Deconstructing multi-agency working: An exploration of how the elicitation of '*tacit knowledge*' amongst professionals working in a multi-agency team can inform future practice.

Michael Hymans

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TEXT
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ORIGINAL

What needs to be put in place at an operational level to enable an integrated children's service to promote successful integrated working?

(PAGE 233)

Research Project submitted May 2005

What are the key events leading to the placement of children with emotional, social and behavioural difficulties (ESBD) in out-borough residential special schools?

(PAGE 327)

Research Project submitted January 2005

Dissemination and Impact Evaluation

(PAGE 406)

Submitted September 2007

1. CONTENTS

2. LIST OF FIGURES

3. LIST OF TABLES

4. ABSTRACT:

The theory of organisational knowledge creation and conversion clarified the difference between explicit and tacit knowledge and highlighted the importance of tacit knowledge in the workplace. The key components of successful multi-agency working and accompanying group processes have been explained in terms of activity theory and the sharing of different forms of knowledge and practices. This research has illustrated how professionals in a multi-agency family support team construe their role in, and the role of, the team. The use of personal construct psychology and repertory grids (Kelly, 1951/1991) enabled team members to access their tacit knowledge about multi-agency working through sorting tasks involving similarities and differences, discrimination and selection. The sharing of elicited knowledge amongst the whole team as a participatory process helped build a common language around embedded tacit knowledge. It led to the identification of important role elements in which, for example, practitioners' roles in their previous teams influenced their views of their role in the family support team. Differences in ratings of elements for particular constructs produced dilemmas, such as whether professional identity should develop as the team evolved or when the team was established, which affected group cohesiveness. High staff turnover and lack of clarity over operational procedures within an activity system context resulted in the team oscillating between forming and storming stages of group development. This undulation together with team members' awareness of imminent comprehensive changes in core team structures and processes and their fear of the future led to incidental changes in core construing.

This research elicited individual and whole team constructs based on the tacit knowledge held by various professionals about their role and the role of the multi-agency team in which they work. The whole team's co-construction of six superordinate bi-polar constructs was evidenced in implicit, reactive and deliberative learning (Eraut,2000).

The theory underpinning knowledge transfer (Nonaka and Takeuchi,1995) was supported. The research marked out the importance of activity theory (Leadbetter, 2006) in helping the team mature and perform and confirmed particular dilemmas surrounding inter-agency practice (Anning, et al.,2006).

5. ACKNOWLEDGEMENTS:

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6. INTRODUCTION

The impetus for this area of study arose out of a research project into multi-agency working (assignment 5): *What needs to be put in place at an operational level to enable an integrated children's service to promote successful integrated working?* Assignment 5 identified eight factors with 'defining' statements for working successfully in multi-agency teams by a wide range of professionals from five different teams. The factors that were of particular interest with regard to this current research were role clarification (factors 2 and 8); achieving targets and goals (factor 4), especially when working with other partner agencies (factor 5 and factor 7); and, actively seeking and respecting knowledge and input from different professionals to deliver the best outcomes for children and young people (factor 6 and factor 8).

Assignment 5 made use of the Q-sort methodology which has been described as a 'rich technique' for applying quantitative analysis to qualitative issues (Kitzinger & Stainton Rogers, 1985, Stainton Rogers,1995; Stenner & Stainton Rogers, 2004). The Q-methodology is primarily an exploratory technique: it cannot prove hypotheses. It can, however, bring a sense of coherence to research questions that have many potentially complex and socially contested answers (Stainton Rogers, 1995). Attendance at a four-day intermediate course on the application of repertory grids led by Fay Fransella*, prior to the completion of assignment 5, re-ignited interest in a parallel methodology to Q-sort. Personal Construct Psychology is rather like Q-sort methodology: it is not about finding the truth but rather how people construe and, there is always an alternative point of view to people's construing. The use of personal construct psychology (PCP) and repertory grids enabled further investigation into the inter-professional element of multi-agency working as suggested in assignment 5. The interest in the application of PCP to eliciting tacit knowledge arose from an article by Hemmecke, J., & Stary, C. (2004): *A Framework for the Externalisation of Tacit Knowledge Embedding Repertory Grids.*

*Fay Fransella is Founder and Director of the Centre for Personal Construct Psychology PCP), Emeritus Reader in Clinical Psychology, University of London and Visiting Professor of PCP at the University of Hertfordshire.

7. LITERATURE REVIEW:

The literature review begins by considering the definitions of knowledge and learning and explains how they are linked in order to help with understanding the difference between explicit and tacit knowledge. As the research is being conducted within an organisation the theory of organisational knowledge creation is explored. The description of this theory includes an account of the explicit and tacit knowledge conversion process. The theory of organisational knowledge creation is followed by an illustration of the role of explicit and tacit knowledge in the workplace. As the focus of this study is on tacit knowledge individual and collective (or group) dimensions of tacit knowledge are explored together with the importance of tacit knowledge in organisational learning. This exploration reinforces the strong links between knowledge and learning, which are highlighted for both individuals and the organisation.

The team being studied within the organisation is a multi-agency team. And so, first there is a description of group processes that can be applied to all kinds of teams. This is followed by the rationale for multi-agency working with illustrations of the barriers to be overcome and what needs to happen to make multi-professional teams work.

'Activity Theory' is positioned between group processes and multi-agency working. This is because activity theory has been identified as a helpful conceptual framework for investigating tacit knowledge. Finally, personal construct psychology together with repertory grids are explained as these form the basis of the research methodology and they are linked to the activity theory model.

7.1 Definition of knowledge and links with learning

Knowledge can be defined in many different and often controversial ways. One set of definitions distinguishes knowledge from information. For Drucker, 1993, information is the conversion of an unorganised sludge of data into relevant and purposeful information. Whereas in contrast knowledge is the subjective storage of aggregate information and is therefore considered relative, transformable and historically transient.

Another set of definitions appears in the form of an objective-subjective controversy, or the ontological realism versus epistemological relativism debate in philosophy. In this set of definitions knowledge, the traditional epistemology is equated with intra-sensitive and objective 'truth'. Truth is believed to exist in its absolute, static and non-human forms. Although, knowledge in the modern epistemology is viewed as the 'dynamic' process of 'justifying personal belief' in pursuit of "truth" (Nonaka, 1994, Nonaka and Takeuchi, 1995). In this sense, social interactions amongst members of an organisation play a predetermined and vital role in seeking newer knowledge. Such a philosophical position presents a striking contrast with the information-based knowledge management systems (Davenport and Prusak, 1997; Boisot, 1998) where clear, simple and common objectives are translated into particular actions through the leadership skills of the manager. As team members observe and reflect on using different sets of information they note patterns and form beliefs in order to understand their actions (Choo, 2006). Of course there is a difference between knowledge and beliefs. A belief is an internal thought or memory that exists in our minds. And for a belief to be accepted as knowledge it must be at least true and justified (Wikipedia Encyclopedia). There remains the philosophical question of whether there are any other requirements before a belief can be accepted as knowledge.

How knowledge is defined is of course a matter of debate amongst epistemologists. Nevertheless Klein (1998) notes that there are three distinct varieties of knowledge: that is *know-how or skill*, *knowledge by acquaintance or experience* (i.e. 'knowing of') and *propositional knowledge* or descriptive knowledge (expressed in declarative sentences or indicative propositions). And, in so far as 'tacit knowledge' or 'know-how' are the same 'skill' Klein (1998), suggests that 'tacit knowledge' and 'explicit knowledge' are actually two different 'things' for which the same label, 'knowledge', is somewhat confusingly used. This is because while 'knowledge' and 'skill' are commonly thought to be related, they clearly are not the same thing (Gourlay, 2000).

Learning on the other hand is defined as the process whereby knowledge is acquired or when existing knowledge is used in new contexts or in new combinations. Since learning also involves the creation of new personal knowledge, the transfer process remains within this definition of learning. Informal learning is often treated as a residual category to describe any kind of learning that does not take place within, or follow from, formally organised learning.

Another link between knowledge and learning is with collective knowledge. Collective knowledge is analogous with *'communities of practice'*: this approach views learning as an act of membership in a community of practice based on the following assumptions:

(i) Learning is fundamentally a social phenomenon in that people organise their learning around the social communities to which they belong. This assumption suggests, for example, that schools are only powerful learning environments for children and young people whose social communities coincide with that school.

(ii) Knowledge is integrated in the life of communities that share values, beliefs, languages and ways of doing things. Real knowledge is integrated in the doing, social relations and expertise of these communities.

(iii) The processes of learning and membership in a community of practice are inseparable because learning is intertwined with community membership: it is what lets us belong to and adjust our status in a group. As we change our learning our identity and our relationship to the group changes.

(iv) Knowledge is inseparable from practice: this means that it is not possible to ***know*** without ***doing*** and by doing we learn.

(v) The ability to contribute to a community creates the potential for learning. The circumstances in which we engage in real action that has consequences for both us and our community creates the most powerful learning environments.

If we assume that most learning does not occur in formal contexts then the utility of such a catch-all label may not be very helpful. Moreover the term 'informal' is often associated with many other features of a situation – attire, discourse, behaviour, diminution of social differences, etc. – that is its colloquial application as a descriptor of learning contexts may have little to do with learning per se. Consequently some authors (e.g. Eraut, 2000) prefer to use the term 'non-formal' learning as the contrast to formal learning.

Eraut (op. cit) describes the formal learning situation in terms of a prescribed learning framework with an organised learning event in the presence of a designated teacher or trainer with the award of a qualification or credit and the external specification of outcomes. However Eraut is at pains to point out that such characteristics should not cast a negative shadow over formal learning by suggesting that learning outcomes are not necessarily confined to propositional knowledge.

Propositional knowledge is a common outcome of non-formal learning.

Eraut proposes that non-formal learning incorporates implicit learning that gives rise to tacit knowledge. Eraut suggests a continuum of 'reactive learning' which is near spontaneous and unplanned at one end, and 'deliberative learning' for which time is set aside at the other end. Reber (1993) defines *implicit learning* as 'the acquisition of knowledge independently of conscious attempts to learn and with no awareness of learning having taken place at the time of that knowledge being learnt. Eraut says that with *reactive learning* the learner is aware of learning but the level of intentionality varies and is often debatable. He also questions whether events from the past are something happening in the present or part of some possible future action. He then combines the dimensions *time of local event* and the *level of intention* to construct a simple typology of non-formal learning (figure 1).

Figure 1: A typology of non-formal learning

Time of Stimulus	*Implicit Learning*	*Reactive Learning*	*Deliberative Learning*
Past Episode(s)	Implicit linkage of past with current experiences	Brief *near-spontaneous reflection* on past episodes, communications, events, experiences	*Review* of past actions, communications, events, experiences. More systematic reflection
Current Experience	A selection from experience enters consciousness	*Incidental* noting of facts, opinions, impressions, ideas. *Recognition of* learning opportunities	*Engagement* in decision-making, problem-solving, planned informal learning
Future behaviour	Unconscious effects of previous experiences	Being prepared for *emergent* learning opportunities	*Planned* learning goals. *Planned* learning opportunities

From Eraut, 'Non-formal learning and tacit knowledge in professional work', *British Journal of Educational Psychology (2000)*, 70, 113-136.

In summary then, this section of the literature review has defined knowledge and learning. Communities of practice is a concept that threads throughout the literature review. It is described as being analogous with collective knowledge and learning. Formal and informal learning are also described. These terms are also closely associated with explicit and tacit/ propositional knowledge respectively as will be demonstrated in the sections that follow.

7.2 The 'theory of organisational knowledge creation' Nonaka (1994).

According to Nonaka new knowledge always begins with the individual in that an individual's personal knowledge is **transformed** into organisational knowledge that is valuable to the organisation as a whole. The core concepts of his theory are autonomy, fluctuation and creative chaos, intention, redundancy and requisite variety. ***Autonomy*** affords organisational members the freedom to pursue new knowledge that may ultimately translate into a shared, organisational conception. Organisations benefit from individual autonomy through "greater flexibility in acquiring, relating, and interpreting information" (Nonaka, 1994; p. 18). ***Intention*** is described as purposive action by which individuals make sense of their environment. The objective is to acquire, create, cumulate, and exploit knowledge to facilitate adaptation to the surrounding environment (Nonaka & Takeuchi, 1995). Organisational members with intention are thus committed to the creation and adoption of new knowledge as a way to assimilate to changing external conditions. Individuals may commit to knowledge creation when they experience a "breakdown" in their routines, habits, or cognitive frameworks (Nonaka & Takeuchi, 1995).

Fluctuations in the organisational context or environment can produce a creative chaos or tension that challenges fundamental ways of thinking. According to Nonaka and Takeuchi (1995), turbulence in the organisational environment triggers a disruption in the status quo and the need to adapt through organisational knowledge creation. In defining a social context conducive to knowledge creation, it is important to regulate the number and composition of available input through the principal of requisite variety (Ashby, 1956).

The key to this principal is to ensure a radial pattern of interaction among organisational members across relevant functional areas. This span of interaction can, and should, extend beyond organisational boundaries to make use of knowledge from the external environment. Diversity in thinking is maximized when organisational members have ready access to the widest variety of relevant information with the least amount of effort (Nonaka & Takeuchi, 1995). An important function of requisite variety is to ensure appropriate redundancy of information. Multiple implicit perspectives are combined to forge a shared conception through continuous dialogue, only possible through redundancy of information (Nonaka, 1994). By sharing redundant information, organisational members are allowed to invade each other's functional boundaries and entertain alternative perspectives (Nonaka & Takeuchi, 1995).

Nonaka (1994) claims that individual commitment is generated through intention, autonomy, and environmental fluctuation. This suggests that knowledge creation may be activated when organisational members have freedom and sufficient purpose to pursue new knowledge, such as when confronted by change in the external environment. Indeed turbulence in the organisational environment may act as the catalyst for the knowledge creation process. Nonaka's theory also assumes that knowledge moves differently *within* and *between* communities (Brown & Duguid, 2001). Knowledge sharing *within* communities is embedded in practice. This kind of knowledge sharing corresponds to the process of *socialisation* (Nonaka, 1994). Knowledge sharing *between* communities has to occur partly de-contextualized from the actual practice and background of the involved communities.

Nonaka (1994) argues that the current paradigm in which organisations process information efficiently in an "input-process-output" cycle represents a "passive and static view of the organization" (p. 14). Alternatively, he asserts that organisational learning results from a process in which individual knowledge is transferred, enlarged, and shared upwardly to the organisational level. This process is characterised as a spiral of knowledge conversion from tacit to explicit. In the broadest sense, organisational knowledge creation may be explicated by the interchange between tacit and explicit knowledge. Fundamental to Nonaka's ideas are that individuals are personally committed to the organisation. By this he seems to mean that they *want* to be involved in the process of having their tacit knowledge elicited and applying the explicit knowledge of others themselves to feed into their 'spiral of knowledge'.

Nonaka (1994) also argues that knowledge conversion initiates at the individual level as a "justified true belief" and is expanded through social interactions to include a diversity of perspectives that ultimately represent shared knowledge at the organisational level (p. 15). According to the theory, the process of knowledge conversion proceeds through four different modes:

1. Socialisation (the conversion of tacit knowledge to tacit knowledge);
2. Combination (the conversion of explicit knowledge to explicit knowledge);
3. Externalisation (the conversion of tacit to explicit knowledge); and
4. Internalisation (the conversion of explicit to tacit knowledge).

These four different modes are shown in figure 2 (taken from *The Knowing Organisation,* Chun Wei Choo, 2006, pp.10)

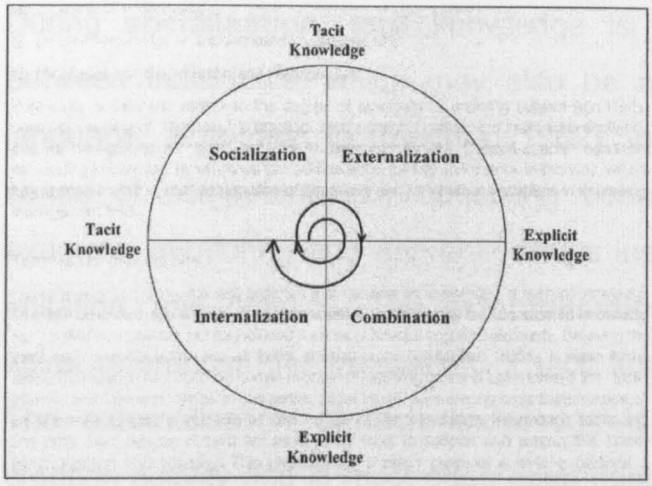


Figure 2: Organizational Knowledge Conversion Process (Nonaka and Takeuchi, 1995)

Nonaka describes the dynamics driving this model of knowledge creation as follows:

Organisational knowledge creation, as distinct from individual knowledge creation, takes place when all four modes of knowledge creation are "organisationally" managed to form a continual cycle..... First, the 'socialisation' mode usually starts with the building of a "team" or "field" of interaction. This field facilitates the sharing of members' experiences and perspectives. Second, the 'externalisation' mode is triggered by successive rounds of meaningful "dialogue". In this dialogue, the sophisticated use of "metaphors" can be used to enable team members to articulate their own perspectives and thereby reveal hidden tacit knowledge that is otherwise hard to communicate. Concepts formed by teams can be combined with existing data and external knowledge in a search of more concrete and sharable specifications. This 'combination' mode is facilitated by such triggers as "coordination" between team members and other sections of the organisation and the "documentation" of existing knowledge. Through an iterative process of trial and error, concepts are articulated and developed until they emerge in a concrete form. This "experimentation" can trigger 'internalisation' through a process of learning by doing. Participants in a "field" of action share explicit knowledge that is gradually translated, through interaction and a process of trial-and-error, into different aspects of tacit knowledge. (Nonaka1994 p.20).

During **socialisation**, tacit knowledge is transferred through interactions between individuals, which may also be accomplished in the absence of language. According to Bandura (1982), individuals may learn and gain a sense of competence by observing behaviour modelled by others. For example, mentoring and apprenticeships instruct tacitly through observation, imitation, and practice. The **externalisation** of the knowledge conversion spiral references the translation of tacit knowledge into explicit knowledge. The externalisation of tacit knowledge is the quintessential knowledge-creation activity and is most often seen during the concept creation phase of new product or service development. Externalisation can also be triggered by dialogue or collective reflection. However, it is not commonly accepted that the articulation of tacit knowledge is possible at all.

There are two conflicting positions: the "no-access" versus the "possible-access" position (Herbig, Büssing & Ewert, 2001). The "no-access" position claims that tacit knowledge is not accessible to consciousness. The "possible-access" position claims that at least parts of tacit knowledge can become conscious (Nonaka, 1994; Herbig et al., 2001). The assumption is that it is possible to make parts of tacit knowledge conscious, in the sense that some parts of tacit knowledge become "focal points" of (conscious) attention (Tuomi,1999). This consciousness enables articulation and, thus, externalization of tacit knowledge.

Internalisation is a process of embodying explicit knowledge into tacit knowledge by internalising the experiences gained through the other modes of knowledge creation into individuals' tacit knowledge bases in the form of shared mental models or work practices. Internalisation is facilitated if knowledge is captured in documents or conveyed in the form of stories so that individuals may re-experience indirectly the experience of others. The **combination** of knowledge conversion embodies the aggregation of multiple examples of explicit knowledge (Nonaka, 1994). Explicit knowledge may be exchanged during meetings or conferences in which a diversity of knowledge sources combines to shape a new and enhanced conception.

The transforming processes described above are assumed to occur in everyday working relationships (socialisation), through formalising a body of knowledge (externalisation) and by translating theory into practice (internalisation) when combining existing theories (combination).

However, McAdam and McCreedy (1999) suggest that perhaps the model implies a mechanistic approach to knowledge categorisation and that knowledge transfer in organisations is much more complicated and convoluted than figure 2 suggests. Gourlay (2000) goes further and comments on "*some cracks in the 'engine' of knowledge-creation* in his *conceptual critique of Nonaka and Takeuchi's (1995) model".*
Gourlay says that statements about 'socialisation' included in Nonaka and Takeuchi's research could be construed as nothing more than managers' beliefs about how they got ideas for new products.

Gourlay adds that no evidence is provided about customers' (tacit) knowledge of new product ideas or how customers explicitly conveyed this knowledge to managers. Nor was there any evidence of managers subsequently talking with customers about new product ideas. Gourlay criticises the case illustrations of 'externalisation' saying that they rest solely on the hypothesis that tacit knowledge is externalised through the use of metaphor and analogy. Gourlay considers both the 'combination' mode and 'internalisation' to be ambiguous: saying that 'internalisation' is *closely related* to learning implies it is distinct from learning, while claiming that it is *triggered* by learning-by-doing (Nonaka et al., 1996, pp. 208) suggests learning causes internalisation. He says that the ambiguity (of 'internalisation') is compounded when we are told that both writing and reading help internalise experiences (Nonaka and Takeuchi, 1995, pp. 69-70). As with 'combination', Gourlay says, we have a claim that a variety of activities are all instances of the same knowledge conversion process without this being clearly demonstrated. Moreover most of these are the very same activities said to characterise 'combination'.

So according to Gourlay the evidence for the knowledge conversion model (Figure 2) is largely anecdotal. He suggests that cognitive tacit knowledge, socialisation and externalisation are unsupported but appear plausible in so far as methods for studying them can be proposed. And the characterisations of both combination and internalisation are ambiguous and the examples given are lacking in sufficient detail to evaluate. Gourlay further suggests that if two of the modes of conversion (i.e. 'combination' and 'internalisation') are conceptually ambiguous and the idea of knowledge "conversion" is unnecessary, then the engine of knowledge creation is in need of serious repair. He says that the problem does not stop there. First it is not clear why the process has to start with socialisation. If tacit knowledge is the source of new knowledge the process could begin with internalisation since this generates new tacit knowledge and, if reading and writing are both instrumental in tacit knowledge formation, the process could also begin with the creative synthesis of explicit knowledge (i.e. combination). Externalisation too could form a starting point since all that is required is that some target activity already takes place.

Second, Nonaka only proposed *two* modes of knowledge conversion, tacit to explicit and explicit to tacit. Socialisation and combination are modes of knowledge transfer (tacit to tacit and explicit to explicit). Nevertheless Gourlay (2000) cites a study of classroom teaching and learning (Edwards and Mercer, 1987) which suggests that the 'transfer' of 'knowledge' that is fully tacit and remains so in the transfer process, is possible. This study showed that children learn two kinds of implicit rule of how to behave in the classroom, and how to construct knowledge from the lessons they receive. These rules were rarely if ever made explicit by the teacher, and Edwards and Mercer commented that it is likely the teachers themselves were not aware of what they are doing in this respect (1987:59-60). A particularly striking aspect of this study was that the teachers intended *not* to inculcate any such rules of conduct.

Edwards and Mercer concluded that tacit or implicit knowledge is thus intrinsically social and cultural, and is constructed through joint activity and discourse (1987: 160-3). Lave and Wenger's (1991) concepts of "situated learning" and a "situated curriculum" whereby people learn through experience and reflection, but not necessarily direct instruction, also helps indicate how tacit to tacit transmission occurs, as does the concept of implicit learning (Buchner and Wippich, 1998; Frensch, 1998).

