due to the uncertainty, frustration, and lack of communication during this time as they grappled with the need to adopt responsibilities for job seeking. Students reflected on the responsibilities for job seeking and matching relative to the PO's role;

“I think it was handy this year. Because we needed regular updates. We needed regular updates, because things were not as good this year as they were in previous years. I can't speak for previous years. But I heard before loads of them had jobs coming up to January, so, so.”

**[C1P1 June09-Oct09 Interview SA03 PG 27<sup>th</sup>Aug2009].**

“..... everyone has been very happy. But I think this year, you know, because of the recession, because of what happened with IA01, you know, because of all the rush, to just throw people into jobs. I just don't think enough thought was given to whether they would be happy in these jobs. And maybe organisation, I know he [boyfriend in United Drug] sorted out his old placement ...”

**[C1P1 June09-Oct09 Interview SA02 LOG 27<sup>th</sup>Aug2009]**

Students understood that the PO was solely responsible for job seeking as well as matching students to employers. These would only have legitimacy if enacted by the PO. This responsibility was not transparent or explicit. The PO was absent due to illness. Her sudden but brief absence raised questions around her role and responsibility of the HEI for enacting these tasks and activities. Students rarely if ever acknowledged any responsibility for job seeking tasks and activities. This seems to support the ideas that students understood this process as the PO working on their behalf rather than for employers [C2P2 Dec09-Mar10 DO3-Placement Class 11<sup>th</sup>Feb2010]. Many students were unaware that the PO's one-to-one screening interviews were to help employers in her role of 'recruitment specialist'. Evidence in support of this was found in student comments regarding the lack of follow up after one-to-one interviews which was said to be poor or absent. This remained confused in Cycle 1. In Cycle 2 students began to take responsibility for job seeking [C1P1 June09-Oct09 Interview Sa03 PG 27<sup>th</sup>Aug2009].

The precarious financial position of the students was evident in the data in many ways; the requirement to leave paid work for an unpaid placements; travel costs and the absence of travel subsistence to and from employer sites; the need for

accommodation during the placement; and for one student the need for an au pair [C2P2 Dec09-May10 Interview SA05 CD 23<sup>rd</sup>March2010]. The reduced number of paid placements, reduced length of placements all increased pressures on students requiring them to be flexible and adapt by altering personal plans to accept unpaid shorter placement options for academic credit. Some mis-matched students would question the experience they would get and in turn the integrity of the placement itself.

*Distributed Responsibilities for Enacting Job Seeking:* Faculty were called on to help with job seeking resulting in the responsibilities for this routine to become distributed to the wider faculty as the PO needed assistance to engage with a wider group of employers. Due to the impact of the financial crisis job seeking was beginning to be understood as an institutional problem rather than one specific to the placement office. The responsibility for job seeking was to be made explicit to students in the hope they too could source placements (Cycle 3).

Two contrasting processes could be described from the data. In the default process students would attend one-to-one interviews with prepared CVs. The PO would fulfil the role of “recruitment specialist” and initially screen and match students to employers as placements became available. CVs would be forwarded and employers would decide if the student would be called for interview. If the student was successful an offer would be extended through the PO to the students. The emerging process was to change the nature of employer relationships and where the density of dialogical exchanges could be found. Here students, taking on responsibility for enacting job seeking would approach employers independently of the PO with prepared CVs. At this point the PO might not have had a chance to review the CV. Without one-to-one interviews, screening and matching or CV reviews students would secure their own placements independently of the supports provided by the placement office. If a student was offered a placement the PO’s role was now solely an administrative one to approve the placement guided by the academic quality assurance goal.



Confused students had many reasons not to engage with the placement process [C2P2 Dec09-Mar10 Field Notes] most notably that holding out would minimise any disruption with their current part-time work [C2P2 Dec09-Mar10 DO3-PlacementClass 11<sup>th</sup>Feb2010 & C2P2 Dec09-Mar10 DO4-PlacementClass-18<sup>th</sup>Feb2010]. This was the subject of communications from the AHP. However, as they adopted the responsibility for job seeking many students felt little need to engage with the PO. The shift in enacting tasks and activities around job seeking would continue. As direct dialogical exchanges increasing between students and employers we can see a shifting of the density of these dialogical exchanges away from the PO who no longer played a mediating role between them. This reflected that the PO's role of recruitment specialist was become less important and more peripheral in nature to the placement routine. In Cycles 3 & 4 dialogical exchanges with employers, already hampered by the lack of paid placements, was also to change to further undermine the PO's role as a recruitment specialist. This is now discussed.

## *6.5 Variations During Placement Cycles 3 & 4 (Sept 2010 – Sept 2012).*

### *6.5.1 Pressures from the Employment Market & 'JobBridge'*

In most cases the economic crisis had already excluded many small firms from the placement market during cycles 3 and 4. The data increasingly showed that larger firms who could still operate in the placement market, according to the PO, continued to push for unpaid placements. From September 2010 unemployment was over 14%, increasing to a height of 15% during both the last two placement cycles (Figure 6.6). 'JobBridge' a government industrial placement initiative was introduced. It aimed to attract up to 6,000 industrial placements from employers who could participate. This competed with and compounded the pressures on sourcing placements. This supports the interpretation of the impact of a shrinking employment market and was interpreted as further reducing the attractiveness of college placement programmes for employers. This intensified the PO's concerns as college placements would appear less appealing for employers who could hire a graduate in a subsidised industrial placements [C4P8 Sept11-March2012 Field Notes 7<sup>th</sup>Sept2011]. These concerns were expressed at the joint REAP ('Roadmap for Employment-Academic

Partnerships’) and ADHECS (Association for Higher Education Careers Services) Conferences [C3P5 Sept10-Mar11 **Research Journal Sept2010-Mar2011** & C3P6 May11-July11 **Research Journal 1<sup>st</sup>June2011**]. Calls were made to address this “shrinkage” in the placement market. Attempts to form a group representing placement officers with a common goal failed to transpire due to competing institutional interests. The presence of loose affiliations and varied goals was blamed for an incoherent policy response to the ‘JobBridge’ initiative.

#### 6.5.2 *New Placement Options*

New placement options introduced during cycles 3 and 4 (Table 6.2) continued to introduce further flexibility into the placement in the hope of reducing demand while increasing supply of available placements. To resource this a panel of academics were created to assess the increased amount of new project work that would be submitted. In addition, a panel for mentoring students while at employer sites was formalised to underpin efforts to maintain employer relationships. On campus placements (Option 4, Table 6.2) with academic staff members who could identify a need and could support a placement student were introduced. This was accepted as a last resort however this did not materialise in Cycle 3 but students were accepted during Cycle 4. This option was preferred over allowing students to complete extensive projects like the discounted mini thesis [C3P5 Sept10-Mar11 **Artifacts&DocEvidence -Guidelines & Regulations for Placement Project 2011**]. International placements were now allowed (Option 5, Table 6.2). This option had been previously discounted by the PO as too difficult to manage from an academic quality assurance perspective. This option would increase placement numbers by allowing for a geographical spread. This was distinctly different to the alternative option of competing a year abroad on the Erasmus programme. For example, a J1 visa for the US work abroad programme would now be considered as long as an appropriate job could be approved by the PO for academic quality assurance purposes. The concern expressed was that this option was not about going to the US to “wait tables” [C3P5 Sept10-Mar11 **DO9-Placement Class 14<sup>th</sup>Oct2010**]. To support these modifications new placement guidelines were developed and included across various artifacts for the new cohort of students starting in Cycle 3 and then in Cycle 4 (Chapter 7). This

flexibility broadened the repertoires of potential actions that could now cohere more to the placement.

### 6.5.3 *Proactive Employer Engagement with the Placement*

Larger employers, such as the Big 4 accountancy firms and other financial services firms such as BDO and JP Morgan, with already established recruitment processes, began to establish their own procedures for summer internships (3 to 5 months) and work placements (1 year) as precursors to full accountancy trainee contacts. By doing so they began pushing for earlier application deadlines and in effect altering the placement routine. Anecdotal conversations with the PO at the beginning of Cycle 4 indicated the influence the Accountancy Big 4 was now having on the timing of the placements and the tasks and activities she would have to complete over summer months. This extension of their recruitment and selection routines influenced how the placement was managed requiring the PO to adapt to meet earlier deadlines for accounting students. The PO reacted by addressing 2<sup>nd</sup> year accountancy students before their summer break to highlight their need prepare their CVs and interview skills well in advance outside the traditional academic year. Accountancy placements were now seen as “different” by the PO altered her actions and starting the routine earlier for this type of placement compared to others having a knock-on effect for engagement in placement classes. As many already had placements they saw no need to attend placement classes. The PO drafted a letter artifact to highlight these perceived changes to the placement timeframe;

**Wednesday 7th September 2011**

DT365 URGENT - Various

Hi all,

<ADDITION TEXT ON AN UNRELATED MATTER>

Finally, and of particular relevance to those of you majoring in Accounting, many of the Accountancy firms including the "Big 4" have been booked to meet with you on various dates between 5 October and 13 October inclusive. Precise details will be communicated on 23 September Induction. In preparation for these meetings, you are strongly advised to start updating your CVs right away.

I look forward to seeing you on 23 September.

EOG. Created on Tuesday, September 06, 2011 4:27 PM GMT/IST

**[C4P8 Sept11-Mar12 Field Notes Sept2011-Mar2012]**

Options	Placement Characteristics						Changes to Enacting Routines		
	ECTS	Duration	Dates	Project Work Required	Paid/ Unpaid	Location	Approval	Job Seeking /Responsibility	Screening & Matching
<b>Placement Cycle 1</b>									
<b>Option 1 – Default Option</b>	15	Min 16 to 24 weeks or as required by Employer	March / April to Sept	Logbook only	Paid	Ireland	All placements to be approved	Primarily responsibility of PO - [Understood as a joint responsibility but increasing emphasis on role of student by Cycle 4]	Conducted by Placement Officer on behalf of Employers
<b>Placement Cycle 2</b>									
<b>Option 2 – Unpaid/ Reduced Timeframe</b>	15	10 (minimum) weeks unpaid	Only up until 1 <sup>st</sup> June. Must end by 10 <sup>th</sup> Sept.	Logbook & 2000 Word Sectoral Analysis Report to make up short fall <sup>1</sup>	Unpaid Placement Accepted	Ireland	All placements & projects to be approved	Job seeking responsibility - half way through Cycle 2 indications about who enacts this routine was shifting (adding to confusion)	Screening & matching diminished in importance
<b>Option 3 – Minimum Unpaid Placement</b>	15	4 (minimum) weeks unpaid	1 <sup>st</sup> June – 10 <sup>th</sup> Sept	Logbook & “Substantial Project”	Unpaid Placement Accepted	Ireland	All placements & substantial projects to be approved		
<b>Option 4 – No Placement</b>	15	n/a/	1 <sup>st</sup> June – 10 <sup>th</sup> Sept	“Very Big Project”	n/a	Ireland	“Very Big Projects” to be approved		
<b>Placement Cycles 3 &amp; 4</b>									
<b>Option 4a – No Placement</b>	15	n/a/	1 <sup>st</sup> June – 10 <sup>th</sup> Sept	“Very Big Project”	n/a	Academic Staff at HEI	“very big project” approved by PO and AHP.		
<b>Option 5</b>	15					International	All placements to be approved		J1 & Industry Specific

Table 6.2 Placement Options Introduced Across Placement Cycles 1 to 4

<sup>1</sup> Source: EOG yes' *SOURCE: D02 4<sup>th</sup> February - Not less than 2000 word. To be confirmed on a case by case basis* NOTES: Data Sources [C2P2 Dec09-Mar10 NP Direct Observation DO2-PlacementClass-4thFeb2010] [C2P2 Dec09-Mar10 NP Direct Observation, DO3-PlacementClass-11thFeb2010]

The PO expressed surprise at the changes saying that she was “*amazed that we are as far ahead as we are and that students are already doing so many interviews*” [C3P5 Sept10-Mar11 DO11-Placement Class 11<sup>th</sup>Nov2010]. The role employers played in changing the structure of the placement also became more obvious as employers (both large and small) began to see the benefit of the placement beyond the simple goal of “productivity” and accessing cheap/free labour. Many employers were now using the placement as an extension of their own recruitment and selection processes as a long risk-free interview (or pre-interview). Accounting employers used the placement as a precursor to established procedures toward a trainee contract extending what fell within the repertoire of actions. Here proactive employers could be seen to expand their efforts in several ways; expanding use of recruitment materials, their use of online tools, and the placement itself as a recruitment tool.

As noted above student’s engagement with the PO diminished. But the PO’s engagement with employers was also going to be impacted on as well. As employers began to adopt online recruitment tools for direct applications employers could now directly engaged with students instead of using the PO as a recruitment specialist on their behalf. This resulted in employers reclaiming many of the tasks and activities previously enacted by the PO. The PO’s inability to negotiate over pay with employers due to the rise of unpaid placements compounded this. Negotiations over terms of employment and/or travel expenses could no longer be initiated by the PO. This would further diminish the PO’s role in maintaining long term relationships. As the density of dialogical exchanges shifted away from the PO (on both student and employer sides) her role can be seen to become more peripheral to the placement routine.

In Cycle 4 employers began to reflect to discuss long term career development goals. The goal here was changing not just to reflect a simple short-term productivity goal, but a long-term goal within a long interview focused on “employability”. Students responded more to this initiative after the placement (Stage 3) as they followed up on potential employment opportunities [C3P5 Sept10-Mar11 DO10-PlacementClass EA15 IL 21<sup>st</sup>Oct2010]. On campus employer visits also increased and included smaller

employers during Cycle 4 [L Technologies]. Larger accountancy firms continued to extend their “milk round” recruitment techniques by adding the placement as an extension of established routines.

As in Cycle 3, FS Biotech’s and Britvic’s efforts to outline more clearly their values and expectations suggested proactive engagement with the placement. FS-Biotech, a research firm linked to two HEIs (DIT & DCU) circulated their vision for interns. The Britvic DNA artifact outlining what was the “DNA” of successful applicants in relation to vision and organisational culture. This document was used to improve interview skills using their ‘Future Skills’ document. This was adopted and used in placement classes by the PO who was highlighting the increased expectations of employers.

## *6.6 Conclusion*

In conclusion, the objective of this chapter was to unpack the performative aspects of the placement routine. This required us to look at stability and change within the routine by relying on data coded to ‘MAINTENANCE’ and ‘MODIFICATION’. From this variety and variation within the repertoires of actions across four placement cycles could be presented. The main finding from this chapter was that in the context of continuous change, influenced by exogenous changes actions to maintain the integrity of the placement routine were taken around academic quality assurance. By taking active steps to maintain this we can argue that this goal holds something integral or ‘central’ to the routine itself. Where actions were taken to modify other routines issues such as pay, length of placement and project work were modified to maintain academic quality assurance. This suggests something peripheral about these elements compared to academic credit. As we uncover the attempts actors make to maintain the placement while modifying tasks and activities within it, we learn that the variations in performative aspects reflect stability-change as a duality rather than as a dualism.

As important was that while ostensive goals within the set of possibilities were changing from long term ideal goals toward short term actual goals the data showed

its impact on the responsibilities for enacting tasks and activities within job seeking, screening and matching. As responsibilities became more distributed, with goals more short term in nature, the density of dialogical exchanges shifted away from the PO and was replaced with more direct student-employer exchanges. By following the density of dialogical exchanges, we can argue that the central role of the PO was now becoming more peripheral in nature. This supports the interpretation of her transitioning role presented in Chapter 5. Similarly, the tasks and activities related to job seeking and screening and matching were too becoming redundant. The re-ordering of the process of the placement suggests that the related tasks and activities themselves were becoming peripheral in the repertoire of actions. Some performative aspects were becoming de-centralised or peripheral in nature as they appeared to cohere less to the routine and/or were being enacted by different actors.

By unpacking the repertoires of potential actions, we gain an insight into performative routine dynamics. In conjunction with the ostensive understandings we can see the emergence of the themes of centrality and peripherality in this chapter as a reflection of routine dynamics. To gain a more complete picture of placement routine dynamics we now turn to unpack the dynamics of material aspects by considering the role of available artifacts within the placement routine.

## ***7 Findings: Unpacking Material Routine Dynamics***

### *7.1 Introduction*

The aim of this chapter is to unpack material routine dynamics of the placement routine. This findings chapter specifically addresses Research Objectives No. 3 & 4 by asking how are the dynamics of material aspects unpacked using dialogical exchanges? By focusing on the hidden masses of artifacts, used in dialogical exchanges, this chapter provides a more fine grained triangulated understanding of ostensive/performative aspects of the placement. This chapter considers generative routine dynamics within dialogical exchanges by first looking at what is ‘relational’ and secondly by considering what is ‘productive’ (Research Objective No.5, Table 4.1).

Across all 4 Placement Cycles (June 2009-September 2012) data was coded to ‘ARTIFACTS’. Artifacts, as missing masses, provide reference points for a multiplicity of dialogical exchanges while capturing rationalities as ostensive understandings of goals, roles, and related responsibilities. How these artifacts were circulated, and relied on, by multiple actors to guide action is considered. Using constant comparison divergence between artifacts and ostensive/performative aspects was sought out. This revealed variety and variations within the data. Coding queries were run to gain a deeper insight into identified variations (Appendix 7.1). This allowed for dialogical exchanges to be unpacked while respecting sociomateriality.

The main findings here highlight that artifacts play complicated roles within dialogical exchanges and routines. Many play roles to simultaneously maintain and modifying the placement i.e. a duality rather than a dualism. What we learn is that the very presence or absence of certain artifacts can have direct impact on the tasks and activities that can or cannot be enacted. By focusing on dialogical exchanges, we find that some artifacts play more central roles in routines compared to others which appear to be more peripheral in nature. We also learn that the content of artifacts is evaluated in different ways, providing an explanation for what is central or peripheral to a routine and possibly greater insight into our understanding of what is productive relational engagement



## 7.2 *Artifacts in Dialogical Exchanges*

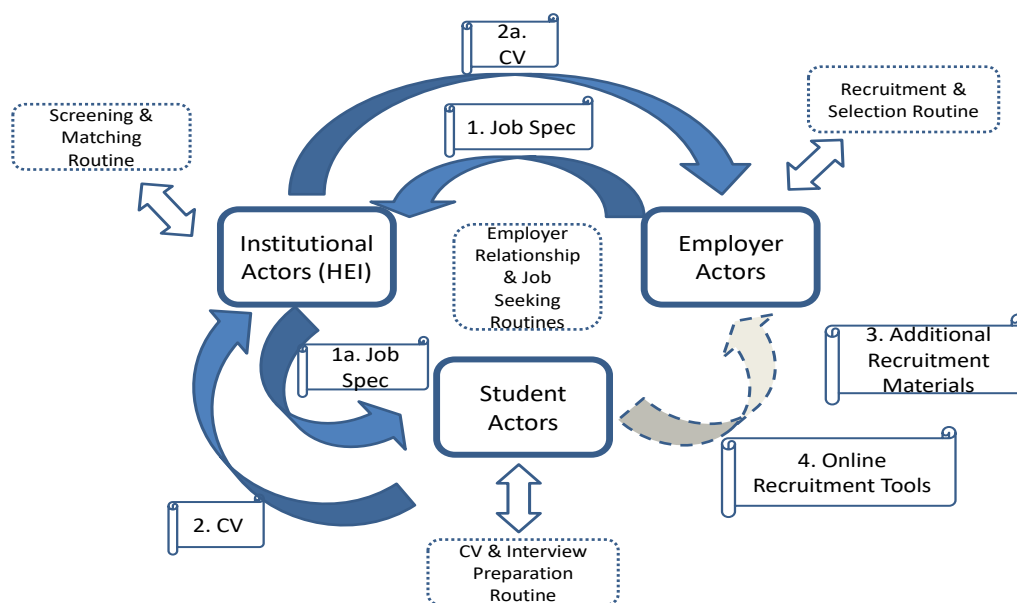
The artifacts described here were used within dialogical exchanges and are described chronologically across the three identified stages of the placement. This perspective supplements and was found to be consistent with the unpacking of ostensive goals roles as well as the responsibility for performative aspects when enacting tasks and activities. This provides a form of triangulation supporting interpretations of variety and variation presented in Chapter 5 & 6. The connections between artifacts and identified routines (Chapter 5) are highlighted (Figure 7.1). Additional artifacts linked to the placement market, including government policy relating to programmes such as ‘JobBridge’ were also included as these were often relied on to guide action i.e. as tasks and activities were recombined to reflected the shifting goals from a long term ideal goal of sourcing ‘quality placements’ to the short term actual goal to ‘place all students’.

### 7.2.1 *Pre-Placement Related Artifacts (Stage 1)*

*The Job Specification Artifact* [8 Sources, 9 References]: Within the context of developing employer relationships [21 Sources, 40 References] and more specifically job seeking [25 Sources, 55 References] the PO asked employers to create job specifications or ‘job specs’ (Figure 7.1, No 1). A job spec indicated, as a reference point, that a placement position was available. At a minimum job specs outlined the role related responsibilities and skills required. No standardised pro-forma for the job spec was found as employer responses to the PO’s request would vary from simple emails from smaller employers, with a couple of lines of text, to comprehensive presentations, recruitment brochures and application forms from larger organisations such as the Big 4 accountancy firms who had more resources available to them.

This variety reflected whether employers had established recruitment and selection routines. For some employers, this routine was absent and they relied on the PO in her role of ‘recruitment specialist’ to enacted recruitment and selection tasks and activities on their behalf. In this context, the PO often created the job spec herself. Where a recruitment and selection routine was present, the responsibility for enacting recruitment tasks and activities such as the creating of a job spec, was retained by the

employer. For this reason, the ‘presence’ of a job spec provided a reference point to indicate the availability of resources, the ‘presence’ of a routine itself and where responsibilities for enacting tasks and activities would lie. This raised the question if there was a difference in whether the PO or the employer enacted recruitment and selection tasks and activities? This also raised the question as to where the density of dialogical exchanges could be found and whether these tasks and activities cohered ‘centrally’ or ‘peripherally’ to the placement routine itself?



*Figure 7.1 Artifacts as Connections within Dialogical Exchanges*

More comprehensive job specifications suggested goals for the employer, roles to be filled and expectations around responsibilities for tasks and activities. The importance of the job spec for employers was captured when a fund manager in a blue chip financial services firm [JPM] said;

“It is on the job spec for us that they have good excel skills .... all of our reports ... can be run through excel and everybody runs them through excel. We’re basically reconciling trades .... So, if you [the intern] can actually build formally into it, it helps you.”

[C2P3 Interview - Fund Manager EA05 2<sup>nd</sup> June 2010].

Comprehensive job specs reflected organisational values as imaginal others more clearly [17 Sources, 306 References]. However limited job specs offered less

opportunities for dialogical exchanges with ‘absent’ imaginal others compared to comprehensive job specs. Here goals, roles and related responsibilities would be difficult for students to ‘evaluate’ when trying to prepare CVs, if they were not articulated within the job spec. The PO attempted to find a balance in job spec requirements explaining that limited or highly detailed job specs served to under-sell or over-complicate the role and would influence student engagement with the application process. As she evaluated job specs she preferred a middle ground not too much or too little by way of detail. As goals for the placement evolved to placing all students, the PO expressed concerns when asking employers to commit resources to even the shortest of job specs. Any onerous commitment of resources, during the financial crisis, was a barrier to employer engagement reducing availability of placements. To avoid this PO’s role of recruitment specialist guided her toward job specs preparation. Previous year’s job specs for credible employers were used.

The content of the job spec often highlighted the need for skills i.e. computer and excel skills to reconcile trades and price funds. As acknowledged by the CGC these imaginal others reflected employer expectations and organisational values. Skills, as imaginal others, in the job spec guided the PO when screening and matching candidates to meet requirements, students when preparing CVs or developing interview skills as well as employers when enacting recruitment and selection. As a sign to commence enacting tasks and activities the job spec was circulated from employer through the PO to students (Figure 7.1, No 1 & 1a). Being used by all actors it evoked dialogical exchanges with a multiplicity of imaginal others. Dialogical exchanges with these imaginal others revealed how actors ‘evaluated’ these ostensive aspects to guide their actions. The job spec, being used by all actors, reflected a ‘central’ quality because its very ‘presence’ provided a reference point and catalyst for enacting tasks and activities.

The finding here is that when the job spec was created, i.e. present, it represented a successful outcome from developing employer relationships and job seeking routines. As this artifact was circulated among all actors it provided a reference point for all actors to commence enacting tasks and activities. This suggests a ‘central’

quality, as all actors relied on it to inform when and how to enact specific tasks and activities connected to various routines (Figure 7.1). The ‘presence’ of the job spec could be seen to facilitate dialogical exchanges that might not otherwise have happened. But to understand if these dialogical exchanges can become productive we turn to look at the content of the job spec to see if it facilitates a process of ‘evaluation’. As comprehensive job spec, replete with imaginal others can be evaluated in dialogical exchanges. A limited job specs provides less scope for evaluation. When the job spec with adequate content is present it facilitates in the first instance a dialogical exchange. In the second instance because it provides opportunities for evaluating it might facilitate productive relational engagement.

*The CV Artifact* [20 Sources, 50 References]: Guided by the multiplicity of dialogical exchanges involving imaginal others codified into job specs and related recruitment material students developed CVs and prepared for interviews [29 Sources, 119 references]. As advised by the Career Guidance Counsellor (CGC), student CVs ideally included their values, interests, personality and skills [7 Sources, 11 References] in their attempt to engage with organisation values and expectations. In addition, the CGC and PO emphasised the need for students to think in the long term about “employability”, “career development” and employer expectations when developing their CV. However, evidence of student short term thinking was more prevalent in Stage 1 data and this narrowed the scope of ostensive understandings they would rely on to guide CV and interview preparation. As noted in Chapter 5, many students failed to acknowledge the importance of placement classes, focusing on getting an interview, a paid placement offer, logistics of starting with an employer and its impact on current employment as short term immediate concerns. Related tasks and activities of CV and interview preparation were absent (unless prompted by the researcher) from students ostensive understanding of the routine [Appendix 4.4 MEMO C3P5-12]. This was despite the Career Guidance Counsellor (CGC) [IA06 LW] workshops highlighting the importance of the job spec and recruitment materials (see below) as guides to consider the “VIPS model” focusing on ‘values’, ‘interests’, ‘personality’ and ‘skills’ [21 Sources, 52 References] an providing insight into employer goals and values. He argued;

“[Be] adaptable and employers don't want one trick ponies and you ..... need to know yourself. What motivates you and using the VIPS [values, interests, personality and skills] to answer the question and go through each one. Turn the VIPS model into questions that an employer would ask in the interview from the employer's perspective”.

[C2P2 Placement Class IA06 LW, 9<sup>th</sup>Dec2010].

The CGO used samples to illustrate poor quality CVs, discussing how employers use CVs to evaluate if students matched with their organisational values and goals. Only in post-placement data were students able to reflect on long term career goals.

Traditionally CVs were submitted to the PO, were reviewed as a task within screening and matching [29 Sources, 93 References] during one-to-one interviews (Figure 7.1, No 2). As a recruitment specialist on behalf of employers the PO would evaluate CVs to see if candidates met employer pre-requisites as expressed in job specs. As the document was evaluated guidance on developing and improving it was provided [14 Sources, 24 References].

A poor quality CV, relative to the job spec, subjectively evaluated by the PO, would most likely result in that student not progressing in the process. Presenting weak candidates for interview was understood as having a negative impact on the long-term university-industry relationship. But the process of evaluating did not stop with the CV – during one-on-one interviews students themselves were also evaluated in person. Appropriate candidates with good quality CVs were forwarded to employers (Figure 7.1, No 2a). But matching students to employers became more challenging due to the financial crisis especially for banking and finance students. In most cases employers would call only a selection of candidates from those recommended. For many employers, their perception of the placement process only commenced when they received CVs from the PO. As outlined before many managers had little or no involvement prior to this stage reflecting a truncated understanding of the placement process. CVs were evaluated or “vetted” for a second time within employer's own recruitment and selection processes [57 Sources, 183 References]. The phrase “*screening passes of the interview*” was used by one employer [C1P1 Interview EA04 JD 27<sup>th</sup>Aug2009] to reflect the rounds of screening they would go through before a decision was made to call candidates for interview and/or to offer them a placement.

In support of this interpretation employers noted the informal nature of some CV's which they felt reflected a lack of understanding of what "employers", as an imaginal other, needed to a lack of "attention to detail" [C1P1 Interview EA01 JC 12<sup>th</sup>Aug2009]. This response from employers was always raised as a concern by the PO and the CGC in placement classes when guiding students. This quote typifies how employers assessed CV quality;

"very good, they're all differed but not been, you know they are ammm, they gave a good feel for what they were interested in, when we are looking for students in a part ... in a summer position, we would be interested to know maybe previous work experience, is it relevant ammm, of course there are doing is going to be helpful to them, their experience here and increasingly important as computer skills."

[C1P1 Interview EA03 DC 27<sup>th</sup>Aug2009]

"They were all fairly good. Some were possibly a little bit informal..ammm. For the individual concerned, this is a very formal organisation, it doesn't make for a ...I suppose..... it's not putting a person's best foot forward."

[C1P1 Interview EA01 JC 12<sup>th</sup>Aug2009].

During the interview process the 'quality' of the candidate was evaluated relative to the job spec and submitted CV compared to the CV as well as available organisational goals and values that might be found in supporting recruitment material or websites. A placement position would be offered to the student if the student candidate was deemed to sufficiently meet the employer's criteria. Tasks and activities linked to subsequent routine could then be enacted. The senior manager in a pharmaceutical company [EA01 HB 12<sup>th</sup>Aug2009] commented that interview standards had improved. However feedback from some employers, as reported by the AHP, was that the students hadn't prepared properly;

".....employers were telling her [the PO] that they were unimpressed with the performance of some of the students in interviews. They felt they hadn't prepared properly. They felt they didn't really, really ... commitment to ... winning the position while at interview. And, [the PO] suggested that I would have a word with the students about that. And I absolutely did. And then one of the sessions with them I'd told them that we have to up our game...in trying to help the students find placements....".

[C1P1 Interview IA02 EOG 4<sup>th</sup>Sept2009].

This suggests that students are generally "lacklustre" in interviews and did not understand the importance of the opportunities presented to them. The data however suggested that many students did not care, prompting the AHP to address

this issue with the student cohort (who otherwise were not engaging with the process).

*Recruitment Materials* [17 Sources, 306 References]: Alongside the job spec, some employers developed and utilised a broad range of recruitment materials including brochures, presentations, and websites, incorporating organisational values as imaginal others (Figure 7.1, No 3). Larger firms often allocated additional levels of resources to produce these materials. Student relied on these artifacts when applying for placements. This suggests that dialogical exchanges were distributed across these various artifacts when preparing CVs. In later placement cycles some employers introduced online application systems where students would upload CV's and fill out online application forms (Figure 7.1, No 4). Earlier application dates were introduced by accountancy employers forcing the earlier enactment of tasks and activities. The PO's role in job seeking as a recruitment specialist altered here as did her involvement in screening and matching as this was now being conducted by employers themselves. In support of this interpretation students, facilitated by enabling technologies, could now engage directly with employers rather than going through the PO. As discussed about many tasks and activities were now becoming redundant as students adopted responsibilities for job seeking and employers became proactive reclaiming recruitment task and activities.

#### 7.2.2 *Evaluating & The Emerging Role of 'Central' Artifacts*

The main finding is that available artifacts facilitate the process of evaluating. When artifacts are present, and if central to the routine, they increase, in an observable way, opportunities for evaluating. As opportunities increase they facilitate continuous articulations. This speaks directly to the research objective as evaluating becomes associated with understanding productive relational engagement within routines (Research Objective No.5, Table 4.1).

In support of this, comparisons between the role of the 'job spec' and the 'CV' can be made. As these artifacts circulate among actors they play distinctly different roles in guiding the enactment of tasks and activities. The absence of a CV artifact would preclude actors from engaging with various tasks and activities in routines.

Dialogical exchanges building connections between actors could not occur without the CV. Without the CV being present student the PO would not be able to engage in screening and matching tasks and activities. Employers would not be able to enact recruitment and selection tasks and activities. The presence of the CV allows for evaluating to occur and facilitates relational engagement. Poor quality CVs would most likely stymie a call for interview. Without tailoring CVs, specifically to employer needs and values, students would fall foul of the evaluating process and would not progress to interview or be offered a placement. The enactment of tasks and activities in subsequent routines would not occur. For this reason, the 'presence' and 'quality' of the content within artifacts facilitates dialogical exchanges. If quality is evaluated as substandard or the artifact is absent these dialogical exchanges cannot occur preventing tasks and activities from being enacted.

The absence of the job spec, on the other hand, did not prevent subsequent tasks and activities from being enacted in the same way as the CV. Also, the quality of its content was not evaluated by actors in the same way as the CV. This suggests something different about the job spec artifact compared to the CV as it did not seem to play as central a role in dialogical exchanges. This suggests that that the job spec cohered less to the placement compared to the CV which appeared to cohere more centrally to the placement.

### 7.2.3 *During-Placement Related Artifacts (Stage 2)*

*Placement Options Artifacts - Maintaining Academic Quality:* Due to the recession from 2008 increased pressures in the employment and placement markets impacted on the availability and length of placements. New placement options (Table 6.2) were introduced in response to exogenous change introduce flexibility relative to emerging short term actual shifting goals. At a more focus level of granularity a range of communications embedded across various artifacts informed ostensive understandings and actions taken. The immediate goal of the PO and AHP, at this point, was to respond to exogenous changes, maintain the integrity of the placement while modifying tasks and activities she would undertake. Three artifacts were introduced in early February 2010, the middle Cycle 2. This included the Director's email (Table 7.1, 1<sup>st</sup> February) asking for assistance from HEI faculty on sourcing placements. This effectively started the distribution of job seeking responsibilities.



<b>Artifacts [C2P2].</b>	<b>Content</b>	<b>Theoretical Significance</b>
1 <sup>st</sup> Feb - Email from Director to Faculty:	A mild request to staff included in information on Faculty Day to engage with the placement office due to difficulties in the marketplace. This was not the main purpose of this email.	Artifactual dialogue in response to downturn. This email changes/expanded the role of job seeking by distributing responsibility to the HEI faculty. While subtle this email was the first formal request for help in seeking placements i.e. expanding responsibility for job seeking tasks to a wider faculty. (see Section 6.3 where enacted tasks and activities changed)
9 <sup>th</sup> Feb - Letter/Email Help to find Placements	A letter to staff was circulated in direct response to the changes in the market placement (Section 6.X) asking specifically for help with job seeking.	This letter/email specifically embodied changes again regarding the tasks related to job seeking by distributing them to a wider HEI faculty group. (see Section 6.3. where enacted tasks and activities changed)
9 <sup>th</sup> Feb - Placement Brochure	A newly created brochure was also circulated with the above letter to staff providing information to employers.	The brochure is used to provide information to HEI staff when they would contact potential employers. Its creation affirms changes in job seeking broadening responsibilities for enacting tasks beyond the PO. While this artifacts helped to guide a change in behaviour it also used to maintain the placement routine at the organisational routine level. (Section 6.4)
11 <sup>th</sup> Feb - Placement Options Letter	To reflected the PO and AHP's need to address confusion in the class regarding placement options this letter was posted on Webexone (intranet site used to communicate with students).	The letter was created due to confusion over the placement options presented without supporting material in placement classes. This artifact's purpose was to 'repair' / manage student confusion and expectations (now seen to threaten the integrity of the placement) and maintaining the overall placement in relation to academic credit.
16 <sup>th</sup> Feb – AHP Non-Engagement Email/Letter	Confusion appeared to result in poor attendance at placement classes. The followed the PO's frustration the week previously (i.e. voice mail and not getting any replies from students etc).	This email/letter aimed to repair student actor behaviour i.e. clarifying expectations to as to maintain the overall goal of the placement i.e. maintain engagement. The lack of engagement suggested a reduced 'density' of communication or dialogue. (Section 6.4)
18 <sup>th</sup> Feb – AHP Placement Class	The AHP addressed the placement class for two purposes.	The first was to remind student actors of academic credit & standards required for the placement. Secondly this was also as a follow up on the Placement Options Letter and the email circulated about attendance. Here we are seeing guidance with the explicit goal to increase attendance and engagement with the placement process. (Section 6.4)
18 <sup>th</sup> Feb – Email: Unpaid Placements	The PO circulated an email regarding unpaid placements	This email illustrated the shift from the ideal goal to source paid placement to acknowledgement the reality of unpaid placements. (Section 5.3.1)

*Table 7.1 Artifacts Used to Maintain Task & Activity Enactment*

A follow up request was made at a Faculty Day meeting where the challenges faced by the Links/Placement office in finding appropriate placements were discussed. A second email/letter, specifically requesting staff to help with sourcing placements

was later circulated (Table 7.1, 9<sup>th</sup> February) accompanied by a newly created brochure which could be used when contacting employers. All documents spoke to a common short-term goal of increasing the number of available placements by using already established employer relationships among Faculty members. This continued to distribute responsibilities for job seeking to a wider group who would now engage in these tasks and activities around new goals and roles which would influence how employer relationships would develop. Consequently, the PO officer's role could be interpreted as being side-lined. This was compounded by direct student-employer dialogical exchanges influenced by the growth of unpaid placements and redundancy in the PO's role as recruitment specialist who would enacting screening and matching tasks and activities. The pressure to 'place all students' and increase the availability of placements would also reflect an inability to build long term employer relationships.

New placement options were communicated in placement classes resulting in confusion among the students i.e. variety of multiple ostensive interpretations. The confusion due to the poor communication of the options without supporting material (Cycle 2) necessitated the PO and AHP to engage in repairing and clarifying steps that would be taken. A number of letters were created and disseminated to all students. These would further alter goals, roles and responsibilities impacting on the PO's role. This confusion, over newly presented placement options, was compounded by poor attendance in placement classes (Cycle 2) which was perceived by the AHP and PO as a threat to the integrity of the placement. A placement options letter was posted on Webexone [C2P2 Dec09-Mar10 DO3-PlacementClass-11<sup>th</sup>Feb2010], the intranet site used to facilitate communications with students (Table 7.1, 11<sup>th</sup> February) where the PO officer explained how she would engage with employers moving forward. Here the evaluation of a 'credible employers' would result in preferences in accordance with the goal to meet quality placement. This effectively would rank, in importance, the tasks and activities she would undertake.

Continued non-engagement by student led to the AHP to circulate a letter to address this (Table 7.1, 16<sup>th</sup> February). This could be interpreted in the following ways.

Firstly, students were now told to take responsibility for job seeking tasks and activities by independently approaching employers and building their own employer relationships. Secondly student non-engagement with the process might also have reflected a ‘holding out’ mentality in favour of short placement options to minimise disruption with already held paid positions. This might also explain the lack of engagement with the PO in one-to-one meetings i.e. screening and matching, which was perceived as threatening the placements integrity (18<sup>th</sup> February, Table 7.1) [C2P2 Dec09-Mar10 DO4-PlacementClass-18<sup>th</sup>Feb2010].

Evident in multiple emails academic credit emerged as an immutable goal. Alterations were made to project and placement duration with guidelines and procedures being released (Table 6.2). These documents would codify new procedures and the presence of the artifact itself gave credibility and legitimacy to the process while taking active steps to maintain academic quality. By reviewing artifacts within dialogical exchanges at this level of granularity we seen how interpretation compliments those outlined in Chapter 5 and 6.

*Flexibility in Connections – The Modification-Maintenance Duality:* The main finding is that artifacts can simultaneously play modifying and stabilising roles. The placement options documents and communications (Cycle 2) played dual roles. While reflecting changing goals they also introduced flexibility into the routine to increase placement numbers, while simultaneously reducing the demand with alternative options i.e. Erasmus option (Table 6.2). By asking students to accept unpaid placement (18<sup>th</sup> February email, Table 7.1) increased flexibility was introduced as policy changed from the ideal goal to source paid placement to accepting a new reality of unpaid placements. By changing an ostensive understanding the overall integrity of the placement in the long term could be maintained [C2P2 Dec09-Mar10 DO4-PlacementClass-18<sup>th</sup>Feb2010]. While introducing this modification it served to stabilise or maintained the placements integrity in face of exogenous pressures. Here change in day to day tasks and activities was found to play a stabilising role for the placement routine reflecting a dualist interpretation of change and stability. This suggests a paradox - that stability/change or

maintenance/modification are found to occur simultaneously as dualities. Descriptions as oppositional either/or forces would not provide a full account of the routine dynamics here. This supports the logic that routines can have central goals that result observations of stability/change dualities. To maintain academic credit other tasks and activities are altered. This also highlighted the need to be sensitive to granularity during data analysis – otherwise descriptions of routine dynamics might remain fragmented.

#### 7.2.4 *Post-Placement Related Artifacts (Stage 3)*

*The Reflective Logbook Artifact* [29 Sources, 52 References]: The placement office provided hard copy (Cycle 1 & 2) and then soft copy reflective logbooks (Cycles 3 & 4) to all students at the commencement of their placement. Guidelines and template pages prompted students to reflect on their experiences on a weekly and monthly basis, record day-to-day activities, the organisational processes they were involved in and any major changes they encountered during their time at employer sites. These encouraged students to reflect on their experiences. The use of a logbook facilitated employer-student dialogical exchanges and engagement as entries were shared with employers on a weekly basis for sign-off. Here employers could review, sanction and contribute to logbook entries resulting in students being guided not only by academic expectations but also immediate employer requirements. Theoretically employers would review entries for reasons of commercial sensitivity however evidence suggested that reviewing and signing of logbooks was haphazard and erratic. This suggested that reviewing entries as a part of a mentoring process was also haphazard. In some extreme cases sign-off of reflective logbook entries occurred only at the end of the placement rather than on a weekly basis as required. With the use of the logbook the actions and goals of both students and employers could be aligned.

Students submitted their finalised reflective logbooks on completion of their placement as they transitioned back as employees in ‘practice’ into their roles as students in the ‘academic’ environment (Stage 3). The PO and AHP then used the logbook artifact to sanction academic credit. The ECTS credits assigned to the placement was found to represent a core immutable goal for the placement resulting in other aspects being modified to introduce flexibility into the placement (Section

5.4). Without the logbook's physical 'presence' the goal for academic credit could not be met and students would not progress in their studies. Its presence represented engagement with the placement and academic quality assurance. The evaluation of the content of the logbook differed to that of the CV and was more like that of the job spec. In contrast to the evaluations of job spec and CV the content of logbooks was only evaluated as inappropriate in extreme cases. This was a curious distinction that suggested something 'peripheral' about this artifact even though it was linked to academic credit – an immutable goal.

After submitting logbooks students discussed how they might further engage with employers upon completing the placement i.e. doing further dissertation research. The immediate need to meet academic standards gradually became replaced with long term goals such as 'employability' and 'career development'. Initial narrow interpretations of the placement gave way to wider understanding of roles resulting in a wider acceptance of responsibilities and tasks and activities that could be enacted [Appendix 4.4. MEMO CODE 07, MEMO CIP1-02]. Combined this suggests greater relational engagement and more opportunities for continuous articulation among those involved in the routine.

The logbook brought together all placement actors. Without it the programme's academic quality would come into question. For students on submitting the reflective logbook their goals reflected short and long term perspectives; academic credit in the short run and career development in the long run. Employers were introduced to academic credit issues when requested to engage with the artifact. Although bringing actors together it did so differently compared to the CV. Comparisons in how CV, job specs and logbooks were used in dialogical exchanges would reveal insights in routine dynamics that reflect variation in the relational nature of the routine. We return to discuss this in Chapter 8.

### *7.3 Conclusion*

By unpacking the material aspects of the placement routine, we gain an insight into routine dynamics in a specific way that is distinct from looking at ostensive and

performative aspects. While distinct, it is however complementary as it considers data from the missing masses of artifacts at a different level of granularity within dialogical exchanges.

The main finding was that various artifacts were used and circulated among the actors providing an opportunity to understand routine dynamics by looking at how they were used, the goals they related to, the roles they supported and the tasks and activities they would guide. The presence of artifacts such as CVs and logbooks was found to impact routine dynamics differently compared to other artifacts such as job specs suggesting something about ‘presence/absence’ and ‘centrality/peripherality’. The evaluating of the content of artifacts revealed additional rationalities informing dialogical exchanges influencing action. However, evaluating occurred in different ways relative to different artifacts. CV content was evaluated differently to the job specs and logbooks. Artifacts were also found to be intertwined with goals, roles, and related responsibilities to varying degrees. While some guided and maintained actions, others were introduced to bring about change. The presence of CVs was found to facilitate evaluating within dialogical exchanges encouraging continuous articulations. Without the CV, subsequent routines could not be enacted, dialogical exchanges could not occur and evaluating within continuous articulations could not be enacted. Here we learn that artifacts in dialogical exchanges influence the dynamics of productive relational engagement in different ways if present/absent or if central/peripheral to the routine (Research Objective No 5, Table 4.1).

Now that we have unpacked ostensive-performative-material aspects of the placement routine we now turn to discuss the implications of this for generative routine dynamics. Three themes have emerged across the findings chapters; the presence/absence of routine elements; the centrality/peripherality of goals, roles and related responsibilities and the nature of evaluating. With these in mind we consider productive relational engagement as a way to understand generative routine dynamics.

## 8 Discussion

### 8.1 Introduction – Theorising Emergent Themes

The research question asks how can organisational processes facilitate the creating of knowledge and what is the nature of organisational knowledge creating (Table 4.1)? Routines theory was used to address the processual approach to ‘knowledge creating’. The generative dynamics of ostensive (Chapter 5), performative (Chapter 6) and material (Chapter 7) were used to unpack routine generativity (Research Objective 3, Table 4.1). Within each chapter, and by way of contribution, a novel approach to understand generative routine dynamics, as inherently dialogical, was advanced (Research Objective 4, Table 4.1). Dialogical exchanges, including hidden exchanges involving imaginal others (Section 3.2.2), and the role of the missing masses of materials (Section 3.2.3), consistent with calls to respect sociomateriality (Section 3.3), revealed novel and under explored aspects of routine dynamics. By minimising fragmented understandings of routines, from a dialogical perspective, this study contributes to our understanding of generative routine dynamics. Two theories are combined: generative routines theory and a dialogical theory for knowledge creation, to advance our understanding of processual dynamics that facilitate generativity. Generativity is understood, not just by what is ‘relational’ within dialogical exchanges, but also by what constitutes ‘productive engagement’ e.g. processual dynamics for knowledge creating (Research Objective 5, Table 4.1).

First, by unpacking ostensive routine dynamics (Chapter 5), we learned that actors held fragmented understandings of the placement. While HEI actors provided a cyclical description linked to the academic calendar, students, and employer’s descriptions centred around a truncated understanding of the placement i.e. pre-placement tasks and activities were absent from their understanding of the placement. This influenced the responsibilities they acknowledged for tasks and activities. Short-term goals around ‘pay’ and ‘productivity’ suggests something calculative about their engagement with the placement (Section 5.3) and raises questions as to why varied ostensive understandings are ‘present’ while others are ‘absent’. Shared understandings, being centrally held across actor accounts, could be interpreted as a source of something ‘relational’ and ‘productive’, Paid-experience as

a goal was found to be centrally held by all actors. However, its meaning was non-monolithic in nature. Pay and experience were not found to be oppositional forces but two sides of the one coin i.e. a duality rather than a dualism. Academic credit was also found to reflect a central quality. Within the set of possibilities of ostensive understandings goals were found to be continuously evaluated, ranked, and recombined within the placement. Actors were found to simultaneously hold short-term actual goals alongside long-term ideal goals to guide action (Section 5.4).. Shared long-term ideal goals were found to be associated with relationality offering greater opportunities for productive engagement compared to short-term goals which reflected something calculative and less relational (Table 8.1)

<b>Summary of Main Findings</b>			
	<b>Presence/Absence</b>	<b>Central/Peripheral</b>	<b>Evaluating/Quality</b>
<b>Unpacked Ostensive Dynamics (Chapter 5).</b>	<i>Routines:</i> Tasks & activities in pre-placement routines were absent from student and employer accounts reflecting truncated understanding of the placement, and its goals/roles - i.e. present/absent from the set of possibilities considered in dialogical exchanges (Section 5.2 & 5.3)	<i>Routines:</i> Commonly understood routines such as 'interviewing' and 'recruitment and selection' reflect central goals (Section 5.2)  <i>Goals:</i> Peripheral goals i.e. 'productivity', and 'pay' are specific to individual actors & reflect a short term calculative quality. Shared goals by all actors of 'paid-experience' and 'academic credit', being long-term in nature, reflect central relational qualities (Section 5.3 – 5.5).  <i>Roles:</i> The PO's central role was found to become peripheral as responsibilities for job seeking became distributed (Section 5.6).	<i>Goals:</i> Goals such as 'paid-experience' are continuously being evaluated & recombined influencing the order of tasks and activities (Section 5.4).
<b>Unpacked Performative Dynamics (Chapter 6)</b>	<i>Routines:</i> Students and employers now enact tasks and activities for job seeking and recruitment and selection (Section 6.3) – density of dialogical exchanges shifts.	<i>Roles:</i> The PO's role becomes less central / more peripheral as student/employers adopt responsibilities for job seeking and recruitment and selection (Sections 6.3 & 6.4).  <i>Goals:</i> Actions were taken to maintain and retain 'academic quality assurance' as a central goal. <i>Goals:</i> Actions relating to short-term actual goals 'to place all students' became more centralised replacing actions linked to long-term ideal goals for the placement.	<i>Evaluated Goals:</i> Maintained or retained goals i.e. 'academic quality assurance' suggests centrality while changes were made to other aspects of the routine i.e. placement options (Sections 6.3 – 6.5).
<b>Unpacked Material Dynamics (Chapter 7)</b>	<i>Absence of Artifacts:</i> The absence of CVs and logbooks was found to prevent action and thus relational engagement. But when present allowed for action and possibilities for productive relational engagement (Section 7.2).	<i>Central &amp; Peripheral Artifacts:</i> CV's, job specs and reflective logbooks, being shared and used by all actors to varying degrees reflect central qualities – informs our understanding of productive relational engagement (Section 7.2).	<i>Evaluating Content:</i> The content of CVs was evaluated differently to the content job specs and logbooks – this influenced action in different ways (Section 7.2).

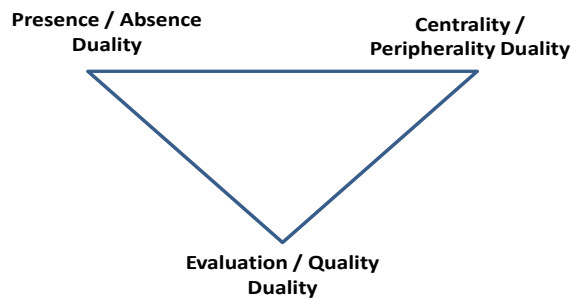
*Table 8.1 Summary of the Main Findings*



Second, by unpacking performative routine aspects (Chapter 6), we learned how action was influenced by ostensive understandings captured in the data. Action as engagement was absent when goals, roles and responsibilities for enacting tasks and activities were absent. However, students and employers were found to enact job seeking, as well as recruitment and selection tasks and activities, when they aligned with their goals and responsibilities. The PO's role was found to become more peripheral in nature as the density of dialogical exchanges shifted to students and employers making certain duties she performed redundant. Actions were also observed that maintained academic credit suggesting its centrality to the routine while modifications were made elsewhere to maintain the placement's integrity (Table 8.1).

Third, by unpacking material routine dynamics (Chapter 7), we learned that some artifacts, such as the CV, logbook and job spec played highly central roles within the placement. However, the CV was found to play a particularly central role as when absent action across various routines could not be enacted. In addition, how the content of artifacts was evaluated, within dialogical exchanges, was found to be a factor guiding relational engagement (Table 8.1).

The main findings can now be interpreted to build theory, not just on processual dynamics alone, but on what is 'relational' and 'productive' in nature. By understanding productive relational engagement, we unpack, in a novel way, generative routine dynamics. The density of dialogical exchanges, continuous articulations and productive engagement can now be used alongside the three main themes which emerged inductively from the data. First, the importance of what is present/absent in ostensive understandings or performance could be observed. Second, shared understandings, reflecting something relational in dialogical exchanges, were found to reflect something central to the placement. Third, how actors evaluated ostensive understandings would impact on absence, presence and well as centrality (Figure 8.1). The three themes as findings are;



*Figure 8.1 Theory Building – The Emergent Themes*

- i. *The Presence/Absence Duality:* Different aspects were found to fall within the ostensive ‘set of possibilities’ and performative ‘repertoires of actions’. By being ‘present’ within dialogical exchanges it is understood that they cohere more to the routine. By identifying the role of present aspects, which cohere, compared to what is absent, which don’t cohere, we can build a picture of what informs routine dynamics.
- ii. *The Centrality/Peripherality Duality:* Different aspects were found to be more ‘central’ or ‘peripheral’ to how they influenced routine dynamics. By unpacked dialogical exchanges over time aspects could be observed as being retained suggesting a central quality compared to peripheral aspects. Commonly shared ostensive understandings provide use with insight into what is relational and possibly productive i.e. generative.
- iii. *Evaluating and Quality:* What becomes retained and/or central to a routine reveals a process of evaluating where a subjective understanding of quality is used to assess goals and roles. Evaluating/Quality as a duality connects the two previous themes and provides an explanation for what becomes central/peripheral within the set of possibilities and repertoires of action.

The following section outlines these findings by firstly reviewing their relationship with the extant literature (Chapter 2 & 3) and secondly but illustrating how these themes are grounded and supported by the data presented (Chapters 5,6, & 7). Special attention is given to understand how these inform productive relational engagement as a basis for unpacking generative routine dynamics.