McAdam and McCreedy (1999) report on a more elaborate version of Nonaka's model as shown in Figure 3.

Figure 3 Hedlund and Nonaka's knowledge management model

	Individual	Group	Organisation	Inter-organisational domain
Articulated knowledge	Knowing calculus	Documented analysis of performance	Organisation chart	Documented practices
Tacit knowledge	Cross-cultural negotiation skills	Team co-ordination in complex work	Corporate culture	Customers' attitudes to services and expectations

This model assumes there are four different levels of "carriers", or agents, of knowledge in organisations (ontological axis), namely the individual, the small group, the organisation and the inter-organisational domain (e.g. important customers). While the model is helpful in that it relates the carriers to the types of knowledge it remains problematic in that it assumes the carriers, like knowledge, can be simply segregated.

Another example of a knowledge category model is that of Boisot (1987). Figure 4 below shows Boisot's model which considers knowledge as either codified or un-codified and as diffused or un-diffused within an organisation. Boisot uses the term "codified" to refer to knowledge that can be readily prepared for transmission purposes (e.g. reports on clients). The term "un-codified" refers to knowledge that cannot be easily prepared for transmission purposes (e.g. experience). The term "diffused" refers to knowledge that is readily shared while "un-diffused" refers to knowledge that is not readily shared.

Figure 4 Boisot's knowledge category model

Codified	Proprietary Knowledge	Public Knowledge
Un-codified	Personal Knowledge	Common Sense
	Un-diffused	Diffused

If knowledge is categorised as both codified and un-diffused (top left quadrant of figure 4), then the knowledge is referred to as propriety knowledge. In this case, knowledge is prepared for transmission but is deliberately restricted to a selectively small population, on a "need to know" basis (e.g. confidential information about a client). The bottom left quadrant of figure 4 covers knowledge that is relatively un-codified and un-diffused, which is referred to as personal knowledge (e.g. perceptions, insights, experiences). The top right quadrant covers knowledge that is both codified and diffused and is referred to as public knowledge (e.g. journals, books). Finally the bottom right quadrant of figure 4 refers to common sense knowledge which is relatively diffused but also un-codified. Such knowledge is considered by Boisot as being built up slowly by a process of socialisation, harbouring customs and intuition.

There are a number of parallels between Nonaka's model (figure 2) and that of Boisot. For example Nonaka's categorisation of explicit and tacit knowledge has at least some degree of correspondence with Boisot's reference to codified and un-codified knowledge. Also in both models the horizontal dimension relates to the spread or diffusion of knowledge across the organisation. Boisot's model suffers the same limitations as Nonaka's model in that codified and un-codified are but two discrete categories of knowledge more relevant to organisational discipline as opposed to organisational learning and organisational inflexibility (McAdam and McCreedy, 1999). Also the idea of diffused knowledge is rather general and it is not clear that it includes incorporating knowledge within the organisation as well as spreading it (McAdam and McCreedy, 1999).

In summary, section 7.2 describes the core concepts of organisational knowledge creation and the contribution that individual commitment can make. Knowledge sharing is defined as a socialisation process involving the externalisation of tacit knowledge. Some possible cracks in the "engine" of Nonaka's knowledge creation model are discussed and alternative models are proposed.

7.3 Explicit versus tacit knowledge.

Human knowledge exists in different forms; it can be articulated explicitly or manifested implicitly (tacit knowledge). The critical differences between them lie in three major areas.

The first area is the codifiability and mechanisms for transferring knowledge. Explicit knowledge can be codified and it can be abstracted and stored in the 'objective world', and understood and shared. Ease of communication and transfer is its fundamental property. Knowledge which is tacit, in contrast, is intuitive and unarticulated. It cannot be communicated, understood or used. Polanyi (1962) argues that a large part of human knowledge is tacit. This is particularly true of operational skills and know-how acquired through practical experience.

Knowledge of this type is action-oriented and has a personal quality that makes it difficult to formalise or communicate. Unlike explicit knowledge which can be formulated, abstracted and transferred across time and space, the transfer of tacit knowledge requires close interaction and the build up of shared understanding and trust.

Secondly, the main methods for the acquisition and accumulation of these two knowledge forms also differ. Explicit knowledge can be generated through logical deduction and acquired by formal study. Tacit knowledge, in contrast, can only be acquired through practical experience in the relevant context, i.e. 'learning-by-doing'.

Third, the two forms of knowledge differ in their potential for aggregation and modes of appropriation. Explicit knowledge can be aggregated at a single location, stored in objective forms and appropriated without the participation of people. Tacit knowledge, in contrast, is personal and contextual. It is distributive, and cannot be easily aggregated. The realisation of its full potential requires the close involvement and cooperation of people.

Janik (1988) produced a comprehensive review of 'tacit knowledge' types and distinguished between two senses and five varieties of 'tacit knowledge' as in Table A.

Table A: Types of 'tacit knowledge' (Janik 1988: 54-8)

Things not put into words	***Things inexpressible in words***
Trade secrets	'knowledge by acquaintance or familiarity' e.g. sounds, smells
Things overlooked e.g. craft knowledge/skill	"The open-textured character of rule-following" acquired through practice
Presuppositions	

In the first case 'tacit knowledge' is simply 'knowledge' that has not been put into words for reasons that do not involve the nature of what is known for reasons of secrecy and power, either because no one has bothered or because it concerns presuppositions we all generally hold (e.g. tomorrow *will* come). Janik claimed that the second type of 'tacit knowledge' *cannot* be expressed in words because it relates to sensuous experience or practice (1988:56). We 'know' what coffee smells like, how particular musical instruments sound, but these kinds of 'knowledge' cannot be expressed in words or in other explicit communicable forms.

Nonaka and Takeuchi (1995) define the distinction between explicit and tacit knowledge as follows:

1. *Tacit knowledge is personal, context specific and therefore hard to formalise and communicate; and,*

2. *Explicit or "codified" knowledge, on the other hand, refers to knowledge that is transmittable in formal, systematic language.*

Gourlay (2004) however, suggests that explicit knowledge is not 'externalised' tacit knowledge, but representations of abstractions from ongoing practices that appear salient to their understanding and usefulness for communicating with others. He also says that in so far as tacit knowledge is created and maintained by ongoing experiences, managing the processes that govern tacit knowledge (e.g. implicit or incidental and informal learning) appears limited. Intuitively Polanyi (1962, 1966, and 1969) expressed his characterisation of tacit knowledge by saying that *we know more than we can say*. He exemplified this by making reference to acts of knowledge in which people performing the act successfully cannot fully account for their success. For example, a doctor diagnosing a patient's medical condition by looking at an x-ray cannot say how s/he recognised that the x-ray is abnormal but can just see it based on experience and training.

Likewise, when we recognise the face of a past acquaintance, we can express our recognition by saying that we know the person but we cannot describe (fully) how the perceived features of the person's face led to our recognition.

These intuitive characterisations are imprecise and do not go very far in conveying the meaning of the tacit knowledge concept. The key defining terms used by Polanyi in developing his theory were "focal knowledge" and "subsidiary knowledge": they correspond to the distinction between explicit and implicit knowledge. Focal knowledge is knowledge that we are directly attending to when we make a claim to knowledge of some sort: for example, the recognition that an x-ray indicates a disorder or the recognition of a face.

Subsidiary knowledge is knowledge that is present in the mind but not attended to directly that leads to the focal knowledge. It is attended to indirectly (in some way) that makes the focal knowledge possible. So for Polanyi the defining characteristics of subsidiary (implicit) knowledge are that it is active in the mind but not consciously accessed in the moment of knowing and that it grounds, enables and causes or somehow brings about the focal knowing. For Polanyi, an act of knowing is 'specifiable' when the steps or process leading up to it can be identified: it is 'reversible' when these steps can be formulated as instructions that could be followed to repeat the process. Polanyi's idea of a 'logical gap' is a break in such a reversible specification preventing a person from being able to find a solution to a problem by following a set of steps. This logical gap is critical to the theory of tacit knowledge because it is tacit knowledge that plays the role of filling the gap.

Tacit knowledge explained in terms of focal and subsidiary awareness is a 'structural' concept. It describes a relationship between different kinds of knowledge and implies unknown principals of operation. The concept is neutral with regard to the types of knowledge within the relationship. Hence, we can have beliefs, tactile sensations, visual perceptions, etc., playing the role of implicit knowledge.

So in summary section 7.3 has made clear the distinction between explicit and tacit knowledge by providing contrasting examples of these knowledge types in general usage.

7.4 The role of tacit and explicit knowledge in the workplace

People have always passed their accumulated knowledge and organisational wisdom on to future generations by telling stories about their thoughts, work and experiences. Now, as in the past, people use face-to-face and "hands-on" methods to convey their "know how" or tacit knowledge to others. Throughout recorded history, some form of written language has been used to document their "know-what" or explicit knowledge.

Yet much knowledge of other people is tacit: although we might gossip about them, we do not often have to put knowledge of people into words unless it is a specific part of our job. Such knowledge provides the basis of unhesitating daily interactions with others. Knowledge of others is mainly gathered from a series of encounters set up for other purposes (Sternberg & Horvath, 1999). Only a small percentage of meetings will have 'getting to know others' as an objective, which even then is often only as an incidental side effect. In order to participate in meetings, we have to assume some knowledge about those we are talking with. This will often be based on accumulated knowledge from previous encounters and will inevitably not be under our control.

We may also have explicit knowledge of others created through reflection or gathered from other sources but this is unlikely to replace tacit knowledge that has enabled us to instantly respond to others we know. Such tacit knowledge is part of our 'taken-for-granted' understanding of others and is likely to be biased and self-confirming. This is because our meetings with others are unlikely typical samples of their behaviour – the reasons and circumstances surrounding meetings largely determine the nature of those encounters and our own presence is also likely to impact on what happens. We will most likely recall events within those meetings that demanded our attention and preconceptions, created by earlier encounters, which will affect both parties' behaviour in future meetings.

Most crucially, we develop personal constructs (Kelly, 1955) or ways of construing our environment resulting from life experiences and these affect our understanding of, and our behaviour towards, people we meet. Thus we are predisposed to interpret other people's actions in particular ways, creating preconceptions at early encounters that determine our own behaviour and affect how others respond to us in ways that often tend to confirm our first preconceptions.

Thus knowledge is a human, highly personal asset and represents the pooled expertise and efforts of networks and alliances. The value of knowledge is increased when it has a key purpose and focuses on a set of core values and strategic priorities. Information has little value until it is given meaning or used on the job and human intervention is usually needed to interpret and extract various types of useful information. People possess slightly different types of tacit and explicit knowledge and apply their knowledge in unique ways.

Individuals use different perspectives to think about problems and devise solutions. They share knowledge and intellectual assets in new and creative ways (Ashkenas *et al.,* 1998). Table B (overleaf) summarises basic ways tacit and explicit knowledge are used in the workplace and groups together the key concepts underlying explicit and tacit knowledge. *From Smith, The role of tacit and explicit knowledge in the workplace, Journal of Knowledge Management,* 5 (4), 2001, pp 311-321

Table B: The use of explicit and tacit knowledge in the workplace

Explicit knowledge – academic knowledge or "know-what" that is described in formal language, print or electronic media, often based on established work processes and used as a people-to-documents approach.	**Tacit knowledge – practical, action-oriented knowledge or "know-how" based on practice, acquired by personal experience, seldom expressed openly and often resembles intuition.**
Work processes – organised tasks, routine, orchestrated, assumed predictable environment, linear, and re-used codified knowledge to create knowledge objects.	*Work practices* – spontaneous, improvised, web-like, responses to a changing unpredictable environment and channelled individual expertise to create knowledge.
Learning – on the job, trial-and-error, self-directed in areas of greatest expertise and work goals and objectives set by the organisation are met.	*Learning* – supervisor or team leader facilitates and reinforces openness and trust to increase sharing of knowledge and practitioner professional judgements.
Teaching – trainer designed, formats used are selected by the organisation and based on goals and needs.	*Teaching* – one-on-one, mentoring, coaching, on-the-job training, competency based and people to people.
Types of thinking – logical, based on facts, proven methods used and primarily convergent thinking based.	*Types of thinking* – creative, flexible, uncharted, leading to divergent thinking and developing insights.
Sharing of knowledge – knowledge extracted from person, coded and reused as needed for customers, e-mail, electronic discussions and forums.	*Share knowledge* – altruistic sharing, networking, face-to-face contact, videoconferencing, chatting, storytelling and use of personalised knowledge.
Motivation – often based on need to perform to meet specific goals.	*Motivation* – inspired through leadership, vision and frequent personal contact with employees
Rewards – tied to organisational goals, competitive within workplace, competition for scarce rewards and information sharing may not be rewarded.	*Reward* – intrinsic or non-monetary motivators and rewards for sharing information directly, and recognition of creativity and innovation.
Relationships – may be top-down from team leader to team member.	*Relationships* – open, friendly, unstructured, and based on open and spontaneous sharing of knowledge
Technology – related to job, based on availability and cost with heavy investment in IT to develop hierarchy of databases using existing knowledge.	*Technology* – specific tools used to select personalised information, facilitate conversations, exchange tacit knowledge to enable people to find one another with moderate investment in IT.
Evaluation – based on tangible work accomplishments, not necessarily on creativity and knowledge sharing.	*Evaluation* – based on demonstrated performance, and ongoing spontaneous evaluation.

'Tacit knowledge' can be used in at least six distinctive ways by individuals excluding questions of collective or organisational tacit knowledge as shown below.

7.4.1 Uses of 'tacit knowledge:' a summary

(a) Someone can do something but apparently cannot give an account (i.e. knowledge acquired by implicit learning of which the knower is unaware).

(b) Someone claims they feel something of which they cannot give an account but it is not clear if subsequent events validate the claim (i.e. knowledge constructed from the aggregation of episodes in long-term memory).

(c) Someone can do something but not give an account at that moment but can if pressed recall the explicit knowledge that was used tacitly when acting (i.e. knowledge inferred by observers that is capable of representation as implicit theories of action, personal constructs, schemas, etc).

(d) Knowledge existing prior to the situation in which it is effective and due to innate (biological) characteristics (i.e. knowledge that enables rapid, intuitive understanding or response).

(e) Knowledge existing prior to the situation in which it is effective and due to cultural factors (i.e. knowledge entailed in transferring knowledge from one situation to another).

(f) Situations where A knows something that B does not but where it could be argued A and B share the same practice (i.e. knowledge embedded in taken-for-granted activities, perceptions and norms).

The use of tacit knowledge to refer to situations where people *can* tell (f), even if they feel they require contextual props clearly stands apart from the other categories 'in use' as previously described. This is not only because they can express their knowledge, but also because the way tacit knowledge has been identified departs from that characterising the other five 'use' categories.

The use of tacit knowledge in situations where people *claim* to *feel* something (b) also poses some difficulties. This is not a question of challenging their *feelings* but rather whether feelings amount to sufficient evidence comparable to that of accomplished behaviour such that the term 'tacit knowledge' can be applied consistently. The validating evidence of an accomplished action is usually absent and it is often difficult to accept the implied link between the claim and the outcomes (Gourlay 2004).

The remaining four ways in which tacit knowledge has been used (a, c, d and e) share the idea of knowers being unaware of critical knowledge, at the point of use. However, experts' knowledge would have been previously learnt explicitly. What distinguishes examples involving experts from those of cultural or experiential knowledge is that experts can also recall their explicit knowledge. Where cultural knowledge is concerned some kind of technology (e.g. an ethnographer's report or a self-completion questionnaire) is likely to be needed to make the knowledge explicit (Gourlay, 2004).

The evidence for implicit learning and its effects (Stadler and Frensch, 1998; Lewicki et al., 1997) shows that learning without awareness as a result of doing something is a real phenomenon. Many of the examples of people's ability to do but not say (a) probably illustrates symptoms of implicit learning and use of knowledge that is both acquired and held tacitly. It is likely that much cultural knowledge (e) is also acquired in the same way. The main difference between (a) and (e) is in the nature of the experiences. In the first instance we are concerned with specific practices to which tacit knowledge applies and through which it was engendered, whilst in the second instance the tacit knowledge arises from other practices and is brought into the specific practice (Gourlay, 2004).

There is a difficulty concerning situations where people can do, but not tell (a) that stems from the logic by which tacit knowledge is identified. Tacit knowledge is typically *inferred* by an observer and as a general procedure this is so natural that we are unaware of the difficulties this might lead to despite widespread evidence of errors of social judgement that occur all the time (Gourlay, 2004). In this context the main problem is that inference cannot be validated independently of the evidence used to infer it.

In summary then, section 7.4 has illustrated how we pass on the knowledge gained from our experiences. How we gain the knowledge in the first place is related to how we construe our environment and, personal construct psychology (Kelly, 1955) is a useful way of eliciting personal constructs. Table B summarises the use of explicit and tacit knowledge in the workplace and a summary is provided of the six distinct ways in which we can use tacit knowledge in particular in 7.4.1.

7.5 The dimensions of individual and collective tacit knowledge and the importance of tacit knowledge in organisational learning.

Hager (2000) argues that by theorising informal workplace learning in terms of what people actually do (e.g. make judgements) we can then take account of the effect of the many variables that influence workplace learning via their influences on such judgements. Not only does every workplace situation have its own specific features but situations themselves are apt to change more or less rapidly. And not only do individual practitioners respond to and change features of situations but the influences by which they do this are strongly social and communal. The judgement situations that are the locus of informal workplace learning are integrative in that they seamlessly bring together human reasoning, will and emotion. This means that cognitive, conative and emotional capacities of humans are all typically involved in workplace practical judgements.

Nonaka and Konno (1998) distinguish two dimensions of tacit knowledge: the *technical dimension*, i.e. the "know-how", and the *cognitive dimension*, i.e. beliefs, ideals, values, mental models, schemata: "while difficult to articulate, this cognitive dimension of tacit knowledge shapes the way we perceive the world" (Nonaka & Konno, 1998, p. 42). The cognitive dimension is termed mental models by Senge (1990). These models shape people's actions and people's actions are shaped by them. At the cognitive level, the notion of social embeddedness underlines the 'tacit' nature of human knowledge and the dynamic relationship between individual and collective learning. It draws our attention to the fact that a large part of human knowledge, such as skills, techniques and know-how, and 'routines', cannot be easily articulated or communicated in codified forms. Knowledge of this kind is experience-based: it can only be revealed through practice in a particular context and transmitted through social networks.

The mutual exchange of tacit and explicit knowledge that describes Nonaka's knowledge creation process is initiated at the level of the individual employee or organisational member. Because individuals are an integral component of this conversion process, their commitment to knowledge creation is critical. Nonaka and Takeuchi (1995) argue that new knowledge is generated through the dynamic interaction and combination of explicit and tacit knowledge. However, teams differ in their capacity for fostering such interaction, and the relative importance and status of the two types of knowledge may also vary. More importantly, the creation of new knowledge in itself will necessarily involve the use and generation of tacit knowledge.

The use of the tacit knowledge construct also derives from Sternberg's 'theory of human intelligence' in that he saw the practical *know how* needed to succeed as the *key* to intelligent behaviour in practical settings (Sternberg, 1988). According to Sternberg tacit knowledge is procedural knowledge that guides behaviour but is not readily available for introspection: it is intimately related to action and relevant to the attainment of goals that people value. Often this knowledge takes the form of rules of thumb for what to do under whatever circumstances.

Moreover, tacit knowledge is important to success in particular fields of enquiry no matter how much codification of "rules for success" there may be. The reason for this state of affairs, according to Sternberg is simple:

"As soon as knowledge is made explicit and even codified, it simply ceases to serve as an equally important source of individual differences". "Thereafter, other knowledge that has not yet been made explicit or codified takes its place as an important source of individual differences". (Sternberg and Horvath, 1999, pp 232)

For Sternberg, although tacit knowledge is important to success, organisations often give little regard to it and there are a number of reasons for this fact. One is that tacit knowledge may conflict with codes of ethics or action and with the organisation not wanting to acknowledge this conflict.
A second reason is that whereas tacit knowledge should foster both self-awareness and contextual sensitivity it can turn into self-serving deviousness and thus thwart rather than help team working. For example, one practitioner may see how to use multi-agency working for their own personal and/or professional interests. A third reason is that tacit knowledge is so situated by nature that it may resist any kind of useful codification that could be recognised. A fourth reason is that 'technical knowledge' is often essential for using tacit knowledge and so the team may not see tacit knowledge as really distinct from technical knowledge. A fifth reason is that the team or individual team members may not want to believe, or want others to believe, knowledge that is learned only by chance or acquired by mere accident.

Eraut (2000) suggests that people need a vocabulary for talking about aspects of their experiences which had been previously difficult to discuss in order to prevent disguise in preference to sharing uncertainty and risk-taking. Researchers can aid this type of communication with subjects when they are able to suggest types of knowledge that might be in use in particular situations: researchers can then get respondents to confirm, modify or deny suggestions.

Hager (2000), however, has some difficulties with the notion of tacit knowledge. First, he says, it is ambiguous in a number of ways. Amongst other things it can mean knowledge that cannot be put into words and therefore explicated only with difficulty; craft secrets; intuition (intuitive knowledge) and bodily knowledge. These are not all the same although arguably some of them overlap.

The second difficulty is that in many instances making tacit knowledge explicit appears to achieve nothing more than renaming the problem which is exacerbated by the term's profligate ambiguity. And not only does it rename problems but the act of doing so seems sufficient enough to close off further inquiry. Hager argues that this is precisely where inquiry needs to start since much of 'tacit' knowledge can be and should be made explicit.

In his article (*Know-how and workplace practical judgement*) Hager says that research evidence (e.g. Evans and Butler, 1992) supports the claim that knowledge and concepts that are made explicit are better understood than knowledge and concepts that remain tacit. He goes on to say that, in short, the notion of 'tacit knowledge' far from helping us to understand know how, merely serves to further obscure and obfuscate the important issues. Nevertheless, Hager does acknowledge the positive feature of multiple ambiguity of tacit knowledge in that there are many dimensions to 'know-how.'

Schon (1983) proposes an alternative epistemology of professional workplace practice centred on the *'reflective practitioner'* who exhibits 'knowing-in-action' and 'reflecting-in-action'. According to Schon, 'knowing-in-action' is underpinned by 'reflecting-in-action' or 'reflecting-in-practice'. This spontaneous reflecting is variously characterised by Schon as involving practitioners in 'noticing', 'seeing' or 'feeling' features of their actions and learning from this by consciously or unconsciously altering their practice for the better. Schon's 'knowing-in-action' is considered the same as tacit knowledge in that, though practitioners know it, they cannot express it.
The concept of know-how is explored further in section 2.5 in the context of 'practical judgements' in the workplace.

Schon (1987) judged the power to exercise personal discretion and creativity at work to be at the heart of professional practice and this can be achieved best he asserted (pp 300) by articulating reflections on practice:
"When inquiry into learning remains private, it is also likely to remain tacit. Free of the need to make our ideas explicit to someone else, we are less likely to make them explicit to ourselves."