## 8.2 *The Presence/Absence Duality*

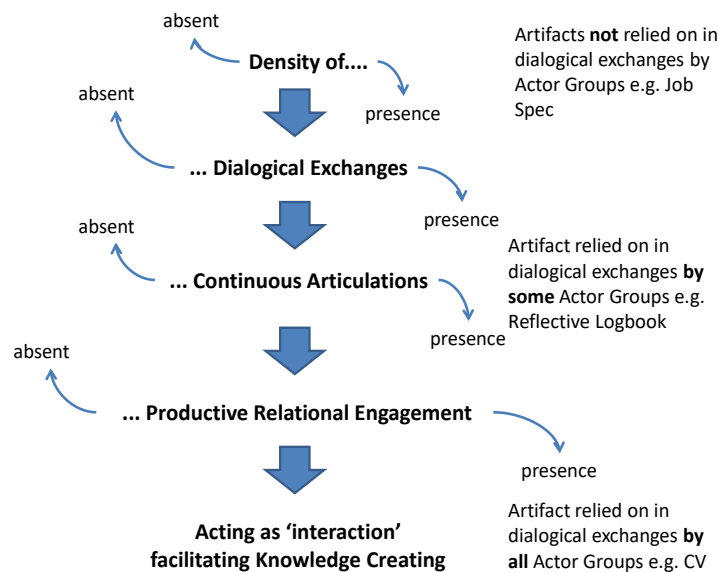
The question as to what is ‘in’ the routine (Becker 2005) is replaced with what coheres to the ostensive ‘sets of possibilities’ (Section 2.3.1) and/or performative ‘repertoires of action’ (Section 2.3.2) as a basis of generativity. If an aspect is present it becomes used within dialogical exchanges to further continuous articulation and productive relational engagement (Figure 3.4). The literature highlights how routine dynamics can be influenced by the presence and/or absence of elements. When ‘present’ aspects become ‘recognisable’ as repeated patterns which provide us with an understanding of coherence, continuity, and persistence (Section 2.3.1). By making comparisons between similar routines across different contexts e.g. restaurant routines (Section 2.2), we can ask how absence and/or presence contributes to variety and variations within routine dynamics? [**Appendix 4.4 MEMO CODE 29, C1P1 MEMO 12, C2P3 MEMO 01**]. Some actions are discounted meaning they are understood to fall outside the routine. The example the option to include a mini thesis were interpreted as falling outside the placement as it was understood to undermine the integrity of the placement (Section 6.4.1). Newly introduced tasks and activities, reflecting ostensive ideas of unpaid placements, were feared to undermine coherence and continuity of the placement. Unpaid placements while becoming a norm simultaneously was not seen as integral to the placement. It is here we start to compare the data with the theory to understand the implications presence/absence has for generative routine dynamics.

### 8.2.1 *Material Aspects - The Presence/Absence of Materials*

As material aspects are more observable they are addressed first. By comparing the role of three artifacts, the CV, the job spec, and the reflective logbook, we find that their presence/absence influence how tasks and activities are enacted [**Appendix 4.4 C1P1 MEMO 08, C1P1 MEMO 09**].

*The CVs Dynamics:* As illustrated the CV artifact prompted and was used in multiple dialogical exchanges facilitating continuous articulations and engagement between the three actor groups (Figure 7.1). Without the CV, students could not enact job seeking and/or interview preparation tasks and activities. Without the CV, the PO could not engage in screening and matching tasks and activities in her role of

‘recruitment specialist’. Without this artifact employers could not enact interview, recruitment and selection tasks and activities, offer a placement position, and/or engage with training. The production of the CV by students embodied prior dialogical exchanges with a myriad of imaginal others such as employer goals, expectations, and values as well as the VIPs. The CVs production illustrated student engagement with the idea of the placement. But once created the CV, as a reference point, was found to hold different ostensive meanings for different actors, attempting to enact specific tasks and activities, relative to different specific goals. When present, the CV signalled that tasks and activities across multiple routines could not be enacted. As a common shared reference point the CV facilitates a density of dialogical exchanges, allowing for a common language, shared understanding, and schemes to emerge. If absent this process of routine dynamics would not occur; density of dialogical exchanges and continuous articulations would also be absent while opportunities for productive engagement would be lost.



*Figure 8.2 Routine Dynamics – Presence/Absence of Artifacts*

The finding is that the CV artifact, like architectural models or prototypes, facilitates a density of dialogical exchanges, allowing for continuous articulations to occur and opportunities for productive engagement in a manner now seen in other artifacts. This suggests something generative about the role of the CV as it facilitated action (Figure 8.2).

*Reflective Logbook's Dynamics:* Without a reflective logbook, the PO could not enact academic quality assurance tasks and activities. Academic credit could not be sanctioned at the end of the placement and students would not progress into their final year of study. In this context, the reflective logbook played a similar role to the CV. When 'present' this artifact allowed to the PO and students to enact subsequent routines. Like the CV all three participant actor groups used the reflective logbook. But employers did not engage with this artifact in the same way as students or the PO. The document did not play an important role in meeting their specific productivity goals. For example, the absence of a reflective logbook would not prevent employers from interacting as it would have for students and the PO. Whereas the absence of the CV prevented all actors from enacting tasks and activities, the absence of a reflective logbook only impacted on some actors (Figure 8.2).

*The Job Spec's Dynamics:* In contrast, the absence of the job spec artifact did not have the same impact on action compared to the CV or reflective logbook. Job specs varied in content and length. If a job spec was absent the PO was not prevented from enacting job seeking, screening and matching tasks and activities. Employers who did not provide a job spec often had one created by the PO. Responsibility for its production was therefore distributed. Similarly, students were not prevented from preparing CVs as they could rely on additional recruitment materials or webpages to guide them forwards. Students could still engage with enacting tasks and activities without a job spec. Also, employers were not precluded from engaging with the placement if they did not produce a job spec. The PO was not prevented from engaging in job seeking and screening and matching tasks and activities if the artifact was missing.

By comparing these three artifacts we learn that the 'density' (Gibbons et al 1994) of dialogical exchanges appears when artifacts have direct consequences for action. If absent, actions around dialogical exchanges do not occur, preventing continuous articulation, and opportunities for productive relational engagement. This addresses a gap in the literature in how artifacts when present or absent can impact on action

(Feldman and Pentland 2005 p.807). This finding supports the discussion on the presence of prototypes to bring diverse specialists together to facilitate continuous articulations and allow for a common language, and shared schemas to emerge – here there are opportunities for productive relational engagement [Appendix 4.4 C3P7 MEMO 02, C3P7 MEMO 06]. This was also observed when placement options documentation was introduced. When absent it resulted in confusion as there was no guidance. But when introduced it clarified actions to be taken.

This raises questions about the generative qualities of artifacts found in the data (Research Objectives No. 4 & 5, Table 4.1). How can artifacts influence dialogical exchanges, continuous articulations, and provide opportunities for productive relational engagement? (Figure 8.2). What we learn is that artifacts which are directly linked to action influence generativity because their presence per se is relational i.e. action is facilitated when the CV's presence, while action ceases when the CV is absence. This influence over routine dynamics suggests something central about the role of the CV artifact not just in the placement but in wider recruitment and selection routines. We return to answer how the CV's centrality explains its relational role and the degree to which it influences generative routine dynamics.

### 8.2.2 *Ostensive Aspects within 'Sets of Possibilities'*

Ostensive understandings, including those captured in artifacts, also reflect 'presence' within the 'sets of possibilities' guiding routine enactment (Section 2.3.1 & Figure 2.4).

The presence/absence of an actor role itself was found to influence actions and routine dynamics. The absence of any one 'role' such as an employer would prevent the placement from being performed in its entirety. The presence of employers was found to co-constitute other's roles and responsibilities. The recession challenged the integrity of the placement itself if employers were absent. Without the 'presence' of 'employers' the meaning and integrity of the placement would become unrecognisable. Multiple understandings of the placement can be seen across ostensive accounts. The placement's length and structure provided a context for understanding goals, roles and related responsibilities for tasks and activities

(Pentland 1992). The failure to 'refer' different ostensive aspects suggests that student and employers failed to acknowledge routines, tasks and activities and related responsibilities as not cohering to the routine (Table 8.1).

Students rarely referred to or acknowledged Stage 1 routines as cohering to the placement. This narrowed their perception of responsibilities for CV and interview preparation and job seeking tasks and activities and narrowed their mode of engagement with wider ostensive goals. Their truncated understanding of goals, alongside a short-term perspective reflected a calculative mode of engagement delegitimising task and activities associated with long term responsibilities. This is consistent with the short-term goals to find paid placements. During Stage 1 there was an 'absence' in the data regarding long-term career development goals. This interpretation is supported by students understanding of their roles in the short-term as 'interns' rather than as 'employees'. This provides an explanation for the absence of student engagement. Due to the lack of dialogical exchanges, continuous articulations, and productive relational engagement the routine dynamics fall short of what we understand as being 'generative'. Students began to refer to long term goals relating to 'experience' such as career development and employability in Stage 3 data. Interestingly, accountancy students acknowledged a longer more expansive understanding of goals guided by the professional nature of the accountancy profession which outlined clear tasks and activities toward a trainee contract. For them the placement was a stepping stone in a longer process expanding ostensive understandings, responsibilities for enacting tasks and activities and encouraging a focus on long term goals. The findings here is that productive relational engagement was most evident when long term goals are seen to guide action as they expand responsibilities and repertoires for relational action.

Employer's also reflected a truncated understanding of the placement failing to acknowledge Stage 1 or Stage 3 routines. Many employers were not involved in their own recruitment and selection routines. This absence of engagement, and truncated understanding of the placement is consistent with the employer's focus on short-term productivity as its main goal for the placement. Like students, this reflects a

calculative mode of engagement. The implication is that narrow ‘sets of possibilities’ in turns narrows relational engagement. Actors holding wider ostensive understandings of their goals, roles and responsibilities represent a wider ‘set of possibilities’ which facilitate opportunities for dialogical exchanges, continuous articulations, and productive engagement. By aligning goals placement professionals can ensure student and employers are encouraged to adopt long term perspectives which facilitates opportunities for greater relationality.

### 8.2.3 *Performative Aspects within ‘Repertoires of Actions’*

Variations in goals and roles resulted in improvisations in how tasks and activities were recombined. Students began to adopted responsibilities for job seeking. Some employers began to reclaim responsibilities for recruitment and selection. As goals become more focused on ‘placing all students’ in the short-term, rather than ‘quality placements’ in the long term the order in enacting tasks and activities was influenced by the PO’s perception of a credible employer. This re-ordered the tasks and activities enacted by the PO. Her role was to narrow in focus around administrative tasks linked to academic quality assurance. While the PO’s goals became more short-term in focus, and role narrowed the roles and goals of others actors could be seen to be become more long term in focus as reflected in their repertoires of actions.

Exogenous changes could be seen to directly influence both ostensive and performative aspects of the placement. Placement options (Table 6.2) allow for greater flexibility to be built into the placement increasing availability, while simultaneously reducing demand for placements. The economic crisis could be interpreted as having a direct impact on how job seeking responsibilities became distributed. Placement options, as artifacts, clarified ostensive accounts for confused students guiding them on how to proceed. This confusion related mainly with to the shifting of responsibilities to students for job seeking and sourcing placement themselves compounding the worries associated with the recession. Clarification only came about when new artifacts were introduced or became ‘present’ clarify what was accepted action within the ‘repertoires of actions’ and indeed ostensive understandings within the ‘sets of possibilities’.



#### 8.2.4 *Theory Building Routine Dynamics - Presence / Absence as a Duality*

The study found that ostensive, material, and performative aspects when present within the ‘set of possibilities’ and ‘repertoires of actions’ influence generative routine dynamics when they are associated with action. These aspects facilitate dialogical exchanges, continuous articulations, and productive relational engagement within the routine (Research Objective No 5, Table 4.1). Presence/absence should not be considered oppositional or polarised forces but complementary forces i.e. as a duality, which influence action in different places along a process of acting toward productive relational engagement (Figure 8.2). When absent, action is not facilitated. This provides an empirically supported and unique insight into generative routines as inherently dialogical.

*Presence – The Density of Dialogical Exchanges:* The density of dialogical exchanges wherever ‘present’ increases opportunities for generativity because it is relational (Gibbons et al 1994). If dialogical exchanges are ‘absent’, and action stops, we can assume an absence of relationality. When the density of dialogical exchanges shifts we can observe how who enacts tasks and activities due to distributed responsibilities. By considering the ‘density’ of dialogical exchanges across students, employers and HEI actors we can observe if their ‘presence’, as a first step, contributes toward productive relational engagement. This is most evident when we observe dialogical exchanges involving artifacts such as CV’s used by all actors. When CV’s are present they facilitate dialogical exchanges. Without the CV dialogical exchanges as actions could not occur and the enactment of tasks and activities across various routines would not occur.

*Presence - Continuous Articulations:* If ostensive understandings are ‘absent’ then goals, roles and responsibilities cannot be articulated. If ostensive understandings are ‘present’ within the set of possibilities but are not commonly shared then conflicting understandings for enacting will be found e.g. truncated student and employer accounts of the placement resulted in an absence of clear goals, roles and related responsibilities around job seeking. Confused students needed to adopted responsibilities. If continuous articulations are present it forms the basis of

something relational and provides opportunities for commonality and something productive as a basis for understanding generativity. It is however the centrality of these ostensive understandings, which we will return to below, that truly reflects something relational within continuous articulations.

*Presence – Productive Engagement:* Continuous articulations facilitate relational engagement. But it is where routine dynamics are productive rather than calculative that we gain an understanding of generativity. The PO attempted to do this by sourcing and ranking ‘credible employers’ by assessing their goals along the lines of productive relational characteristics. In contrast to many employers the larger accountancy firms (Big 4 and others) showed signs of productive relational engagement by focusing on long term goals by resourcing their own recruitment and selection routine and pushing commencement dates earlier. Student data showed evidence of calculative engagement in the short run. However more productive elements appeared as they completed their placement. Even if dialogical exchanges and continuous articulations are ‘present’ and relational we cannot claim that they are productive. This means that ‘presence/absence’ alone cannot provide a full account of generative routine dynamics. We now turn to consider the centrality and peripherality of routine dynamics.

### *8.3 The Centrality / Peripherality Duality*

Whereas presence/absence provides an insight into routine dynamics relating to the porous boundary central and/or peripheral aspects provide insights into aspects that become persistent, are selectively retained and become centralised within the routine compared to aspects that become peripheral [Appendix 4.4, C2P2 MEMO 10, C2P2 MEMO 17, C2P6 MEMO 01, C3P5 MEMO 08, C3P6 MEMO 01]. As suggested in the variation and selective retention model (Figure 2.3) performative aspects are evaluated, repeated and if worthy of being retained, hold seeds of persistence and continuity. By using dialogical exchanges, we see retained performative aspects within the repertoires of actions. Retained ostensive aspects are abstractions within the set of possibilities. These centralised aspects can often become codified albeit imperfectly into supporting artifacts. If an aspect coheres, and is more central to the

dynamics of the routine, it is the source of productive relational engagement i.e. routine generativity. What is retained has been argued as sufficient to understand routine dynamics (Pentland et al 2012). As shown in Table 8.1, we now turn to explore the meaning of centrality/peripheral within the context of ostensive, material and performative aspects of the placement.

<b>Presence toward Centrality</b>	<b>Peripherality toward Absence</b>
<b>Goals (Section 8.3.1)</b>	
Central goals cohere more to the routine	Peripheral goals cohere less to the routine.
Central goals reflect a form of stability, persistence and continuity.	Peripheral goals are not shared and can be disruptive as they introduce new ostensive ideas i.e. discontinuity.
Shared understandings of abstract ideas can result in shared schemas, common language and clarity in guiding action i.e. centralised.	Peripheral understandings of abstract ideas are not shared, are specific and unique to actors and result in complexity i.e. peripheral.
Effortful accomplishments to maintain goals suggest immutability, and is an indicator of central goals.	Goals, which may not be maintained and are thus not immutable, suggest that they are peripheral goals.
Long-term (ideal) goals have a better chance of becoming shared.	Short-term (actual) goals specific to actors have a less chance of becoming shared.
Long-term (ideal) goals can be enacted in relation and productive ways.	Short-term (actual) goals can be enacted in calculative ways specific to actor interests.
Long term (ideal) goals, resulting in shared schemas and a common language allow for dialogical exchanges, continuous articulations and opportunities for productive relational engagement.	Short-term (actual) goals, result in individual schemas, which have yet to be brought to dialogical exchanges, used in continuous articulations. Lacks opportunities for productive relational engagement.
<b>Actor's Roles (Section 8.3.1)</b>	
Presence of actor (human & non-human) roles which facilitate routines being enacted suggests a greater influence over routine dynamics i.e. are central.	Absence of actors (human & non-human) which does not prevent routines from being enacted suggests they have little influence over routine dynamics i.e. are peripheral.
Overly centralised roles can result in calculative engagement. Distributed but centralised roles can lead to productive relational engagement.	Overly peripheral role can result in calculative engagement. Distributed but peripheral roles are less likely to lead to productive relational engagement.
Roles linked to long term goals being more relational facilitate greater connections and responsibilities i.e. more central.	Roles linked to short-term goals, being more calculative have less connections and responsibilities i.e. more peripheral.
<b>Artifacts (Section 8.3.2)</b>	
Central artifacts are used by all actors	Peripheral artifacts used by some actors
Central artifacts, when present, facilitate the enactment of tasks and activities. When absent they, stymie, constrain and inhibit tasks and activities to be enacted.	Peripheral artifacts when absent do not prevent tasks and activities from being enacted. But when present do not necessarily facilitate the enactment of tasks and activities.
<b>Routines (Section 8.3.3)</b>	
Central routines are linked to central goals	Peripheral routines linked to peripheral goals
Central routines are more "connected"	Peripheral routines are less "connected".
If tasks and activities of central routines are not enacted there are knock on effects.	If tasks and activities of peripheral routines are not enacted there are little knock on effects.

*Table 8.2 The Centrality/Peripherality Duality*

### 8.3.1 The Centrality/Peripherality of Ostensive Aspects

The centrality/peripherality of actors, goals, roles and related responsibilities collectively informs our understanding of generative routine dynamics. Table 8.2 above provides a summary of theoretical findings discussed in the following sections. It illustrates that central and peripheral aspects of routines can be found not just in the ostensive sets of possibilities but also in the performative repertoires of actions and the material artifacts used in dialogical exchanges.

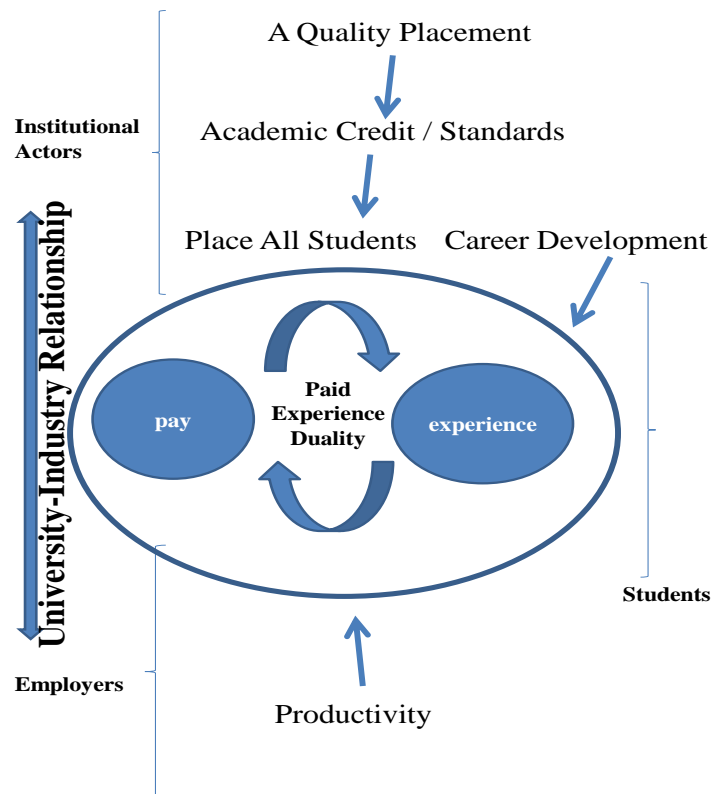


Figure 8.3 Routine Dynamics - Unpacking Ostensive Understandings of Goals

*The Centrality of Ostensive Goals:* Placement goals were found to be complex, non-monolithic, and reflecting varied and multiple meanings as described in routines literature. These goals impacted both on ostensive and performative aspects (Table 8.1). Understandings of goals that are unique to each actor group can be argued as peripheral in nature or having less impact on generative routine dynamics. Shared or commonly understanding of goals across all actors suggests something centralised that facilitates a common language, connections, shared understandings and shared schemas that would generative routine dynamics (Section 2.3). For example, efforts were made to maintain pay and academic credit as a stable goal highlighting an

understanding that both were worthy of being retained. What is maintained reflects retention within the variation and selective retention model underpinning routine generativity. Retention or persistence, supported by efforts of maintenance suggests coherence, and centrality. Centrality was found in relation to ‘paid-experience’ and ‘academic credit’

“Paid-experience” appeared in the data, for all actors, suggesting something central about this goal even if it was understood in different ways by different actors (Section 5.3). Paid-experience, commonly discussed in practice (Chapter 1), was found to be a central goal because *all* actor groups engaged with this goal within dialogical exchanges (Figure 8.3). A second reason for claiming its centrality was that active steps were taken to maintain ‘pay’, as an ideal goal, by the PO and AHP, in the face of exogenous changes due to the financial crisis. A central ideal goal might reflect a form of stability within a context of continuous change (Figure 8.3). However, the meaning of “paid-experience” was found to be more complex than previously thought. HEI staff understood paid-experience through the lens of ‘quality placements’ (Chapter 5). Over the course of the study due to exogenous changes in the placement market the emphasis changed. The PO simultaneously focused on an ideal long-term goal to maintain ‘quality’ while also acting to meet short-term actual goal ‘to place all students’. These goals were not oppositional, but were recombined and improvised as needed i.e. dualities not dualisms. Students perceived “paid-experience” initially from a short-term perspective by focusing on ‘pay’ but changed to a more long-term focus where ‘experience’ became important. Similarly, employers understood “paid-experience” in the short-term as ‘productivity’ driven by a need to reduced scarce resources. While evidence was found relating to long-term goals for recruitment this too was linked to reducing costs of recruitment in the long term.

The goal of the academic quality assurance routine to maintain ‘academic credit’ was also found to exhibit a form of centrality. Steps were also taken to maintain academic credit i.e. placement options accepting changes to pay, duration of the placement and project work were all introduced to alter the routine while maintaining academic

credit. This indicates that academic quality assurance was more central compared to other aspects from the set of possibilities or repertoires of actions. By maintaining academic credit as immutable because it was linked to the integrity of the placement itself. Being understood by all actor groups the goal to meet academic standards had a central quality. However, employers engaged less with this goal, possibly due to their focus on short term productivity. Due to this limited engagement 'academic credit' or 'academic quality assurance' might not be as 'central' compared to 'paid-experience' (Figure 8.3). The alignment of actual and ideal aspects of academic credit might be offered to explain its immutability over time. This cannot be said for paid-experience where the ideal goal became unachievable due to the recession. Gaps between the ideal and the actual goals in routines could be found to reflect the influence of short-term versus long-term perspectives. Long-term term ideal goals therefore carrying relational qualities whereas short-term specific goals carry less relational qualities. Only when all actors began to reflect long term perspectives could we see commonality and shared understandings reflected in the data – only here might we find a source for productive relational quality.

*The Peripherality of Ostensive Goals:* Peripherality was found to reflect the following characteristics. First peripheral goals were found to be specific to individuals or groups and were not shared or commonly understood. Second, peripheral goals were also found to be short-term in nature e.g. employers and 'productivity' and student on 'pay'. By focusing on short-term goals actions are linked to enacting immediate tasks and activities compared to long-term goals i.e. career development. This specificity suggests that peripheral goals cohere less to central ostensive understandings within the set of possibilities of a routine. Being specific to individuals or groups short-term peripheral goals suggests a calculative mode of engagement, as ideas are not commonly shared or understood. An interpretation of central goals, being commonly shared can be interpreted as reflecting relationality or a source for productive relational engagement. Common goals, being central, also reflect alignment between actual short-term and ideal long-term aspects, as they facilitate common action that is relational and possibly productive having a direct impact on performance (Vilnai-Yavetz & Rafaeli, 2006).

Arguably peripheral goals lack effort accomplishments to maintain them and are not commonly held by all actor groups (Figure 8.3).

*The Centrality/Peripherality of Ostensive Roles & Responsibilities:* What roles cohered more to the placement compared to others? While perceptions of roles, as imaginal others in dialogical exchanges, inform the ostensive it is their connection to responsibilities for enacting tasks and activities that informed and legitimised performative aspects (Section 2.3.2). Complimenting the discussion above on the presence/absence of actors, the ostensive understanding of their roles can be further developed by considering their centrality or peripherality.

Employers, as discussed above, when absent threatened the integrity of the placement routine. By extension we can claim that employers, like students, are central actors i.e. the routine could *not* be performed without them. But could this be said for the PO's role?

Evidence suggests her central role was to become more peripheral in nature. At the outset, the centrality of the PO as a 'recruitment specialist' was found in the data where she enacted job seeking and screening and matching, and employer relationship building tasks and activities, passing on job specs and CV's between students and employers (Figure 7.1). The PO mediated the density of dialogical exchanges between students and employers. She facilitated continuous articulations by circulating CV artifacts which were central to the process. With these being present we can interpret her role as relational and productive facilitating placement performance.

But this changed. The PO's role mediating dialogical exchanges between students and employers was replaced as the density of dialogical exchanges shifted to direct student-employer exchanges. Students, as well as faculty, began adopting responsibilities for enacting job seeking tasks and activities. Employers began to reclaim responsibilities for recruitment and selection aided using online recruitment tools. The PO's role in enacting screening and matching tasks and activities became

redundant. The density of dialogical exchanges away from the PO as responsibilities became distributed due to the acceptance of unpaid placements which made negotiations with employers on behalf of students meaningless within the university-industry relationship [Appendix 4.4 C2P2 MEMO 13, C2P2 MEMO 14, C3P5 MEMO 17].

The consequence is that subtle changes in routine goals can have a drastic impact roles and responsibilities for enacting tasks and activities. In this context, we see the potential peripheralizing of the PO's roles within the placement itself. A central role that might be interpreted as relational and productive is made peripheral in favour of a distributed roles and responsibilities. As the density for dialogical exchanges shifted, the roles of students and employers could be argued as becoming more engaged as responsibilities for long term goals are encouraged with students and employers now engaging directly with each other.

How distributed agencies impact on the dynamics of routines (D'Adderio 2008) was described above when the Building Director as 'educator' found his role becoming peripheral as an 'aggrieved landlord' when bulimia cases were handled locally by newly created specialists (Section 3.3.2). This suggests that the creation of new roles can subtly de-legitimise tasks and activities due to the knock-on effect they have on other roles. This finding suggests that as the PO becomes peripheral in here role her ability to manage the dynamics of the routine would also diminish. Being more peripheral in nature, with the density of dialogical exchanges now between students and employers her ability to facilitate continuous articulations and productive relational engagement would become diminished.

To illustrate the meaning of a peripheral role evidence relating to mentors and the mentoring routine can be drawn upon. By using the logic of presence/absence, the role of mentor can be understood as peripheral to the placement. If tasks and activities of mentoring were not conducted it would *not* prevent the placement routine from being performed or its central goals from being met. Role with related responsibilities for tasks and activities can be identified as not only needing to be



present/absent but also to be central/peripheral to a routine for productive relational engagement to happen.