Chin (1997: 129) confirmed that effective professional development derives from having opportunities to articulate, critique and understand personal beliefs. Carlgren (1996) emphasized another dimension in considering the importance of providing professionals with opportunities to articulate their ideas, that of opening them up to challenge and debate, not simply to facilitate elaboration but to consider their appropriateness and relevance:
"Sometimes the tacit knowledge of a professional group is equated with professionalism. However, the concept of tact stupidity exists as well as the concept of tacit wisdom. Tacit knowledge is not gold in, and of itself" (pp 27).

The importance of tacit knowledge in organisational learning and innovation has become the focus of considerable attention in the recent literature. Knowledge is increasingly regarded as the critical resource of firms or teams and economies (Drucker 1993). Much recent attention has focused on the importance of 'tacit knowledge' for sustaining firms' competitiveness (Grant 1996; Winter 1987; Teece 1987), and its role in technological innovation and organisational learning (Nonaka and Takeuchi 1995; Spender 1996b). Whilst there is a growing body of literature on the role of tacit knowledge in team learning and innovation activities, our understanding of the nature of tacit knowledge and its relationship with organisational learning has been hampered by the lack of a coherent conceptual framework integrating micro-level learning activities with organisational forms and macro-level societal institutions. Knowledge of contexts and organisations is often acquired through 'socialisation' (i.e. observation, induction and increasing participation) rather than formal inquiry, over a significant period of time, and by processes that implicitly add meaning to what are explicitly interpreted as routine activities.

Consequently the knowledge in teams is socially embedded. It is rooted in a team's coordination mechanisms and organisational routines which, in turn, are heavily influenced by societal institutions. Penrose's (1959) *knowledge-based theory* sees the team as a body of knowledge residing in its structures of coordination, which in turn, defines the social context for cooperation, communication and learning (Nelson and Winter 1982; Kogut and Zander 1992). At the heart of this theory is the idea that the primary role of the team and the essence of organisational capability are the integration and creation of knowledge (Spender 1996a; Grant 1996; Tsoukas 1996). Differences in the organising principals of teams reflect their differing knowledge base and learning capabilities.

All organisations potentially contain a mixture of knowledge types. However, their relative importance can differ. Organisations may be dominated by one type rather than another, and their capacity for harnessing tacit knowledge can vary greatly. Organisations characterised by an explicit knowledge base tend to have formal structures of control and coordination, and exhibit highly standardised tasks and work roles. Explicit knowledge can be standardised and aggregated. It is thus possible to specify and pre-determine the repertoire of knowledge and skills required for task performance. In contrast, organisations with a tacit knowledge base will exhibit a de-centralised structure and use informal coordination mechanisms. This is because tacit knowledge is dispersed and subjective; it cannot be standardised, disembodied or pre-determined. Its mobilisation requires autonomy and commitment amongst the members of the organisation because, without such conditions, tacit knowledge remains latent.

Organisations can also depend on different knowledge agents. Those which rely heavily on the contributions of key individuals will tend to accord them a high degree of autonomy. In contrast, those which draw their capability from the collective knowledge of their members will need to develop effective mechanisms for integration and coordination.

The importance of an organisational climate that encourages constructive social exchange is underscored by the recognition that sharing individual concepts (i.e., in order to foster organisational knowledge creation) requires intrusion into others' spheres of reality (von Krogh, Ichijo & Nonaka, 2000).

Individual professionals are the key knowledge agents of professional bureaucracy. They are the 'authorised experts' whose formal training and professional affiliations give them a source of authority and a repertoire of knowledge ready to apply. Problem solving involves the application of an existing body of abstract knowledge in a logical and consistent way. This inevitably restricts the use of tacit knowledge and judgmental skills in dealing with uncertainty in problem solving. As noted by Starbuck (1992), formal expert knowledge often entails 'perceptual filters'.

Mintzberg (1979) uses the term 'pigeonholing' to describe how, in a professional bureaucracy, the uncertainty in problem solving is contained in the jobs of single 'experts', and circumscribed within the boundary of conventional specialisation. This allows the organisation to uncouple the various specialist tasks and assign them to autonomous individuals, leading to a high degree of individual and functional specialisation. The knowledge structure of a professional bureaucracy is individualistic, functionally segmented and hierarchical. Individual experts have a high degree of autonomy and discretion in the application and acquisition of knowledge within their own specialist areas, but the sharing and dissemination of such knowledge across functional boundaries is limited. The lack of a shared perspective and the formal demarcation of job boundaries inhibit the transfer of non-routine tacit knowledge in day-to-day work. Moreover, the power and status of 'authorised experts' inhibits interaction and the sharing of knowledge with 'non-experts'.

The problem of coordination in a professional bureaucracy translates itself into problems of innovation (Mintzberg 1979: 375). Additional hindrances are intra- and inter-organisational boundaries, various professions and different personal and cultural backgrounds. In well functioning teams sharing of tacit knowledge occurs through "the establishment of shared understanding" and through practices themselves (Brown & Duguid, 2001).

Communities of practice are a well known example of knowledge sharing through "participation" (i.e. practising) in a community (Lave & Wenger, 1991; Wenger, 2000). When separated from practice, which is the case when tacit knowledge has to be exchanged *between* different communities, sharing becomes more difficult (Brown & Duguid, 2001). According to Wenger (1998) communities of practice are beneficial for the organisation, for the community itself and for the practitioners. They are powerful vehicles both for sharing knowledge and achieving results.

Communities of practice help the organisation drive strategy; support faster problem solving; aid in developing, recruiting and retaining staff; build core capabilities and knowledge competencies; promote the rapid spread of excellent working practices and assist with the cross-fertilisation of ideas to provide increased opportunities for innovation.

Communities of practice support the community in building common language, methods and models around specific competencies; help embed knowledge and expertise in a larger number of people; aid retention of knowledge when employees leave the organisation; increase access to expertise across the organisation and provide a means to share power and influence with the formal parts of the organisation.

For the individual, communities of practice help people do their jobs; provide a stable sense of community with other colleagues in a team and with the organisation; foster a learning-focused sense of professional identity; develop individual skills and competencies; and, provide challenges and opportunities to contribute. Furthermore, Anning, et al., (2006), suggest that individuals can learn to transform their professional identities as they take on new roles and responsibilities. However, these transformations may be painful. Professional identities may be destabilised as individuals grapple with new roles and unfamiliar activities. For some professionals the pain of losing a professional identity built up over years working in a single agency context may prove not worth the gain in finding a different, extended identity in a multi-agency team. Role cohesiveness and role conflict are discussed in section 7.6.

To sum up section 7.5, difficulties in making tacit knowledge explicit are outlined as are difficulties with the concept of tacit knowledge itself. The importance of tacit knowledge for organisational learning and innovation are highlighted. Practitioner commitment for describing their preferred future provides a 'professional conscience' related to an idealised practice that is often unachievable. This can often lead to dissatisfaction and disillusionment with work. Individuals can learn to transform their professional identities to take on new roles and responsibilities, although the process of engaging in such transformations may well be painful.

7.6 The nature of work groups

A useful way of defining a work group is a collection of people who share: a definable membership; group consciousness; a sense of purpose; interdependence; interaction; and an ability to act in a unitary manner (Adair, 1986). How people behave and perform as members of a group is as important as their behaviour or performance as individuals. Not only must group members work well as a team but each group must also work well with other groups. Groups therefore help shape the work pattern of organisations and the attitudes and behaviour of members to their jobs. The more homogeneous the group in terms of such features as shared backgrounds, interests, and attitudes and values the easier it is to promote cohesiveness. Variations in other individual differences such as personality or skills may serve to compliment each other and help make for a cohesive group. On the other hand such differences may be the cause of disruption and conflict, especially when group members feel that they are in competition with each other: for example competition over chairing meetings, taking on casework, taking on additional responsibilities within the team.

Cohesiveness is more likely when group members are together for a reasonable length of time and change occurs slowly. A frequent turnover of staff is likely to have an adverse effect on morale and on the cohesiveness of the group. The work environment factors affecting group cohesiveness are in relation to: the nature of the task; the physical setting; communications; and, technology. Where team members are involved in similar work, share common tasks or face the same problems, and are in the same location or in close proximity to each other, this will generally help cohesiveness.
The form of leadership and management style is one of the organisational factors likely to influence the relationship between the group and the organisation and, is a major determinant of group cohesiveness.

Cohesiveness may also be enhanced by team members co-operating with each other when faced with a common external threat, such as changes in work methods or the appointment of a new manager. Even if the threat is subsequently removed the group may still continue to have a greater degree of cohesiveness than before the threat arose. The degree of cohesiveness is affected too by the manner in which groups progress through the various stages of development and maturity.

Tuckman (1965) identified four main successive stages of group development and relationships: forming, storming, norming and performing. Forming is the initial stage in which the purpose of the group, its composition and terms of reference are tentatively identified. At this stage consideration is given to hierarchical group structure, pattern of leadership, individual roles and responsibilities, and codes of conduct. There is likely to be considerable anxiety as members attempt to create an impression, to test each other, and to establish personal identity within the group. As group members get to know each other better they will put forward their views more openly and forcefully. This is the storming stage. Disagreements will be expressed and challenges offered on the nature of the task and arrangements made in the formation stage. This may lead to conflict and hostility. Success at this stage can lead to discussions on the reforming arrangements for the working and operation of the group and agreement on more meaningful structures and procedures.

As conflict and hostility start to become more controlled the group will establish guidelines and standards, and develop their own norms of acceptable behaviour. The norming stage is important in establishing the need for cooperation in order to plan, agree standards of performance and fulfil the purpose of the group. When the group has progressed successfully through the three earlier stages of development it will have created structure and cohesiveness to work effectively as a team. At this (performing) stage the group can concentrate on the attainment of its purpose and performance of the common task is likely to be at its most effective. However, when a group has become fully developed and established its own culture it is more difficult to change the attitudes and behaviour of its members. Strong cohesive groups may develop a critical or even hostile attitude towards people outside the group or members of other groups.

The preceding paragraphs have emphasised the importance of group cohesiveness in the nature of group work. In addition, for an organisation to achieve its goals and objectives, the work of individual team members must be linked into a coherent pattern of activities and relationships. This is achieved through the 'role structure' of the organisation. A 'role' is the expected pattern of behaviours associated with a particular position within the structure of the organisation. It also describes how a person perceives his or her own situation.

The concept of 'role' is important to group functioning and for understanding group processes and behaviour. It is through role differentiation that the structure of the work group and the relationships among its members are established. The development of the group entails the identification of distinct roles for each of its members. The concept of roles helps clarify the structure and define the pattern of complex relationships within the group. The role or roles that the individual plays is influenced by situational factors (such as task requirements, leadership style) and personal factors (such as values, attitudes, motivation, ability and personality). The role that a person plays in one work group may be quite different from their role in other work groups.

An important feature of the role relationship is the concept of 'role incongruence'. This usually arises when a member of staff is perceived as having a high and responsible position in one respect but a low standing in another respect. Difficulties with role incongruence can arise from the nature of groupings and formal relationships within the structure of the organisation. The difficulties can give rise to a potential imbalance of authority and responsibility. In the case of this research into the tacit knowledge amongst professionals in the multi-agency family support team, role incongruence could occur between an individual's relationship with the team manager and that same individual's relationship with the manager of their agency. The team manager from social care line manages professionals from Educational Psychology and CAMHS. In the case of CAMHS workers they are from two different disciplines, that is, clinical psychology and family therapy.

Many role expectations are prescribed formally and indicate a person's duties and obligations. Examples are written contracts of employment, rules and regulations, standards, policy decisions, job descriptions or directives from line managers. Formal role expectations may also be derived clearly from the nature of tasks. However, not all role expectations are prescribed formally. There will be certain patterns of behaviour which although not specified formally will none the less be expected. These informal role expectations may be imposed by the group itself. Examples include general conduct, mutual support to co-members, attitudes towards managers, means of communicating, dress and appearance. Team members may not always be consciously aware of these informal expectations and yet they still serve as important determinants of behaviour.

Some members of a team may have the opportunity to determine their own role expectations, where for example formal expectations are specified loosely or only in very general terms. Opportunities for self-established roles are more likely in senior positions but can also occur within certain professional groups or where there is a demand for creative thinking. Such opportunities may be greater within an 'organic' team and will also be influenced by the leadership style adopted. Role conflict can arise from role incompatibility and role ambiguity.

Role incompatibility arises when a person faces a situation in which simultaneous different or contradictory expectations create inconsistency. Compliance with one set of expectations makes it difficult or impossible to comply with other expectations. The multi-agency nature of the family support team, as previously mentioned with role incongruity, means that some professionals have set expectations from managers of different disciplines.

Role ambiguity occurs when there is lack of clarity as to the precise requirements of the role and the person is unsure what to do. The person's own perception of his or her role may differ from the expectations of others. This implies that insufficient information is available for the adequate performance of the role. Role ambiguity may result from a lack of formally prescribed expectations. It is likely to arise in large, diverse groups or at times of constant change. Uncertainty often relates to the method of carrying out tasks, the extent of a person's authority and responsibility, standards of work and the evaluation and appraisal of performance.

Finally, in considering the nature of work groups, Ellis (2000), suggests that not all people working successfully in a professional environment share the same professional identity. Ellis describes professional identity in terms of Personal Construct Psychology, based on a study undertaken with 60 nurses in which repertory grids were used to collect data on participants' constructions of their professional selves. As peoples' personalities and their ways of coping with the demands of work are different, they may develop different ways of construing themselves professionally. Ellis (*op. cit.*) suggests that if people have not really developed a useful professional identity construct system, then they will have to rely on their personal construct system, which is more likely to conflict with their professional role. Of course, the opposite could also be true. A person whose personal identity is closely linked to their professional identity construct system will make life choices that validate their professional role rather than their personal role in life. Nevertheless it is important for people working in the same professional role to construe certain experiences, events and other people in similar ways.

This commonality of construing ensures successful and similar outcomes for many professional activities. At the same time, it is also possible for people to construe their professional role differently in some ways from their work colleagues. They might interpret experiences or events differently, allocate importance and view implications of their actions differently from their colleagues. This can quite obviously result in many difficulties and a lack of understanding between workers. And, social interactions with others are very important in the work place. If workers cannot construe their colleagues' constructions then problems between peoples' inter-personal relationships are likely to occur (Ellis, 2000).

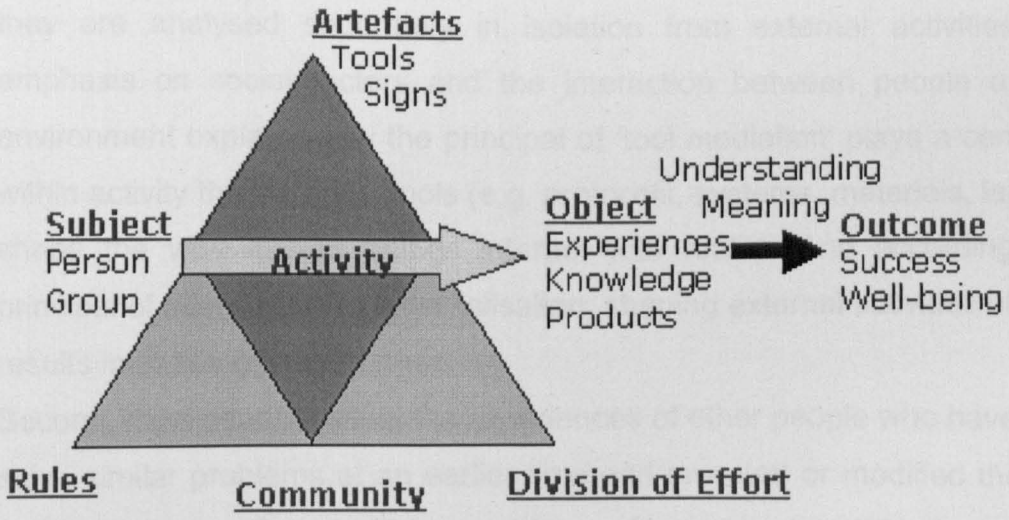
So, to summarise this section, the concept of 'role', including formal and informal role expectations, is clearly important for group functioning and for understanding group processes such as group cohesiveness and role conflict. Group cohesiveness and performance are related to group membership (size, compatibility and permanence), the work environment (nature of tasks, physical setting), organisational factors (leadership and management, policies and procedures) and group development and maturity. Role conflict can arise out of role incongruence and role incompatibility. The section ends with a brief account of the importance of professional identity as seen in the context of Personal Construct Psychology.

7.7 The use of Activity Theory as a Context-Sensitive Conceptual Framework for Investigating Tacit Knowledge

The concept of *activity* has its initial roots in idealist German philosophy of the 18th and 19th century. The basic ideas of the active and constructive role of humans and of the historism of development stem from this tradition of thinking. The concept of activity was then further developed by Karl Marx in the 19th century, conceptualized as a mediating entity between subject and object. The category of activity was introduced to change the passive, unidirectional relationship between subject and object into an active, bi-directional relationship (Leont'ev, 1982).

Activity Theory is not a "theory" in the strict interpretation of the term. It consists of a set of basic principals that constitute a general conceptual system which can be used as a foundation for more specific theories. It is a powerful and clarifying descriptive tool rather than a strongly predictive theory. The object of activity theory is to understand the unity of consciousness and activity. Activity theory incorporates strong notions of intentionality, history, mediation, collaboration and development in constructing consciousness. According to Engestrom (1987, p. 78), in (human) activity (see figure 5 overleaf) the basic unit of analysis is human (work) activity. Human activities are driven by certain needs where people wish to achieve a certain purpose. This activity is usually mediated by one or more instruments or tools. The concept of mediation is central to the whole theory in that human beings mediate their activity by using certain artefacts. For example doctors use language and records of their involvement to coordinate their actions towards patients and towards other medical staff.

Figure 5: **The Human Activity System** (Engestrom, 1987)



This model is useful for bringing together a wide range of information about the factors that impact on the activity. In order to achieve our decided outcomes it is necessary to make use of our knowledge, experiences and actual physical products. Some products may not be physical and these will include the various processes or arrangements needed to carry out an activity.

The human activity is typically mediated by the tools used and artefacts that are considered in relation to the activities, such as policy documents, language used. The activity is also mediated by the community in which the activity is being carried out. The community may oppose or support the activity and/or it may facilitate or impede access to resources. In addition, the community may support or impose rules on the people, group or organisation undertaking the activity or the community may grant them discretion in their activities. There may be 'rules' about the kind of products, knowledge and experiences that will be approved or accepted. There may also be rules about access to tools and artefacts and who is permitted to do which aspects of the activity. To the extent that people are engaged with the community, they may share responsibility with the community for the achievement of their goals. This is likely to be realised through some form of division of labour.

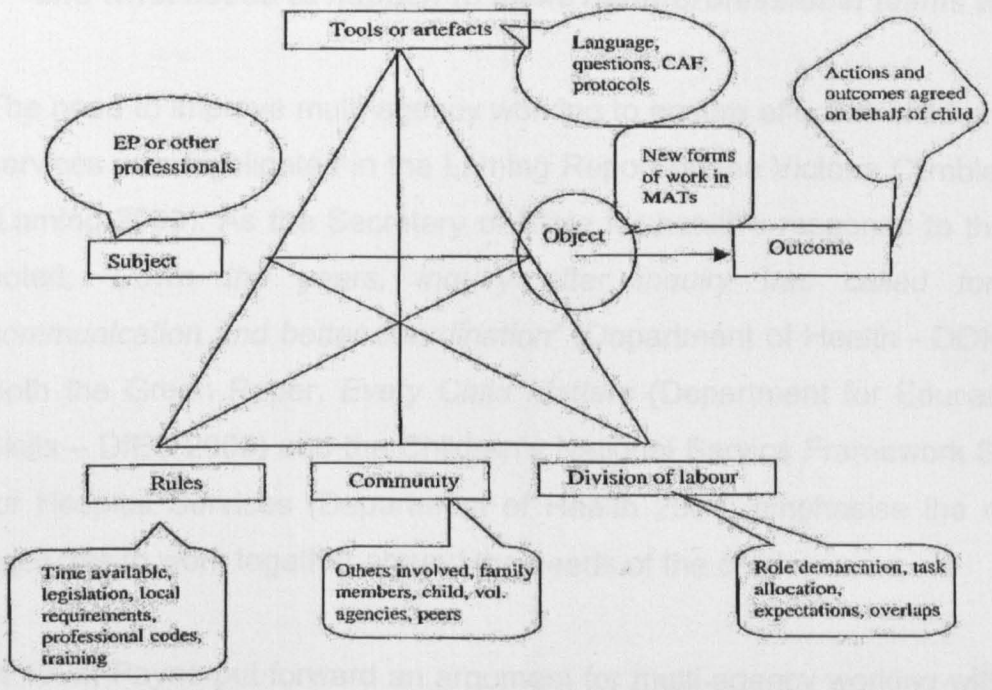
Activity Theory differentiates between internal and external activities. The traditional notion of mental processes corresponds to internal activities. Activity Theory emphasises that internal activities cannot be understood if they are analysed separately in isolation from external activities. The emphasis on social factors and the interaction between people and their environment explains why the principal of 'tool mediation' plays a central role within activity theory. First, tools (e.g. protocols, systems, materials, language) shape the way human beings interact with reality. And according to the principal of internalisation/externalisation, shaping external activities ultimately results in shaping internal ones.

Second, tools usually reflect the experiences of other people who have tried to solve similar problems at an earlier time and invented or modified the tool to make it more efficient. This experience is accumulated in the structural properties of tools as well as in the knowledge of how the tools should be used. Tools are created and transformed during the development of the activity itself and carry with them a particular culture – the historical remnants from that development. So the use of tools is a means for the accumulation and transmission of social knowledge in order to influence the nature of both external behaviour and the mental functioning of individuals.

Activity Theory suggests that people's tacit knowledge about interactions has to be reflected in order for them to be able to develop a new common understanding of their patterns of interaction with others. On the one hand, the elicited individual knowledge should be made transparent to the others and, on the other hand, the partly overlapping and partly conflicting knowledge of people should be consolidated in the whole group. The consolidation process comprises discussions and re-definitions and the evolvement of new group constructs. Such co-construction can be considered as a means to initiate expansive cooperation and can be used to develop effective team working.

Activity theory has now been applied to multi-agency work (Leadbetter, J, 2006 – Investigating and conceptualising the notion of consultation to facilitate multi-agency work). Leadbetter makes reference to a funded project entitled *Learning in and for Interagency Work,* which considers new forms of learning required by professionals working within inter-agency teams by using activity theory. This is in order to understand the type of work being undertaken and to use a developmental methodology (i.e. activity theory) to intervene in different settings as depicted in figure 6 below in which professionals from different agencies are the *subjects* and where new forms of work in multi-agency teams is the *object* of their activities with *outcomes* for bringing about positive steps or actions for the child. The *tools* or *artefacts* in use are protocols, systems, materials and language that operate within *rules* (professional codes, employment contracts, organisational targets) and particular *communities* (other agencies, child, family, peers) both within and outside the interagency team and governed by the *division of labour* (or role demarcation, task allocation, expectations).

Figure 6: An Activity System depicting multi-agency work



MAT = Multi Agency Teams
CAF = Common Assessment Framework

In summary then, this section briefly describes the roots and basic principals of activity theory. A model of the human activity system is outlined. Emphasis is focused on the use of tools and artefacts (protocols, systems, materials and language) for accumulating and transferring social knowledge to influence the internal and external behaviour of individuals. And activity theory suggests that the externalisation of individual tacit knowledge can be shared with team members within their communities of practice. Group co-construction of individual constructs about activities and outcomes are important components for cooperation between members of teams and for developing effective team working.

7.8 The rationale for multi-agency working, the barriers to be overcome and what needs to happen to make multi-professional teams work

The need to improve multi-agency working to ensure effective child protection services was highlighted in the Laming Report on the Victoria Climbie Inquiry (Laming 2003). As the Secretary of State for health's response to the report noted: *'Down the years, inquiry after inquiry has called for better communication and better coordination"* (Department of Health - DOH 2003). Both the Green Paper, *Every Child Matters* (Department for Education and Skills – DfES 2003) and the Children's National Service Framework Standard for Hospital Services (Department of Health 2004) emphasise the need for agencies to work together around the needs of the child.

In 1998, Payne put forward an argument for multi-agency working within local authorities: *' ..... the case for treating social problems in a holistic fashion is overwhelming. People know, in simple every day fashion, that crime, poverty, low achievement at school, bad housing and so on are connected'* (Payne, 1998, p.12.).

Given this basic rationale, it is perhaps not surprising that much of the literature relating to multi-agency working espouses its benefits – both in specific and in broad general terms. Recent Government strategies have also supported the belief in multi-agency working. The Children Act, 1989, Quality Protects legislation and documents such as *Working Together to Safeguard Children* (DoH, HO and DfEE, 1999) have drawn together in this way. This report states that:

Promoting children's well-being and safeguarding them from significant harm depends crucially upon effective information sharing, collaboration and understanding between agencies and professionals. (pp. 2-3)

Delaney (1994) cites various authors who suggest other reasons why agencies may choose to collaborate. These include: increased efficiency in the face of declining resources and minimisation of client frustration when using the service (Whetten, 1982), and pre-existing networks or collaboration (Rogers and Whetten, 1982; Zapka et al., 1992). The need for multi-agency working between health, education and social services has also been highlighted by numerous studies, including studies of looked after children (e.g. Biehal *et al,* 1995), disaffected and excluded pupils (e.g. Webb & Vulliamy, 2001), child protection (e.g. Hallet & Birchall 1992), child mental health (e.g. Mental Health Foundation 1999), and services for disabled or chronically ill children (e.g. Sloper 1999).

The demands placed on families by having to deal with many different professionals and agencies have been well documented in such studies, as have difficulties in obtaining information about the roles and responsibilities of different services, problems of conflicting advice, and the likelihood that children's and families' needs will fall into the gaps between different agency provision. Parents' and children's views on the services they receive have highlighted the need for a coordinated service delivered through a single point of contact, a 'key worker' or 'named person' or 'link worker'. This has been recognised in government policy for over 20 years – from the Court Report (Department of Health and Social Security – DHSS 1976) onwards.

However, research continually points to a lack of coordinated multi-agency working, scarcity of key workers in services (especially social services) and the fact that services for children remain fragmented. Non-statutory guidance to Every Child Matters: Change for Children (Common Core of Skills and Knowledge for the Children's Workforce), states:

"Multi-agency working is about different services, agencies and teams of professionals and other staff working together to provide the services that fully meet the needs of children, young people and their parents or carers. To work successfully on a multi-agency basis you need to be clear about your own role and aware of the roles of other professionals; you need to be confident about your own standards and targets and respectful of those that apply to other services, actively seeking and respecting the knowledge and input others can make to delivering best outcomes for children and young people" (pp 18).

The Common Core *framework* to Every Child Matters (*op.cit*) suggests that 'skills' of assertiveness, communication and teamwork are important along with 'knowledge' of role and remit, policies, procedures and working methods. In fact the government vision is looking to overcome the (so called) restrictive impact that professional and organisational boundaries can have so that increasingly professionals and practitioners from different sectors work better together in multi-disciplinary teams around the needs of children and young people and share an increasingly common language and understanding.

A detailed study of multi-agency working (LGA Research – Report 26, nfer, 2002) found that the most expressed aims, of multi-agency teams, by 139 interviewees were to: improve and coordinate services; raise educational achievement; improve/explore joint working in a holistic approach, especially through information sharing and through raising awareness and understanding of other agencies, and the early identification/intervention with improved outcomes for children and families.

The key challenges to multi-agency working expressed by the same interviewees were: fiscal resources (33%); roles and responsibilities (32%); competing priorities (26%); other resources - time, staff, space (19%); communication (14%); professional and agency cultures (10%) and management (10%). Other challenges mentioned were data collection and data sharing; staff training; geographical factors and issues specific to the client group.

The key factors and skills identified for multi-agency working were: commitment or willingness (58%); understanding roles/responsibilities (32%); common aims and objectives (25%); communication/information sharing (25%); leadership or drive (23%); involving relevant personnel (18%); funding/resources (17%); good working relationships (17%) and having adequate time (15%). And, other key factors identified were trust and honesty, flexibility, review and development, developing interagency protocols for shared working, encouraging risk taking, and using examples of successful multi-agency working as exemplars.

Sloper (2004) evidenced factors facilitating multi-agency working: at the organisational level these were found in the planning, implementation and ongoing management of multi-agency services. In planning, successful multi-agency working was found to be promoted by: clear and realistic aims and objectives that are easily understood and accepted; clearly defined roles and responsibilities with clear lines of accountability; commitment of both senior and frontline staff; strong leadership and a multi-agency steering or management group; ensuring good systems of communication and information sharing at all levels; and an agreed timetable and incremental approach for change.

Sloper (*op cit*) cited evidence to suggest that the implementation and ongoing management requires: shared and adequate resources; recruitment of staff with the right experience, knowledge and approach; joint training and team building; appropriate support and supervision for staff; and monitoring and evaluation of service policies and procedures.

Frost (2004), a researcher for Multi-Agency Teams working for children (MATCh) and reported in Anning, et al., (2006) , identified some practical implications for conceptualising good practice in multi-agency teams that included: structures and systems; professional beliefs and ideologies; professional knowledge exchange ; and developing learning communities through inter-professional team building and individual recognition.

Anning, et al., (2006) identified four dilemmas common to multi-professional teams: structural dilemmas; ideological dilemmas; procedural dilemmas; and inter-professional dilemmas. These dilemmas are best summarised in the tables below:

Table C. Structural dilemmas: coping with systems/management change (pp 94)

Team	*Individual*
Core and peripheral team membership/responsibilities/status	Full or part-time/seconded or permanent contract and status
Line management within or outside the team	Impact on shared decision-making, time, loyalties and commitment to learn
Deployment of workloads/activities	Managing own workloads/time/loyalties/responsibilities
Location of the team	Status, access, agency within team functioning

Table D. Ideological dilemmas: sharing and redistributing knowledge, skills and beliefs (pp 97)

Team	*Individual*
Dominant models/discipline/personalities	Accepting/celebrating multi-disciplinarity and diversity
Professional/socio/historical cultures colliding	Having a voice/respect for own professional knowledge and skills
Creating new forms of knowledge	Destabilisation of disciplinary habits, beliefs and boundaries

Table E **Procedural dilemmas: participating and reification in delivering services (pp 98)**

Team	*Individual*
Creating common protocols/procedures/documentation	Adjusting to other agency imperatives/issues to do with confidentiality and information sharing
Deployment of specialists and generalists at user interface	Concerns about status/time/competence
Confronting disagreements about treatments and interventions	Holding onto/letting go of strongly-held beliefs and practices
Achieving targets/goals set by local/national imperatives	Coping with pace of change/risks/uncertainties in activities

Table F **Inter-professional dilemmas: learning through role changes (pp 100)**

Team	*Individual*
Deployments of specialists and generalists	Threats to professional identity/status and agency
Concerns about competence and supervision	'Comfort' zone and job satisfaction
Training/continuing professional development opportunities for team capacity building	Pay, conditions, career trajectories

Tables C - F illustrate in a highly structured way much of the discussion within the previous two sections (group processes and activity theory) and they have implications for whether or not or how much tacit knowledge is externalised at the individual level and co-constructed at the team level.

Geddes, 1997 and Pearce & Hillman, 1998 have outlined a number of inhibiting factors to inter-agency working from various studies including: the sharing of different forms of professional knowledge and different cultural work practices (Anning, 2001); external monitoring (Cochrane, 2000; Gewirtz, 2002), and the time pressures in meeting externally opposed targets, hindering the development of collaborative strategies (Kimberlee, 2001); and the building of trust and reciprocity (Bank, 1992).

Brown and White (2006) say that cultural differences between professionals are frequently reported as a barrier to integrated service provision, citing Cameron & Lart (2003), Harbin (1996), and Wilkin, White & Kinder (2003) amongst others. Tension between professionals is an issue that has not been fully addressed in the public sector according to the report "Schools Out" (Craig, Huber & Lownsbrough 2004). While professional judgements are being seen as increasingly important, professionals are also being called to work in contexts outside their professional tradition (Brown & White, *op cit*).

Blurred professional boundaries and lack of clarity around roles and responsibilities is often mentioned as a barrier to integrated working. The importance of clear aims and objectives that are realistic, achievable and understood and accepted by all partners emerged from Cameron & Lart's (2003) review of the factors that promote and hinder joint working between the NHS and social services research.

Rushmer and Pallis (2002) suggest that joint-working relies upon the merging of the skill, experience and knowledge of each partner with reliance upon team members for the outcome that only working together can achieve. Another common theme within the literature is ambiguity resulting from integrated working. For instance, ambiguity around the purpose of a partnership, the different roles and responsibilities of the parties and the purpose of meetings and plans are common (Stewart et al 2003, Percy-Smith 2005).

Unsurprisingly, much of what is cited to facilitate integrated working is the opposite of what is reported to hinder (Brown & White 2006). For instance, clarity of aims and objectives that are understood by all parties, clearly identified roles and responsibilities, commitment from both senior management and front line staff, strong leadership, good systems of communication and information sharing and structures for joint planning (Sloper, 2004). Organisational climate has also been identified as contributing to integrated working. Johnson et al (2003) report that organisations that support teamwork, flexibility, open flows of communication and promote a shared vision are better able to deliver positive outcomes for clients and provide more integrated services. Strategic support and organisational commitment to joint working are also frequently identified as critical for success (Gardner 2003, Atkinson et al 2002). Strategic leadership and vision as well as sustainable infrastructure have been described as the "engine for joint service delivery" (Brown & White *op cit*). Simply bringing a group of professionals from different agencies together and calling them a "team" will not guarantee integrated working (Rushmore & Pallis 2002).

Guidance, support, leadership and commitment to integrated working are essential and have already been identified as characteristic of successful integrated services approaches (Sammons et al 2003).

In summary then, the need to improve multi-agency working has been largely driven by central government and much of the literature espouses the benefits. Research has also focused on the expressed aims of those professionals already working in multi-agency teams. This research has identified what needs to happen to make multi-agency teams work effectively.

7.9 Personal Construct Psychology and Repertory Grids

The theory of personal construct psychology developed by Kelly (1955/1991) is based on the philosophical background of constructive alternativism.
"Constructive Alternativism holds that man understands himself, his surroundings and his potentialities, by devising constructions to place upon them and then testing the tentative utility of these constructions against such ad interim criteria as the successful prediction and control of events." (Kelly, 1966: 1)

For Kelly the construction of reality is an active, creative, rational, emotional and pragmatic affair. 'Man: the scientist' evolves a set of constructions which is put to the test and may ultimately be discarded in favour of a new set of constructions if the former fails to adequately anticipate events. Kelly pointed out that all theories are hypotheses devised by people which may fit all the known facts at any particular time but may eventually be found wanting in some unforeseeable respect and be eventually replaced by a 'better theory'. A Kellyian framework therefore allows for diversity of viewpoints and constructive alternatives in transforming professional practice through research and education.

Nystedt and Magnusson (1982: 34) noted the contribution Kelly's theory makes to the 'mainstream of constructivism in psychology' and neatly summed up the tenets of constructivism which permeate Kelly's writing:
"It is fundamental to the constructivist's view that the environment can never be directly known but that conception determines perception. We know reality only by acting upon it. This means that knowledge is neither a copy nor a mirror of reality, but the forms and content of knowledge are constructed by the one who experiences it. The active interaction between the individual and the environment is mediated by the cognitive structures of the individual. What we learn in interaction with the environment is dependent upon our own structuring of those experiences. Thus according to this view, man does not merely respond to the environment, he construes it."

Kelly (1955) presented his theory in the form of a fundamental postulate and 11 corollaries (Bannister and Fransella, 1986). The fundamental postulate states that *"a person's processes are psychologically channelized by the ways in which he anticipates events".* Essentially Kelly was viewing the individual as striving for personal meaning. He argued that individuals grapple to understand their world. They perceive similarities and themes in events before them, propose theories about such events, foster anticipations about the future and seek to continually test how much sense has been made of the world through their behaviour.

There are two main presumptions to Kelly's theory of personal construct psychology: first, the universe is considered to be real, and second, people create their own way of seeing and interpreting it. These ways of seeing the world, called construct systems by Kelly, are alternative constructions that are more or less viable. Construct systems are the building blocks of personal construct psychology as illustrated in the *dichotomy corollary* which states that the construct system is composed of a finite number of dichotomous constructs.

Construct systems serve for predicting future events: the *construction corollary* states that people anticipate events by construing their replications. Constructs do not exist in isolation but are hierarchically grouped and the notion of constructs subsuming other constructs is described in terms of subordinancy and superordinancy. 'Pyramiding' is one way of elaborating subordinate constructs and 'laddering' is a means of eliciting superordinate constructs. These techniques are described in section 8.4.1.

This anticipatory nature of the theory is the implication behind Kelly's *organisational corollary* which states that *"each person characteristically evolves, for his convenience in anticipating events, a construction system embracing ordinal relationships between constructs."* This corollary has profound implications for the development of one of Kelly's tools for investigating construing – the Repertory Grid. It also explains why some constructs are relatively amenable to change while others tightly adhered to.

As such constructs enable individuals to control their interaction with the world. Constructs are created by an individual categorisation process of experienced events: similarities of events are called constructs, differences are called contrasts. "A construct is like a reference axis, a basic dimension of appraisal, often un-verbalised, frequently un-symbolised, and occasionally un-signified in any manner except by the elemental processes it governs. Behaviourally it can be regarded as an open channel of movement, and the system of constructs provides each man with his own personal network of action pathways, serving both to limit his movements and to open up to him passages of freedom which otherwise would be psychologically non-existent" (Kelly, 1969 quoted by Fransella & Bannister, 1977, p. 3). Therefore we learn about the world only by acting in the world, and in doing so, develop constructs.

A key assumption within Kelly's personal construct theory was his *individuality corollary: 'People differ from each other in their construction of events.'* This central theme runs throughout his theory as he lays great stress on the uniqueness of each person's construct system. For Kelly, it is presumptuous to assume that another person will have the same idea as oneself or others who have ostensibly experienced the same events. Constructs can differ in their focus, range, permeability, their position within an ordinal hierarchical framework and the strength of their relationships with other parts of the system. These formal aspects of the nature of constructs will affect the content and structure of a person's system such that, seen as a whole, each of us is likely to have a unique system.

However, according to Kelly, unless we have some understanding of another person's set of personal constructs about the domain within which we wish to converse, and that person has some understanding of our constructs, the process of communication between us will be inadequate. This is Kelly's *sociality corollary* which implies the need to come to some understanding of the current conceptualisation of the subject matter.

Two more of Kelly's assumptions about the individuality of constructs are important considerations regarding research methodology. The first is that constructs only have a limited area of application (*range corollary,* 1955/91, pp. 68/48) and the second is that constructs change (*experience corollary*, 1955/91, pp. 72/50). The meaning of the range corollary is that all constructs are context specific and that a construct is convenient for the anticipation for a finite range of events only. With the experience corollary the person's system is in motion – it is dynamic. Thus a person's construct system varies as s/he successfully construes the replication of events.

As a construct system grows and evolves subsystems of construing develop. Kelly described this aspect of construing in the *fragmentation corollary,* which states that: "*a person may successfully employ a variety of construction systems which are inferentially incompatible with each other*". This means that wildly differing constructs can co-exist for the same person in different contexts. Kelly (1955) suggested that one implication of this corollary is that the constructive alternativist can test out new hypotheses without having just to discard the old hypotheses/constructs.

Constructs of course are never fixed but vary in terms of how permeable they are in accommodating new events or elements. Kelly encapsulated this idea in the *modulation corollary* which states that: "*the variation in a person's construct system is limited by the permeability of the constructs within whose range of convenience the variants lie*". A construct is permeable if it admits new elements, and impermeable if it rejects elements on the basis of their newness. Kelly argued that the ways in which a person's systems can change are not random or *ad hoc* but are themselves part of a regulated system of change. Each system (or domain of meaning) is part of a person's overall system which not only binds the subsystems together, within overarching super-ordinate constructs, but which also regulates the process of change within the domains. Thus the *modulation* and *fragmentation corollaries* are intimately linked to the *organisation corollary.*

Bannister and Fransella (1986) describe people as being 'in the business of anticipating events and if they do this by developing personal construct systems, then they will move in those directions which seem to make most sense'. This means in directions which seem to elaborate their construct system. Kelly chose the *choice corollary* to define the direction of a person's movement. It states that *"people choose for themselves that alternative in a dichotomized construct through which they anticipate the greatest possibility for the elaboration of their system".*

Construct systems are continually developing and changing. They change in relation to the accuracy of the anticipations. Predictions will sometimes be correct and sometimes incorrect. Kelly employed the *experience corollary* to describe the change in a construct system. This states that *"a person's construction system varies as he or she successively construes the replication of events".* All change necessarily involves a change in self-construing.

Whilst a person's construing of themselves, others and the world they inhabit is constantly changing and developing, there are times when validational fortune makes change or resistance to change a matter of concern. We may determinedly seek to avoid change, opting to secure further evidence of the way we are. Alternatively we seek the challenge of new experiences and fresh elaboration of our self. We may become conscious that our way of construing is becoming unhelpful or discover that significant others assuredly value our way of being. We may be challenged by a realisation that we have acted in a manner we would not have expected of ourselves or sense something troubling in having to face situations we perhaps do not feel easily equipped to deal with. In such predicaments, construing comes into question. Kelly conceptualised emotions as arising out of constructs being in transition. Kelly intriguingly only sketched out four emotions framed in terms of the following dimensions:

- Validation versus invalidation of construing.
- Anticipated change in the construct system.
- Goodness of fit between actions and self construing.
- Adeptness of the construct system to meet new events.

Validation might be best understood in a variety of forms – an anticipation that turns out the way we expected; a perceived acknowledgement from others confirming the view we have of ourselves; or an active striving to confirm the way we are. The contrast to validation appears to be where the source of previous validational experiences disappears. Anticipated change in the construct system can be considered in relation to the organisational or structure of self-construing and to core, psychological and behaviour structures (McCoy, 1977), which can lead to the following emotional experiences:

Structure	Emotional experiences
Core	*Threat* – an awareness of the imminent comprehensive change in core structures
Psychological	*Fear* – an awareness of an imminent incidental change in core construing
Behaviour	*Bewilderment* – an awareness of imminent comprehensive change in non-core structures

In refining 'goodness of fit' as an explanatory dimension of emotions, Kelly (1955) elaborated the notion of role. Role, it is assumed, is structured in relationship to the significant people in one's life. Within one's construct structure, there are 'frames' that enable us to predict and control our essential interactions with others thereby constituting our conceptualisation of a core role. Goodness of fit with our perceptions of the core role can lead to self-worth and pride, whereas dislodgement from such perceptions creates feelings of guilt. Psychologically goodness of fit brings self-confidence and leads to a self-belief that we can behave in ways necessary for the desired and/or expected performance. Whereas dislodgement can make us feel frustrated and vulnerable. At the core of the ability of our construct system to meet new events are fulfilment and exhilaration whereas dread, trepidation and shock are often at the centre of the inability of our construct system to do so.

Psychologically, contentment can be contrasted with anxiety when our construct system does and does not respectively meet new events, which in turn can lead us to behave in ways that show we are at ease with ourselves as opposed to acting surprised.

Kelly introduced the notion of a *psychological space* as a term for a region in which we may place and classify elements of our experience. He did not propose this space to pre-exist as a world of such elements, but rather to come into being through a process of construction by which we create a space in which to place elements as we come to construe them. He saw us as creating dimensions in personal psychological space as away of providing a coordinate system for our experience and he emphasised that topology of this space comes into existence as it is divided. Our psychological geometry is a set of dichotomies rather than the geometry of areas envisioned by the classical logic of concepts, or the geometry of lines envisioned by classical mathematical geometries. Each of our dichotomies has both a differentiating and an integrating function. This is the generalised form of the differentiating and integrating act by which man intervenes in his world. In this kind of geometrically structured world there are no distances. Each axis of reference represents not a line or continuum, as in analytical geometry, but one and only one distinction. However, there are no angles. These are represented by contingencies or overlapping frequencies of incidents. Moreover, these angles of relationship between personal constructs change with the context of incidents to which the constructs are applied. Thus our psychological space is a space without distance and the relationships between directions change with the context (Kelly, 1969).

For in personal construct psychology, we distinguish events in an undifferentiated stream of circumstances and then we further distinguish among the distinguished events by construing. 'Construing' is the process by which we place meaning upon and make sense of an event, an action or a situation in order to make a personal interpretation.

'Core constructs' are the constructs about which we make meaningful discriminations about the people we are and, they provide the basis for a sense of self and the roles which we fulfil in our daily lives.

Construct systems depend on the experiences individuals make during their lifetime and, moreover, depend on the public socio-cultural construct systems. "No two people can play precisely the same role in the same event, no matter how closely they are associated" (Kelly 1955/1991, p. 38). Constructs enable us to anticipate future events and outcomes. 'Commonality' is the extent to which one person employs a construct that is similar to that employed by another person. The extent to which one member of a team construes the construction process of other team members can play a part in the social and professional processes involving other team members and the team itself. In case the prediction of an event is not adequate, parts of the construct system (the construct itself or the realm to which constructs are applied) has to be revised: where the prediction was successful, the construct system is strengthened. Consequently, construct systems change over time, i.e. constructs are dynamic entities.

The implications of the PCP on the understanding of knowledge are as follows:

1. Knowledge is nothing stable but something dynamic.
2. Knowledge cannot be true, but only viable for a certain person in a certain physical and social context.
3. Knowledge is an individual as well as a social category.
4. Experience influences our constructs (knowledge).