While the PO's role became more peripheral the dynamics of student and employer roles could be seen to reflect qualities of becoming centralised within the routine. Rather than students and employers engaging in calculative modes of engagement separately i.e. students focus on short term goals relating to pay and employers' focus on productivity, their engagement began to reflect more productive aspects i.e. productive relational engagement, toward a common goal as they adopted long term perspectives [Appendix 4.4 CIP1 MEMO 12].

By focusing our attention on central goals and roles within the placement we can see where dialogical exchanges are present, where sources of continuous articulations can be found and where opportunities for productive relational engagement might be. By identifying central goals, we can identify the importance of roles and responsibilities and vice versa. As the PO becomes more peripheral and the student and employers appear to become more centralised we can look to see where the density of dialogical exchanges are shifting to within the placement. From this we can look to see where continuous articulations are happening and if common long-term goals as opportunities for productive relational engagement can be found. What we learn is that this informs generative routine dynamics as it allows the routine to unfold but also focuses our attention on productive dynamics such as shared long-term goals (Figure 8.2).

### 8.3.2 *The Centrality/Peripherality of Material Aspects*

Varying degrees of centrality/peripherality of artifacts was also found supplementing ostensive and performative dynamics (Table 8.1 & 8.2).

The CV artifact was found to be central to the placement facilitating dialogical exchanges for all actors to the placement. As discussed above the CV's presence was a sign to commence enacting tasks and activities for all actors i.e. acting as engagement. The CVs centrality could be interpreted due to its direct impact on the density dialogical exchanges. Like architectural prototypes, the CV facilitate

continuous articulations and opened opportunities for productive relational engagement. If absent dialogical exchange could not occur, preventing continuous articulations and opportunities for productive relational engagement.

The reflective logbook played a less central role. The presence/absence of the reflective logbook impacted on action in the same way as the CV. But the contents of the logbook were not evaluated in the same way as the CV's content was evaluated. The CV's content provided imaginal others that would be used to guide action in a manner not used with the logbook. Also unlike the CV artifact, not all actor groups used the logbook to guide action. Employers remained subsidiarily aware of the academic credit goal and the importance of the reflective logbook. The implication is that artifacts used by all actor groups, and relied on within dialogical exchanges with commonly shared goals reflect a form of centrality that facilitates productive relational engagement.

By way of comparison the job spec was found to be peripheral to the placement as its 'absence' did not stymie or prevent subsequent action. The job spec did not represent a clear reference point that could be relied upon to guide action. This supports D'Adderio's point that artifacts play a fundamental role in distributing agencies and shaping interactions (2008 p.771). The central nature of the CV reflects its performativity in a similar manner to how prototypes facilitate the inclusion of diverse stakeholders in dialogue which allows for continuous articulation. Also, performativity theory is useful in highlighting that abstract concepts which mediate our understanding of goals and roles. Also important is that imaginal others used within dialogical exchanges cannot be separated from available artifacts. We saw an application of this when unpacking routine goals i.e. 'productivity' or 'experience' as concepts. In this sense, the use of imaginal others are not only consistent with respecting sociomateriality but also with performativity theory. Central action, as opposed to peripheral action, is informed not only by hidden dialogues or by the missing masses i.e. sociomaterial assemblages, that form the basis for generative routine dynamics. We now turn to consider the centrality/peripherality of performative aspects.

### 8.3.3 *The Centrality/Peripherality of Performative Aspects*

*Centrality of Routines as Recognised Patterns:* Because of the focus of this study on the theory-practice divide the routines that connect with employers were understood as more important relative to the objective around generative dynamics. The first issue is how the placement's (Chapter 6) recognised patterns of activities are described i.e. routine identification. Many aspects remained peripheral to the routine i.e. the mentoring routine. Also, many aspects of the placement were absent from employer and student accounts. However, aspects of routines present across all three groups conveyed that related tasks and activities of those routines reflected a centralised quality. This provides an explanation for why particular long-term goals associated with the placement routine are less important for these actor groups. This also provides an insight into why certain roles and thus goals are more central than others.

### 8.3.4 *Theory Building Routine Dynamics – Centrality/Peripherality Duality*

For the purposes of understanding generative routine dynamics it might be assumed that centrality is preferred. This however does not provide a full picture. From a generativity perspective, peripheral aspects can be the source of continuous change, and novel ostensive understandings in dialogical exchanges. Peripheral aspects, if retained, can enhance and develop how a routine unfolds, through continuous articulations and productive relational engagement (Table 8.2). The relationships between centrality and peripherality again reflects a duality as these are not oppositional forces. Neither position is preferred, as we remain agnostic about what causes action, but both are needed to inform our understanding of what is generative within routine dynamics. By considering what is central we can gain a better understanding of the dynamics facilitating generative action. Acting here is within dialogical exchanges, continuous articulating and productive relational engagement which all allow the routine to unfold (Research Objective No.5, Table 4.1). Central aspects of the routine if found to be absent were found to prevent the placement routine from being performed. As central artifacts connect all actors in dialogical exchanges they facilitate continuous articulations, the emergence of shared schemas and opportunities for productive relational engagement. Peripheral artifacts might not be relied upon, and might not facilitate continuous articulations. Peripheral artifacts,

if absent, don't have the same ability to stymie dialogical exchanges (Table 8.2). The findings here provide empirical support for the view of generative routines as dialogical exchanges which allow for continuous articulation. When dialogical exchanges are present we can look to consider what ostensive ideas are central to facilitate continuous articulation and productive relational engagement. In so doing we minimise our fragmented understanding of routine dynamics in ways previously only theorised.

## 8.4 *The Evaluating/Quality Duality*

### 8.4.1 *Theory Building - The Nature of the Evaluating/Quality Duality*

Evaluating and assessing 'quality' finds its origins in generative routines literature. Participant actors account for their past actions, evaluate and articulate options (ideal and actual goals) to guide the future action. From this evaluating, recognisable patterns of actions emerge (Section 2.2). Evaluating reflects selective retention which underpins the generative claim in routines theory (Section 2.3.1). Different aspects are evaluated and retained as they become privileged over other activities within the ostensive set of possibilities and the performative repertoires of actions. As they become recognisable they cohere more to the routine. As new possibilities emerge, are recognised and 'become present', they can become evaluated by participant actors. While these aspects may be peripheral in nature, their retention i.e. use on dialogical exchanges, suggests how they can be centralised (Section 2.3.1). This is consistent with previously described processes of evaluating of outcomes i.e. striving, expanding and/or repairing (Feldman, 2000).

For this reason, evaluating connects the theme of presence/absence with the theme of centrality/peripherality (Figure 8.1). We need to understand evaluating, within dialogical exchanges involving missing masses and hidden dialogues, to gain a more complete understanding of generative routine dynamics. Evaluating is thus the process that connects and mediates how aspects become central/peripheral from what is simply present/absent within the routine. From this we gain an insight into generative routine dynamics in a manner that has previously not been theorised. We

now consider the role of evaluating and quality across the ostensive-material-performative aspects of routines.

#### 8.4.2 *Evaluating Ostensive Aspects in Dialogical Exchanges*

*Evaluating Goals:* The main finding here is the complexity and multiplicity of ‘understandings’ of unpacked placement goals. The process of evaluating could be seen in relation to sourcing ‘quality placements’. In the absence of paid placements as the main indicator of quality the PO considered ‘experience’ offered by ‘credible employers’ with whom she had established long term relationships (Section 5.3.1). This represented a complex process of evaluating where paid placement with credible employers would be exhausted first. Unpaid placement with credible employers was evaluated as a close second option whereas as unpaid placements with new employers were left until last. Here we see evidence of how recombined goals guided improvised actions as circumstances changed as the PO ranked employers according to a long-term goal until the routine required more flexibility and she relied on more short-term goals of ‘placing all students’. Across dialogical exchanges evaluated goals helped to shape, re-combine and/or re-order improvised tasks and activities. As discussed above some tasks and activities would become ‘retained’ over others i.e. academic credit within placement options.

The goal to maintain the academic credit and quality assurance was evaluated, by the PO and AHP, as being immutable. Various options within the placement routine to reduce demand, while simultaneously increasing supply of placements were taken guided by the short-term goal to placement all students. The length and timeframe of the placements were changed. Project work was included to make up the shortfall in academic credits. But altering academic credit was not allowed as this was evaluated as being a central ostensive understanding of the placement resulting in active steps to be taken to maintain the integrity of the placement.

The need to introduce flexibility into the placement routine required the PO and AHP to make and evaluate choices that would result in maintaining or ‘retaining’ the academic integrity of the placement. The theoretical implication of this is that it reflected a maintenance-modification duality. While changes were being

implemented to increase flexibility within the placement its overriding *central* goal was to maintain its integrity (Chapter 6). While taking a less granular approach to data analysis and by uncovering this stable immutable goal we see a clear implication of the stability-change duality which might go overlooked if we accepted goals as dualisms or took a singularly granular approach to analysis. For this reason, dualities unpack routine generativity in novel ways that reveal routine dynamics that might otherwise be overlooked.

When ostensive goals in the long-term provided unclear guidance regarding the tasks and activities to need to be enacted, evaluating of what needs to be retained within the routine becomes increasingly important. The goal to source quality placements in the long-term was contentious and could be achieved in many ways depending on multiple ostensive understandings. Long term goals bearing the hallmarks of actual goals are arguably more stable in nature because they clarify action and is implementable in the short term. But evaluating goals become clearer in the short-term if they provided guidance on immediate tasks and activities. But what does this mean for unpacking generative routine dynamics? The paradox is that long term ideal goals while open to interpretation and multiple understandings are inherently relational allowing for continuous articulations. In contrast, short-term actual goals reflecting individual understandings might be more calculative in nature and thus not relational. Whether long-term or short-term in nature, commonly understood goals provide a basis for common action in moving forward – here find opportunities for facilitating productive relational engagement.

The generative nature of goals within routines was unpacked here. The concept of the imaginal other was found to be a versatile concept for unpacking generative dynamics in relation to goals and related benefits. Goals as benefits, could be interpreted as ideal future selves or as futures roles. Imaginal others unpacked the inner generative complexity of the hidden dialogues in routines.

Generative goals, consistent with performativity theory, were found to inform action in a meaningful way. While short-term actual goals inform action for individual

actors, they reflect something calculative about engagement – here opportunities for sharing goals in dialogue and/or continuous articulating as productive engagement might be lost. Long term ideal goals were found to be relational in nature. Opportunities for sharing and interpreting within dialogical exchanges are present. However long-term ideal goals being open to interpretation might not provide clarity in relation to action.

*Evaluating Roles and Responsibilities:* Adopted actor roles were evaluated and linked to perceived responsibilities. The role of students was first evaluated by the PO using the CVs as a reference point. One-to-one interviews within the screening and matching routine was used to evaluate the student alongside their CV. Employers then evaluated CV in isolation. If a candidate was selected for interview he/she would be evaluated again alongside the CV artifact against organisational values and goals. The responsibility for evaluating is performed by various actors linked across various routines reflecting complex dialogical exchanges relying on sociomaterial assemblages.

The ‘student as intern’ as an imaginal other was discussed in a negative, narrow, and calculative manner linked to short-term goals. The ‘student as employee’ was discussed in positive, expansive, and relational terms reflecting a broadening of responsibilities they might enact at employer sites (Table 8.2). If students were perceived and introduced to staff as a ‘new employee’ they were exposed to a wider range of tasks and activities (Figure 5.6) reflecting a different form of engagement with the perceived role compared to being introduced as ‘the new intern’. As students adopted employee responsibilities they could see their employer’s perspective as described within Mead’s concept of the generalised other (Section 3.2.2). This is also consistent with Feldman’s description of the ‘building director as landlord’ versus the broader more engaged role of ‘building director as educator’ (Chapter 3).

Only when students began to adopt wider goal and roles could we see a broadening of accepted responsibilities. This inherent relationality facilitates or opens opportunities for productive engagement (Table 8.2). Accountancy students reflected

an understanding of long term goals and roles within the accountancy profession within the data from the outset. This suggested that long-term processes of guiding students through steps toward a trainee contract. This professionalism, absent in many other sectors, illustrated that a high degree of guidance and certainty allowing actors to focus on long-term goals i.e. career development. This allows student to engage in productive dialogical exchanges as goals and roles are commonly understood.

Employers as ‘credible employers’ were also assessed by the PO. Credibility was linked to pay, good experience in the context of a long-term relationship. The set of possibilities and repertoire of actions would narrow if employers were perceived and evaluated as being as calculative.

The PO’s roles were also evaluated by employers and students alike. Her role as ‘recruitment specialist’ narrowed to that of an administrator focused on quality assurance. While this shift might not have been obvious to students and employers it provides a consistent interpretation of why the PO’s role was to narrow as it did. In this sense, it became less relational and possibly less productive. Students adopting job seeking responsibilities and employers reclaiming recruitment and selection roles contributed to the decentralising nature of her role.

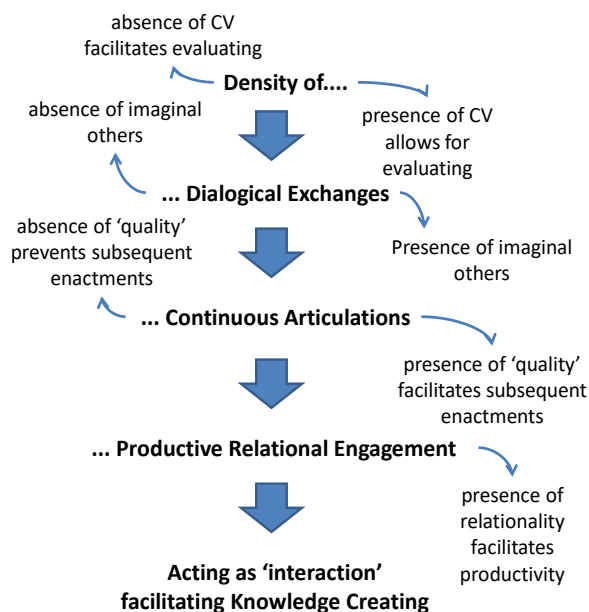
The finding here is that for roles to be generative in nature, they need to be expansive enough to include responsibilities for tasks and activities that allow dialogical exchanges, continuous articulations and productive relational engagement. When roles and responsibilities are expansive enough to allow for evaluation to occur then they are inherently relational. Narrow roles with limited roles and responsibilities that are specific to the individual are not relational in nature. If these roles are calculative they don’t lend themselves to be generative within the context of routines.

#### 8.4.3 *Evaluating Materials in Dialogical Exchanges*

Evaluating has also appeared when we engage in dialogical exchanges with artifacts. An artifact, such as a flute, might be evaluated relative to imagined standards of a flute playing community (Section 3.2.2). These hidden dialogues with imaginal



others involves a process of ‘valuation’ leading to responses and counter responses (Section 3.2.1). The absence of the CV precluded actions across various routines. Its presence however provided a green light to many actors to commence evaluating prior to enacting tasks and activities. As described above employer values and goals are compared against those reflected in the content of CV. Good quality CV’s, subjectively assessed, in the screening and matching routine by the PO, and/or the employer during their recruitment and selection routine, resulted in students progressing to interview. Poor quality CVs, prevented a call for interview. By not meeting subjective standards of ‘quality’ relative to available imaginal others, subsequent tasks and activities for that student candidate would not be enacted and engagement would cease between the student, the PO, and the employer. Evaluating is therefore inherently linked to ‘presence’ which allows for evaluating within dialogical exchanges. This subjectively assessed ‘quality’ of artifacts and actors’ roles that provides an explanation for why artifacts play different roles, whether central or peripheral, in influencing routine dynamics (Figure 8.4).



*Figure 8.4 Routine Dynamics – Evaluating CVs and Related Imaginal Others*

The CV’s was the sole artifact used to evaluate the student candidate prior to interview differentiating it from other artifacts such as the reflective logbook and job spec. Its centrality provides an increased possibility for productive relational

engagement and for this reason these artifacts were evaluated differently (Figure 8.4).

As noted above evaluating provides an insight into what becomes retained, possibly central and what coheres to a routine while also indicating what becomes peripheral as actors seeking out guidance to clarify subsequent action. Evaluating is also linked to the quality of their content that speaks to a form of ‘density’. Prototypes facilitating continuous articulations are full of useful ostensive abstractions or imaginal others which might remain tacit, unclear, and difficult to codify. Central artifacts may well be understood as holding multiple useful abstractions as imaginal others whereas as peripheral artifacts might lack these abstractions. Peripheral artifacts in dialogical exchanges, are only used by some actor groups diminishing how they facilitate continuous articulation and productive relational engagement while central artifacts linked to shared schemas facilitate evaluating and provide opportunities for productive relational engagement (Figure 8.4).

### *8.5 Conclusion – Emerging Themes*

The three aspects of process dynamics i.e. ostensive, material and performative aspects were unpacked to understand routine generativity (Figure 8.1). Within the ostensive aspects certain goals and roles were found not only to be ‘present’ within the ‘set of possibilities’ but were also found to be ‘central’ to the placement e.g. paid-experience and the goal for academic credit. Within performative aspects certain actions to enact screening and marching were found to become redundant as they fell outside the ‘repertoire of actions’. It was however within material aspects of the placement that we could observe how abstractions were captured. By looking simultaneously at each of the three aspects of routines, paradox and conflict within the data could be focused on by using constant comparison – from this the importance of dualities and granularity became evident (Section 4.6). The final chapter considers this in the context of the research question and related objectives.

## **9 Conclusion**

### *9.1 Knowledge Creating – A New Research Agenda*

The research question in this study asked, “how can organisational processes facilitate the creating or knowledge and what is the nature of organisational knowledge creating?”. By reviewing the extant literature attributes guiding data collection and analysis were arrived at to explore knowledge creating dynamics within processes i.e. the dynamics that facilitate knowledge creating (Chapter 1). Guided by both the processual and dialogical attributes for knowledge creating, generative routine theory was combined with a dialogical theory for knowledge creating. Generative routine dynamics across ostensive, material and performative were unpacked using three dialogical exchanges (Figure 3.1). In itself this represents a theoretical contribution. This develops the research question into a question about how we can unpack generative routine dynamics using a dialogical lens. The synthesis of these two theories represents a novel application of theory which reframes how we understand the dynamics of knowledge creating. By way of contribution this research introduces the foundations for a novel research agenda which has received little empirical attention in academic research.

By using dialogical exchanges a unique perspective on routine generativity was arrived at. Relational criteria linked to identifying the density of dialogical exchanges (as sociomaterial assemblages) which facilitate continuous articulations were established. But it is the nature of continuous articulations that was understood as truly productive when the enabled action. Ostensive, material and performative aspects of the routine were reviewed to identify dynamics within dialogical exchanges that reflected productive relational engagement as the basis for generative routine dynamics.

This research substantiated three dualities (Figure 8.1). Productive relational engagement, the basis for routine generativity, was found to be influenced by the presence/absence of different aspects that could enable or prevent action (Section 8.2). Central aspects were found to have a greater influence over generative routine dynamics. Peripheral aspects were found to have less impact (Section 8.3). How

evaluating occurs helps to connect and explain these two dualities (Section 8.4). The role of dialogue within routines, while acknowledged, has not been substantiated empirically. This dialogical perspective on routine dynamics contributes to unpacking the generative nature of routines in a manner previous not considered. This novel approach provides us with a unique insight into how we unpack routine generativity and in turn the concept of knowledge creating.

## *9.2 Unpacking Generative Dynamics within a Novel Context*

By applying this novel theoretical lens to the internship/placement process we can reveal generative characteristics which facilitate knowledge creating (Table 4.1, Research Objective 2). By identifying characteristics that reflect productive relational engagement within the placement routine we can arrive at direct implications for internship/placement professionals. By using previously unnoticed dialogical exchanges this research highlighted dynamic aspects of the internship/placement that had not been explored. The challenge to instil long term goals in both student and employers was highlighted. The practical contribution here is that by allocating resources to ensure students adopt a relational role, they can broaden their repertoire for enacting tasks and activities. This would open students up to a wider set of possibilities. Employers with a similar focus on long-term goals would inherently become more open to opportunities for productive engagement.

A second practical implication for internship/placement professionals was in unpacking the complexity of goals, roles and related responsibilities for tasks and activities. For example, multiple conflicting goals can better be aligned by encouraging students and employers to think in a long-term way about their goals. Armed with the empirical data in this study, how long-term perspectives broaden roles and responsibilities can be better explained to students to encourage them to become 'relational' for better long-term outcomes i.e. career development. The recommendation to placement professionals would be to develop a culture around aligning students and employers to long-term ideal goals for a quality placements. Many aspects were found to prevent dialogue, articulation, and productive engagement i.e. the absence of a CV, non-engagement of students, short terms goals

of both students and employers to name but a few. But many aspects of the placement were found to lead to something productive which is understood here as being 'generative'. These included centralised shared understanding of aligned (long term) goals, clear understanding of centralised roles with outlined responsibilities, as well as the importance of artifacts that prevented or enabled action.

To improve engagement internship/placement professionals should clarify process responsibilities. By ensuring students understand their roles and responsibilities, for example job seeking, will improve and facilitate opportunities for productive relational engagements. Poor levels of student engagement were found in this study suggesting opportunities for greater dialogue i.e. density of dialogical exchanges. By understanding the challenges faced by students, as expressed goals, placement professionals can ensure that engagement is not only relational but also productive. By clarifying and unifying placement goals in the long-run internship/placement professionals can hope to better manage these roles and responsibilities.

A fourth issue relates to the decentralising of the PO's role. If this is the experience for all placement professionals, the ability to manage the internship/placement process will become more challenging. To offset these peripheral aspects the PO can make the placement more 'generative' by encouraging a density of dialogical exchanges, by facilitating continuous articulations and productive relational engagement. To achieve this the PO's primary role of a recruitment specialist might change and be better utilised in fostering deeper employer relationships. As proactive employers use recruitment technologies, the PO will need to redirect her efforts to assess the credible employer in more direct ways. This will ensure improved employer relationships to ensure that productivity goals are treated as a long-term goal rather than as a short term stop gap.

Notable contributions are made here to a sparse and disparate body of empirical research on internship/placements. This research contributes empirically to our fragment understanding of internship/placements not only as an under researched context but also as an overlooked university-industry relationship (Table 4.1,

Research Objectives 1 & 2). Previous internship/placement research remains fragmented in nature focusing on narrow aspects of the placement from a specific perspective. A second contribution is in addressing multiple actor perspectives simultaneously within the same empirical study – an approach absent but called for in internship/placement research. A third contribution was in adopting a holistic processual approach called for in internship/placement literature. By addressing both gaps in this manner this research revealed the routine dynamics in a novel way. But an important contribution was in elevating the internship/placement, which has gone unexplored, as a university-industry process that can facilitate knowledge creating. Previous internship/placement research fails to recognise the role knowledge plays in this context. One implication is that a wider institutional strategy connecting universities and employers to incorporate the relationships developed here; not as a discrete transfer of students, as units of employability, but rather than as an ongoing dialogical engagement that is continuous, relational, and productive (Table 4.1, Research Objective 1).

In summary internship/placement were found to be more complex routines that might previously have been thought. Dialogical exchanges showed conflicting and contentious goals. Hidden dialogues, relating to ‘paid-experience’, revealed diverse ostensive interpretations which fell within the set of possibilities. The idea of unpaid placements was found to become more central as pressures to consider the actual goal in the short term replaced long term ideal perspectives around quality placements. The variety and variations in internship/placements highlighted how their management is always precarious and that striving to achieve desired goals does not mean they will be achieved. This is consistent with the routines literature. Efforts to maintain the placement’s integrity showed how different aspects would change in unforeseen ways resulting in the role of the placement officer becoming decentralised as the density of dialogues exchanges, facilitated by online technologies, would shift to employers and students. These changes as variety and variations, under previous theorising, would understood as generative per se. However the contribution made here is that while variety and variation is present, and central to the routine it might not be generative. This study highlights that as we

evaluate and retain aspects of routines to be generative they must reflect as a matter of degree something relational *and* productive. This is explored now in the next section.

### *9.3 Unpacking Generative Routines Dialogically – A Contribution*

While empirical routines research illustrates how routines continuously change, and how that change can be endogenous, calls to further unpack routine generativity were made. This resulted in the research objective asking how routine dynamics can be unpacked to reveal their generativity (Table 4.1, Research Objective 3). Generative routines theory was used in this study to address the processual attribute underpinning knowledge creating. Knowledge creating is also associated with dialogue. Dialogical exchange theory, was used to address this knowledge creating attribute while contributing to a novel approach to unpacking routines. This research shows that ostensive, material and performative aspects can each be understood through a dialogical lens. This extends our understanding of routines by suggesting that routines are inherently dialogical and that routines and dialogue co-constitute each other as a duality. Similarly, all dialogical exchanges occur within routines (Table 4.1, Research Objective 4).

Three themes emerged abductively; the presence/absence duality; the central/peripheral duality and the evaluating/quality duality. These highlight specific routine dynamics that are relational and productive lead to knowledge creating. These three themes extend our understanding of routine dynamics beyond mere descriptions of the stability/change duality or variety and variations as routine dynamics and focus our attention on what is specifically generative. Not all variety and variations, across ostensive, material, and performative aspects, were found to be generative in nature. The ‘density’ of dialogical exchanges was found to indicate ‘centrality’ compared to peripheral dialogical exchanges which would have less of an impact on routine dynamics. Central long-term goals, roles and artifacts, as dialogical exchanges, being evaluated and retained within the routine were found to facilitate continuous articulations. This relationality was understood as being productive if it facilitated continuity and action. This advances the current debate

beyond the predominant focus that generativity is merely found where variety and variation is present across ostensive, material and performative aspects. The empirical research presented in this study supports a more nuanced interpretation of generative routine dynamics as productive relational engagement. The three themes as dualities are consistent with previous theorising around the dynamic nature of routines. But previous research on routine generativity has tended to preference specific aspects within routines without taking a holistic approach. By using dialogical exchanges to unpack routine dynamics fragmented descriptions of the routine were minimised. By including the missing masses of artifacts and hidden dialogical exchanges with imaginal others, consistent with current theorising in relation to sociomateriality, performativity as well arguments proposed in practice theory (Farjoun 2010, Feldman and Orlikowski 2011, Pentland 2012) a nuanced dialogical understanding of routine dynamics was presented.

By accepting that routines are replete with dualities we also again a more complete understanding of generative routine dynamics. This approach to minimise fragmented descriptions could only be arrived at by adopting a pluralist methodology to unpack the placement (Table 1.3). The contribution made here is in pursuing a more holistic approach to unpack all aspects of routines simultaneously we develop a dialogical theory of routines. The dialogical lens highlights a routine-dialogue co-constituting dynamic (Table 4.1, Research Objective 4).