With this description of personal construct psychology, one of its applications, repertory grids, can now be outlined. Repertory grids were developed by George A. Kelly in 1955 in the context of psychotherapy. They were originally designed to help the therapist understand his/her client. The results can be the starting point for the therapist's dialogue and intervention with the client. In an organisational setting, repertory grids have been used in the same way. They have helped to elicit divergent points of view of organisational members or entities, and following that, they have been the starting point for organisational interventions such as co-constructions. Moreover, repertory grids can make individual or collective changes in knowledge transparent.

Empirical evidence for the application of repertory grids as a tool for the measurement of change can be again found in psychotherapy research. There, repertory grids are successfully used to measure clients' changes during therapy (e.g., Willutzki et al, 1987). Repertory grids (Kelly, 1955/1991) have also been successfully applied to the elicitation of expert knowledge (e.g., Ford et al., 1991; Gaines & Shaw, 1992). It allows us to externalise personal constructs representing the way individuals think about the world. Fransella (1985) devised an idiographic approach to eliciting the attitudes and beliefs of people in organisations founded on personal construct theory and methods whereby constructs were elicited relating to a particular issue in question. These constructs were then pooled and sub-groups of constructs representing themes were formed with each construct given a bipolar label to represent its theme. These themes were then put into a repertory grid in the form of a bipolar construct along with elements appropriate for the task. The grid was then administered to people in the organisation.

The repertory grid, however, is not a test but a methodology involving highly flexible techniques and variable application. Although in the past its main use has been to investigate constructs about people, denoted as elements in a grid, there is no theoretical reason why the elements of the grids should not include inanimate objects or even abstract ideas. The procedure has its theoretical roots in Kelly's definition of a construct: *"In its minimum context it is a way in which two elements are similar and contrast with the third"* (Kelly, 1955: 61). Following on from above, a construct is a dimension which may evolve when considering a particular set of elements (people, objects or events) but can usually be applied to a further range of elements. The dimensionality of a construct allows one to extract matrices of inter-relationships between constructs and between elements.

The elements of the repertory grid usually determine the subject of the investigation. Originally, the elements of Role Construct Repertory Test (Kelly, 1955/1991) have been role descriptions. Over time the repertory grid technique has been further developed and applied in various domains. During the development, the set of element types has been enlarged. Nevertheless, whatever the chosen elements, they should have certain properties in order to support the elicitation of meaningful constructs (Stewart, Stewart & Fonda, 1981) that is they should be:

- *Discrete* – i.e. they should be on the same hierarchical level and should not contain sub-elements;
- *Homogeneous* – i.e. it should be possible to compare elements, e.g. people and activities should not be mixed in the same grid;
- *Comprehensible* – i.e. the person from whom the constructs are elicited should know and understand the elements; and,
- *Representative* – i.e. so that the elicited construct system is a reflection of the individually perceived reality.

Many practitioners are now adopting the repertory grid as a means of entering the phenomenological world of an individual by exploring the nature and inter-relationships between various elements and elicited constructs. However, since there is no such creature as 'The Grid', it is necessary to make certain methodological decisions *vis-à-vis* the format of a grid:

(i) The repertory grid interview can be seen as a conversation (Thomas and Harri-Augstein 1985). Although the form of data collection and analysis of the grids has systematic and scientific aspects, grid elicitation requires a sensitive approach exploiting the art of conversation.

(ii) When considering the use of repertory grid techniques, there is a question of whether the elements and constructs should be provided or whether these should be elicited on a personal basis.

And whether elements are elicited or provided, it is important that they are representative of the area of research being considered and that they span the range of items considered to be important. It is important to ensure that all elements are at the same level of specificity and that they are concrete enough to be understood. It is also important to ensure that the representativeness of element set reflects a range of possibilities with the set. The element set should be homogeneous too.

(iii) Loose versus tight construing is about the process of construing and is not about what is construed. It relates to the central component of Kelly's theory – that construing is about predicting. *Loosening* is defined as characteristic of constructs that lead to varying predictions. To construe loosely means placing an element at one pole of a construct today and on the opposite pole of the construct tomorrow. Kelly suggests that some constructs involved in loose construing are also at very low levels of cognitive awareness and therefore not available to conscious. In contrast a *tight* construct is one which leads to unvarying predictions which means that we can be pretty certain that a spade is a spade. It is not an absolute term however. Constructs can be used in a relatively tight as opposed to a relatively loose way. It is our tight use of constructs that gives our lives a sense of predictability and permanence. Tightening also plays a central role in the creativity cycle where tightening takes place after loose construing to complete the cycle. The cycle may start off with "letting the mind wander" or day dreaming. But nothing creative will come of these thoughts unless we are able to tighten up on something that has struck us as interesting. We tighten our construing so that we can look at the idea conceptually to see if it is as good as it looked when it flashed through our mind's eye. So, the tight-loose dimension of construing is crucial in personal construct psychology because it is about our ability to be creative and, it is also therefore about change.

(iv) Once elements and constructs have been elicited and assigned ratings, the result is a matrix which is open to several different types of analysis. The type of analysis chosen is dependent on the purpose of the study and the practical feasibility of implementing particular analysis. Computer programme analysis allows for the ready extraction of simple formal structural relationships between elements, or between constructs, which may be obscured by the detailed raw data matrix.

In summary then, this section describes the philosophical underpinnings and assumptions of personal construct psychology. The way in we construct reality is related to Kelly's corollary system. The emphasis on the role of behaviour and experience in viewing the future is what distinguishes Kelly's approach to psychology. Additionally, Kelly's definition of psychological space helps explain the bipolar nature of our personal construct system. The use of personal construct psychology to aid our understanding of knowledge is also highlighted. Finally, a description of the repertory grid procedures and 'methodology' is provided and this includes the important relationship between elements and constructs.

7.10 Overall Research Questions

In the context of this research being firstly exploratory and secondly looking towards informing the future practice of a multi-agency team, the literature review has, overall, identified the following areas of research enquiry:

- Can a *'communities of practice'* approach to construing (i.e. 'co-construction'), making use of Kelly's 'commonality' and 'sociality' corollaries, be used to explain Nonaka's knowledge transfer model?
- What kind of learning might be taking place during the co-construction process?
- Is 'activity theory' helpful in explaining how well a multi-agency team functions in relation to its elicited constructs from role elements?
- How does the team's performance fit with models of group processes?

8. METHODOLOGY:

The methodology section begins by illustrating how the links between group processes, personal construct psychology, activity theory and tacit knowledge provide a rational for the approach taken in this research. An initial pilot study is described and the reasons for not attempting to triangulate the findings from critical incident interviews with repertory grids are explained. Two further pilot studies highlight how the elements and method of elicitation of constructs were finalised for the main research. The method of analysis of repertory grids is outlined. Issues of reliability and validity of measures derived from repertory grids are then described.

A description of 'action research' follows together with an account of how the researcher and the multi-agency teams are positioned within this methodology. The general aims and some 'key' working practices of the multi-agency family support team are then provided. The methodology section ends with a brief overview of the steps taken to conduct the research.

8.1 A rationale for the methodological approach taken

The idea of the individual being the basic unit of the group fits very well into a personal construct view of groups, which considers that it is the 'commonality of construing' by individuals that creates a culture and not some mystery arising from the nature of groups. Kelly (1955) suggests that individual 'construing' is not the only factor but also how they construe what others will do and what others expect of them. Nonaka (1991) supports this line of reasoning by saying that although making personal knowledge available is central to the knowledge-creating process knowledge has to be elicited from those who possess it in a form that is understandable by those who are to use it. For externalising tacit knowledge the set-up of repertory grids has to be designed in a way that leads to adequate knowledge (Fromm, 1995).

8.2A first pilot study - to identify a possible *range of convenience* for the elicitation of constructs in personal construct psychology.

The 'pilot' study was carried out in a multi-agency team in the voluntary sector comprising educational psychologists, teachers and therapists. A Critical Incident Technique (CIT), (cf. Flanagan, 1954), was used as an exemplar of 'activity theory', the purpose being to analyse the relationship of practical activities within the broader cultural, social and physical contexts of which such activities are part. This approach was aimed at determining which particular aspects of 'activity theory' (tools or artefacts, rules, community, and division of labour) overlap. It was also thought that the findings from CIT interviews might identify aspects of 'activity theory' which would form the focus of the research. That is, focusing the research on *externalising* tacit knowledge about tools or artefacts; or rules; or community; or division of labour; and/or focusing on *externalising* tacit knowledge about any combination of these activity theory aspects.

The Hemmecke and Stary (2004) semi-structured interview based on the original critical incident technique devised by Flanagan (1954) was adopted. The technique uses routine questions, covering *work conditions, goals/tasks, motives, community, division of labour and social rules* to elicit an overview of work tasks in an organisational and physical context for each individual.

The interview begins with questions about daily or weekly work routines and continues with questions concerning *'critical events'* along these routines. According to Flanagan (1954, p 327) an incident is .... "any observable human activity that is sufficiently complete in itself to permit inferences and predictions to be made about the person performing the act." And an incident is critical if .... "it deviates significantly, either positively or negatively, from what is normal or expected," (Edvardsson, quoted by Callan, 1988).

A senior educational psychologist, a speech and language therapist and a teacher from the multi-agency team were interviewed. All three professionals had difficulty keeping to the script and their answers to questions went outside the scope and range of the study. All three professionals not surprisingly made reference to the people involved in their team (or *community* in activity theory terms) when describing the factors critical to the outcome of their situations. The senior educational psychologist and speech and language therapist made reference to protocols and systems. The senior educational psychologist included the formal and informal rules that supported and hindered her actions in critical incidents. It was therefore decided not to attempt to triangulate critical incident questioning and analysis with personal construct psychology (PCP) to externalise tacit knowledge. Instead the methodological focus of the research rested solely on PCP.

8.2.1 **A second pilot study** – to determine the *range of convenience* for selected elements and to explore methods of construct elicitation.

The pilot study continued with the senior educational psychologist from the first pilot study, using 10 professionals from her multi-agency team (i.e. teachers, speech and language therapists, occupational therapists and other educational psychologists) as elements. Eight constructs were elicited and these included for example, *working with others in the team* versus *linking with members of other teams, planning what can be done within available resources* versus *wanting to help everybody*, etc. Laddering and pyramiding techniques (described in more detail later in this section) were also used to help elicit these constructs.

In terms of Kelly's *'range of convenience'* it became clear that the senior educational psychologist was having difficulty rating all of the constructs against the (people) elements. Some of her elicited constructs were difficult to apply to the other elements (people). It became necessary for the researcher to have to work out with the interviewee whether particular constructs were useful in their own right or whether they could be made more useful by adjusting them in some way. An example was with the construct *prioritising early intervention* versus *taking all referrals* in which educational psychologists could prioritise early intervention whereas teachers had to take all referrals.

For a Grid interview to be useful, all or most of the elements should be able to be rated on all or most of the constructs. This is because the rating process is the means by which the interviewee gives expression to how the elements are judged. Then in the analysis a deeper relationship between the elements and the constructs should emerge.

In the PCP literature Kelly suggests using 'role titles' as elements and he saw these role titles as covering six groupings:

1. *Self*
2. *Situational* (e.g. Minister)
3. *Values* (e.g. ethical person)
4. *Family member*
5. *Valencies* (e.g. a competent person)
6. *Intimates* (e.g. an old flame)
7. *Authorities* (e.g. boss)

In reconsidering the '*range of convenience*' for the elements in this research it was decided to choose the role of the individual and the role of the multi-agency team. This fits with the concept of *'knowledge in activity systems'* (Hemmecke & Stary, 2004) where professionals' (actors') perceptions of roles relates to tacit knowledge about their 'means of orientation' which usually come about through the co-ordination of activities and actions according to the 'formal division of labour'. Leadbetter (2006) refers to such division of labour in terms of role demarcation, task allocation, expectations and overlaps.

8.2.2 **A third pilot study** – to ratify the use of 'role' elements with the dyadic elicitation of constructs

A further pilot was conducted with the Senior Educational Psychologist (SEP) from the same (voluntary sector) multi-agency team as the first two pilots, using 'role' elements and the following eight elements were chosen:

1. *My role in my previous team*
2. *My role in the multi-agency team now*
3. *My role in the multi-agency team in 12 months time*
4. *My ideal role in the multi-agency team*
5. *How I think other team members generally see me my role in the multi-agency team*
6. *The role of the multi-agency team now*
7. *The role of the multi-agency team in 12 months*
8. *The ideal role for the multi-agency team*

Further reading led to a move away from *'triadic'* to *'dyadic'* elicitation. Kelly based his triadic elicitation method on his theory of how constructs are first formed. However, since elicited constructs are likely to be already established in a person's repertoire, there is no reason why *three* elements need to be used (Fransella, et al.,2004). The triad is not even necessary to ensure that the opposite of the emergent pole will be obtained. According to Fransella (*op. cit*) there is nothing sacrosanct about the triad. It is equally reasonable to use two elements for elicitation. Landfield (1971) found that using only two elements was a less confusing task for participants.

Several studies have now been conducted which looked at aspects of the effects of using dyads vs. triads and asking for the 'difference' or the 'opposite' when eliciting constructs (e.g. Caputi & Reddy, 1999; Hagans, Neimeyer & Goodholm, 2000). More recently Neimeyer, et al (2002) explored triadic differences and opposites with dyadic differences and opposites but it has not been possible to draw any firm conclusions about these aspects of elicitation methods.

8.3 Reliability issues surrounding the use of 'difference' versus 'opposite' methods and triad versus dyad methods of construct elicitation.

The *difference method* has long been regarded as the standard procedure for construct elicitation and it remains the single-most commonly used method of construct elicitation. In the difference method individuals are presented with three elements (e.g. people) at a time and asked to identify any two people that are alike in some way yet different from the third. Bipolar constructs are formed by the combination of the *emergent pole* and the *contrast pole* and this dimension can then be used to rank or rate each of the chosen elements in the grid. However, there are a number of difficulties with this procedure: the instructions are relatively complex. Landfield (1971) was among the first to note that subjects, when restricted to finding a similarity prior to stating a difference, were occasionally unable to respond. He also commented that in responding there is no requirement that the contrasts are genuinely bipolar. He suggests that this method has been linked to the development of a greater percentage of *bent* (i.e. non-antonymous) constructs. This concern is compounded when independent (bipolar) construct poles are produced.

Such problems are effectively pre-empted by using the *opposite method*. This method like the difference method begins by asking subjects to identify any two people that are alike in some way. However once that characterisation is elicited the subject is then asked to identify the opposite of that characterisation. This *opposite* then forms the *contrast pole*, thereby assuring bipolarity of the construct. Epting, Suchman and Nickeson (1971) found that the opposite method generated a significantly higher number of genuinely bipolar constructs (i.e. not bent). However the opposite method also produced significantly less complex (i.e. more poorly differentiated) personal construct systems, an effect that has been replicated repeatedly in subsequent research (Neimeyer et al, 2002; Hagans et al, 2000).

In other words the use of the opposite method enhances construct bipolarity and decreases construct system differentiation (i.e. the number of independent constructs contained within the personal construct system).

Hagans et al, (2000) identified two ways in which the use of the difference and opposite methods might influence the nature of the elicited constructs beyond their differential tendencies to generate 'bent' constructs. First, instructions to produce the 'opposite' of a given construct pole might invite not only a more direct contrast but also a more extreme one. In other words, the opposite method creates a demand for more strongly bonded contrast poles as well as allowing the possibility that contrast poles may not apply to the third element under consideration or to any element in the grid.

In comparison the 'difference' method demands that at least one element can be applied to the contrast pole because the contrast pole is formed on the basis of that element's perceived difference from the other two. The opposite method does not impose this limitation. The differences between *opposite* and *difference* methods have direct implications for measures of construct system structure: any elicitation instructions that demand the distribution of ratings across both poles of the constructs (as in the 'difference' method) will by definition increase levels of differentiation and, any methods that discourage this distribution or permit all elements to be assigned to a single pole of the construct will reduce levels of differentiation (as in the 'opposite' method).

The results of two studies (Hagans et al, 2000) demonstrated that the opposite method of construct elicitation produced more extreme and negative contrast poles and that the negativity of these contrast poles was inversely related to levels of construct system differentiation. In other words constructs with more extreme and negative contrast poles were more related to lower levels of personal construct differentiation and, when the effects associated with this negatively were removed (through an analysis of covariance), these differences in differentiation disappeared. These findings support the interpretation that the opposite method of elicitation encourages more extreme contrasts that in turn are applied less frequently to various elements (i.e. people) in the repertory grid.

A new variation is the *contrast method* (Neimeyer, et al, 2004). This is specifically designed to preserve some of the advantages associated with the standard 'difference method' as well as those associated with the 'opposite method'. It also attempts to minimise the documented disadvantages by retaining the relative simplicity and bipolarity linked with the opposite method without incurring either the extreme negativity of its contrasts or the decrements in differences.

In the contrast method a person is given the names of three elements at a time and asked to identify *how any two of these are alike* in some way, exactly as in the 'opposite method'. This characterisation forms one pole of the construct. After recording the first pole the person is given three new elements and the instructions repeated again forming a characterisation that serves as the first (emergent) pole of the second construct. This process continues until the number of emergent construct poles is exhausted. The person is then directed back to the first construct pole and instructed as follows: *"To you, being {emergent pole} would contrast with someone who is _____ ?"*

As with the 'opposite method' the 'contrast method' does not require people to use the third element in forming the contrast pole and therefore should minimise the number of 'bent' constructs it generates. Neimeyer (2004) suggests that without this separation people tend to look for a third person who represented a contrast to the emergent pole and to formulate that contrast as the basis of the implicit pole. While the 'contrast method' shares this feature with the 'opposite method', it also differs from the opposite method in its *pull* for extreme and negative contrast poles by calling for a 'contrast' rather than an 'opposite' of the initial characterisation. The 'contrast method' is designed to reduce the demand for an extreme contrast thereby enhancing the likelihood that the contrast pole would be applied to elements on the grid. The direct result of greater utilisation of contrast poles increases levels of construct system differentiation.

Nevertheless Neimeyer (2004) acknowledges that the 'contrast method' introduces a significant variation in its procedures for construct elicitation. Specifically, by separating the process of eliciting the *emergent* poles from the subsequent process of eliciting the *implicit* (i.e. 'contrast') poles this method introduces a procedural adaptation of unknown consequences.

8.4 The chosen method of construct elicitation

It was decided to elicit constructs using a 'variation' of the *contrast method* in which *dyadic* rather than *triadic* elicitation was used to obtain the implicit pole straight after the emergent pole for each construct. Respondents are first (either asked to choose or) given the names of two rather than three elements at a time and are then asked to identify *how these two elements are the same or different* in some way, exactly as in the 'opposite method'. This characterisation forms one pole of the construct. Respondents are then instructed as follows: *"To you, being {emergent pole} would contrast with someone who is* _____ *?"* This process continues until the number of bipolar constructs is exhausted.

Laddering and pyramiding of constructs was not used in this study of the multi-agency Family Support Team. The elicited constructs were used in their original form in order to better manage and interpret the data collection from the ten members of the team. And, as there would be follow-up interviews with each member of the team about their construct ratings, it was thought that laddering and pyramiding might over-complicate the data and might make interpretation difficult. Nevertheless, a description of laddering and pyramiding is provided in section 8.4.1.

All eight elements were presented to individuals at the same time and this is akin to Kelly's version of the Full Context Form (1955/91, p. 224/156). However, some possible ideas on the pairings of elements (if not chosen by the member of the Family Support Team being interviewed) were formulated:

- My role in my previous team versus my role in the multi-agency team now.
- My role in the multi-agency team now versus my role in the multi-agency team in 12 months time.
- My role in the multi-agency team now versus my ideal role in the multi-agency team.
- My role in the multi-agency team now versus how I think other team members generally see me in my role in the multi-agency team.
- The role of the multi-agency team now versus the role of the multi-agency team in 12 months.
- The role of the multi-agency team now versus the ideal role for the multi-agency team.

The selection of elements and corresponding identification of similarities or differences between the selected elements in the elicitation of constructs is therefore the means by which tacit knowledge is externalised: And as the elements relate to role, the elicitation process accesses tacit knowledge about a team member's role in, together with their view of the role of, the Family Support Team.

8.4.1 Laddering and pyramiding of constructs

A further consideration around the methods of construct elicitation concerns the use of *laddering* and *pyramiding* techniques. Hinkle (1965) developed the method of *laddering* to test out one of his hypotheses stemming from Kelly's (1955) *organisation corollary: "Each person characteristically evolves, for their convenience in anticipating events, a construction system embracing ordinal relationships between constructs".* Hinkle's hypothesis was that the more 'super-ordinate' a construct (i.e. the more abstract and higher up the hierarchy of constructs) the more it will resist change.

The method of *laddering* involves the researcher suspending their own personal construing and subsuming the interviewee's construing. Often in the laddering process the researcher is asking the interviewee to consider aspects of their way of understanding the world which they have never thought about before. The illumination that often comes with laddering can be alarming and threatening as well as exciting and interesting.

Laddering consists of asking the question 'why?' The interviewee is first asked which pole of a given construct s/he would prefer to describe. The (why) question can be phrased in many ways, for example: *"What are the advantages for you of being someone who .....?"* Or, *"Why is it important for you to be .... rather than.....?"*

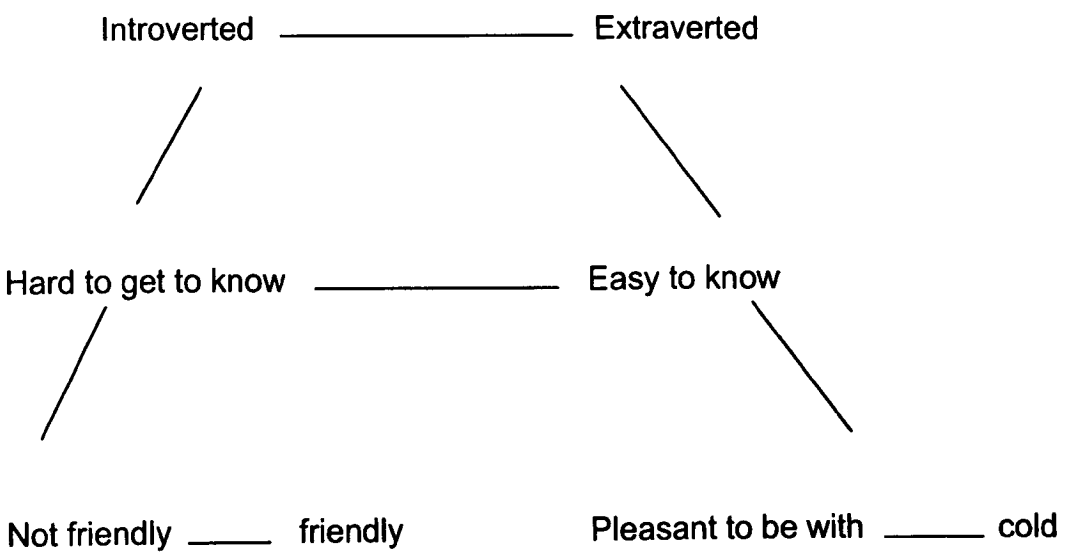
There are no hard or fast rules. By repeatedly being asked 'why' the interviewee climbs the 'ladder' of their construing system. Ladders typically take the interviewee into the areas of the most super-ordinate constructs and the interviewee's basic system of values.