The interpretation of data using dualities was found to better inform data analysis across ostensive, material and performative aspects. It suggests that previous dualisms such as pure versus applied research, rigour versus relevance, and theory versus practice might better be understood as dualities - consistent with that suggested in the engaged scholarship literature and the focus on rigour *and* relevance as dual hurdles (Section 1.3). This was clearly substantiated in the findings where attempts to maintain the integrity of the internship/placement resulted in changes to other less central aspects of the routine. This blurs the line between change or stability and could only be arrived at by being sensitive to different aspects of routine granularity i.e. seeing the routine up close and from afar, simultaneously to aid



analysis, while also remaining agnostic about what causes acting (Table 4.1 Research Objective 5). This represents an important methodological contribution. Coding for dualities presented some challenges during the coding process as paradoxical interpretations arise. Sensitivity was required on behalf of the qualitative researcher regarding the problem of granularity. While the data collected provided a picture of the routine it would always remain fragmented. By understanding the prevalence of dualities, it encouraged a close-up interpretation with a magnifying glass while simultaneously developing an interpretation in a broader context. By remaining agnostic about what causes action, coupled with a focus on different dialogical exchanges, connections and variations would be revealed in different ways to enrich and deepen interpretations for theory building.

As noted above the main theoretical contribution is in relation to what we understand of processes facilitating knowledge creating. But this research also contributes in tying together various approaches to how new knowledge comes about. In considering processes that facilitate knowledge creating one corollary to Gourlay's convertibility argument was arrived at. If continuous articulation is inherently linked to knowledge creating in the long run it suggests that something does become explicit if it is retained, becomes central, shared and/or codified in artifacts. In this sense, something explicit might well emerge and cohere centrally to a routine. Some support could be found here in that knowledge creating in the long run suggests that continuous articulation does indeed convert something tacit to explicit knowledge.

Routines theory, unpacked using dialogical exchanges, is shown to be an appropriate way to understanding the concept of knowledge creating itself. The consistencies between a routines approach and a dialogical approach allowed for a robust theory to meet identified attributes for knowledge creating. But the question remains as to what is 'generative' and how does it inform knowledge creating? As this is an ongoing challenging process there is no single event resulting in knowledge creating. Processes should be assessed overtime to recognise how they facilitate generative dynamics. Processes maybe relational but what is productive contributes to generativity. The presence of absence of artifacts or ostensive ideas and concepts

(from sets of possibilities) have been shown to influence productive relational engagements. The repertoires of actions have been shown to narrow or broaden depending on these set of possibilities – e.g. if short term in nature responsibilities for enacting tasks and activities become limited. If long term in nature possibilities might become broader opening up relational opportunities. If relationality can be found there is greater opportunities for something productive. This extends the debate beyond simply looking at variety and variation as a basis for generativity. The nature of generative routine dynamics is now linked to presence or density of dialogical exchanges, indicating centrally retained aspects of a that can be seen within shared understandings within continuous articulations leading to productive relational engagement (Table 4.1, Research Question 5).

In conclusion knowledge creating, in its processual sense, poses many empirical and methodological challenges. This research shows processually that knowledge creating is not an event, but occurs as processes unfold overtime. Acting within dialogical exchanges which facilitating continuous articulation and productive relational engagement were substantiated in this study as a more nuanced understanding of generative routine dynamics.

## 10 Appendices

### 10.1 Appendix 2.1 Generative Routines Literature: Conceptual, Theoretical & Empirical Developments

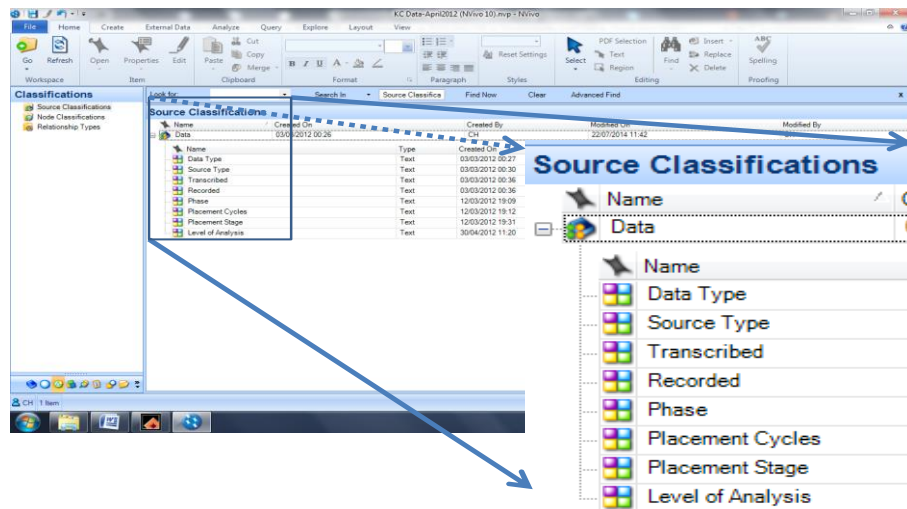
Source	Contribution to Understanding Generative Routines	Implications for Empirical Research
Pentland (1992)	Introduces a duality of movement and structure as a generative set of rules and resources rather than a static set of objective relations (p.531).	Generative as ‘not’ static but something that is dynamic in nature.
Pentland & Rueter (1994)	While considering non-routine contexts this paper claims routines emerge out of the complex interactions of actors (1994 p.487, 504). Citing Simon (1969) routines “ <i>can generate complex patterns of behaviour</i> ” (1994 p.485). Introduces notion of organisational routines as “ <i>grammars of action</i> ”. Functionally similar patterns can be revealed by considering alternative approaches using grammar or grammatical models revealing “ <i>sets of possibilities</i> ” in how routines are performed. Repetitive performances results in grammar being generative resulting in “ <i>sets of possibilities</i> ”.	How Ostensive Aspects are Generative – Builds argument. How Performative Aspects are Generative - suggests that “complex interactions” of actors can be generative. Introduces concept of “grammars of action” which connections utterances to action. Grammar is generative resulting in “sets of possibilities”.
Feldman (2000)	Claims routines are <u>emergent</u> accomplishments and <u>producers of ideas</u> generating change (p.613). Outcomes whether good or bad encourage trying new things and “can generate new ideas” (p.613). Builds the analogy of routines as grammar. Concludes that routines reflect continuous change.	Ostensive aspects as being generative Generation and production of new ideas. Grammar as generative. Emergence. Continuous change, Outcomes based
Feldman & Pentland (2003), Feldman (2003)	<u>Mutually constitute</u> ostensive and performative aspects is argued as generative. <u>Stability-change</u> duality, is argued as generative. Variation and selection retention introduced. <u>Creation</u> is understood as repetition and recognition of routines as a basis of recurrent patterns of activity. Creating and re-creating understandings is generative within ostensive aspects of routines. This mutually constitutive approach opens up new avenues for empirical inquiry. Reaffirms the nature of continuous change being influences by multiples ostensive understandings which can influence performances and reflect multiple routine structures.	Ostensive-Performative aspects. Mutually constitutive. Variation & Selective Retention. Stability and change is generative. Creation is defined as recognition of repetition
Pentland & Feldman (2005b)	The ostensive-performative theory of routines can be conceptualised as <u>generative systems</u> . Variation and selection retention explored. In developing this <u>artifactual interaction</u> with both aspects of routines (pp.803-808) is introduced. The need to “unpack” the generative nature of routines is made here. The ostensive-performative theory is argued as being generative. The role of artifact as generative opens up additional avenue for empirical inquiry. The case to further “unpack” generative routines is made.	Ostensive-Performative theory as a generative system. Variation and Selection Retention Artifacts as generative Calls to unpack generative routines
Becker (2005b)	The importance of “ <i>recurrence</i> ” and “ <i>action</i> ” as being generative highlighted. This source is later cited to establish routine generativity (Pentland et al., 2011 p.1369). Focuses analysis on <u>recurrence and repetition and action</u> .	Recurrence and repetition as being generative.
Howard-Grenville (2005)	States that “ <i>the recursive relationship between the ostensive and performative is essential for the ongoing accomplishment of the routine, and generates a new understanding of routines as emergent structures</i> ” (p.3). Reiterates the role of artifacts in <u>generating expectations</u> (p.627). This source is later cited to establish routine generativity (Pentland et al., 2011 p.1369). Provides continued support for focusing on artifacts as they relate to generativity.	Ostensive-performative theory acknowledged as being generative. Emergence. Artifacts generate expectations.
Pentland & Feldman (2007)	Narrative networks claimed to contribute to the generative nature of routines. The ostensive is a generative resource (p.787) and narrative networks as being emergent (p.782). Narratives inform the generativity of the ostensive aspects of routines.	Ostensive being generative. Narrative Networks.
D’Adderio (2008)	The importance of shifting our view of routines from “ <i>undifferentiated monolithic ‘objects’ to the more sophisticated and productive notion of routines as generative – and continuously emerging – systems characterised by internal structure and dynamics</i> ” is reaffirmed (p770). The role of artifacts and routines <u>performativity</u> introduced. The central role of artifacts as presented here is relied on in this research. Routines as performative is relied on here as informing the approach that routines	Performative aspects of Routines. Role of Materials. Performativity

	as generative systems.	
Pentland & Feldman (2008b)	Claim that the “best conceptualisation” of routine is that of them being generative systems (2008 p.286) citing their 2003 paper. Reiterates the generative claim.	Routines as generative
Pentland & Feldman (2008a)	The failure of a software implementation programme where routines are claimed to be generative systems (p235, 236, 240, cf. 241, 244, 247). A discussion is presented where “live routines” are associated with generative systems Reiterates the generative claim.	Role of Materials
Locke, Golden-Biddle & Feldman (2008)	The living condition of ‘doubt’ and its significance in understanding generativity.	The Role of Doubt in Generativity
Pentland, Hareem & Hillison (2009)	Routines generate “ <i>patterns of event that can change over time</i> ” (p.48) and there is an “ <i>underlying mechanism that generates the interdependent patterns of action</i> ” that we recognise as routines (p.48). Reiterates the generative claim.	Change as Generative
Salvato (2009)	Generative routines based on combination and recombination (p.91) and discusses merits of three avenues to “unpack” routine generativity. Reiterates the generative claim in relation to performances Further calls to unpack generative routines.	Performative aspects of routines Variation as combination & re-combination.
Parmigiani & Howard-Grenville (2011)	The analogy of routines as generative systems is associated with practice theory (p.418). The nature of routines as being emergent, introduced in Feldman (2000), is reaffirmed as they “ <i>hold the seeds for their own continuity or change</i> ” (p.422). Reiterates the generative claim.	Emergence
Rerup & Feldman (2011)	Reaffirms routines as generative systems with constituted of parts rather than as entities (p.578,579) relying on the stability-change duality. While these systems are exposed to exogenous shocks the nature of <u>trial and error learning</u> suggests endogenous nature of change or “bottom up tension” (p.605) and importance of action. Reiterates the generative claim. Focuses attention on the importance of interpretative schemas as a basis for generative change.	Variation as trial and error. Learning.
Feldman & Orlikowski (2011)	Practice theory argues that “everyday actions are consequential” and connected highlighting a principle of <u>consequentiality and connectivity</u> (2002) and relying on Boudieu’s habitus which informs an ostensive understanding of as a generative principle for regulating improvisations (2011 p.1241). Using habitus and the principle of consequentiality a number of thread are brought together that leads to variety (variation and selective retention model)	Variation and Selective Retention. Consequentiality of connectivities. Habitus as Generative. generativity as connections. generativity as improvisation.
Pentland et al (2012)	Advocates a focus on action as a basis of a generative model for routines. Building on the understanding of routines as “mutually constitutive”, endogenous change is established as being present in routines. Need to account for sociomateriality, the importance of agency and need to focus on action. Focus on Action: Action and the properties of action patterns is brought to the foreground so as to understand routine dynamics over time. Sociomateriality and the acknowledgment of dualities continues to build an argument for the theoretical basis for empirical research.	Mutually constitutive. Generative action. Sociomateriality Dualities
Iannacci & Hatzaras (2012)	Directly address the issue of unpacking generative routines by considering the role and philosophy of language. Discusses the relationship between events, artifacts and ideas with artifacts as material instantiations of abstract ideas. Empirical paper overcoming concerns about incompatible dualisms (cf. Becker 2004).	Language
D’Adderio (2014)	Considered the multiple and often conflicting goals in routine transfer and replication. Reiterates the generative claim (p.1326).	Multiplicity of Goals

## 10.2 Appendix 4.1 Coding: Descriptive Attributes, Properties & Values

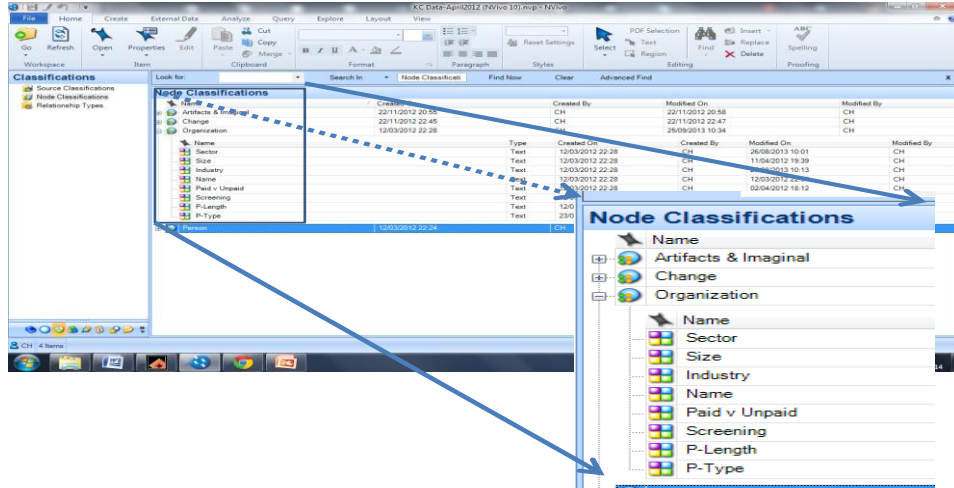
**Note:** The attributes properties are presented in the left-hand column with assigned values for each property in each row. These tables were developed, extracted, and edited from NVivo Classification Sheets and extracting function. The attribute values were informed by literature sources (Section 1.X and Section 4.X) however not all values were relied on for data analysis.

Source Classification								
Attribute Properties	Primary Data				Secondary Data			
Data Type	Interview	Participant-Direct Observation	Non-Participant Direct Observation	Documentary Evidence	Field Notes	Research Journal <i>(this journal also included primary data)</i>		
Recorded Transcription	Yes – Recorded Using Mp3			No – Not Recorded				
	Fully Transcribed	Partially Transcribed in NVivo		Partially Transcribed in Notes		Not Transcribed		Cycle 4
Placement Cycles & Placement Phases	Cycle 1		Cycle 2		Cycle 3			
	Phase 1		Phases 2 to 4		Phases 5 to 7		Phases 8 & 9	
Potential Levels of Analysis	Pre-Placement Stage		During-Placement Stage			Post-Placement Stage		
	Macro Policy Level	Macro Placement Level	Network Org Level	Inter-Org Level	Meso Level	Organisational Level	Group-Team Level	Individual Level



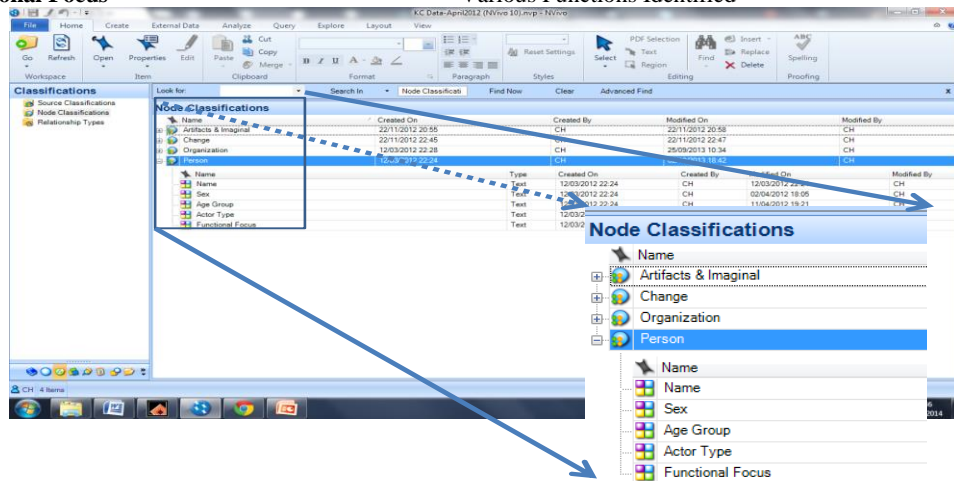
## Node Classification – Organisations

<b>Attribute Properties</b>		<b>Attribute Values</b>		
<b>Sectors</b>		Various Broad Industry Sectors		
<b>Size</b>	1-49	50-99	100-499	500+
<b>Industry</b>		Various Industries Identified		
<b>Placement Type</b>	Paid Placements (by Organisation)		Unpaid Placements (by Organisation)	
<b>Screening</b>	Pre-Screened (by Placement Officer)		Not Screened (by Placement Officer)	
<b>Placement Length</b>	Full Length		Partial No Project	
<b>Placement Type</b>	Fulltime		Part -time	



## Node Classification – People (Participant Actors)

<b>Attribute Properties</b>		<b>Attribute Values</b>			
<b>Sex</b>		Female		Male	
<b>Age Group</b>	<25	26-30	31-35	36-40	>41
<b>Actor Type</b>	Macro Employers	Employers	Student Actors	Institutional Actors	Macro Industry Actors
<b>Functional Focus</b>		Various Functions Identified			



### 10.3 Appendix 4.2 Data Collection: Actors By Organisation

**Note:** This appendix shows the list of organisations represented in the data. In addition, the specific human actors (Employer Actors = ‘EA’, Student Actors = ‘SA’, and Institutional Actors = ‘IA’) linked to each organisation are shown. Multiple forms of data collection are linked to each actor – for example while students were interviewed, their reflective logbooks were also coding. Some actors were also interviewed many times over the course of 4 Placement Cycles.

Organisation	Actor by Organisation	Notes
“ATours”	“ATours” EA14 PG “ATours” EA22 MF “ATours” EA23 BMcC “ATours” EA24 LH “ATours” EA25 CU “ATours” EA26 D “ATours” EA27 HM “ATours” EA28 JM “ATours” EA6 MB “ATours” EA7 NR “ATours” EA8 S “ATours” SA 26 CDrew “ATours” SA15 RD “ATours” SA16 NM “ATours” SA17 PG “ATours” SA18 NT “ATours” SA19 LMcG “ATours” SA41 AnonStudents “ATours” SA43 CH “ATours” SA5 CD “ATours” SA50 KM “ATours” SA52 DR “ATours” SA9 AF	Tour Operator, Tourism Sector  11 Employers engaged with  12+ Students engaged with
ACC Bank		
“A Consultancy”	“A Consultancy” EA17 LK “A Consultancy” SA23 SS	Management Consultancy Firm 1 Employer & 1 Student
Alphabet Anon HR ArtScene		Recruitment Company
“A Insurance”	“A Insurance” SA13 OR	Insurance Firms 1 Student
“B Accountancy”	“B Accountancy” EA29 EB “B Accountancy” SA24 AMcS	Leading Accountancy Firm 1 Employer 1 Student
Behringer Bloom BPO Bodyshop Bord Gais Brand Ad “HEP”ion Britvic Capita Cartridge 1		

Chiquitta Coast2Coast		
Big 4 Accountancy Firm No1”	“Big 4 Accountancy Firm No 1” EA21 JW “Big 4 Accountancy Firm No 1” EA33 SG “Big 4 Accountancy Firm No 1” EA9 MR “Big 4 Accountancy Firm No 1” SA20 DS “Big 4 Accountancy Firm No 1” SA38 ED “Big 4 Accountancy Firm No 1” SA46 AH “Big 4 Accountancy Firm No 1” SA6 JB	Leading Accountancy Firms No 1  3 Employers  5 Students  (2 students interviews together)
	HEI “HEI” IA1 SMC “HEI” IA10 CF “HEI” IA11 KG “HEI” IA2 EOG  “HEI” IA3 TF “HEI” IA4 POS Director  “HEI” IA5 CH Researcher “HEI” IA6 LW “HEI” IA7 NT “HEI” IA8 JC “HEI” IA9 QualAssActor	HEI (context of this study) Placement Officer (PO)  Academic Head of Programmes (AHP)  Director of the College of Business RESEARCHER  Quality Assurance Officer
	Dublin Bus	
“Irish Grocery Retailer”	“Irish Grocery Retailer” SA14 GX	Large Irish Retailer
“Auction Website Firm”	“Auction Website Firms” SA27 DK	Online Auction Site
Eircom ePromo		
“Big 4 Accountancy Firm No 2”	“Big 4 Accountancy Firm No 2” EA10 AK “Big 4 Accountancy Firm No 2” EA11 NK “Big 4 Accountancy Firm No 2” EA12 MOS “Big 4 Accountancy Firm No 2” EA13 CM “Big 4 Accountancy Firm No 2” SA47 KAH “Big 4 Accountancy Firm No 2” SA7 BH “Big 4 Accountancy Firm No 2” SA8 GB	Leading Accountancy Firms No 2  4 Employers  3 Students



“Irish Electricity Utility”	“Irish Electricity Utility” \EA31 PC “ Irish Electricity Utility ” \EA35 MK “ Irish Electricity Utility ” \SA29 EH “ Irish Electricity Utility ” \SA35 AS “ Irish Electricity Utility ” \SA36 RC “ Irish Electricity Utility ” \SA42 TB	Main Utility Firm 2 Employers 4 Students
“F-Employment”	“F Employment” EA19 ANON	Public Sector Agency
Festival of Culture Field Force		
“F Insurance”	“F Insurance” EA32 JK “F Insurance” SA37 JMcC	Insurance Brokers 1 Employer 1 Student
FS Biotech Giraffe Marketing GradIreland HEA Higher Education Authority		
“H Motors”	“H Motors” EA34 EOT “H Motors” SA40 PS	Branded Motor Dealership
HSBC		
“IPA”	“IPA” EA18 KG “IPA” SA25 FQ	Irish Parking Association 1 Student & 1 Employer
IPHA		
“JPM Fund Management”	“JPM” EA30 OC “JPM” EA5 KMD ”JPM” SA22 KM “JPM” SA28 JG “JPM” SA30 JS “JPM” SA32 KMason “JPM” SA33 NK	Leading Financial & Fund Management 2 Employers 5 Students
“Big 4 Accountancy Firm No 3”	“ Big 4 Accountancy Firm No 3” EA16 DT “ Big 4 Accountancy Firm No 3” SA21 FT “ Big 4 Accountancy Firm No 3” SA44 BC “ Big 4 Accountancy Firm No 3” SA45 RD “ Big 4 Accountancy Firm No 3” SA48 NMcC “ Big 4 Accountancy Firm No 3” SA49 RM	Leading Accountancy Firms No 3 1 Employer 5 Students
	Lidl LIN Conference 2010	
	“L Technologies” “L Technologies” EA15 IL “L Technologies” SA10 LS	Technology Start-Up Firm 1 Employer

	“L Technologies” SA11 PD	2 Students
Media & Comms Group		
NGO Kenya	NGO Kenya\SA39 AR	1 Student
“Pharma A”	“Pharma A” EA1 JC “Pharma A” EA2 HB “Pharma A” EA3 DC “Pharma A” EA4 JD “Pharma A” SA1 NB “Pharma A” SA2 LOG “Pharma A” SA3 PG “Pharma A” SA4 CD	Leading Listed Pharma  4 Employers  4 Students
PPAG Primark		
Supply Chain Company	“Supply Chain Solutions” SA31 KMCL	
Pro-Consult Consultancy		
“Big 4 Accountancy Firm No 4”	“Big 4 Accountancy Firm No 4” EA20 LOT  “Big 4 Accountancy Firm No 4” SA51 FOF	Leading Accountancy Firms No 4 1 Employer  1 Student
REAP Placement Forum		
“National Broadcaster”	“National Broadcaster” SA12 LH  “National Broadcaster” SA34 RB	National Broadcaster  2 Students
Spark Spectrum TnaG - TG4 Tourism Ireland TTH Communications TV3 Pharma B		Leading Listed Pharma

### 10.4 Appendix 4.3 Data Collection: Number of Actors by Type

**Note:** This appendix shows the list of actors by type (Employer Actors = ‘EA’, Student Actors = ‘SA’, and Institutional Actors = ‘IA’) and related organisations. Multiple forms of data collection are linked to each actor over the course of 4 Placement Cycles.

Employer Actors	EA01 JC	Pharma A
	EA02 HB	Pharma A
	EA03 DC	Pharma A
	EA04 JD	Pharma A
	EA05 KMD	JPM Fund Managers
	EA06 MB	A Tours
	EA07 NR	A Tours
	EA08 S	A Tours
	EA09 MR	Big 4 Accountancy Firm No 1
	EA13 CM	Big 4 Accountancy Firm No 2
	EA14 PG	A Tours
	EA15 IL	L Technologies
	EA16 DT	Big 4 Accountancy Firm No 3
	EA17 LK	A Consultancy
	EA18 KG	IPA
	EA19 ANON	F Employment (Public Sector)
	EA20 LOT	Big 4 Accountancy Firm No 4
	EA21 JW	Big 4 Accountancy Firm No 1
	EA22 MF	A Tours
	EA23 BMcC	A Tours
	EA24 LH	A Tours
	EA25 CU	A Tours
	EA26 D	A Tours
	EA27 HM	A Tours
	EA28 JM	A Tours
	EA29 EB	B Accountancy
	EA30 OC	JPM Fund Managers
	EA31 PC	Irish Electricity Utility
	EA32 JK	F Insurance
	EA33 SG	Big 4 Accountancy Firm No 1
	EA34 EOT	H Motors Dealership
35 Employers	EA35 MK	Irish Electricity Utility
HEI/Institutional Actors	IA01 SMC	HEI
	IA02 EOG	HEI
	IA03 TF	HEI
	IA04 POS Director	HEI
	IA05 CH Researcher	HEI
	IA06 LW	HEI
	IA07 NT	HEI
	IA08 JC	HEI
	IA09 QualAssActor	HEI
	IA10 CF	HEI
11 HEI Staff	IA11 KG	HEI
Student Actors	SA01 NB	Pharma A
	SA02 LOG	Pharma A
	SA03 PG	Pharma A

	SA04 CD	Pharma A
	SA05 CD	A Tours
	SA06 JB	Big 4 Accountancy Firm No 1
	SA07 BH	Big 4 Accountancy Firm No 2
	SA08 GB	Big 4 Accountancy Firm No 2
	SA09 AF	A Tours
	SA10 LS	L Technologies
	SA11 PD	L Technologies
	SA12 LH	National Broadcaster
	SA13 OR	A Insurance
	SA14 GX	Irish Grocery Retailer
	SA15 RD	A Tours
	SA16 NM	A Tours
	SA17 PG	A Tours
	SA18 NT	A Tours
	SA19 LMcG	A Tours
	SA20 DS	Big 4 Accountancy Firm No 1
	SA21 FT	Big 4 Accountancy Firm No 3
	SA22 KM	JPM Fund Managers
	SA23 SS	A Consultancy
	SA24 AMcS	B Accountancy
	SA25 FQ	IPA
	SA26 CDrew	A Tours
	SA28 JG	JPM Fund Managers
	SA29 EH	Irish Electricity Utility
	SA30 JS	JPM Fund Managers
	SA31 KMcL	Supply Chain Solutions
	SA32 KMason	JPM Fund Managers
	SA33 NK	JPM Fund Managers
	SA34 RB	National Broadcaster
	SA35 AS	Irish Electricity Utility
	SA36 RC	Irish Electricity Utility
	SA37 JMcC	F Insurance
	SA38 ED	Big 4 Accountancy Firm No 1
	SA39 AR	NGO Kenya
	SA40 PS	H Motors Dealerships
	SA41 AnonStudents	A Tours
	SA42 TB	Irish Electricity Utility
	SA43 CH	A Tours
	SA44 BC	Big 4 Accountancy Firm No 3
	SA45 RD	Big 4 Accountancy Firm No 3
	SA46 AH	Big 4 Accountancy Firm No 1
	SA47 KAH	Big 4 Accountancy Firm No 2
	SA48 NMcC	Big 4 Accountancy Firm No 3
	SA49 RM	Big 4 Accountancy Firm No 3
	SA50 KM	A Tours
	SA51 FOF	Big 4 Accountancy Firm No 4
52 Student Actors	SA52 DR	A Tours

### 10.5 Appendix 4.4 Audit Trail: Memo Writing for Theory Building

**NOTE:** The memos listed here supplement those written in advance of using NVivo. The first 2 sections show summaries of topics while the remaining memos are specific to each Phase. As recommended by literature (Bringer et al 2004 & Hutchison et al 2010) these memos reflect analysis, methods and theory building reflecting many lines of inquiry some of which were discounted as theory building commenced. For this reason, many memos are not reflected in the analysis. Those of importance are highlighted.