Pyramiding was first described by Landfield (1971) and is also related to Kelly's *organisational corollary* and the hierarchy of constructs. It involves asking the interviewee to successively 'climb down' their construct system to more concrete or subordinate levels. The questioning asks for more specific details of the construct.

For example: *"What kind of person is someone who is introverted?"* The answer may be *hard to get to know* as opposed to *easy to know.* The next question might be: *"What kind of person is someone who is hard to get to know?"*

The same type of questioning then takes place with the opposite pole of the construct.

The interviewee's responses can be reproduced in schematic form as shown below.



To get to specific behaviours the researcher can ask: *"How do you know when a person is **cold**?" "What do they actually do that makes you think they are **cold**?"* One such answer might be: *"They look at you without blinking."*

8.5 The method of analysis of repertory grids

The main method of analysis of the repertory grids is *principal components analysis* (PCA). PCA is generally used when the research purpose is data reduction (to reduce the information in many measured variables into a smaller set of components). By far the most common form of factor analysis, PCA seeks a linear combination of variables such that the maximum variance is extracted from the variables. It then removes this variance and seeks a second linear combination which explains the maximum proportion of the remaining variance, and so on. This is called the principal axis method and results in orthogonal (uncorrelated) factors. PCA analyses total (common and unique) variance.

The factor loadings, also called component loadings in PCA, are the correlation coefficients between the variables (rows) and factors (columns). Analogous to Pearson's r, the squared factor loading is the percentage of variance in that variable explained by the factor. To get the percentage of variance in all the variables accounted for by each factor, the sum of the squared factor loadings for that factor (column) are added and then divided by the number of variables. The number of variables equals the sum of their variances as the variance of a standardized variable is 1. This is the same as dividing the factor's Eigenvalue by the number of variables.

The Eigenvalue (or *characteristic root*) for a given factor measures the variance in all the variables which is accounted for by that factor. The ratio of Eigenvalues is the ratio of explanatory importance of the factors with respect to the variables. If a factor has a low Eigenvalue, then it is contributing little to the explanation of variances in the variables and may be ignored as redundant with more important factors. Thus, eigenvalues measure the amount of variation in the total sample accounted for by each factor. An accompanying *scree* plot shows that if a factor is important it will have a large variance and will account for the bulk of the correlations in a correlation matrix.

A factor's Eigenvalue may be calculated as the sum of its squared factor loadings for all the variables. A varimax procedure is used with the graphical rotation of the factors (or principal components) with Eigenvalues greater than one as this automatically seeks mathematically superior solutions to the *amount of variance* explained by the extracted factors. The sum of the squared factor loadings for all factors for a given variable (row) is the variance in that variable accounted for by all the factors, and this is called the *communality*. In a complete PCA, with no factors dropped, this will be 1.0, or 100% of the variance. The ratio of the squared factor loadings for a given variable (row in the factor matrix) shows the relative importance of the different factors in explaining the variance of the given variable.

Factor loadings are the basis for imputing a label to the different factors. The factor loadings can be used to estimate the correlation matrix among variables. For any given pair of variables, the reproduced correlation is the product of their factor loadings on the first factor plus the product on the second factor, etc., for all factors. The *reproduced correlation matrix* can be subtracted from the actual correlation matrix, resulting in a *residual correlation matrix*. Low or non-significant coefficients in the residual correlation matrix indicate a good factor model. In a good factor analysis, this percentage is low.

An idiographic analysis of the repertory grids based on J. W. Grice's (2006) '*Idiogrid*' was chosen. This software programme includes a range of analytical descriptions for analysing grids. It follows the approach outlined by Patrick Slater in Volume II of his *The Measurement of Intrapersonal Space by Grid Technique* (1977).

8.5.1 Other methods of analysis of the repertory grids

Generalized Procrustes Analysis (GPA) is a method for determining the degree of agreement or consensus amongst data matrices. At the heart of the analysis is a *consensus configuration,* which is derived through a process of scaling, rotating and averaging the original rating matrices. Each rating can be compared to this consensus configuration, and an overall *consensus proportion* can then be computed to indicate the degree of similarity amongst the different ratings that different people have made. The consensus configuration is essentially a matrix of aggregate values. It is perhaps best referred to as the *average configuration* or *centroid configuration.* The degree of variation around the consensus configuration can be quantified and reported as the consensus proportion.

In the context of this research, the goal of Generalized Procrustes Analysis (GPA) is to assess the degree of similarity amongst the different professional ratings of the same constructs against the same set of elements. More specifically, the aim is to determine if the patterns or profiles for these ratings are similar for all ten professionals. A Principal Component Analysis can be conducted on the consensus configuration to reveal similarities against two or more principal components. The professionals' individual rating matrices can be compared to the consensus configuration using analysis of variance (ANOVA), in which a value of 1.0 would indicate perfect agreement amongst the professionals. Residual values from the ANOVA can be examined to identify points of difference between the individual matrices and the consensus configuration

The individual ratings of constructs against elements compared with the 'average' ratings of constructs against elements for the team were considered. Similarities and differences in these ratings over time (6 months) were also of interest. Explanations for these differences were explored through interview with individual team members and with the team as a whole. Similarities between elements and between constructs formed part of the analysis of the data obtained from individual interviews and discussions with the whole team.

8.6 The reliability and validity of measures derived from Repertory Grids.

8.6.1 Reliability

Smith (2001) makes reference to there being remarkably few studies examining the reliability of measures derived from repertory grids and, that those studies conducted have yielded conflicting results. Bannister (1960) operationalised Kelly's (1955) construct of looseness or tightness and called it *intensity.* According to Smith (*op. cit*), Bannister argued that there is a relationship between the size of the correlations or relationship scores obtained between constructs in a grid and the idea of tightness and looseness.

Intensity can be calculated by summing the squared correlations or any relationship scores between constructs and multiplying by 100. Intensity is therefore seen as a measure of *cognitive complexity,* in that the lower the Intensity the more complex the construct system. Smith argues that Intensity should not be considered in isolation when measuring cognitive differentiation but in conjunction with measures of consistency. This is because according to Smith, random completion of a grid will produce the most mathematically complex pattern possible.

Bannister and Fransella (1966) substantially revised a Consistency Measure first proposed by Bannister (1960). According to Smith (*op. cit*) Bannister argues that a stable construct system is one where the relationships between the construct remain unaffected when one set of elements is replaced by another. Where two sets of elements are evaluated with the same constructs by the same individual, it is a relatively straightforward matter to estimate the degree of stability in their pattern of construct relationships by listing all correlations between every pair of constructs and listing the construct correlations obtained in the second grid in the same order. Then a Spearman rank order correlation between these two sets of correlations is calculated.

With this study both the constructs and elements remain the same and so it could be assumed that Bannister's Consistency Measure would be appropriate given that repeat grids are used with the same individuals over a 6 month period. However, it would only be possible to compare each individual's construing over time for each construct. This research is interested in the reliability of constructs over time for the group as a whole.
Also Caputi and Reddy (in press) found that grids using dyadic elicitation tended to yield lower ordination scores, more functionally independent constructs and lower levels of cognitive complexity than did grids employing triadic elicitation. It was therefore decided to make use of Generalised Procrustes Analysis (GPA), previously described in section 8.5.1, as a 'pseudo-measure' of reliability in that GPA measures the degree of agreement or consensus amongst the individuals ratings of constructs.

8.6.2 Validity

In the sense that a grid reveals a pattern of relationships between the construct by revealing a pattern in the way in which the person has ranked or rated his or her elements, the grid has *intrinsic validity*. The validity of the repertory grid technique is its capacity to enable us to 'elaborate' our construing. Elaboration occurs by the extension and definition of a person's construing system and, in doing so the *range of convenience* of a person's constructs can also be increased so that more events or elements can be taken into account. When construing, a person *anticipates* events beyond the more limited notion of prediction. This suggests that people seek to understand in order to involve themselves in their world and to act upon it. Thus validity ultimately refers to the way in which a mode of understanding enables people doing the construing to take effective action rather than the grid administrator.

For example, if the researcher provides a person with verbal labels that are relatively unfamiliar to her or him, the person may arbitrarily attach meanings to those verbal labels and produce a pattern of relationships which misleads the administrator. Alternatively, the person construing may react by sorting the elements in a random manner thus reflecting their bewilderment at this strange array of verbal labels.

8.7 Action Research in the Family Support Team

This study was conducted with a multi-agency Family Support Team within the local authority in which the researcher works. The researcher has 'inside' knowledge of the rationale for setting up and establishing this team and currently supervises a member of the Family Support Team. The researcher is currently a member of a steering group for the Family Support Team (FST). The steering group comprises the FST Team Manager, Consultant Child Psychotherapist and Head of a Social Care Team.

This study can be described as 'action research' in terms of Shani and Pasmore's (1985) restricted definition:

"Action research may be defined as an emergent inquiry process in which applied behavioural science knowledge is integrated with existing organizational knowledge and applied to solve real organizational problems. It is simultaneously concerned with bringing about change in organizations, in developing self-help competencies in organizational members and adding to scientific knowledge. Finally, it is an evolving process that is undertaken in a spirit of collaboration and co-inquiry." (Shani and Pasmore, 1985, pp 439).

In addition to the emphasis on collaborative participation, action researchers and Personal Construct Psychologists share the following assumptions:

- the person is a responsible agent;
- growth may occur through reflection *on* and *in* action;
- understanding another's perspective requires empathy and a 'conversational' approach;
- the participant's and the researcher's account of events may differ and need to be negotiated;
- participants and researchers are engaged in cooperative enquiry; human beings are active, meaning seeking, potentially open to change and lifelong development and are capable of self direction.

In terms of the 'continuum of positionality in action research' (Herr and Anderson, 2005), the researcher is conducting lone insider research that will contribute towards the local authority knowledge base of multi-agency teams and will provide an improved critique of multi-agency practice for professional transformation. Such studies often rely on more traditional qualitative and quantitative methods of data gathering.

Schon (1983) used the term *reflective practitioner* to describe the process whereby practitioners 'learn to learn' about their practice thereby becoming more rounded practitioners. So in a sense this type of insider research acts as a form of professional development for the researcher and the practitioners in the multi-agency family support team. It provides case study data for practitioners to learn and grow in different professional contexts. In order to deal with potential bias, prejudice and unexamined impressions and assumptions that need further examination, the researcher acknowledged his presence in the study and built in self-reflection activities that are reported in the results section.

8.7.1 The Family Support Team – composition; general aims; and, some key current working practices.

The Multi-agency Family Support Team (FST) was first established some eighteen months ago and since then it has had several changes of staff including the Team Manager post. The team now comprises (August 2006):

1 x Senior Social Worker, Team Manager
1 x Family Therapist (CAMHS), Deputy Team Manager
3 x Social Workers
3 x Social Worker Assistants
1 x Clinical Psychologist (CAMHS)
1 x Educational Psychologist (EPS)
1 x Administrator

The general aims of the FST were to 'enhance the lives of children and families and to prevent family breakdown.' The specific aims were to:

1. Prevent children aged 4-16 years being looked after, by supporting children and their families in the community through early multi-disciplinary intervention.
2. Rehabilitate looked after children to their families, alternatively relatives or friends.

The team described itself as 'provider' team and not an 'assessment' team. It also considered itself as a rapid response team that would be accessible, flexible and solution focused providing a time limited service in which intensive work was carried out with the family as a 'unit.' It aimed to work with existing services as well as developing a network of services to avoid unnecessary duplication. It intended to improve co-ordination between CAMHS and the recently formed Children and Families Department in respect of CAMHS tier 2/3 referrals. The FST had the ability to formulate and purchase individual care packages. Evidence based models of intervention that take into account the local authority's diverse cultures were used.

In September 2006 there were over 100 active cases and the staff capacity to meet this demand was being questioned. At that time the team had to reduce the intensity of their work, by for example, spacing out visits. The Team Manager suggested that there was a link between workload and the remit of the team. Work tended to be shared out within the team according to the length of predicted client involvement. However, because District Social Work Teams were trying to push long term intervention, together with requests for assessment and intervention work for court, this was adding to the pressure on workload as well as reducing the team's capacity to work in partnership with parents, especially in relation to their working agreement.

In the majority of the team's work a working agreement between the client (mostly parent/carer) and team member(s) was formalised in writing and this was agreed in terms of negotiating what services would be provided and accessed. In the case of court work there was a directive from the court for the family to be provided with services even if they did not want to engage. Interestingly enough, the concept of the 'working agreement' had also caused some conflict between team members. Some professionals, notably the family therapist and clinical psychologist (both from CAMHS) were uncomfortable about formalising such a written agreement as it reportedly conflicted with their professional ideology.

As a consequence, the team engaged a consultant psychotherapist (also from CAMHS and a member of the Steering Group) for team consultation and supervision around the issues described above.

The expected outcomes for the FST were a reduction in the number of:

1 Children going into care and the length of time spent in care;
2 Children on the child protection register, the length of time on the register and the number of children re-registered;
3 Placement moves; and,
4 Children excluded from school.

The statistics emerging from the Family Support Team in February 2007 indicated that the majority of referrals centred on concerns about parenting practices and the challenges posed by teenagers. However the statistics also indicated that Family Support Team interventions were not reducing the numbers of children and young people being taken into care. So, in order to increase the range of support available to families, the Assistant Director, Social Care, proposed a coordinated response to families in acute crisis where there was a threat of a young person in the family having to leave home quickly. The proposal included provision for a young person to spend a short period away from home in order for work with the family to progress and for that young person to be able to return to live at home within seven days. This coordinated response also involved the creation of a Fast Intervention Service/Team to process referrals and to implement the seven day intervention package with the family. It was proposed that this new service/team would be multi-disciplinary and would have a multi-agency constituency. The actual composition and links with the Family Support Team had not yet been identified. However, members of the Family Support Team were aware of these imminent changes.

There were also probably other developments within the team of which the researcher was unaware. Some of these developments emerged during the second interview with team members.

8.8 Ethical considerations

Ethics, in the context of traditional research focuses on researchers using subjects to obtain information to meet their individual research objectives. Within this paradigm, ethics are taken to refer to not doing harm, not breaching confidentiality, not distorting data, etc.

In contrast, action research ethics involves a genuine and trusting relationship between the researcher and the members of the team who are the subject of the research in terms of how they understand the research content and process. The values and norms that flow from such ethical principals typically focus on how the researcher works with the members of the organisation.

Doing research in one's own organisation is highly political and may even be construed as subversive. Cooklin (1999) refers to the insider change agent as the 'irreverent inmate', one who is a supporter of the people in the organisation, a saboteur of the organisation's rituals and a questioner of some of its beliefs. Buchanan and Boddy (1992) describe the management of the political role in terms of *performing* and *backstaging*. 'Performing' involves the researcher being active in the change process, building participation for change, pursuing the change agenda rationally and logically: backstage activity involves the recruitment and maintenance of support and the reduction of resistance. 'Backstaging' comprises skills at intervening in the political and cultural systems, through justifying, influencing and negotiating, defeating opposition, etc. As an insider one has a pre-understanding of the organisation's power structure and politics, and is able to work in ways that are in-keeping with the political conditions without compromising the research or one's own career.

Walker and Haslett (2002) ground the issues of ethics when undertaking action research in the action research cycle itself. They suggest that ethical questions can be posed around the cyclical activities of planning, action and reflection. Processes of obtaining consent, ensuring anonymity and confidentiality, balancing conflicting and different needs, are realised in planning, taking action and, in collecting and interpreting data.

Walker and Haslett (*op. cit.*) cite Stringer's (1999) two important questions as central to any research ethics: Who will be affected? How will they be affected? In this context the following ethical issues were considered:

(i) Negotiating access to the participants via their line managers and the researcher's line manager(s).

(ii) Promising confidentiality of information, identity and data.

(iii) Ensuring that participants have the right not to participate in the research.

(iv) Keeping relevant managers informed (e.g. team manager, researcher's line manager(s).

(v) Obtaining permission to use documentation that was produced for other institutional purposes (e.g. descriptions of the aims of the team and team protocols; notes from steering group meetings).

(vi) Maintaining researcher's own intellectual property rights.

(vii) Always checking with participants for any misunderstandings.

(viii) Negotiating with the team manager how descriptions of the team's work and points of view will be published.

The first consideration (i) was essential otherwise the research could not have begun and all negotiations were successful through face to face meetings explaining the benefits of the research and the costs in terms of professional time. An informed consent form with a description of the research was used (appendix 6) to cover (ii) and (iii). Regular meetings with the Team Manager and discussions at steering group meetings enabled points (iv), (v), (vi) and (viii) to be discussed and issues arising there from to be resolved amicably. Individual and whole team interviews and meetings allowed the researcher to check for any misunderstanding by team members – point (vii) above.

8.9 A brief overview of how the research was conducted.

The description of the methodology that follows is a brief overview of the steps taken to conduct the research which is shown in Table G and detailed in the text that follows. A fuller description of each step can be found in the results section.

Table G: Brief overview of the methodological steps taken.

STEP	ACTIVITY
1.	Individual interviews with each of the 10 team members to elicit constructs and to rate them against (role) elements provided by researcher.
2.	The elicited constructs were anonymised and shared with the whole team.
3.	Co-construction of individual constructs to formulate super-ordinate constructs for the whole team.
3.1	Small group thematic categorisation of the individual constructs.
3.2	Small group deciding on names for the thematic categories.
3.3	Whole team production of super-ordinate constructs based on work from 3.1 and 3.2
4	Team members individually rate the newly formed super-ordinate categories against the same (role) elements as in step 1.
5	Individual interviews with team members to discuss their ratings with the 'average' ratings for the team as a whole.
6.	Table of 'average' team ratings was discussed with the whole team.
7.	Individual interviews 6 months later to repeat step 4 – with only 6 out of the original 10 team members. Questions followed to discuss any differences in ratings and their possible implications.
8.	Meeting with whole team to discuss findings and possible implications for future practice.

Step 1:

The research began with individual interviews with each member of the Family Support Team to elicit and rate (on a 7 point scale) bipolar constructs against 8 (role) elements. The individual grids were analysed using Principal Components Analysis from the Idiograph Software Package (J. W. Grice). Table 3 in the results section provides some summative data from the individual grids.

Step 2:

The individual personal bi-polar constructs were then anonymised and shared with the Family Support Team as a whole. Table 1 in the results section lists the 59 elicited bi-polar constructs. A code is provided to show which constructs were attributed to which team member. Table 2 in the results section outlines the changes that had to be made to the psychologists' (clinical and educational) constructs. A rationale for these changes is also provided. The purpose of sharing the individual constructs was to get the whole team to re-categorise these constructs to produce a 'super-ordinate' set of bi-polar constructs that represented all of the 59 individual personal constructs, in a similar fashion to that conducted by Fransella (1985) when eliciting the attitudes and beliefs of people in organisations. This process of 'co-construction' is considered to be the highest form of communication, wherein roles, rules, work objectives, and patterns of interaction are subject to discussion and common re-definition (Hemmecke and Stary, 2003).

The process of co-construction is also central to *self-organised learning* (SOL, Harri-Augsteing & Thomas, 1991) in terms of it being a 'learning conversation'. The learners, (i.e. professionals in a multi-agency team), are consulted in a structured inquiry about how they want to re-categorise their individual constructs. In this joint venture, the researcher 'leading' the consultation acts as the *learning coach*. The consultees or clients (i.e. the professionals in the teams) develop strategies to tackle the task.

The learning coach must suspend his/her own constructs in order to incorporate the constructs of the learners and therefore help the learners to develop purposes and strategies that work for them.

The learning coach is akin to a sports coach in that s/he has knowledge about how to develop and enable the person's skills and expertise but the strategies and actions undertaken are ultimately owned by the coachees.

The process of 'co-construction' can also be likened to Kelly's *commonality* corollary in that through this process team members begin to see things in the same way (i.e. their system of psychological processes are similar). As the whole team are together for this process, Kelly's *sociality* corollary comes into play to the extent that as one team member construes the construction process of another, s/he may play a role in a social process involving that colleague. And the more each team member begins to understand or construe a colleague's system the larger the social role s/he is likely to play in relation to that colleague.

The 59 previously elicited personal constructs also have the status of elements to which new constructs can be applied. And as all 59 constructs are presented to the team at once, the procedure is likened to Kelly's *Full Context Form* for elicitation of constructs. However in this case, team members are invited to put these 59 constructs together in categories and to characterise the categories. The team are in effect formulating constructs about constructs (cf. Fromm, 1993). The advantage of this procedure (Fromm, 2004) is that the researcher hardly influences the process at all. The main role for the researcher is to offer the group methodological help for the team's self-interpretation of the constructs, as in the learning coach analogy described above.

This self-interpretation, on the one hand, remains within the framework of what the team members can see and formulate. To a certain extent the self-interpretation is private because there is no mutual communication between team members and researcher and no re-construction of what is meant in the other's construct system.

On the other hand, the team members' selection of, and discrimination between constructs during the categorisation process is a means of accessing/externalisation their tacit knowledge about these 59 personal constructs.

Step 3: The co-construction process involved the following steps:

Step 3.1: For the first session (lasting around 2 ½ hours), a brief introduction to the requirements of the task was provided and then the team were divided into three small groups (2 x 3 team members and 1 x 4 team members). Each group received all of the 59 individual bi-polar constructs. The team members were then asked to sort the constructs thematically into categories. The researcher collected the sorted constructs and reproduced them for the second meeting.

Step 3.2

In the second meeting (also lasting about 2 ½ hours), a brief introduction to the requirements of the task was provided together with the sorted constructs from the previous session. Then the three small groups of team members were asked to give each of their categories a name based on their content (i.e. the constructs contained within each of the categories). The researcher collected the sorted constructs. Table 4 in the results section shows the category names that each of the three small groups used to thematically describe their sorted constructs.

Step 3:

The categorised constructs with their category names were then given to the whole team, in the third meeting lasting about 2 hours, to produce super-ordinate bi-polar constructs based on the name and content of the constructs within each category. In order to assist in this process, dictionary definitions of each of the category names were provided. The researcher also provided the whole team with some personal thoughts on possible super-ordinate bi-polar constructs by way of example of the task requirement.

Tables 5.1, 5.2 and 5.3 in Appendix 2 show the category names for the 59 constructs produced by the small groups in the second meeting. The team members looked for similarities in meaning across the groups' categorisation of the constructs. For example what did groups 1 and 2 mean by 'structure' (Tables 5.1 and 5.2)? And where was the theme 'structure' incorporated within group 3's categorisation process (Table 5.3)?

The constructs contained within the same category names were then merged and the content of the merged category was then considered. Categories that could not be merged were considered separately (e.g. 'approaches', 'skill building/training' – Tables 5.3 in Appendix 2).

Table 5 in the results section shows how the six super-ordinate bi-polar constructs produced by the whole team at the end of the third session fit in with their categorisations from the second session (Tables 5.1, 5.2 and 5.3 in Appendix 2).

Step 4:

The team members were then required to individually rate (on a 7 point scale) the newly created super-ordinate bipolar constructs against the same 8 (role) elements previously used (e.g. *my role in my previous team, my role in the family support team now, how others see my role in the family support team*). The individual ratings for the team grid were then analysed using the Idiograph Software Package (J. W. Grice). Table 9 in the results section identifies the least and most important elements for each team member. And Table 10 in the results section illustrates how these 8 (role) elements are associated with the 6 super-ordinate bi-polar constructs for each team member.

The individual ratings for the team grid were combined (Table 15 in the results section) and 'average' team ratings calculated (Table 16 in the results section). For each team member a comparison was made between his or her ratings for the newly created super-ordinate bipolar constructs and the 'average' team rating for these same constructs (Table 17 in the results section). A difference of +/- 2.5 or more between these two ratings was chosen as being large enough to warrant further examination. This is because it was large enough to show a reasonable shift in ratings and because every team member had changed their ratings by this amount in at least one instance on their grid.

Step 5:

Each team member was interviewed individually and asked what conclusions they could draw about themselves and the team from the differences between their ratings and the average team rating. This interview is somewhat akin to the Delphi Technique where consensus is reached through the anonymous solicitation and comparison of views. Detailed notes on the interviews can be found in Appendix 4 and a synopsis is given in the results section in the context of Table 17.

Step 6:

The 'average' team rating table (Table 16 in the results section) was then shared with the whole team and they were asked to consider what conclusions they could draw from the team's ratings of the 6 constructs against elements 6, 7 and 8 (*the role of the FST now, the role of the FST in 12 months,* and *the ideal role for the FST*). Team members had access to their individual ratings during this process. This meeting lasted about 1 hour and a written summary was given to the Team Manager to use with the team how she saw fit. This written summary is provided in the results section.

Step 7:

The team were re-visited 6 months later in order to obtain individual ratings for the six super-ordinate constructs against the role elements and to compare these 'new' ratings with individual and average team ratings 6 months ago. A summary of these findings is described in the results section with full details of the individual interviews in Appendix 5. This comparative process was in the form of individual interviews with team members to see what conclusions could be drawn from any differences between individual ratings over the six month period and any differences between individual and average team ratings over the same period.

The individual interviews comprised the following format:

First two questions were asked about the previous interview six months ago as follows {note: team members were not shown their grids, unless they had no recollection of their ratings}:

(i) "Six months ago *when we compared your individual ratings for the six constructs against the eight elements with the average ratings for the team, were there any aspects that stuck in your mind and/or made a strong impression on you?"*

(ii) *"Are you aware of having changed your behaviour or your view of yourself in relation to your role in the FST since the previous interview six months ago?"*

Each team member was then shown their grid of ratings (without the average ratings for the team) from six months ago and asked to re-rate the six constructs against the eight elements. They are then asked the following two questions:

(iii) "*Which if any differences or similarities between your ratings six months ago and now seem important for you and/or the team?"*

(iv) *"Do you think you will see yourself any differently or behave any differently in the light of your new ratings?"*

Step 8:

These individual interviews were followed by a meeting with the whole team to consider what conclusions can be drawn from differences between construct ratings for element 6, element 7 and element 8 over the six month period.

9. RESULTS:

The results are organised by first recording the individual construct elicitation and summarising the principal component analysis for this data. Then the process and activities used to obtain the six superordinate bipolar constructs is described. A principal components analysis is used on this data which is then summarised in exactly the same way as for the individual constructs. A Generalised Procrustes Analysis is then performed. Comparisons are made between the individual ratings and the average team ratings for the six superordinate bi-polar constructs with a commentary on the findings based on individual interviews with team members. Summary notes from the meeting with the team (27 October 2006) are recorded as are the notes from the individual follow-up interviews (April 2007). These notes are followed by a calculation of a measure of construct consistency. The results section ends with analysis of the comparison between ratings over time (that is between October 2006 and April 2007).

9.1 Individual construct elicitation and principal component analysis

Table 1 – Individual bi-polar constructs elicited from individual interviews.

1. Implementing psychology in a multi-agency team versus not implementing psychology in a multi-agency team.
2. Having a more 'hands on' role versus having discussions & negotiations about roles.
3. Lack of clarity about multi-agency working versus team working harmoniously towards same outcome.
4. Uncertainty about the purpose of the role within the team versus everyone knowing everyone else's role & how roles fit together.
5. Having a consistent approach in working as a psychologist versus having a loose sense of role due to influence of other agencies & team.
6. Having a stereotypical view of the role of the Clinical Psychologist versus being open-minded about the role of the Clinical Psychologist.
7. Clear process for working practices versus unclear working practices.
8. Clear process for recording work versus having a range of recording work.
9. Having confidence in facilitating meetings versus feeling threatened & overwhelmed at meetings.
10. Casework no longer directed entirely by manager versus manager giving directions & writing case notes.
11. Feeling constantly overwhelmed versus having a more manageable working day.
12. Working between different perspectives versus having the same training & assumptions.
13. Working with people from different disciplines versus working in a team from the same discipline.
14. Learning new approaches versus not having professional boundaries challenged.
15. Developmental & evolving role for team versus statutory brief for individuals & the team.
16. Hierarchical team structure versus individual practitioners coming together.
17. Reflective practitioners – thinking outside the box versus working within the Children Act Framework.
18. Working as a systemic consultant/therapist versus being more disengaged with clients & colleagues.
19. Responsibility for development of individuals & team versus being a family therapist seconded to the team.
20. Becoming a recognised asset in the community versus being a another centrally funded government project.
21. Co-operation between colleagues within the team versus working unilaterally outside the team.
22. Doing statutory work versus doing preventative work.
23. Having sole responsibility for child versus sharing responsibility for the child with others.
24. Individuals taking on more responsibility within team versus individuals acting as lone workers.

25. Individuals working effectively within the team versus individuals working ineffectively in a team.
26. Offering a training role within and outside team versus being unwilling to offer a training role.
27. Having a 'hands on' role versus being less involved with children & families.
28. Developing ideas and strategies versus having deliverable programmes in place.
29. Building good relationships with families versus struggling to find a way in with families.
30. Encompassing change versus being rigid & unwilling to bend.
31. Enhancing individual learning versus being stuck in what you know and having a closed mind.
32. Having a preventative & supportive role in working with clients versus having a monitoring role in working with clients.
33. Bringing learnt skills into practice for the benefit of clients versus working without any focus or understanding of family processes.
34. Having the flexibility to use and develop therapeutic approaches in casework versus having a limited approach to working with clients.
35. Engaging in evolving & experimental approaches to case work versus having well-established approaches for managing complex case work.
36. Using some assessment-based involvement versus having intervention-based involvement.
37. Working more in-keeping with my idea of the role of a psychologist versus being unable to find an established way of working as a psychologist.
38. Consistently collaborating with a variety of team members versus working alone or with one other team member.
39. Pigeon-holing the role of psychologist versus seeing a more expansive role for the psychologist.
40. Working towards aims set for team versus working in complete chaos without focus or direction.
41. The team continually re-defining itself versus the team remaining static.
42. An awareness of roles is more established versus there being a lack of knowledge about what individuals and/or the team do.
43. Having some room for the assessment of families versus there being a reliance on assessments from outside the team.
44. Working towards a common goal versus working to different agendas.
45. Having statutory-based working versus working creatively.
46. Working alone within the team versus working collaboratively within team.

47. Spending more time with clients versus doing more paperwork.

48. Using intervention-based approaches versus using assessment-based approaches.

49. Having a clearly defined role versus having a flexible role.

50. Being mostly out working with families versus being mostly office based.

51. Doing preventative work versus being engaged in crisis management.

52. Knowing others' roles versus being unclear about others' roles.

53. Having a practical role versus having a specialist role.

54. Referring children & families on to other agencies versus providing services for children & families.

55. Having awareness of issues impacting on families versus being unaware of issues impacting on families.

56. Taking on complex casework versus taking on low level casework.

57. Supporting relationship building between children and their families versus not supporting relationship building between children and their families.

58. Spending quality time with families and actively listening to their issues versus not allowing enough time to sit down with families.

59. Helping prevent children from becoming accommodated versus not providing preventative support so that children may become accommodated.

CODE:

1 - 6	=	Psychologist (1)
7 – 14	=	Team Manager
15 – 21	=	Deputy Team Manager
22 – 26	=	Social Worker (1)*
27 – 31	=	Social Worker Assistant (1)
32 – 35	=	Social Worker (2)
36 – 43	=	Psychologist (2)
44 – 48	=	Social Worker Assistant (2)
49 – 53	=	Social Worker (3)
54 – 59	=	Social Worker Assistant (3)

* Social Worker (1) left the team shortly after the individual interview: her constructs were used in the re-categorisation activity and she was replaced Social Worker (4) who participated in the second stage of the research.

The following constructs were changed before being presented to the team at the request of first one and then the second psychologist:

Table 2: Changes to psychologists' constructs

Original Construct	New Construct
1. Implementing psychology in a multi-agency team versus not implementing psychology in a multi-agency team	1. Implementing *a* discipline in a multi-agency team versus not implementing a discipline in a multi-agency team
6. Having a stereotypical view of the role of the Clinical Psychologist versus being open-minded about the role of the Clinical Psychologist	6. Having a stereotypical view of the role versus being open-minded about the role
37. Working more in-keeping with my idea of the role of a psychologist versus being unable to find an established way of working as a psychologist	37. Working more in-keeping with my idea of the role versus being unable to find an established way of working
Pigeon-holing the role of psychologist versus seeing a more expansive role for the psychologist	Pigeon-holing the role versus seeing a more expansive role

Psychologist (1) in particular did not want her constructs to be identified by the team.

In construct 1 the word *'psychology'* is replaced by the word *'discipline'*; in construct 6 the words *'clinical psychologist'* are omitted; in construct 37 the words *'as a psychologist'* are omitted; and, the same is true of construct 39.

Table 3. Summative Data from Individual Repertory Grids:

	%ge Variance				Association of elements with constructs				
FST Worker	**PC1**	**PC2**	**PC3**	**PC**	**Element**	**Constructs – emergent (E) or implicit (I)**	**End of Pole**	**Most important Elements**	**Least important Elements**
Psychologist (1)*	57.14	19.98	13.65	1	My role in FST now	Implementing psychology in a MAT (E) Having a loose sense of role (I)	Elicited	My role in FST in 12 months	How others see my role in FST
				2	The role of the FST now	Having discussions and negotiations about role (I) Uncertainty about purposes of role of CP (E) Having a stereotypical view of role of CP (E)	Elicited	and, My ideal role in FST	and The role of FST now
Team Manager	56.91	28.88	11.46	1	My role in my previous team	Having the same training and assumptions (I) Working in a team from same discipline (I) Not having professional boundaries challenged (I) Manager giving directions/writing case notes (I)	Elicited	My role in my previous team	The role of FST in 12 months
Deputy Team Manager	64.96	16.23	11.83	1	The role of the FST now	Family Therapist seconded to the team (I) Having a statutory brief (I) Working with the Children Act Framework (I) Being another centrally-funded government project (I) Being more disengaged with clients & colleagues (I)	Contrast	The role of FST in 12 months	The role of FST now
Social Worker (1)	38.31	36.61	19.25	1	My role in FST now	Individuals working more effectively (E) Individuals taking more responsibility (E) Offering a training role (E)	Elicited		
				2	My role in my previous team	Doing statutory work (I) Having sole responsibility for the child (I)	Contrast	The ideal role for FST	My role in my previous team

***Individual grid is shown in Appendix 1 (Table 3.1) as an exemplar, together with additional tables as illustrative examples of data elicited from *idiogrid* and Figure 3.1 demonstrates how PCA data can be represented visually as a *bi-plot* (i.e. spatial orientation of factors, elements & constructs). Similar data was collected for all team members, although it is not shown.**

Table 3. (continued) Summative Data from Individual Repertory Grids:

	%ge Variance					Association of elements with constructs			
FST Worker	**PC1**	**PC2**	**PC3**	**PC**	**Element**	**Constructs – emergent (E) or implicit (I)**	**End of Pole**	**Most important Elements**	**Least important Elements**
Social Work Assistant (1)	91.37	7.30	1.33	1	My role in my previous team	Being less involved with children & families (I) Struggling to find a way with families (I) Being rigid and unwilling to bend (I) Having deliverable programmes in place (I)	Contrast	My role in my previous team	My role in FST in 12 months; My ideal role in FST ; The role of FST in 12 months ; The ideal role for FST
Social Worker (2)	59.39	39.32	0.89	1	My role in my previous team	Having monitoring role in working with clients (I) Having limited approach to working with clients (I)	Contrast	My ideal role in FST; The role of FST in 12 months; The ideal role for FST	My role in FST now; The role of FST now; How others see my role in FST
Psychologist (2)	41.49	28.64	13.65	1 2 3	The role of FST now The ideal role for FST How others see my role in FST	Lack of knowledge about what individuals/team do (I) Reliance on assessments from outside team (I) Team remaining static (I) A more expansive role for EP (I) Unable to find established way of working as an EP (I) Pigeon-holing role of EP (E) Working in complete chaos without direction (I)	Contrast Contrast Elicited	The ideal role for FST	My role in FST in 12 months

Table 3 (continued). Summative Data from Individual Repertory Grids:

%ge Variance				Association of elements with constructs					
FST Worker	**PC1**	**PC2**	**PC3**	**PC**	**Element**	**Constructs – emergent (E) or implicit (I)**	**End of Pole**	**Most important Elements**	**Least important Elements**
Social Work Assistant (2)	84.97	9.91	3.32	1	My role in my previous team	Statutory-based working (E) Working alone within the team (E) Doing more paperwork (I) Using assessment-based approaches (I)	Elicited	My role in FST now; My ideal role in FST ; How others see my role in FST ; The role of FST now ; The role of FST in 12 months; The ideal role for FST	My role in FST in 12 months
Social Worker (3)	57.40	24.75	11.66	1	My role in my previous team	Being engaged in crises management (I) Having a specialist role (I)	Elicited	My role in my previous team;	My role in FST now;
				2	How others see my role in FST	Having a clearly defined role (E) Knowing others' roles (E)	Elicited	The role of FST in 12 months; The ideal role for FST	My role in FST in 12 months
Social Work Assistant (3)	88.15	7.62	3.05	1	My role in my previous team	Referring children & families onto other agencies (E) Not allowing enough time for families (I) Not providing preventative support (I) Not supporting relationship building (I)	Contrast	My ideal role in FST; The ideal role for FST	How others see my role in FST

9.2 Co-construction process

Table 4. Categories of constructs with a proposed category name formulated during the process of re-categorisation to produce super-ordinate bi-polar constructs. (The distribution of the 59 constructs amongst each of these groups is shown in Appendix 2.)

Small Group of Team Members	Group 1* (1 x 3 team members)	Group 2 (1 x 4 team members)	Group 3 (1 x 3 team members)
Category Names	Structural Dilemmas Ideological Dilemmas Procedural Dilemmas Inter-professional Dilemmas	Structure Role Process Multi-agency	Team Focus/Remit Role Approaches Skill Building and Training

***Group 1 produced the identical category names to that of Anning et al (2006) and fitted the individual constructs into these same four dilemmas.**

In group1 some constructs were allocated to more than one of each of their four dilemmas. Group 2 had an additional category, 'feelings' to which only one of the 59 constructs was allocated (feeling constantly overwhelmed versus having a more manageable working day). Group 3 produced more than four categories. Team focus and remit were grouped together and role includes 'role identification in a multi-agency team, the ratio of *'a hands on'* role to discussions about paperwork, and role flexibility in a discipline. There was an additional 'other' category for group 3 containing two of the 59 constructs, namely: becoming a recognised asset in the community versus being another centrally funded government project and referring children and families on to other agencies versus providing services for children and families.

In order to help the whole team produce the super-ordinate constructs, dictionary definitions of each of the category names were provided:

- Structural means arrangements.
- Ideological includes principles, ideas or beliefs.
- Procedural is associated with the accepted way of doing things.
- Inter-professional dilemmas are inherent within in multi-agency working and linked to structure, ideology and procedure.
- Role is defined as the expected function or characteristic; process includes the actions taken to achieve results; documentation; dealing with referrals; managing change; etc.
- Focus is defined as the centre of interest;
- Remit is defined as terms of reference; and approach means to deal with; communicate.

Some of the researcher's personal thoughts on possible super-ordinate bi-polar constructs were also provided by way of example of the task requirement as follows:

- Having a stereotypical view of the remit of the team versus being more open-minded about the focus of the team.
- Working harmoniously towards the same outcomes versus having a lack of clarity about multi-agency working practices and procedures.
- Being reflective and thinking about different perspectives versus working within a set framework and not challenging assumptions or crossing professional boundaries.
- Engaging in dynamic and creative approaches versus engaging in well-established static ways of working.
- Co-operating within the team and increasing individual responsibility versus working unilaterally outside the team.

The team decided not to use any of these and instead produced the following six super-ordinate bi-polar constructs:

C1. Working more in keeping with my idea of my role versus being unable to identify a role in a multi-agency team.

C2. Evolving a professional identity within a multi-agency team versus evolving a professional identity within a homogeneous team.

C3. Developing a professional identity within an evolving team versus developing a professional identity within an established team.

C4. Developing processes that promote multi-skilled and flexible involvement with families versus developing processes that constrain multi-skilled and flexible involvement with families.

C5. Defining and establishing reflection as inherent within processes, practices and procedures versus working within a set framework and not challenging assumptions or crossing professional boundaries.

C6. Developing complementary skills and knowledge both individually and as a team versus having individualistic training and development.

Table 5: shows how these 6 constructs fit into the clusters of categorisation:

Small Group 1	Small Group 2	Small Group 3
Structural Dilemmas **(Construct 3)**	Structure **(Construct 3)**	Team Focus/Remit **(Construct 2; Construct 3)**
Ideological Dilemmas **(Construct 2; Construct 3)**	Role **(Construct 1)**	Role **(Construct 1)**
Procedural Dilemmas **(Construct 4; Construct 5)**	Process **(Construct 4; Construct 5)**	Approaches **(Construct 4; Construct 5)**
Inter-professional Dilemmas **(C2; Construct 3)**	Multi-agency **(Construct 1; Construct 2)**	Skill Building/Training **(Construct 4; Construct 6)**

The re-categorisation process both small group and whole team represents 'self-organised learning' (SOL). Clearly some of the original 59 constructs as well as some members of the team will have had greater influence in producing the 6 super-ordinate bi-polar constructs than others. And some of the 'messages' from some individual constructs may have been lost. Further individual interviews with team members shed more light on the influential matters surrounding re-categorisation.

9.3 Principal Components Analysis for six superordinate bi-polar constructs.

The individual ratings for the above six super-ordinate constructs are represented for each of the eight (role) elements in Appendix 3. A principal components analysis (PCA) was conducted on these individual ratings (Table 6): comparative element loadings (varimax) and construct loadings (varimax) are illustrated in Table 7 and Table 8 respectively; descriptive statistics for elements are given in Table 9 and Table 10 describes the association of elements with constructs for each team member. Appendix 1 shows the graphical (bi-plot) for psychologist (1) as an illustrative example of the representation of the plane of principal components as a cross-section of the construct-space for one team member.

Table 6 *Eigenvalues for Unrotated Components*

eam orker	PC1 Eigenvalue	PC1 %age Variance	PC2 Eigenvalue	PC2 %age Variance	PC3 Eigenvalue	PC3 %age Variance	Cumulative %age
WA (1)	5.18	86.37	0.41	6.69	0.24	4.07	97.34
W (4)*	3.27	54.50	1.43	23.76	0.94	15.68	93.93
eam anager	3.47	57.84	1.17	19.46	1.01	16.84	94.13
sychologist)	3.27	54.52	1.63	27.23	0.71	11.89	93.64
W (2)	4.79	79.76	1.00	16.59	0.19	3.20	99.55
eputy anager	3.39	56.51	2.20	36.61	0.33	5.45	98.57
W (3)	3.86	64.33	1.12	18.59	0.85	14.17	97.10
WA (3)	5.36	89.28	0.40	6.75	0.11	1.75	97.78
WA (2)	3.37	56.19	1.29	21.51	0.88	14.65	92.36
sychologist)	4.53	75.51	1.07	17.82	0.30	4.49	98.27

Note: SW = Social Worker and SWA = Social Worker Assistant.

*SW4 replaced SW1

In all cases the first two Principal Components were analysed graphically, even though, the Team Manager has 3 components with Eigenvalues greater than 1 and SWA (1) and SWA (3) only have one component with an Eigen value greater than 1.

Table 7. *Element Loadings (Varimax)*

	Element 1		Element 2		Element 3		Element 4		Element 5		Element 6		Element 7		Element 8	
Team Worker	PC1	PC2	PC1	PC2	PC1	PC2	PC1	PC2	PC1	PC2	PC1	PC2	PC1	PC2	PC1	PC2
Psych (2)	-1.40	-0.96	-0.11	0.45	0.45	0.06	0.37	-0.15	0.30	-0.13	-0.55	0.79	0.29	-0.04	0.66	-0.02
SW (2)	-1.46	0.19	-0.24	0.63	0.53	-0.47	0.82	-0.52	-0.77	0.34	-0.24	0.63	0.52	-0.28	0.82	-0.52
Deputy	0.49	0.30	0.60	0.33	-0.72	0.02	0.60	0.33	-1.13	-0.01	0.49	0.30	-0.30	-1.51	-0.02	0.24
SWA (1)	-1.94	-1.79	-0.26	-0.55	0.52	0.53	0.52	0.53	0.08	0.02	0.05	0.19	0.52	0.53	0.52	0.53
SW (4)	-0.13	0.88	-0.90	0.22	0.33	-0.65	0.66	-0.94	-0.49	0.19	-0.66	0.61	0.39	-0.14	0.79	-0.17
Manager	-1.53	0.77	0.54	-0.32	0.31	-0.29	-0.15	-0.13	-0.11	0.07	0.61	-0.44	-0.17	-0.36	0.50	0.68
Psych (1)	0.22	-0.44	0.28	0.46	0.53	-0.27	0.71	-0.83	-1.15	0.89	-0.91	0.88	-0.46	0.30	0.79	-1.00
SW (3)	1.67	0.52	-0.42	0.14	-0.43	0.28	-0.45	0.42	0.29	0.10	0.09	-0.32	-0.15	-0.47	-0.61	-0.67
SWA (3)	-1.77	1.79	-0.58	0.48	0.09	-0.08	0.48	-0.26	0.02	0.08	0.19	-0.38	0.65	-0.73	0.91	-0.91
SWA (2)	-1.65	-0.48	0.16	-0.05	0.16	-0.05	0.21	0.86	-0.06	-0.61	0.41	-0.26	0.28	0.13	0.49	0.46

Note. *The values are used for plotting elements in the rotated component space (figures 3.11-3.20).*

ELEMENTS

1. My role in my previous team
2. My role in FST now
3. My role in FST in 12 months
4. My ideal role in FST
5. How others see my role in FST
6. The role of FST now
7. The role of FST in 12 months
8. The ideal role for FST

Table 8. *Construct Loadings (Varimax)*

	Construct 1		Construct 2		Construct 3		Construct 4		Construct 5		Construct 6	
Team Worker	PC1	PC2	PC1	PC2	PC1	PC2	PC1	PC2	PC1	PC2	PC1	PC2
Psych (2)	0.76	0.49	0.41	-0.73	0.32	0.89	0.89	0.31	0.94	-0.09	0.82	-0.22
SW (2)	0.90	-0.41	0.95	-0.14	-0.11	0.99	0.99	-0.07	0.99	-0.08	0.96	-0.09
Deputy	0.94	0.26	0.89	0.05	0.93	-0.20	0.68	0.70	0.00	1.00	0.00	1.00
SWA (1)	0.36	0.89	0.91	0.37	0.89	0.44	0.82	0.52	0.58	0.77	0.70	0.60
SW (4)	0.76	-0.59	0.07	-0.95	0.22	-0.87	0.49	-0.23	0.85	-0.31	0.95	0.19
Manager	0.54	-0.14	-0.03	-0.96	0.55	-0.60	0.90	-0.02	0.00	-0.10	0.96	-0.10
Psych (1)	0.30	-0.94	0.28	-0.94	-0.36	0.82	0.91	-0.37	0.92	-0.30	0.94	-0.29
SW (3)	0.41	0.43	-0.95	-0.19	-0.07	0.96	-0.94	-0.02	-0.96	-0.19	-0.97	0.08
SWA (3)	0.31	-0.93	0.68	-0.72	0.67	-0.72	0.93	-0.31	0.77	-0.61	0.65	-0.72
SWA (2)	-0.18	-0.57	0.98	-0.11	0.55	-0.65	0.85	0.31	0.94	0.27	0.56	0.62

Note. *The values are used for plotting constructs in the rotated component space (figures 3.11- 3.20).*

CONSTRUCTS:

C1. Working more in keeping with my idea of my role versus being unable to identify a role in a multi-agency team

C2. Evolving a professional identity within a multi-agency team versus evolving a professional identity within a homogeneous team.