Memo Code (MC)	Memos - Main Topics and Issues Covered
Memos – Theory Building Memos	
MEMO CODE 01	ABSENCE - Overly Descriptive of Ostensive Elements
MEMO CODE 02	ANALYTICAL STRATEGY FOR STUDY
MEMO CODE 03	ARTIFACTS - Attempted Dialogue & Emergence
MEMO CODE 04	ARTIFACTS - POTENTIAL PAPER Policy Plans and Reports
MEMO CODE 05	ARTIFACTS & SCHEMAS - CATEGORIES IN CATEGORIES
MEMO CODE 06	ARTIFACTS IMAGINAL OTHER & MODELS - Organising for Data Analysis
MEMO CODE 07	ARTIFACTS -LOGBOOKS - Remaining Data
MEMO CODE 08	CLARIFICATION - Dynamic Contexts V Clarified Routines
MEMO CODE 09	CLARIFICATION - Routines - Accounting Firm Placement Arifacts
MEMO CODE 10	MAJOR THEME Macro & Levels
MEMO CODE 11	MAJOR THEME What is Structure
MEMO CODE 12	MASTER MEMO - Merging and Refining Nodes
MEMO CODE 13	NEED TO COMBINE ROUTINES & DIALOGUE
MEMO CODE 14	NVIVO REPORTS FUNCTION
MEMO CODE 15	Presence of Anecdotes
MEMO CODE 16	PROJECT JOURNAL
MEMO CODE 17	ROLE OF THE RESEARCHER - Bracketing
MEMO CODE 18	ROUTINES - DATA ANALYSIS Attributes on Dispositions OR Patterns of Actions
MEMO CODE 19	ROUTINES - OVERCOMING THE DUALITY - cognitive v behavioural v practice
MEMO CODE 20	ROUTINES - Potentiality v Actuality Entitive
MEMO CODE 21	ROUTINES & DIALOGUE - Maintenance & Artifacts - How they overlap
MEMO CODE 22	ROUTINES COMBINATORICS
Memos - Data Analysis Memos	
MEMO CODE 23	DATA ANALYSIS - Clarifying Nodes & Guiding - 'GOALS' & 'OUTCOMES'
MEMO CODE 24	DATA ANALYSIS - Continuous Change Elements
MEMO CODE 25	DATA ANALYSIS - Inclusion of Extra Sources
MEMO CODE 26	DATA ANALYSIS – INTERLINKED ROUTINES ACTORS & ARTIFACTS
MEMO CODE 27	DATA ANALYSIS - Materiality - from Objects to Imaginals – ethics etiquette & corp gov policies
MEMO CODE 28	DATA ANALYSIS - Merging & Refining the Coding & Node Structure
MEMO CODE 29	DATA ANALYSIS - Presence Absence & Quality of Artifacts
Pilot Memos, Cycle 1, Phase 1	

C1P1-01	ARTIFACTS - Accounting & Finance Memo
C1P1-02	ARTIFACTS - Late Arrival of Logbook
C1P1-03	C1P1 Merging Codes - Artifacts as Process & Coding Structure
C1P1-04	C1P1 Merging Codes - Ideas & Developments
C1P1-05	C1P1 Merging Codes - Overlapping Routines
C1P1-06	DATA - Seeking Comparisons & Granularity -Enriching
C1P1-07	DIALOGUE
C1P1-08	DIALOGUE - Absence of KM Tools & Artifacts for KC
C1P1-09	DIALOGUE - Artifacts - Prevalence of Artifacts
C1P1-10	ROUTINES - Vignette - The Job Bag Process
C1P1-11	ROUTINES - Connection between Macro &
C1P1-12	ROUTINES - Core & Peripheral
C1P1-13	ROUTINES - Good v Bad Placements
C1P1-14	ROUTINES - Guiding & Accounting - Perceived Clarity
C1P1-15	ROUTINES - Placement Breakdown
C1P1-16	ROUTINES - Stability in Routines
C1P1-17	ROUTINES & DIALOGUE - Imaginal Others - Supporting Artifactual Guiding
C1P1-18	Temperament - State of Mind of Student Actors
C1P1-19	Temperament - Student Frustration & Dialogue Characteristics
Memos, Cycle 2, Phase 2	
C2P2-01	ARTIFACTS - The Course Brochure
C2P2-02	C2P2 Merging Nodes - Deconstructing
C2P2-03	C2P2 Merging Nodes - Dialogue & Guiding
C2P2-04	C2P2 Merging Nodes - Restructuring
C2P2-05	CLARIFICATION - Guiding Instead of the Routine as Unit of Analysis
C2P2-06	DATA - Audio File Transcription
C2P2-07	DATA - Seeking Comparisons & Granularity
C2P2-08	DIALOGUE - Tempered by Researcher Presence
C2P2-09	ROUTINES - Clarifying the Macro Placement Routine Mechanics
C2P2-10	ROUTINES - Core Routines & Artifacts
C2P2-11	ROUTINES - Guiding & Accounting = Clarification
C2P2-12	ROUTINES - Macro Routine impacting Routines
C2P2-13	ROUTINES - Pre-Screening & Matching Sub-Routine
C2P2-14	ROUTINES - Pre-Screening & Matching Sub-Routine -Work Life Balance
C2P2-15	ROUTINES - Quality Placement - Dynamics
C2P2-16	ROUTINES - Terms of Employment as Clarifying
C2P2-17	ROUTINES & ARTIFACTS - Change in Macro Routine & Role of Artifacts
Memos, Cycle 2, Phase 3	
C2P3-01	ROUTINES - Absence of Guiding & Artifacts in Description of Routines
C2P3-02	ROUTINISATION - Levels of Routinisation - Conflict
Memos, Cycle 3, Phase 5	
C3P5-01	ARTIFACTS - Britvic DNA Candidate Pack - Core Artifact
C3P5-02	ARTIFACTS - Core Artifacts' Roles in Performativity
C3P5-03	ARTIFACTS - Guiding by Artifacts - various nodes
C3P5-04	ARTIFACTS - Imaginal Other & Guiding - overlapping nature
C3P5-05	ARTIFACTS & COMBINATORICS - Culmination with Placement

	Project Guidelines
C3P5-06	ARTIFACTS & ENGAGEMENT - Recruitment Artifacts / Levels of Engagement
C3P5-07	C3P5 Merging Nodes - Careers
C3P5-08	C3P5 Merging Nodes - Core v Peripheral Artifacts
C3P5-09	C3P5 Merging Nodes - Misc
C3P5-10	C3P5 Merging Nodes - Punctuality
C3P5-11	C3P5 Merging Nodes - Regulation & Compliance
C3P5-12	C3P5 Merging Nodes - VIPS Nodes - Being Oneself & Reflexivity
C3P5-13	CLARIFICATION - CONFUSION IN AND OF ROUTINES
C3P5-14	CLARIFYING - Interests as Guiding - Absence of Interests in Data
C3P5-15	COMBINATORICS - Connection between Routines
C3P5-16	COMBINATORICS - CV Prep linked to Screening & Matching Routines
C3P5-17	COMBINATORICS - Screening & Matching Routine
C3P5-18	DIALOGUE - Employer Engagement with Placement-Internship
C3P5-19	LEVELS OF ROUTINISATION Systems - Linearity
Memos, Cycle 3, Phase 6	
C3P6-01	ARTIFACTS AS GATEKEEPERS TO ROUTINES
C3P6-02	DIALOGUE - Nature of Imaginal Others
C3P6-03	DIALOGUE - Proactive Nature of Employers Regarding the Placement
C3P6-04	DIALOGUE IMAGINAL OTHER - Changes in Role Definition
C3P6-05	ROUTINES - Accountancy Employers Challenging the Routine
C3P6-06	ROUTINES - Dialogue is Crucial for Routine Existence - Engagement & Partnership
C3P6-07	ROUTINES - Mentoring Routine in Accountancy Firms
C3P6-08	ROUTINES & DIALOGUE - LEVELS OF ROUTINISATION
Memos, Cycle 3, Phase 7	
C3P7-01	ARTIFACTS - Post as Emergence of a Routine
C3P7-02	ARTIFACTS - The lack of artifacts
C3P7-03	C3P7 Merging Nodes - Accountancy Functional Areas
C3P7-04	C3P7 Merging Nodes - Events Projects & Meetings
C3P7-05	C3P7 Merging Nodes - Meetings and Projects
C3P7-06	CLARIFICATION - ARTIFACTS IMPACTING ON DIALOGUE
C3P7-07	CLARIFICATION - KNOWLEDGE CREATING- Good Communication Skills
C3P7-08	COMBINATORICS - Credit Controller Dialogues - Artifacts - Correction Mechanism
C3P7-09	IMAGINAL OTHER - The Organisation
Memo, Cycle 4, Phase 8	
C4P8-01	ARTIFACTS - Emergence of New Placement Regulations & Possible PI Contract
C4P8-02	ARTIFACTS - The Evolution of an Artifact - Placement Projects

## 10.6 Appendix 4.5 Schedule of Data Collected

This appendix shows the structure and schedule of the data collected. 9 phases of data collection are presented in chronological order capturing ‘pre’, ‘during’ and ‘post’ placement stages across 4 Placement Cycles. Data sources used in the findings chapters include the following key i.e. C3P6 which means Cycle 3, Phase 6 (Table 4.2) and the structure in Figure 4.3).

### C1P1 - Cycle 1, Phase 1: June – Oct 2009 Post-Placement Stage of Cycle 1

Data Source	Actor	Date	Recording Length / Page Length	Notes
<b>Email Document</b>	IA01 SMC (PO) & IA02 EOG (AHP)	9 <sup>th</sup> Feb 2009	n/a	Primary documentary data pertaining to macro policy and institutional management of the placement[collected June 2009]
<b>Documentary Evidence – Promotion Flyer</b>	n/a/	9 <sup>th</sup> Feb 2009	n/a	Primary documentary data pertaining to macro policy and institutional management of the placement[collected June 2009]
<b>Field Note</b>		20 <sup>th</sup> July 2009	n/a	Entry pertaining to purpose of field notes
<b>Anecdotal Conversation</b>	IA03 TF - Incubation Centre Manager	20 <sup>th</sup> July 2009		Primary data – introductory conversation with IA
<b>Anecdotal Conversation</b>	IA01 SMC (PO)	23 <sup>rd</sup> July 2009		Primary data – introductory conversation with Placement Officer (PO) focused on negotiating access.
<b>Anecdotal Conversation</b>	IA02 EOG (AHP)	29 <sup>th</sup> July 2009		Primary data – introductory conversation with Academic head of Programmes (AHP) focused on negotiating access.
<b>Anecdotal Conversation</b>		4 <sup>th</sup> Aug 2009		Primary data – conversation with Employer Organisation Representative of IBEC focused on negotiating access.
<b>Research Journal</b>		4 <sup>th</sup> Aug 2009		Journal Entry on Knowledge Creation
<b>Interview + Field Note</b>	IA01 SMC (PO)	12 <sup>th</sup> Aug 2009	circa 30 mins	Primary data, transcribed into field notes, first meeting with PO on policy management [Not recorded by request].
<b>Interview + Field Note</b>	SA01 NB Student on Placement	12 <sup>th</sup> Aug 2009	31’43’’	Primary data, fully transcribed, pertaining to individual placement experience
<b>Interview + Field Note</b>	EA01 JC – Marketing Manager	12 <sup>th</sup> Aug 2009	11’21’’	Primary data, fully transcribed pertaining to managing student on placement and organisational issues
<b>Interview (Field Note)</b>	EA02 HB – General Manager	12 <sup>th</sup> Aug 2009	- circa 30 mins	Primary data, transcribed into field notes, pertaining relationship with HEI [Not recorded by request of informant]



<b>Interview + Field Note</b>	EA04 JD – Marketing Manager	27th Aug 2009	44'39''	Primary data, fully transcribed pertaining to organisational issues
<b>Interview + Field Note</b>	EA03 DC – Marketing Manager	27th Aug 2009	30' 16''	Primary data, fully transcribed pertaining to organisational issues.
<b>Interview + Field Note</b>	SA02 LOG	27th Aug 2009	34'00''	Primary data, fully transcribed, re. Individual on placement
<b>Interview + Field Note</b>	SA03 PG	27th Aug 2009	52'30''	Primary data, fully transcribed, re. individual on placement
<b>Documentary Evidence – IPHA Code of Marketing Practice</b>	n/a	27th Aug 2009	n/a	Secondary data, artifacts used by actors in the pharmaceutical industry
<b>Documentary Evidence – IPHA Code of Practice</b>	n/a	27th August 2009	n/a	Secondary data, artifacts used by actors in the pharmaceutical industry – Code of Practice regarding Consumer Healthcare
<b>Documentary Evidence – Bassware Software</b>	n/a	16th April 2008	n/a	Secondary data, press release providing background information on software packaged used by actors[collected 27th Aug 2009]
<b>Interview + Field Note</b>	IA02 EOG (AHP)	4th Sept 2009	27'26''	Primary data, fully transcribed, pertaining to macro policy and institutional management of the placement.
<b>Anecdotal Conversation (Field Note)</b>	IA02 EOG (AHP)	4th Sept 2009	Circa 30 mins	Primary data, transcribed into field notes, pertaining to macro policy and institutional management of the placement
<b>Research Journal</b>		4th Sept 2009		Entry pertaining to development of research objectives
<b>Documentary Evidence – Logbook Artifact</b>	SA01 NB	Sept 2009	16 entries	Primary documentary evidence re. individual placement experience [Weekly entries over 16 weeks]
<b>Documentary Evidence – Logbook Artifact</b>	SA02 LOG	Sept 2009	16 entries	Primary documentary evidence re. individual placement experience [Weekly entries over 16 weeks]
<b>Documentary Evidence – Logbook Artifact</b>	SA03 PG	Sept 2009	16 Entries	Primary documentary evidence re. individual placement experience [Weekly entries over 16 weeks]
<b>Documentary Evidence – Logbook Artifact</b>	SA04 CD	Sept 2009	16 Entries	Primary documentary evidence re. individual placement experience [Weekly entries over 16 weeks]
<b>Interview</b>	SA01 NB	12th Oct 2009	55'52''	Primary data, fully transcribed, re. individual placement experience & reflection [accompanied by Field Notes]

## C2P2 - Cycle 2, Phase 2: Dec 2009 – May 2010 Pre-Placement Stage of Cycle 2

Recording  
Length / Page  
Length

Documentary Evidence	REAP Conference	Dec 2009		Secondary Research – Presentations on Placement Industry
Anecdotal Conversation	IA01 SMC (PO)	14 <sup>th</sup> Dec 2009	Circa 5 mins	Primary data – anecdotal conversation with PO on placement management. [Field Note]
Anecdotal Conversation	IA01 SMC (PO)	16 <sup>th</sup> Dec 2009	Circa 5 mins	Primary data – anecdotal conversation with PO on placement management. [Field Note]
Observation	Code: DO 01	17 <sup>th</sup> Dec 2009	1’08’’58	Primary data Observation + Field Note
Research Journal		17 <sup>th</sup> Dec 2009		Research Journal on Research Project Management
Research Journal		13 <sup>th</sup> Jan 2010		Research Journal on Internship Research
Anecdotal Conversation	IA01 SMC	29 <sup>th</sup> Jan 2010	Circa 5 mins	Primary data – anecdotal conversation with Placement Officer (PO) focused on placement management. [Field Note]
Documentary Evidence - Email	IA04 POS - Director of the Faculty	1 <sup>st</sup> Feb 2010		Primary Research – Email (Documentary Evidence) – Director of Faculty of Business.
Observation	Code: DO 02	4 <sup>th</sup> Feb 2010	1’23’’41	Primary Research – Observation, partially transcribed in NVivo [accompanied by a Field Note]
Anecdotal Conversation	IA01SMC	4 <sup>th</sup> Feb 2010	Circa 10 mins	Primary data – anecdotal conversation with Placement Officer (PO) post Placement Class [Field Note]
Research Journal		4 <sup>th</sup> Feb 2010		Research Journal on Theory Building
Research Journal		4 <sup>th</sup> Feb 2009		Research Journal on The Role of the Researcher
Research Journal		9 <sup>th</sup> Feb 2010		Research Journal on Logbook as a source of data.
Anecdotal Conversation	IA01 SMC	9 <sup>th</sup> Feb 2010	Circa 10 mins	Primary data – anecdotal conversation with Placement Officer (PO) focused on placement management. [Field Note]
Email Document		9 <sup>th</sup> Feb 2010		Primary Research – Email Request Aid in Sourcing Placements
Email Document		9 <sup>th</sup> Feb 2010		Primary Research – Email Editing the Logbook
Observation	Code: DO 03 IA02 EOG (AHP)	11 <sup>th</sup> Feb 2010	1’29’’52	Primary Research – observation, partially transcribed in NVivo [accompanied by Field Note]
Email Document	IA02 EOG (AHP)	11 <sup>th</sup> Feb 2010		Primary Research – Email –Letter to Students Regarding Changes to the Placement
Research Journal		11 <sup>th</sup> Feb 2010		Research Journal on reviewing Placement Classes
Research Journal		11 <sup>th</sup> Feb 2010		Research Journal regarding new Placement Options presented in Placement Class
Email Document	IA02 EOG	16 <sup>th</sup> Feb 2010		Primary Research – Email on Management of the Placement
Anecdotal Conversation	IA02 EOG IA01 SMC	18 <sup>th</sup> Feb 2010		Primary Research – anecdotal conversation with AHP prior to Placement Class. (Field Note)
Observation	Code: DO 04 IA01 SMC,	18 <sup>th</sup> Feb 2010	1’04’58	Primary Research – observation, partially transcribed in NVivo (accompanied by Field Note)

IA02 EOG				
Research Journal		18 <sup>th</sup> Feb 2010		Research Journal on Changing Processes
Research Journal		22 <sup>nd</sup> Feb 2010		Research Journal on editing the Logbook to aid in Data Collection.
Anecdotal Conversation	IA01 SMC	23 <sup>rd</sup> Feb 2010		Primary data – anecdotal conversation with Placement Officer (PO) (Field Note)
Observation	Code: DO 05 IA05 CH Researcher	25 <sup>th</sup> Feb 2010	1'35'31	Primary Research - participant Observation, partially transcribed in NVivo (accompanied by Field Note)
Email Document		3 <sup>rd</sup> March 2010		Primary Research – Email from Careers Service on Employability
Research Journal		3 <sup>rd</sup> March 2010		Research Journal on the Direction Research should take
Observation + Field Note	Code: DO 06 IA02 EOG	4 <sup>th</sup> March 2010	1'19'58	Primary Research – Observation, partially transcribed in NVivo (not a core session – ancillary data)
Research Journal		4 <sup>th</sup> March 2010		Research Journal on Artifacts and Routines – Some Thoughts
Research Journal		4 <sup>th</sup> March 2010		Research Journal on Consultation with Supervisor
Email Document		4 <sup>th</sup> March 2010		Primary Research – Email with Student Regarding Placement
Interview + Field Note	IA02 EOG	6 <sup>th</sup> March 2010	0'49''08	Primary Research – Transcribed and Connected to Audio in Nvivo (prior to coding)
Research Journal		8 <sup>th</sup> March 2010		Research Journal on Methodological Issues
Research Journal		10 <sup>th</sup> March 2010		Research Journal on Methodological Issues
Anecdotal Conversation	IA01 SMC	10 <sup>th</sup> March 2010		Primary data – anecdotal conversation with Placement Officer (PO)
Interview	SA04 CD	10 <sup>th</sup> March 2010	49'17''	Primary Research Audio
Interview	SA (no code)	10 <sup>th</sup> March 2010	51'02''	Primary Research Audio
Research Journal		22 <sup>nd</sup> March 2010		Research Journal on Artifacts
Research Journal		22 <sup>nd</sup> March 2010		Research Journal on Editing of Logbooks
Research Journal		22 <sup>nd</sup> March 2010		Research Journal on Overall Logical Progression of the Research Process
Interview + Field Note	SA05 CDay	23 <sup>rd</sup> March 2010	1'05''39	Primary Research – Transcribed & Connected to Audio in Nvivo (prior to coding)
Anecdotal Conversation	IA01 SMC	24 <sup>th</sup> March		Primary data – anecdotal conversation with Placement Officer (PO)
Documentary Evidence	EA (no code)	April 2010		Secondary Research Artifacts – Employer Job Specifications
Email Document		19 <sup>th</sup> May 2010		Primary Research – Email Regarding Placement Projects
Email Document		20 <sup>th</sup> May 2010		Primary Research – Email on Work Placement Project

### C2P3 - Cycle 2, Phase 3: April – September 2010 During-Placement Stage of Cycle 2

Recording Length / Page Length				
Anecdotal Conversation	IA01 SMC	30 <sup>th</sup> April 2010	Circa 10 minutes	Primary data – anecdotal conversation with Placement Officer (PO)
Interview	EA09 MR	22 <sup>nd</sup> March 2010	Not recorded – circa 40 minutes	From Field Notes – candidate did not want interview to be recorded. Senior Manager Deloitte (Audit & Taxation & Advisory)
Interview + Field Note	SA06 JB	22 <sup>nd</sup> March 2010	N/a	From Field Notes – recording available but manager did not wish to be recorded.

Research Journal		31 <sup>st</sup> March 2010		Topic: Research Objectives and Communication Issues
Research Journal		19 <sup>th</sup> April 2010		Topic: Placement Project Work
Research Journal		5 <sup>th</sup> May 2010		Topic: On a Student Placement Best Practice Model & Business Breakfast
Anecdotal Conversation	IA01 SMC	5 <sup>th</sup> May 2010	Circa 10 minutes	Primary data – anecdotal conversation with Placement Officer (PO)
Research Journal		19 <sup>th</sup> May 2010		Topic: The setting Up of Linkedin Group to Improve Summertime Communications with Students
Research Journal		19 <sup>th</sup> May 2010		Topic: Thoughts about the Role of Dialogue
Field Note	IA01 SMC	20 <sup>th</sup> May 2010		Primary data – discussion about the Work Placement Logbook posted on Webexone
Anecdotal Conversation	IA01 SMC IA02 EOG	20 <sup>th</sup> May 2010	Circa 15 minutes	Primary data – anecdotal conversation with PO and AHP
Anecdotal Conversation	IA01 SMC	26 <sup>th</sup> May 2010	Circa 15 minutes	Primary data – anecdotal conversation with Placement Officer (PO) about placement with JPM
Research Journal		26 <sup>th</sup> May 2010		Topic: Reflections on the Communication with the Placement Officer (PO)
Research Journal		27 <sup>th</sup> May 2010		Topic: Reviewing Placement Stories
Anecdotal Conversation	IA01 SMC	27 <sup>th</sup> May 2010	Circa 15 minutes	Primary data – anecdotal conversation with Placement Officer (PO) about assessing Placement Performance
Research Journal		28 <sup>th</sup> May 2010		Topic: Reviewing Institutional Placement Framework
Research Journal		31 <sup>st</sup> May 2010		Topic: Reviewing the Divergence in the Theme Sheets and its implications
Research Journal		31 <sup>st</sup> May 2010		Topic: Impact of Moving the KM Interview to a Social Space
Interview + Field Note	SA30 JS	31 <sup>st</sup> May 2010	45'50''	Primary Data – SA interview on completion of the placement at JP Morgan
Research Journal		31 <sup>st</sup> May 2010		Topic: Reviewing the Difficulties in getting a student to respond to different question after the JS interview.
Interview	SA22 KM	1 <sup>st</sup> June 2010	55'11''	Primary Research – SA interview
Interview	EA30 OC	3 <sup>rd</sup> June 2010	19'20''	Primary Research (accompanied by Field Note) Employer Assitant Vice President JP Morgan
Interview + Field Note	EA05 KMD	3 <sup>rd</sup> June 2010	17'47''	Primary Research - Fully Transcribed & Time stamps attached to audio files in NVivo. Employer JP Morgan
Interview	EA NK (no code)	3 <sup>rd</sup> June 2010	30'50''	Primary Research(accompanied by Field Note) Employer JP Morgan
Research Journal		3 <sup>rd</sup> June 2010		Topic: Review to improve quality of the interviews conducted at JP Morgan
Interview	SA25 FQ	3 <sup>rd</sup> June 2010	39'00	Primary Research – interview with FQ at IPA(accompanied by Field Note)
Research Journal		3 <sup>rd</sup> June 2010		Topic: Review of interview with FQ and my role as the researcher interacting with my role as Mentor
Interview	SA25 FQ	15 <sup>th</sup> June 2010	36'54''	Primary Research – SA Interview with FQ on Placement with IPA
Interview	IA09 Qual	2 <sup>nd</sup> July 2010	1'08'36''	Primary Research – First Anonymous Interview on Quality Assurance issues pertaining to the Placement(accompanied by Field Note)
Research Journal		2 <sup>nd</sup> July 2010		Topic: Review of my role as colleague with the QA officer and informal nature of the

				interview.
Interview	SA25 FQ	5 <sup>th</sup> July 2010	41'20''	Primary Research – SA Interview(accompanied by Field Note)
Research Journal		5 <sup>th</sup> July 2010		Topic: Review of interview with FQ and my role as the researcher interacting with my role as Mentor
Research Journal		6 <sup>th</sup> July 2010		Topic: Ethical Issues in relation to asking students to join the LinkedIn Group.
Research Journal		7 <sup>th</sup> July 2010		Topic: Access Issues in relation to contacting Employers and Students
Research Journal		7 <sup>th</sup> July 2010		Topic: Issues in how to collect data such as Phone scripts used by FQ and how this might be used and it is important.
Interview	SA25 FQ	8 <sup>th</sup> July 2010	32'56''	Primary Research – SA Interview Employer - IPA
Interview	IA06 LW	8 <sup>th</sup> July 2010	1'08''26''	Primary Research(accompanied by Field Note) Careers Guidance Counsellor (CGC)
Interview + Field Note	IA09 Qual	9 <sup>th</sup> July 2010	58'08	Primary Research – Second Anonymous Interview on Quality Assurance
Interview + Field Note	IA07 NT	9 <sup>th</sup> July 2010	19'07''	Primary Research – Interview with Mentor on the Placement
Interview + Field Note	EA35 MK	9 <sup>th</sup> July 2010		Primary Research – Irish Electricity Utility
Interview	EA22 MF	13 <sup>th</sup> July 2010	30'24''	Primary Research with a Managing Director with overview of the Placement
Interview + Field Note	EA06 MB	13 <sup>th</sup> July 2010	29'35''	Primary Research Operations Manager with overview of the Placement
Interview + Field Note	EA07 NR	13 <sup>th</sup> July 2010	42'12''	Primary Research Manager Foreign Individual Travel
Interview + Field Note	SA05 CDay	13 <sup>th</sup> July 2010	26'13''	Primary Research - SA interview on Placement
Interview + Field Note	SA26CDrew	13 <sup>th</sup> July 2010	1'7'31''	Primary Research - SA interview on Placement
Interview + Field Note	SA40 PS	13 <sup>th</sup> July 2010	35'38'' & 17'31''	Primary Research
Interview + Field Note	EA34 EOT	13 <sup>th</sup> July 2010	23'56''	Primary Research – Marketing Manager Interview H Motors.
Interview + Field Note	EA15 IL	14 <sup>th</sup> July 2010	49'47''	Primary Research + Interview with IL + Colleague
Interview	SA10 LS	14 <sup>th</sup> July 2010	10'52''	Primary Research – interview with LS at L Technologies
Interview	SA11 PD	14 <sup>th</sup> July 2010	8'07''	Primary Research – interview with PD at L Technologies
Interview + Field Note	EA29 EB	14 <sup>th</sup> July 2010	30'16	Primary Research – HR Manager Interview at B Accountancy
Research Journal		14 <sup>th</sup> July 2010		Topic: Thoughts on Progressing the Data Collection
Research Journal		15 <sup>th</sup> July 2010		Topic: Additional thoughts on progressing data collection including describing student relationships.
Interview	SA35 AS	15 <sup>th</sup> July 2010	17'35''	Primary Research – SA Interview Irish Electric Utility Collections Department
Interview	SA36 RC	15 <sup>th</sup> July 2010	11'29''	Primary Research – SA Interview Irish Electric Utility Collections Department
Interview + Field Note	EA31 PC	15 <sup>th</sup> July 2010	5'28'' and 23'23''	Primary Research – EA Interview Irish Electric Utility Collections Department
Anecdotal Conversation	IA01 SMC	15 <sup>th</sup> July 2010	Circa 10 minutes	Primary data – anecdotal conversation with Placement Officer (PO) about the Mentoring process and access for Data Collection
Anecdotal Conversation	IA01 SMC IA11 KG	15 <sup>th</sup> July 2010	Circa 15 minutes	Primary data – anecdotal conversation with Placement Officer (PO) and Head of School as Mentor on Mentoring the Irish National Broadcaster.
Interview + Field	EA09 MR	16 <sup>th</sup> July 2010	Circa 40 minutes	Primary Research – unrecorded interview on request of the informant
Interview	SA06 JB	16 <sup>th</sup> July 2010	17'54'' and 5'37''	Primary Research – SA Interview with JB at Big 4 accountancy firm
Interview + Field Note	EA32 JK	20 <sup>th</sup> July 2010	33'47''	Primary Research – EA interview at F Insurance

Interview + Field Note	SA37 JMcC	20 <sup>th</sup> July 2010	6'51''	Primary Research– Sa interview at F Insurance
Research Journal		20 <sup>th</sup> July 2010		Topic: Review of Jason Barry's Placement and his strategic nature of his placement at Deloitte
Research Journal		20 <sup>th</sup> July 2010		Topic: Review of REAP Conference and its importance in understanding the Placement Market – potential contribution to this research.
Interview + Field Note	EA33 SG	21 <sup>st</sup> July 2010	Circa 20 mins	Primary Research – joint interview with student and supervising manager not recorded
Interview + Field Note	SA38 ED	21 <sup>st</sup> July 2010	Circa 20 mins	Primary Research - interview with student after manager was present – not recorded
Interview + Filed Note	SA25 FQ	21 <sup>st</sup> July 2010	43'00''	Primary Research – SA Interview with FQ at IPA
Interview + Field Note	SA29 EH	21 <sup>st</sup> July 2010	28'32''	Primary Research – SA interview at Irish Electricity Utility
Interview + Field Note	SA28 JG	22 <sup>nd</sup> July 2010	48'28''	Primary Research – Sa interview at fund management firm.
Research Journal		22 <sup>nd</sup> July 2010		Topic: Review of interviews
Anecdotal Conversation	IA09 Qual	29 <sup>th</sup> July 2010		Primary Research – anecdotal conversation on Quality Assurance
Anecdotal Conversation	SA25 FQ	29 <sup>th</sup> July 2010		Primary Research – anecdotal conversation with SA
Anecdotal Conversation	IA01 SMC	29 <sup>th</sup> July 2010		Primary Research – anecdotal conversation with PO
Research Journal		29 <sup>th</sup> July 2010		Topic: Review of Anecdotal Conversations and how they contribute to this research
Interview + Field Note	SA34 RB	3 <sup>rd</sup> August 2010	31'51'	Primary Research
Anecdotal Conversation	IA01 SMC	3 <sup>rd</sup> August 2010		Primary Research – anecdotal conversation with PO
Research Journal		3 <sup>rd</sup> August 2010		Topic: Review of Theme Sheet development and re-development
Research Journal		5 <sup>th</sup> August 2010		Topic: Review of Theme Sheet development and re-development
Documentary Evidence + Field Note	Artifacts	9 <sup>th</sup> August 2010		Webexone intranet Posting regarding the Placement projects
Interview + Field Note	IA10 CF	11 <sup>th</sup> August 2010	9'37''	Primary Research – IA Interview with Mentor
Interview + Field Note	IA08 JC	12 <sup>th</sup> August 2010	1'11'24''	Primary Research– Head of School of Accounting on Placements
Research Journal		12 <sup>th</sup> August 2010		Topic: Review Feb Letter on Webexone on change of the Placement and its emerging importance.
Email + Field Note	SA39 AR	20 <sup>th</sup> September 2010		Email Document on procedures for Logbooks
Anecdotal Conversation	SA25 FQ	22 <sup>nd</sup> Sept 2010		Primary Research – anecdotal conversation on completing the Placement IPA.

### C2P4 - Cycle 2, Phase 4: September 2010 – March 2011 Post-Placement Stage of Cycle 2

Data	Actor	Date	Recording Length / Page Length	Notes
Research Journal		20 <sup>th</sup> Sept 2010		Topic: Relative Importance of Primary Research Artifacts
Logbook Document		Sept 2010		Primary Data – Logbook Artifact
Research Journal		20 <sup>th</sup> Oct 2010		Topic: Recent Developments in Researcher's Thinking about Data Collection

Research Journal		26 <sup>th</sup> Oct 2010		Topic: Review of interview Theme Sheet
Research Journal		26 <sup>th</sup> Oct 2010		Topic: Review of the Role LinkedIn could play with new cohort of Students
Observation + Field Note	SA25 FQ EA18 KG	4 <sup>th</sup> Nov 2010	2'42'55''	IPA Chairman's Lunch where Compiled Research was presented
Documentary Evidence		4 <sup>th</sup> Nov 2010		Secondary Research – Report Artifact – IPA Research Report
Research Journal		5 <sup>th</sup> Nov 2010		Topic: Review of the Template Letters from Students to Employers on Webexone and their importance for Data Collection.
Interview + Field Note	SA12 LH	7 <sup>th</sup> March 2011	33'52''	Primary Research – SA Post-placement interview at Irish National Broadcaster
Logbook	SA12 LH	Sept 2010		Primary Data – Logbook Artifact [collected 7 <sup>th</sup> March 2011]
Interview + Field Note	SA13 OR	8 <sup>th</sup> March 2011	52'19''	Primary Research – SA Post-placement interview

### C3P5 Cycle 3, Phase 5: September 2010 – April 2011 Pre-Placement Stage of Cycle 3

			Recording Length / Page Length	
Observation	Code: DO 07 IA01 SMC	27 <sup>th</sup> September 2010	57.17	Partially Transcribed in NVivo
Conversation + Field Note	IA01 SMC IA02 EOG	29 <sup>th</sup> September 2010	Circa 20 mins	Primary Research – anecdotal conversations on commencement of new Placement Cycle.
Observation	Code: DO 08 IA01 SMC	7 <sup>th</sup> Oct 2010	1:12:14	Partially Transcribed in NVivo
Observation + Field Note	Code: DO 09 IA05 CH Researcher	14 <sup>th</sup> Oct 2010	40:20	Partially Transcribed in NVivo – Researcher lead Placement Class
Documentary Evidence		September 2010	n/a	Coded in NVivo - Brochure
Field Note	IA10 CF	20 <sup>th</sup> Oct 2010		Primary Research – Mentor comments on SA who passed away – captured in the data.
Observation + Field Note	Code: DO 10 E15 IL	21 <sup>st</sup> Oct 2010	1'03'15''	Partially Transcribed in NVivo.- L Technologies Placement Class presentation
Anecdotal Conversation	IA01 SMC	21 <sup>st</sup> Oct 2010		Topic: Review of Placement Class with Employers Ian Lucey – discussion with PO and implications for Data Collection
Field Note	IA01 SMC	4 <sup>th</sup> Nov 2010		Primary Research: PO arranged one-on-one interviews with SA's on CV development (Screening & Selection Sub-Routine) Meetings with SA's
Documentary		5 <sup>th</sup> Nov 2010		Primary Research – review of the artifacts posted on the Intranet Site Webexone.

Evidence				
Observation + Field Note	Code: DO 11 IA01 SMC	11 <sup>th</sup> Nov 2010	1'29'56''	Primary Research – Placement Class
Observation + Field Note	Code: DO XX IA01 SMC	18 <sup>th</sup> Nov 2010	1'30'27''	Primary Research – Placement Class
Observation + Field Note	Code: DO 13 EA17 LK	25 <sup>th</sup> Nov 2010	1'54'16''	Primary Research – Placement Class – Presentation in Placement Class
Anecdotal Conversation	IA01 SMC	25 <sup>th</sup> Nov 2010		Topic: Review of Placement Class with Employers Accenture's EA17 LK – discussion with PO and implications for Data Collection(Research Journal)
Observation + Field Note	Code: DO 14 (1 of 2) IA06 LW	9 <sup>th</sup> Dec 2010	53'22' 27'37' 16'00'	Primary Research – Careers Service Placement Class
Anecdotal Conversation	IA06 LW	10 <sup>th</sup> Dec 2010		Primary Research – Anecdotal Conversation with Careers Service
Observation + Field Note	Code: DO 15 (2 of 2) IA06 LW	16 <sup>th</sup> Dec 2010	57'01' 1'10'47''	Primary Research – Placement Class
Documentary Evidence		January 2011	n/a	Full text coded in NVivo – Big 4 Placement Brochure
Observation + Field Note	Code: DO 16 EA33 SG	10 <sup>th</sup> February 2011	58'38'	Primary Research – Placement Class presentation from one Big 4 Accountancy Firm
Anecdotal Conversation	IA01 SMC	1 <sup>st</sup> March 2011		Primary Research – Anecdotal Conversation with Placement Officer on the lack of communication from Students
Observation + Field Note	Code: DO 17 EA33 SG	3 <sup>rd</sup> March 2011	1'51'06''	Primary Research – Last Placement Class with Placement Officer
Anecdotal Conversation	IA01 SMC	3 <sup>rd</sup> March 2011		Primary Research – Anecdotal Conversation with Placement Officer on completion of the Placement Classes
Interview + Field Note	IA01 SMC	20 <sup>th</sup> April 2011		Primary Research – First formal interview with the Placement (IA – SMC)
Documentary Evidence	19 Employer Brochures	April 2011		Secondary Research – secondary sources – recruitment materials Employers Recruitment Artifacts. [collected over 3 months]

### C3P6 -Cycle 3, Phase 6: May 2011 – July 2011 During-Placement Stage of Cycle 3

Recording Length /  
Page Length

Research Journal	6 <sup>th</sup> May 2011	Topic: Transition of Student to Employer sites
Field Note	17 <sup>th</sup> May 2011	Topic: Focus on Data Collection in relation to the importance of the accountancy



				Placements and employer data
Research Journal		20 <sup>th</sup> May 2011		Topic: Progressing data Collection with Employers and Students on Site – A Review
Interview + Field Note	IA01 SMC	20 <sup>th</sup> May 2011		Primary Research – second formal interview with the Placement Officer
Interview (Field Note)	EA19 Anon	20 <sup>th</sup> May 2011	9'36'	Primary research – unrecorded interview with FAS actor on governmental policy implementation regarding the Placement Market
Research Journal		1 <sup>st</sup> June 2011		Topic: AHECS Conference in Cork
Anecdotal Conversation	IA01 SMC	3 <sup>rd</sup> June 2011		Primary Research – Anecdotal conversation discussing the ADHECS conference and implications
Research Journal		5 <sup>th</sup> June 2011		Topic: Theme Sheet / Topic Guide review
Interview	EA35 MK	9 <sup>th</sup> July 2011	1'00'00'' 21'41'	Primary Research – National Electricity Utility
Interview	EA MOS & EA NK (no codes)	9 <sup>th</sup> July 2011	51'48'	Primary Research – HR Executive and Manager at Big 4 Accountancy Firm
Interview	EA AK (no codes)	12 <sup>th</sup> July 2011	18.01	Fully Transcribed & Time stamps attached to audio files in NVivo
Interview + Field Note	EA13 CM	12 <sup>th</sup> July 2011	9:28	Fully Transcribed (short interview but provides data on Mentoring) from Big 4 Accountancy Firm
Interview + Field Note	SA08 GB & SA07 BH	12 <sup>th</sup> July 2011	1:09:58	Fully Transcribed
Interview + Field Note	EA20 LOT	13 <sup>th</sup> July 2011	Circa 45 minutes	Primary Research – unrecorded interview with Graduate Recruitment Manager at a Big 4 Accountancy Firm
Interview + Field Note	EA21 JW	13 <sup>th</sup> July 2011	Circa 50 minutes	Primary Research – unrecorded interview with Graduate Recruitment Executive at Big 4 Accountancy Firm
Field Note		14 <sup>th</sup> June 2011		Topic: Review of Accountancy and Placement Websites, Placements and Graduate Programmes offered by Employers.
Interview + Field Note	EA14 PG	14 <sup>th</sup> July 2011	24'00'00''	Primary Research – A Tours
Interview + Field Note	EA06 MB	14 <sup>th</sup> July 2011	21'16'9''	Primary Research – Operations Manager at A Tours
Interview + Field Note	EA07 NR	14 <sup>th</sup> July 2011	13'04'00''	Primary Research – FIT Manager at A Tours
Interview	SA17 PG SA18 NT		18'10'00''	Primary Research – joint interviews with students
Interview + Field Note	SA09 AF	14 <sup>th</sup> July 2011	12'46'	Primary research – Student on Placement at A Tours.
Interviews + Field Note	SA41 group	14 <sup>th</sup> July 2011	18'54'00''	Primary Research – group based interview with additional SA's at A Tours

Note		18'45'00''	
Research Journal		14 <sup>th</sup> July 2011	Topic: Issues arising from the abbey Tours Interviews
Research Journal		15 <sup>th</sup> July 2011	Topic: The Nature of Routines and Current Issues – implications for data collection.

### C3P7 - Cycle 3, Phase 7: September 2011 Post-Placement Stage of Cycle 3

Recording Length /  
Page Length

Field Note		7 <sup>th</sup> Sept 2011		Topic: Student Queries Regarding the Logbook and Submission
10 Logbook Documents		Sept 2011		
5 Abbey Tours Logbooks	SA52 DR SA17 PG SA16 NM SA19 LmG SA18 NT	Sept 2011	n/a	Primary Research - Five from A Tours
Logbook	SA24 AMcS	Sept 2011	n/a	Primary Research - 1 from B Accountancy
Logbook	SA22 KM	Sept 2011	n/a/	Primary Research - 1 from JPM
Logbook	SA23 SS	Sept 2011	n/a/	Primary Research -
Logbook	SA20 DS	Sept 2011	n/a/	Primary Research -
Logbook	SA21 FT	Sept 2011	n/a/	Primary Research -

### C4P8 - Cycle 4, Phase 8: September 2011 - Dec 2011 Pre-Placement Stage of Cycle 4

Recording Length /  
Page Length

Field Note / Artifact		7 <sup>th</sup> Sept 2011		Topic: Entry on the activities of accounting firms influencing the commencing of the placement routine. Includes the communication from the Academic head of Programmes to the Student Cohort.
Field Note		7 <sup>th</sup> Sept 2011		Topic: Entry reflected on student engagement using the Placement Observed meeting relating to the Placement
Field Note		7 <sup>th</sup> Sept 201		Topic: Government website was also launched in relation to industrial placements JobBridge Website
Anecdotal Conversation		26 <sup>th</sup> Sept		Discussion in relation to the commencement of the new placement cycle. with Placement Officer (Field Note)
Observation	Code DO18 IA06 LW	Oct 2011	2 hours 3 seconds	Placement Class with the CGC

Documentary Evidence		Oct 2012		Topic: Careers Service Newsletter for Staff in relation to placement and employability.. Artifact – Newsletter on Careers Service for staff
Observation	Code: DO19 IA01 SMC	Oct 2011	38'58'' (1 of 2) 56'25'' (2 of 2)	Primary Research - Placement Class with Placement Officer – 2 audio files.
Documentary Evidence	Code: DO19 EA20 LOT	Oct 2011		Presentation on Student Employability from LOT in Placement Class employer presentation.
Field Note		25 <sup>th</sup> Oct		Topic: Launch of the new Job Scene artifacts from the Careers Service supporting the placement routine.
Research Journal		25 <sup>th</sup> Oct		Topic: Continuation of Data Collection – issues on data collection
Documentary Evidence		11 <sup>th</sup> Nov		Primary Research – Artifacts - Comments and Expectations of the Student for the Placement and their Careers Artifacts - Placement Class Expectations and Review Comments
Research Journal		14 <sup>th</sup> Nov		Topic: Issues with the Commencement of Analysis
Anecdotal Conversation	IA01 SMC	13 <sup>th</sup> Dec		Topic: Modifications and Maintenance of the Placement, expectations of employers. with Placement Officer (Field Note)
Anecdotal Conversation	IA01 SMC	14 <sup>th</sup> Dec		Topic: Follow up conversation relating to the management of the placement routine. with Placement Officer (Field Note)
Anecdotal Conversation	IA01 SMC	20 <sup>th</sup> Dec		Topic: Conversation about conflict within the management of the Placement with Placement Officer (Field Note)

#### C4P9 - Cycle 4, Phase 9: September 2012 During & Post-Placement Stages of Cycle 4

Recording Length /  
Page Length

11 Logbooks		Sept 2012		
Logbooks	SA50 KM SA52 DR SA43 CH	Sept 2012	n/a	3 from A Tours
Logbook	SA42 TB	Sept 2012	n/a	1 from National Electricity Utility
Logbooks	SA44 BC SA45 RD SA48 NMCC SA49 RM	Sept 2012	n/a/	4 from Big 4
Logbooks	SA46 AH	Sept 2012	n/a/	1 from Big 4
Logbook	SA47 AHK	Sept 2012	n/a	1 from Big 4
Logbook	SA51 FOF	Sept 2012	n/a/	1 from Big 4

## *10.7 Appendix 4.6 Aide Mémoire / Theme Sheet*

INTERVIEWING THEME SHEETS FOR ALL ACTORS (updated 6<sup>th</sup> May 2011)

Break down in terms of questions or interview topics (these are mainly in bold) or things to remember/ my agenda

COMMON THEMES FOR ALL ACTORS

PROCESSES / ROUTINES LITERATURE

Ostensive to Performative Routines: Guiding, Accounting, Referring (these need to be turned into everyday language).

Performative to Ostensive Routines: Creation, Maintenance, Modification (these need to be turned into everyday language).

**Note** – (Up to July) this research is possibly still in the ostensive phase and moving to the performative phase in a general sense later – in this phase the ‘dialogue’ might make more sense.

**Definition of a Routine** – repetition, pattern of actions, multiple actors and interdependence.

Ostensive (to Performative)

Guiding – this is a template for behaviour. This is like the guiding script. What artifacts (guiding scripts) such as job specs, training manuals, procedural documentation, standard operating procedures are present? What other ‘imaginal other’ type artifacts might also be present?

Accounting – the ostensive part of the routine allows us to explain what we are doing – its a basis (or an anchor) which we can return to – legitimizing the behaviour. Is there an aspect of this here that ‘controls’ what is reported and thus limits the propensity for ‘creation’? How does the actor use artifacts to justify or account for their behaviour? How is behaviour justified? Why did you do that? How can the routine be anchored around an artifact? (stability). How is a routine differentiated from an established artifact? (change)

Referring – the ostensive part of a routine allows us to refer to patterns of activity that would otherwise be incomprehensible – such as ‘hiring’. This is a form of labelling. It can place a ‘label’ on the activity of a colleague which might seem incomprehensible to those outside the routine. What aspect of the placement process/routine do you remember? Describe for me the placement routine as you see it? (looking out for delineation in the routine, whether the routine is truncated or whether the actor sees it as a longer process). How is the actor referring to the process and how do they break it down? Referring - Identified Routines - What routines does the actor perceived – get them to describe these routines. This flows from the Feldman paper. How do the actors organise the different aspects of the placement process as they live it?

#### Structure of the Placement Process

How does the actor perceive the structure of the placement process?

Does the actor see the process as a long term / possibly circular process (institutional actor)?

Does the actor see the process as a short term linear process (possibly the student actor)?

Does the actor see the process as an annual short term process (possibly some employer actors)?

How do the actors break down the process into stages?

Is there a temporal aspect perceived by the actors that reflects these stages?

#### Performative (to Ostensive)

Creation – some recognizable patterns must exist. Through repetition and recognition organizational routines are created. What slight changes are seen in the routine that might make for ‘continuous change’? How did these changes come about? What was the reason for the (slight) change?

Maintenance – this is where we try to maintain the ostensive elements. What behaviour has been shown that ‘maintains’ the elements of an existing routine? What behaviour has been shown that doesn’t maintain the elements of an

existing routine? Has a routine altered in a way that the actors don't notice as indicated through 'continuous change'?

Modification – this is where we deviate from the ostensive part of the routine. What behaviour has been shown that 'modifies' the elements of an existing routine? What behaviour has been shown that doesn't modify the elements of an existing routine? Has a routine modified in a way that the actors don't notice as indicated through 'continuous change'?

## DIALOGUE

Dialogical Questions - Focuses on dialogues between Real Others, Imaginal Others and Artifacts. These dialogues all represents ostensive aspects of a routine. Real Other to Real Other. Real Other to Imaginal Other. Real Other to Artifact. Imaginal Other to Imaginal Other (look into this – can we find an example of this?). Imaginal Other to Artifact (look into this- can we find an example of this?). Artifact to Artifact (look into this – can we find examples of this? Database reports as inputs into other systems?)

### Arriving at New Distinctions - Dialogical Generative Mechanisms

Through interacting with other what new distinctions have you made concerning different tasks at hand or roles **(through dialogical interactions what's the individual's ability to make new distinctions? Tsoukas p160).**

### Distinctions

What new distinctions did you draw from the tasks at hand (p161)?

Through reflecting on your experience how could you make finer distinctions about the tasks at hand? (p162).

Did you apply any of your learning in a new context to make a new distinction? (p162).

Did you re-order re-arrange or re-design what you knew so as to develop new ideas? (p162).

## 10.8 Appendix 4.7 Ethics: Interview Consent Forms

### Appendix 2 CONSENT FORM

<b>Researcher's Name:</b> (use block capitals)	<b>Title:</b>
<b>Faculty/School/Department:</b>	
<b>Title of Study:</b>	
To _____ be _____ completed _____ by _____ the: subject/patient/volunteer/informant/interviewee/parent/guardian ( <i>delete as necessary</i> )	
3.1 Have you been fully informed/read the information sheet about this study? YES/NO	
3.2 Have you had an opportunity to ask questions and discuss this study? YES/NO	
3.3. Have you received satisfactory answers to all your questions? YES/NO	
Have you received enough information about this study and any associated health and safety implications if applicable? YES/NO	
Do you understand that you are free to withdraw from this study? at any time without giving a reason for withdrawing without affecting your future relationship with the Institute YES/NO	
Do you agree to take part in this study the results of which are likely to be published? YES/NO	
Have you been informed that this consent form shall be kept in the confidence of the researcher? YES/NO	
Signed _____	Date _____
_____ Name	_____ Block
_____ in	_____ Letters
Signature of Researcher _____ Date _____	

#### **Please note:**

For persons under 18 years of age the consent of the parents or guardians must be obtained or an explanation given to the Research Ethics Committee and the assent of the child/young person should be obtained to the degree possible dependent on the age of the child/young person. **Please complete the Consent Form (section 4) for Research Involving 'Less Powerful' Subjects or Those Under 18 Yrs.**

In some studies, witnessed consent may be appropriate. The researcher concerned must sign the consent form after having explained the project to the subject and after having answered his/her questions about the project.

### 10.9 Appendix 4.8 Audit Trail - Alterations Merging / Node Structure.

Node	Merged Node	Rationale
'Guiding' and 'Accounting'	Clarification	The temporal nature separating 'guiding' in the present and possible future was understood to be materially different 'accounting' for past actions. These nodes were merged under 'clarifying'. The thought processes involved was reasoned out and captured using memos [MEMOS XX, XX]. [CXPX]
'Pattern Repetition' and 'Pattern Recognition'	Creation	Whereas 'creation' was initially used it was separated into 'pattern repetition' and 'pattern recognition' (Feldman & Pentland, 2003). This was merged later for the purposes of clarity as data supporting the distinction was limited [MEMO XX, XX]. [CXPX]
VIPS 'values', 'interests', 'personality' and 'skills'	VIPS	VIPS: (after Phase 4) was used to make more sense of the dialogical influences guiding [CXP4]. The VIPS models emerged from placement class data from the Career Guidance Counsellor who used this to represent the driving forces students should use when developing their CVs. It was adopted as a way to highlight the differences that might aid in analysis of the influences relating to imaginal others. [MEMO XX, XX]. [CXP4]
'Pre', 'During' & Post Internship/Placement	Attribute Coding Phase 1, 2 and 3.	It was not obvious that the routine would be divided for the purposes of coding into pre, during and post placement routines. However as more data across the phases was added and a fuller picture of the cyclical routine was arrived at sub-routines emerged. In revisiting the literature it was found that the three stages of the placement was confirmed in the internship research. This supported and validated the approach to coding underway. It also was a contribution as this approach was called for in internship/placement literature as needing to be pursued in empirical research. This also reflected an influence from systems thinking that advocates looking a focus on the whole and not the parts. These distinctions however were included in attribute coding as data sources were grouped by phases – this was a blunt distinction but helps reveal data that might be connected to these phases. [Review the Merging of Nodes Memos as Found in NVivo to complete this section] [MEMO XX, XX]. [CXP4].

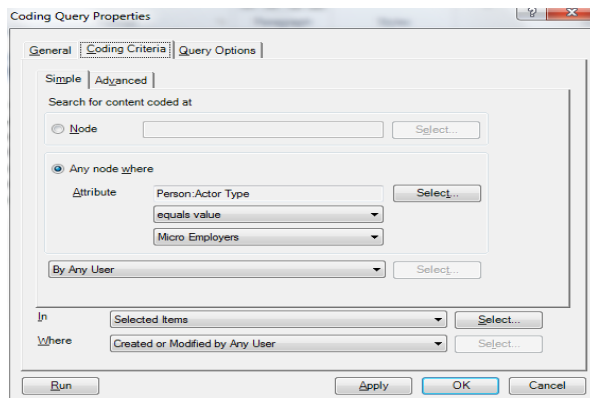
#### Managing the Evolution of the Node Structure



## 10.10 Appendix 5.1 Findings Generated using NVivo Queries

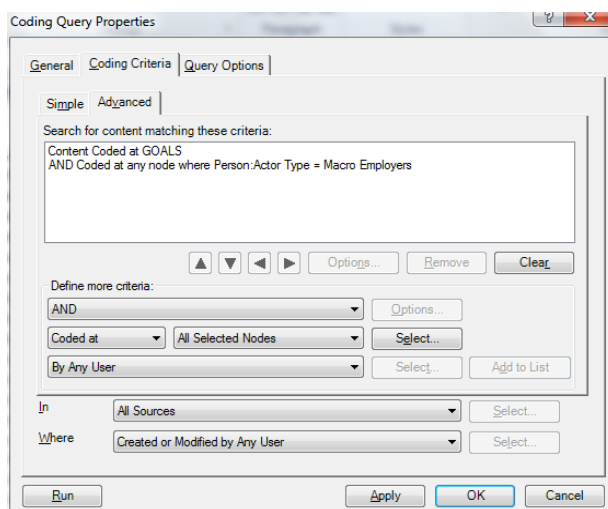
This appendix provides a sample of the NVivo queries used to generate and inform the content and interpretations to unpack ostensive aspects of routines. While the iterative process of writing and re-writing results in the story of the data being recombined only the most pertinent coding and matrix queries are provided. Queries facilitate comparisons between stages e.g. Stage 1 with Stage 3 data, and across placement cycles e.g. Cycle 1 with Cycle 4.

### Sections 5.2.1 – 5.2.3 : Describing and/or Referring to the Placement



<b>Section</b>	<b>Coding Query</b>	‘How did HEI staff (PO and AHP) describe of refer to the placement?’ Data coded to ‘REFERRING’ AND ‘IA’ or ‘institutional actor’ nodes.
<b>5.2.1</b>	<b>No 1</b>	
<b>Section</b>	<b>Coding Query</b>	‘How did students describe or refer to the placement?’ Data coded to ‘REFERRING’ AND ‘SA’ or ‘student actor’ nodes
<b>5.2.2</b>	<b>No 2</b>	
<b>Section</b>	<b>Coding Query</b>	‘How did employers describe or refer to the placement?’
<b>5.2.3</b>	<b>No 3</b>	Data coded to ‘REFERRING’ AND ‘EA’ or ‘employer actor’ nodes

### Sections 5.3.1 – 5.3.3: What did the Actors say about Goals?’



<b>Section 5.3.1</b>	<b>Coding Query No 4</b>	‘What did HEI staff say about goals?’ Data Coded to ‘GOALS’ AND ‘IA’.
<b>Section 5.3.2</b>	<b>Coding Query No 5</b>	‘What did students staff say about goals?’ Data Coded to ‘GOALS’ AND ‘SA’.
<b>Section 5.3.3</b>	<b>Coding Query No 6</b>	‘What did employers say about goals?’ Data Coded to ‘GOALS’ AND ‘EA’.

*Sections 5.3.1 – 5.3.3: What did the Actors say about a ‘Quality Placement’*

<b>Sections 5.3.1 – 5.3.3</b>	<b>Coding Query No 7</b>	<p><i>Query:</i> ‘What was said about the goal to source quality placements?’</p> <p><i>Purpose:</i> This focuses on additional goals as understood relating to the specifics of the Placement in terms of academic ‘quality’ assurance etc.</p> <p><i>Sub-Query:</i> Exact match on ‘QUALITY’.</p> <p><i>Coded Data Used (Initial Theoretical Framework):</i> REFERRING DATA</p> <p><i>Findings:</i> 1 Source 1 Reference but this didn’t related to academic quality.</p> <p><i>Action:</i> Further search is required using ECTS node that was created using a word search.</p>
	<b>Sub-Coding Query No 7a</b>	<p><i>Sub-Query:</i> What was said about ECTS credits in relation to the goal of the placement? (using node on ECTS credits created)</p> <p><i>Purpose:</i> Additional goals as understood relating to ‘quality’ in terms of the specifics of ‘ECTS credits’.</p> <p><i>Findings:</i> Querying academic quality and credit did not return much in the data but focusing on ‘ECTS’ (a specific node was created) represented the ways quality and credit was discussed. This academic goal was wholly absent from employers understanding of the placement goal, and at best confused and misunderstood from a student perspective.</p> <p><i>Additional Notes:</i> This query was arrived at after focusing on ‘what indicates a quality placement’. As the goal was interpreted as immutable influencing action this was represented in the Findings as an academic goal framing the discussion on ‘quality’.</p>
	<b>Sub-Coding Query No 7b</b>	

*Sections 5.3.1 – 5.3.3: What did the Actors say about a ‘Pay’ and ‘Experience’ as it informed our understanding of a ‘Quality Placement’*

<b>Section 5.3.1</b>	<b>Coding Query 8</b>	<p><i>Institutional Actors (PO &amp; AHP) on Quality of Placements</i></p> <p><i>Query:</i> What did the AHP (query run separately for PO) say about the connection of ‘PAY’ to a quality placement (node) – coding query on node in REFERRING DATA on quality and then a text search query on ‘pay’ run from that newly created node in the Results. <i>Coded Data Used (Initial Theoretical Framework):</i> REFERRING DATA</p> <p><i>Purpose:</i> What did AHP say about PAY as it is related to a quality placement?</p> <p><i>Findings:</i> 3 Sources &amp; 7 References where pay was discussed by the AHP within the content coded to ‘Placement Quality’ node (within REFERRING DATA).</p>
<b>Section 5.3.1</b>	<b>Coding Query 9</b>	<p><i>Query:</i> What did the AHP say about the connection of EXPERIENCE to a quality placement (node) – coding query on node in REFERRING DATA on quality and then a text search query on EXPERIENCE run from that newly created node in the Results. The text search was expanded to ‘include synonyms’ as experience might be implied in different ways. <i>Coded Data Used (Initial Theoretical Framework):</i> REFERRING DATA</p> <p><i>Purpose:</i> What did AHP say about EXPERIENCE as it is related to a quality placement?</p> <p><i>Findings:</i> 3 Sources and 46 References where ‘EXPERIENCE’ was discussed by the AHP within the content coded to Placement Quality node (within REFERRING DATA). 46 references were reviewed as synonyms might not be relevant. There is a noted absence of ‘detail’ when discussing experience –they talk about adding it to the CV and its important when leaving college to differentiate yourself but what it actually is not present in the data – ‘PAY’ is used as a proxy of ‘EXPERIENCE’ and indicator of a good placement.</p>
<b>Section 5.3.1</b>	<b>Coding Query 10</b>	<p><i>Query:</i> What did the PO say about the connection of PAY to a quality placement (node) – coding query on node in REFERRING DATA on quality and then a text search query on pay run from that newly created node in the Results. <i>Coded Data Used (Initial Theoretical Framework):</i> REFERRING DATA</p> <p><i>Purpose:</i> What did PO say about PAY as it relates to a quality placement?</p>

<b>Section 5.3.1</b>	<b>Coding Query 11</b>	<p><i>Results:</i> 7 Sources 41 References from the first query and 3 Sources and 6 References specific to pay was discussed by the PO within the context code to Placement Quality node (within REFERRING DATA).</p> <p><i>Findings:</i> The data on quality and pay is quiet limited with such a specific search. A broader search was needed reverting back to the node created here in the first query with 7 sources and 41 references to review this manually. Firstly I'm looking at the data in the Placement Class (I could do a query but doing it manually is the same). Secondly Field Notes were reviewed to aid comparison.</p> <p><i>Query:</i> What did the PO say about the connection of EXPERIENCE to a quality placement (node) – coding query on node in REFERRING DATA on quality and then a text search query on pay run from that newly created node in the Results.</p> <p><i>Coded Data Used (Initial Theoretical Framework):</i> REFERRING DATA</p> <p><i>Purpose:</i> What did PO say about EXPERIENCE as it is related to a quality placement?</p> <p><i>Findings:</i> 6 Sources 67 References specific to EXPERIENCE was discussed by the PO within the context code to Placement Quality node (within REFERRING DATA).The use of 'include synonyms' was included in the search criteria. This query confirmed a noted absence of 'detail' on 'EXPERIENCE' – whereas it's important what experience actually is absent from both the AHP and PO data.</p>
<b>Section 5.3.1</b>	<b>Coding Query 12</b>	<p><i>Purpose:</i> Confirmatory Queries Relating to 'Poor Placements' – Coffee, Tea, Filing and Photocopying. To establish some insight to what a poor quality placement meant and poor EXPERIENCE might have meant. Coded Data Used (Initial Theoretical Framework): REFERRING DATA</p> <p><i>Query:</i> Word Frequency Search Query - for 'coffee' and 'tea', 'filing' to see what was in the data relating to coffee-making and filing as poor quality placements.</p> <p><i>Findings:</i> Coffee - 15 Sources and 29 References where coffee was mentioned in my data –many mentions did not seem to link to quality of placement. Tea – 13 Sources and 17 References where tea was mentioned in my data. Filing – 15 Sources and 41 Reference where filing was mentioned in my data. Photocopying – 6 Sources and 6 References where photocopying was mentioned in my data. The use of these words appear as a 'myth' because in the data they were not used negatively by those on the job or were used as accepting that its apart 'of' the job alongside experience, accepting 'starting at the bottom' etc. The meaning in industry differed to rhetoric in academia.</p>
<b>Section 5.3.2</b>	<b>Coding Query 13</b>	<p style="text-align: center;"><i>Student Actors on Quality of Placements</i></p> <p><i>Query:</i> Actors with attributes 'SA' - 'student actors' say about quality placement.</p> <p><i>Purpose:</i> To establish what student said about 'quality placements'.</p> <p><i>Findings:</i> 12 Source and 29 References content coded to quality placements node (within REFERRING DATA). One source is a memo that I have created in Nvivo so the final count is 11 Sources and 28 references.</p>
<b>Section 5.3.2</b>	<b>Coding Query 14</b>	<p><i>Query:</i> What did students specifically say about 'EXPERIENCE' in context of quality placements? Coded Data Used (Initial Theoretical Framework): REFERRING DATA</p> <p><i>Findings:</i> 10 Sources and 108 References were returned on this specific search. This included data from 7 students and some additional data from some employer sources.</p>
<b>Section 5.3.2</b>	<b>Coding Query 15</b>	<p><i>Query:</i> What did student specifically say about 'PAY' in the context of quality placements? Synonyms were included to capture 'unpaid', 'payments' etc. Coded Data Used (Initial Theoretical Framework): REFERRING DATA</p> <p><i>Findings:</i> 4 Sources and 26 References were returned on this specific search. This included data from 4 students.</p> <p><i>Notes:</i> NEED FOR ADDITIONAL QUERIES – in reviewing this the thought that student over emphasised 'pay' in the short term is not as clear in the data as I thought and that 'experience' is present much more clearly. There's an issue that goals pre-placement are different to goals post-placement. Need to do further queries in the data to confirm/discount this.</p>
<b>Section 5.3.3.</b>	<b>Coding Query 16</b>	<p style="text-align: center;"><i>Employer Actors on Quality of Placements</i></p> <p><i>Query:</i> Quality placement node, by actors with attributes 'employers' using all sources.</p> <p><i>Purpose:</i> To establish what employers said about quality placements.</p>

**Section 5.3.3 Coding Query 17** *Findings:* This suggests a separation in the goals of the placement and little by way of understanding the academic perspective [assessed by querying for academic goals and academic credit to see if this is absent in the data].  
*Query:* What did employers specifically say about 'EXPERIENCE'? Synonyms were allowed. Coded Data Used (Initial Theoretical Framework): REFERRING DATA  
*Findings:* 19 Source 826 Reference – re-run the query with exact match. With exact match query Sources 13, References 38. Employers did not discuss EXPERIENCE as a goal of the placement but experience held in advance and represented on a CV, experience gained throughout the placement but not as a goal for the placement and taking that experience forward.

**Section 5.3.3 Coding Query 18** *Query:* What did employers specifically say about PAY? Exact match.  
 Coded Data Used (Initial Theoretical Framework): REFERRING DATA  
*Findings:* 9 Sources, 17 References returned from an exact match query. Employers did not discuss PAY as a goal of the placement in favour of discussing how they provide experience. This raised the question but what do employers consider the goal of the placement and this is connected with productivity and getting free labour or filling a gap in work?

*Section 5.3.1 – 5.3.3. Matrix Queries on Pay & Experience related to 'Quality Placement'*

**Sections 5.3.1 – 5.3.3 Matrix Coding Query 1** *Query:* Matrix Coding Query on pre, during and post placement (PLACEMENT STAGES) on what students, employers, the PO and AHP said about PAY and EXPERIENCE and for comparison purposes QUALITY?  
*Purpose:* Is there a convergence in understanding from pay pre and post placements to experience and pay relative to the quality of the placement? Is this upheld in the data when I run a query? The purpose here is to gauge if there was a change in understanding of the goal of the routine and if the data supports an indication that this shift was from PAY to EXPERIENCE. This can then be run against QUALITY PLACEMENTS which is a more general approach – this can be done to verify the previous queries.  
*Result:* A confused result but some indicators are present of the shift toward experience as each placement cycle progressed.

*Matrix Output: Students Emphasis on Pay & Experience as a Goal for a Quality Placement*

	Pre-Placement Stage	During-Placement Stage	Post-Placement Stage
What did Students say about Quality Placements specific to EXPERIENCE	28	75	4
What did Students say about Quality Placements specific to PAY	0	19	0
What did Students say about Quality Placements	7	17	4

*Matrix Output: Employers Emphasis on Pay & Experience as a Goal for a Quality Placement*

	Pre-Placement Stage	During-Placement Stage	Post-Placement Stage
What did Employers say about Quality Placements specific to EXPERIENCE (exact)	2	36	0
What did Employers say about Quality Placements specific to PAY (exact)	8	8	1
What did Employers say about Quality Placements	37	117	81

*Matrix Output: PO's Emphasis on Pay & Experience as a Goal for a Quality Placement*

	Pre-Placement Stage	During-Placement Stage	Post-Placement Stage
What did the PO say about Quality Placement specific to EXPERIENCE	67	0	0
What did the PO say about Quality Placements specific to PAY	6	0	0
What did the PO say about Quality Placements	39	2	0

*Matrix Output: AHP's Emphasis on Pay & Experience as a Goal for a Quality Placement*

	Pre-Placement Stage	During-Placement Stage	Post-Placement Stage
What did the AHP say about Quality Placements specific to EXPERIENCE	33	0	13
What did the AHP say about Quality Placements specific to PAY	2	0	5
What did the AHP say about Quality Placements	7	0	5

**Sections Matrix**

*Comparing the Emphasis on Pay across Placement Cycles*

**5.3.1 – Coding Query 2** *Query:* Matrix Coding Query on PAY across PLACEMENT CYCLES was run.  
**5.3.3** *Purpose:* It there a convergence in understanding of pay across the Placement Cycles (as an elements related to Quality Placement)?  
*Result:* A indication that there are less discussions relating to pay from Cycle 1 to 4 – note there are a number of reasons for this including less data relating to Cycle 4, and the change where unpaid placements were more the norm ofr students in subsequent Cycle compared to cycle 1 and 2.

**Section Matrix** *Comparing the Emphasis on Experience across the Placement Cycles*  
**5.3.1 – Coding Query 3** *Query:* Matrix Coding Query on EXPERIENCE across PLACEMENT CYCLES was run.  
*Purpose:* What understanding of experience across the Placement Cycles is there (as an elements related to Quality Placement)?  
*Result:* There’s no real spike or decrease in the emphasis on experience- but there is a consistent focus especially by students.

*Matrix Output: Emphasis on Pay across Placement Cycles*

	Placement Cycle 1	Placement Cycle 2	Placement Cycle 3	Placement Cycle 4
What did Employers say about Quality Placements specific to PAY (exact)	2	6	9	0
What did Students say about Quality Placements specific to PAY	17	0	2	0
What did the AHP say about Quality Placements specific to PAY	5	2	0	0
What did the PO say about Quality Placements specific to PAY	0	6	0	0

*Section 5.4. How was ‘Academic Credit’ as a Goal Understood?*

**Section Coding** *Ostensive Understanding of the Goal + Academic Credit*  
**5.5. Query 19** *Query:* What did the AHP say about academic CREDIT in relation to the goal of the placement? Sub-Query: Exact match on ‘CREDIT’. Coded Data Used (Initial Theoretical Framework): REFERRING DATA  
*Purpose:* This focuses on additional goals as understood relating to ‘ACADEMIC CREDIT’ and ‘QUALITY ASSURANCE’. From the node on ‘goals’ and ‘quality’ what did institutional actors say about the goal of the placement?  
*Findings:* 1 Source, 2 References on an exact match within the node on AHP and Quality. Limited commentary so a need to refocus back on the created ECTS node and use other phrases such as ‘academic quality assurance’ etc. *Action:* Broader search using other terms to be considered.  
*Notes:* Additional Queries to be Run: Confirmatory Matrix Query: I can do a confirmatory matrix query across all of the issues raised here and illustrate in a matrix who discusses what in more detail. This might show confirmatory data that goals across/ between the 3 actors vary and are different.

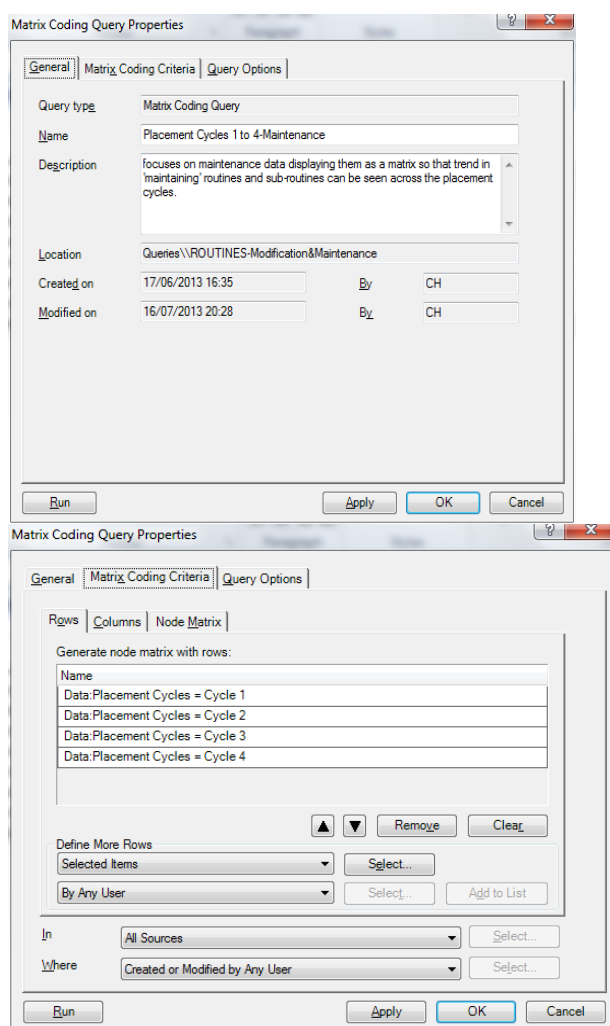
Name	Created On	Created By	Modified On
ECTS credits	02/10/2013 20:09	CH	02/10/2013 20:09
GOALS POOR QUALITY PLACEMENTS- Coffee Tea Filing Photocopying	03/10/2013 14:03	CH	03/10/2013 16:10
GOALS What did Actors say about Placement Goals	02/10/2013 18:34	CH	02/10/2013 19:37
What did Employers say about Quality Placements specific to EXPERIENCE (broad	07/10/2013 19:21	CH	07/10/2013 19:24
What did Employers say about Quality Placements specific to EXPERIENCE (exact	07/10/2013 19:25	CH	07/10/2013 19:25
What did Employers say about Quality Placements specific to PAY (exact)	07/10/2013 20:02	CH	07/10/2013 20:02
What did Employers says about Quality Placements	07/10/2013 19:14	CH	07/10/2013 19:18
What did LW say about Quality Placements	07/10/2013 11:17	CH	07/10/2013 11:17
What did Students say about Quality Placements	07/10/2013 11:48	CH	07/10/2013 11:48
What did Students say about Quality Placements specific to EXPERIENCE	07/10/2013 12:00	CH	07/10/2013 12:00
What did Students say about Quality Placements specific to PAY	07/10/2013 11:56	CH	07/10/2013 11:56
What did the AHP say about Quality Placements	04/10/2013 17:58	CH	04/10/2013 17:58
What did the AHP say about Quality Placements specific to (academic) QUALITY	08/10/2013 14:12	CH	08/10/2013 14:12
What did the AHP say about Quality Placements specific to EXPERIENCE	07/10/2013 09:49	CH	07/10/2013 09:50
What did the AHP say about Quality Placements specific to PAY	04/10/2013 18:01	CH	04/10/2013 18:01
What did the AHP say about Quality Placements specific to (academic) CREDIT	08/10/2013 13:46	CH	08/10/2013 13:46
What did the PO say about Quality Placement specific to EXPERIENCE	07/10/2013 09:52	CH	07/10/2013 09:52
What did the PO say about Quality Placements	04/10/2013 19:26	CH	04/10/2013 19:26
What did the PO say about Quality Placements specific to PAY	04/10/2013 19:29	CH	04/10/2013 19:29

Summary of Queries Relating to Goals (Section 6.3)

## 10.11 Appendix 6.1 Findings Generated using NVivo Queries

This appendix provides a sample of the NVivo queries used to generate and inform the content and interpretations to unpack performative aspects of routines. While the iterative process of writing and re-writing results in the story of the data being recombined only the most pertinent coding and matrix queries are provided. Of particular importance as the Matrix Coding Queries showing changes to performances across Placement Cycles e.g. Cycle 1 with Cycle 4.

### Sections 6.2: Stability-Change across Placement Cycles



Matrix Coding Query No 1: 'MODIFICATION' AND 'PLACEMENT CYCLES'

Matrix Coding Query No 2: 'MAINTENANCE' AND 'PLACEMENT CYCLES'

**Section 6.2 Matrix Coding Query No 1** *Query:* What changes/modifications were evident in the modification data across the four cycles? 'Change' Data Coded to MODIFICATION across Placement Cycles (Figure 7.1 & Figure 7.3).

**&  
Section  
6.3** *Purpose:* Change as Routine Modification - Processual approach a Matrix Coding Query was done to illustrate processual changes across the four cycles.  
*Results:* Matrix Output and visual representation presented in Section 6.2.  
*Findings:* To gain a more complete understanding of the ostensive aspects of the placement it is necessary to consider performative aspects. Indeed during coding and write up it was difficult to treat the data in the distinct manner in which it is presented here. A review of 'referring' data only revealed a partial understanding of the placement. Utilising the principle of knowledge creating relating to change coded as 'modification' data is thus considered. Queries to understanding of how the placement routine changed i.e. 'modified', were concurrently run while querying for how the actors 'referred' to the placement. By querying modification data continuous changes were compared to the referring data to supported triangulation reliability in the generation of themes (Section 7.3).

**Section 6.2 Matrix Coding  
&  
Section 6.3 No 2** *Query:* 'Stability' Data Coded to MAINTENANCE across Placement Cycles (Figure 7.2 & Figure 7.4).  
*Purpose:* Stability as Routine Maintenance – Processual approach as a Matrix Coding Query was also run to reveal how actions to maintain the placement were taken. Comparisons were then made to understand the tensions constraining the ostensive versus the pressures for change linked to the performative.  
*Results:* Matrix Output and visual representation presented in Section 6.2.

*Sections 6.3: Stability-Change Compared to how the Placement was REFERRED to.*

**Section 6.3 Coding  
6.3 Queries No 1.** *Query:* A Text Search Query on 'pay' and 'academic quality' was run against the node 'maintaining' AND 'modifying' conditions of the placement routine – and this was done across all of the 4 Placement Cycles to separate out the data for each placement cycle.  
*Sub-Query:* Sub-queries were repeated for the 4 Cycles.  
*Purpose:* Knowing how the routine changed and/or maintained a review was made.  
*Result:* Data on how the routine was maintained AND modified in Cycle 1 was returned and repeated for all Placement Cycles.  
*Action:* This data on the following issues was returned; Email (artifact) to Staff (maintaining but modifying job seeking sub-routine); Handling Administrative shortfall: Maintaining Pay as the basis of Maintaining the Placement & Employer Relationships: Maintaining Employer Relationships to Alleviate the Changes in Placement Market & its impact on Pre-screening: Maintaining Paid Placements in the Placement Market: Maintaining Placement Through Immersion of a student on Placement:  
*Further Actions:* These points were re-assembled with the data already presented on Modification.

*Summary of Queries Relating to Maintenance and Modification*

Queries		Look for:	Search In	ROUTINES-Modif	Find Now	Clear	Advanced Find
<ul style="list-style-type: none"> <li>Queries</li> <li>GOALS-Queries on Convergence or Di</li> <li>GOALS-Queries on Goals-IMAGINAL</li> <li>GOALS-Queries on Goals-REFERRIN</li> <li>ROUTINES-Modification&amp;Maintenance</li> <li>ROUTINES-Who said what about Routi</li> <li>Results</li> </ul>	<b>ROUTINES-ModificationMaintenance</b>						
	Name	Created On	Created By	Modified On	Mod		
	Ash Cloud	01/08/2012 20:08	CH	01/08/2012 20:08	CH		
	How did the IA describe the Modifications Impacting on the Placement Routin	26/07/2012 21:23	CH	26/07/2012 21:23	CH		
	How did the IA describe the Modifications IN the Placement Routine	26/07/2012 20:58	CH	26/07/2012 21:04	CH		
	Memo Word Proximity Search - 'change' & 'modification'	03/07/2013 17:14	CH	03/07/2013 17:14	CH		
	Overlapping Maintenance & Artifacts - Coding Query	22/07/2013 22:33	CH	22/07/2013 22:40	CH		
	Overlapping Modification & Clarification - Coding Query	19/07/2013 15:32	CH	19/07/2013 15:50	CH		
	Overlapping Modification & Clarifying - Compound Query	19/07/2013 15:13	CH	19/07/2013 15:38	CH		
	Overlapping Modification & Imaginal Others - Coding Query	22/07/2013 22:44	CH	22/07/2013 22:44	CH		
	Placement Cycles 1 to 4-Findings relating to the macro placement routine	05/06/2013 23:15	CH	17/06/2013 12:10	CH		
	Placement Cycles 1 to 4-Maintenance	17/06/2013 16:35	CH	16/07/2013 20:28	CH		



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