C3. Developing a professional identity within an evolving team versus developing a professional identity within an established team.

C4. Developing processes that promote multi-skilled and flexible involvement with families versus developing processes that constrain multi-skilled and flexible involvement with families.

C5. Defining and establishing reflection as inherent within processes, practices and procedures versus working within a set framework and not challenging assumptions or crossing professional boundaries.

C6. Developing complementary skills and knowledge both individually and as a team versus having individualistic training and development.

Table 9. Descriptive Statistics for Elements

Team Worker	**Most important element(s)**	**Least important element(s)**
Psychologist (1)	2. My role in FST now	1. My role in my previous team
Team Manager	8. The ideal role for FST	2. My role in FST now 6. The role of FST now
Social Worker (4)	1. My role in my previous team	4. My ideal role in FST 6. The role of FST now
Social Worker Assistant (1)	1. My role in my previous team	2. My role in FST now 3. My role in FST in 12 months 4. My ideal role in FST 7. The role of FST in 12 months 8. The ideal role for FST
Deputy Manager	5. How others see my role in FST	2. My role in FST now 4. My ideal role in FST
Social Worker (2)	4. My ideal role in FST 8. The ideal role for FST	2. My role in FST now 6. The role of FST now
Psychologist (2)	1. My role in my previous team	7. The role of FST in 12 months
Social Worker Assistant (2)	8. The ideal role for FST	7. The role of FST in 12 months
Social Worker Assistant (3)	1. My role in my previous team	8. The ideal role for FST
Social Worker (3)	8. The ideal role for FST	4. My ideal role in FST

Table 10. Association of elements with constructs

Team Worker	Element	Principal Component	Constructs – emergent (E) or implicit (I)	End of Pole
Psychologist (2)	Role in previous team	1	1. Unable to identify a role in a multi-agency team (I) 4. Processes constrain multi-skilled & flexible involvement with families (I) 5. Working within set framework & not challenging assumptions or crossing professional boundaries (I) 6. Having individualistic training & development (I)	Contrast
	Role of the FST now	2	2. Evolving a professional identity in a homogeneous team (I) 3. Developing a professional identity within an evolving team (E)	Elicited
Social Worker (2)	Role in previous team	1	1. Unable to identify a role in a multi-agency team (I) 2. Evolving a professional identity in a homogeneous team (I) 4. Processes constrain multi-skilled & flexible involvement with families (I) 5. Working within set framework & not challenging assumptions or crossing professional boundaries (I) 6. Having individualistic training & development (I)	Contrast
Deputy Manager	How others see my role	1	1. Unable to identify a role in a multi-agency team (I) 2. Evolving a professional identity in a homogeneous team (I) 3. Developing a professional identity within an established team (I)	Contrast
	Role of FST in 12 months	2	4. Processes constrain multi-skilled & flexible involvement with families (I) 5. Working within set framework & not challenging assumptions or crossing professional boundaries (I) 6. Having individualistic training & development (I)	Contrast
Social Worker Assistant (1)	Role in previous team	1	2. Evolving a professional identity in a homogeneous team (I) 3. Developing a professional identity within an established team (I) 4. Processes constrain multi-skilled & flexible involvement with families (I) 6. Having individualistic training & development (I)	Contrast
Social Worker (4)	Role in FST now	1	1. Unable to identify a role in a multi-agency team (I) 5. Working within set framework & not challenging assumptions or crossing professional boundaries (I) 6. Having individualistic training & development (I)	Contrast
	Ideal role for the FST	1	5. Defining & establishing reflection as inherent within processes, practices & procedures (E) 6. Developing complementary skills and knowledge both individually and as a team (E)	Elicited
	Role in previous team	2	2. Evolving a professional identity in a homogeneous team (I) 3. Developing a professional identity within an established team (I)	Elicited
	Ideal role in FST	2	2. Evolving a professional identity within a multi-agency team (E) 3. Developing a professional identity within an evolving team (E)	Contrast

Table 10. (continued) Association of elements with constructs

Team Worker	Element	Principal Component	Constructs – emergent (E) or implicit (I)	End of Pole
Team Manager	Role in previous team	1	4. Processes constrain multi-skilled & flexible involvement with families (I) 6. Having individualistic training & development (I)	Contrast
	Role in previous team	2	2. Evolving a professional identity in a homogeneous team (I)	Elicited
Psychologist (1)	How others see my role	1	4. Processes constrain multi-skilled & flexible involvement with families (I) 5. Working within set framework & not challenging assumptions or crossing professional boundaries (I) 6. Having individualistic training & development (I)	Contrast
	Ideal role for the FST	2	1. Working more in keeping with my idea of my role (E) 2. Evolving a professional identity within a multi-agency team (E) 3. Developing a professional identity within an established team (I)	Contrast
Social Worker (3)	Role in previous team	1	2. Evolving a professional identity in a homogeneous team (I) 4. Processes constrain multi-skilled & flexible involvement with families (I) 5. Working within set framework & not challenging assumptions or crossing professional boundaries (I) 6. Having individualistic training & development (I)	Elicited
Social Worker Assistant (3)	Ideal role for the FST	1	5. Defining & establishing reflection as inherent within processes, practices & procedures (E)	Elicited
	Role in previous team	2	1. Unable to identify a role in a multi-agency team (I) 2. Evolving a professional identity in a homogeneous team (I) 3. Developing a professional identity within an established team (I) 6. Having individualistic training & development (I)	Elicited
Social Worker Assistant (2)	Role in previous team	1	2. Evolving a professional identity in a homogeneous team (I) 4. Processes constrain multi-skilled & flexible involvement with families (I) 5. Working within set framework & not challenging assumptions or crossing professional boundaries (I)	Contrast
	Ideal role in the FST	2	3. Developing a professional identity within an established team (I) 6. Developing complementary skills and knowledge both individually and as a team (E)	Elicited

9.4 Generalised Procrustes Analysis:

A Generalised Procrustes Analysis was conducted using the 'Centred' and 'Isotropic' options to remove any individual differences in the means and variances of the grid ratings. The 'Constructs Matched' option was selected as only constructs are truly matched across all grids for all team members. It could be argued that elements are matched as well, at least in terms of role titles, but each team members is rating her/himself and the others.

Table 11. Isotropic Scaling Factors

Psychologist (1)	0.68
Team Manager	1.09
Deputy Manager	1.31
Social Worker (2)	0.80
Social Worker Assistant (1)	1.05
Psychologist (2)	1.11
Social Worker Assistant (3)	2.04
Social Worker (4)	1.58
Social Worker (3)	0.94
Social Worker Assistant (2)	0.99

Note: After the initial Procrustes rotations, the values in each grid were multiplied by their respective isotropic scaling values.

From the scaling factors in Table 11 above, it can be seen that Social Worker Assistant (3)'s grid was adjusted the most and, when this grid is inspected it can be seen that for almost all constructs Social Worker Assistant (3)'s ratings move towards the *emergent* end of the pole either over time (as role now and in 12 months) or in terms of actual and ideal roles. It is perceived from interviews with Social Worker Assistant (3) that she has maintained her enthusiasm for multi-agency team working. This is despite all the changes that have taken place between the setting up of the team and the time of the research which has left other equally long standing team members disillusioned.

Table 12. ANOVA Source Table for Matched Figures

Figures	Consensus	Residual	TOTAL
1. Working in-keeping with idea of role	13.12	4.91	18.02
2. Professional identity in MAT	6.73	6.54	13.27
3. Professional identity in evolving team	29.59	6.00	35.58
4. Promote multi-skilled involvement	7.98	4.24	12.22
5. Reflection is inherent	5.02	3.26	8.28
6. Developing complementary skills	9.97	2.65	12.62
Total SS:	72.40	27.60	100.00

In the ANOVA table above it can be seen that the consensus amongst the grids was quite modest (72.4%). This means that the grids varied quite a lot around the consensus grid computed from the analysis. If the grids could have been rotated to perfect agreement, the consensus grid would be 100%. The residuals are also typically examined in Table 12 above to pinpoint areas of divergence. Clearly construct 2 (*evolving a professional identity within a multi-agency team* versus *evolving a professional identity within a homogeneous team*) and construct 3 (*developing a professional identity within an evolving team* versus *developing a professional identity within an established team*) are the constructs on which the team members disagreed most (with residuals of 6.54 and 6.00 respectively).

Table 13. ANOVA Source Table for Grids

Grids	Residual	TOTAL
Psychologist (1)	2.19	11.19
Team Manager	2.10	11.35
Deputy Manager	2.52	10.48
Social Worker (2)	2.74	10.28
Social Worker Assistant (1)	4.86	5.19
Psychologist (2)	2.54	10.23
Social Worker Assistant (3)	3.18	9.09
Social Worker (4)	3.41	8.52
Social Worker (3)	2.50	10.74
Social Worker Assistant (2)	1.55	12.93
Total SS:	27.60	100.00
Consensus Proportion: 0.72		

In the residuals above (Table 13) the most divergent views are evident from Social Worker Assistant (1) and to a slightly lesser extent from Social Worker (4). In Table 14 overleaf it can be pinpointed where Social Worker Assistant (1) and Social Worker (4) diverge from the consensus of the team.

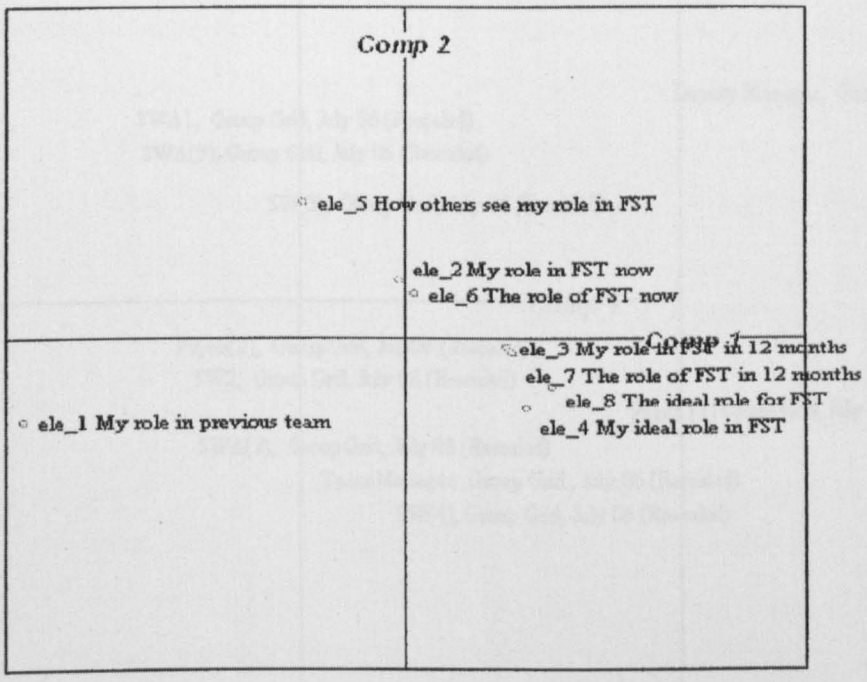
Table 14. Specific ANOVA Residuals

	Psych(1)	Manager	SW(2)	SWA(1)	Psych(2)	SWA(3)	SW(4)	SW(3)	SWA(2)	Deputy
1. Working in-keeping with idea of role	0.31	0.35	0.28	0.76	0.56	0.75	0.74	0.11	0.24	0.80
2. Professional identity in MAT	0.81	1.00	0.55	0.95	1.19	0.36	0.41	1.05	0.10	0.16
3. Professional identity in evolving team	0.52	0.18	1.13	1.23	0.26	0.81	0.43	0.83	0.29	0.33
4. Promote multi-skilled involvement	0.31	0.17	0.42	0.95	0.21	0.36	1.28	0.13	0.20	0.21
5. Reflection is inherent	0.10	0.29	0.21	0.56	0.09	0.63	0.52	0.21	0.12	0.53
6. Developing complementary skills	0.18	0.13	0.16	0.40	0.25	0.25	0.04	0.17	0.57	0.50

From Table 14 SWA (1) diverges from the consensus with regard to construct 3 (*developing a professional identity within an evolving team* versus *developing a professional identity within an established team*) where JT has strong views that there are advantages in the team developing a professional identity as it evolves. SWA (1) and SW (4) diverge from the consensus in relation to construct 4 (*developing processes that promote multi-skilled and flexible involvement with families* versus *developing processes that constrain multi-skilled and flexible involvement with families*) in that they both saw the *emergent* pole as evident in their role and the role of the team now, in the future and as an ideal.

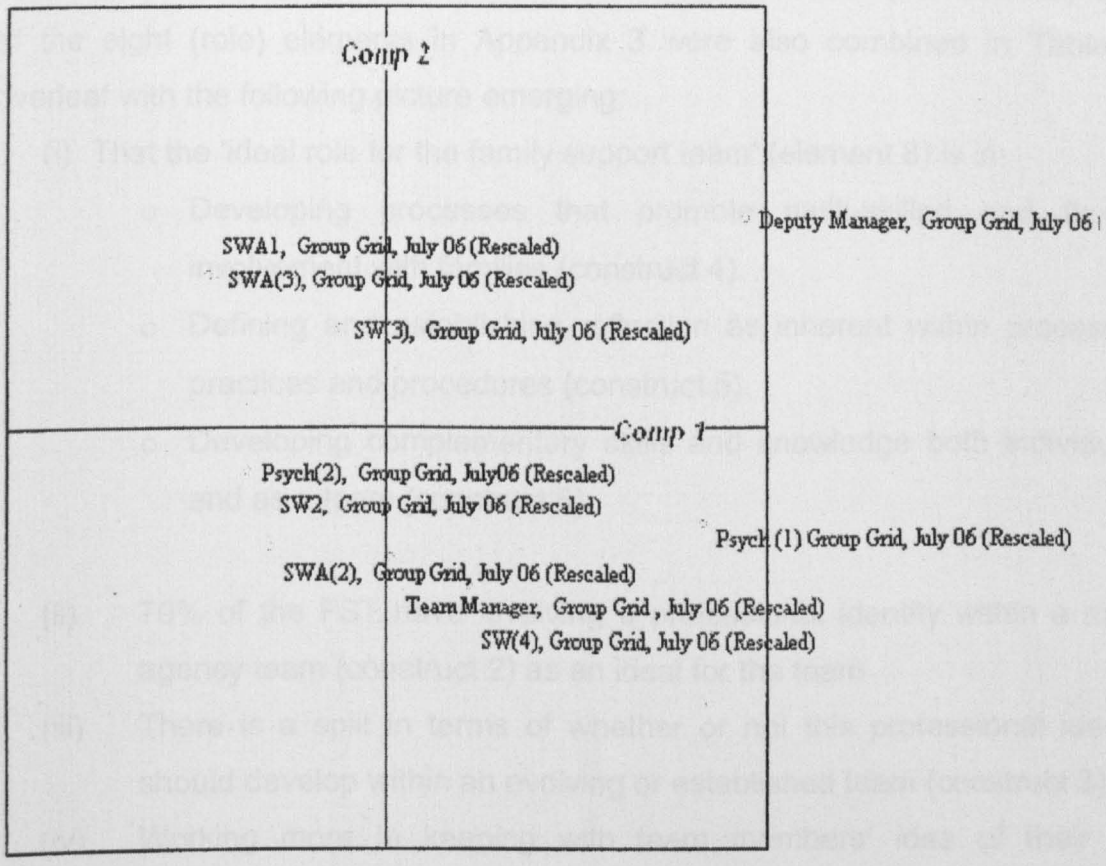
Finally, when the 'Elements' are 'Matched' in a Generalised Procrustes Analysis, the following helpful graphs emerge.

Figure 7. PCA (no rotation) for Consensus Grid: Elements Matched
Axis Range: -1.62 to 1.62



From Figure 7 above it can be seen quite clearly how the elements are clustered together. Element 1, *my role in my previous team*, is quite different from the others and, this is not surprising given that the Family Support Team is multi-agency and very few of its members worked in multi-agency teams before. Element 5, *how others see my role*, is also somewhat different from the other elements. And this too is not surprising given that team members are expected to construe how others see them rather than how they see themselves and the team.

Figure 8. PCA (no rotation) for Procrustes Statistics: Elements Matched.
Axis Range: -1.45 to 1.45



The grids that were, overall, most similar to one another are clustered together in Figure 8 above. Clearly the Deputy Manager and Psych (1) are quite different from the others. Interestingly both are the only two CAMHS professionals in the team. Two social worker assistants (SWA1 and SWA3) and a social worker (SW3) are similar, (they are the longest standing members of the team), but different the second psychologist in the team (Psych2) and another social worker (SW2) – both of these professionals joined the team around the same time and are very new to multi-agency working. The Team Manager has aligned herself to a social worker assistant (SWA2) and a social worker (SW4) – all three are relatively new to the team but share a social care background in social work district teams.

9.5 Comparisons between individual ratings of constructs and 'average' ratings of constructs for the whole team.

The individual ratings for the six super-ordinate constructs represented by each of the eight (role) elements in Appendix 3 were also combined in Table 15 overleaf with the following picture emerging:

(i) That the 'ideal role for the family support team' (element 8) is in:

- Developing processes that promote multi-skilled and flexible involvement with families (construct 4).
- Defining and establishing reflection as inherent within processes, practices and procedures (construct 5).
- Developing complementary skills and knowledge both individually and as a team (construct 6).

(ii) 70% of the FST have 'evolving a professional identity within a multi-agency team (construct 2) as an ideal for the team

(iii) There is a split in terms of whether or not this professional identity should develop within an evolving or established team (construct 3).

(iv) Working more in keeping with team members' idea of their role (construct 1) is seen as an ideal to varying degrees and this is reflected too in the role of the FST now (element 6) with a movement towards such an ideal in 12 months time (element 7).

(v) There is a similar movement towards an ideal role for the FST from the role of the team now to the role of the team in 12 months for construct 4 but the picture is less clear for constructs 5 and 6.

(vi) 70% of team members were working more in keeping with their idea of their role in their previous team (construct 1) and at least half of the team were evolving their professional identity in a previous established homogeneous team (constructs 2 and 3) that often constrained multi-skilled and flexible involvement with families (construct 4).

(vii) 50% of team members previously worked in teams that had a set framework which did not challenge assumptions or cross professional boundaries (construct 5) and had individualistic training and development (construct 6).

(viii) 60% of the team are struggling to work in the FST in keeping with their idea of their role (construct 1), although 90% see their professional identity evolving right now (construct 2) within an evolving team (construct 3).

(ix) 80% - 90% of team members see their role in the team right now as helping to develop processes that promote multi-skilled and flexible involvement with families (construct 4) and agree that there is a role now for developing and establishing reflection as inherent within all that they do (construct 5).

(x) 70% of the team see a role for themselves right now in developing complementary skills and knowledge for themselves and for the team (construct 6).

(xi) Individual roles in 12 months time are strengthened in terms of members' ideas and evolving professional identity (constructs 1 and 2); multi-skilled and flexible working (construct 4), reflective practices and procedures (construct 5) and developing complementary skills and knowledge (construct 6).

(xii) The picture regarding whether or not individual team members' roles are in an evolving or established team is less clear (construct 3).

(xiii) 80% of the team believe that others see their role in keeping with individuals' idea of their role (construct 1) to varying degrees and the variability is increased in relation to team members' views of each others' professional identity within the FST (construct 2): although only 60% perceive each others professional identity within an evolving team (construct 3).

(xiv) 70% of the team believe that others see their role in keeping with promoting multi-skilled and flexible working (construct 4): this drops to 60% for reflectivity within their practice and procedures (construct 5) and for developing complementary skills and knowledge (construct 6).

Mean ratings for Table 15 were then produced (in Table 16) overleaf and this table was shared with the team. Tables 15 and 16 were then compared to provide a summary table analysing differences between individual and average team ratings (Table 17).

Table 15. Combined individual team member ratings for each element (from Appendix 3) to provide numbers of team members' ratings ('r') against each (role) element in a single table shown below:

	My role in previous team	My role in FST now	My role in FST in 12 months	My ideal role in FST	How others see my role in FST	The role of FST now	The role of FST in 12 months	The ideal role for FST	
1									7
C1. Working more in keeping with my idea of my role	5 x 2r; 2 x 3r 2 x 4r; 1 x 6r	2 X 1r; 2 x 2r 5 x 3r; 1 x 7r	3 x 1r; 4 x 2r 1 x 3r; 2 x 4r 1 x 7r	5 x 1r; 3 x 2r 1 x 3r; 1 x 4r	1 x 1r; 2 x 2r 5 x 3r; 1 x 6r 1 x 7r	2 x 1r; 3 x 2r 4 x 3r; 1 x 7r	3 x 1r; 4 x 2r 1 x 3r; 2 x 4r	5 x 1r; 3 x 2r 2 x 3r	C1. Being unable to identify a role in a MAT
C2. Evolving a professional identity within a MAT	3 x 1r; 1 x 4r 2 x 5r; 2 x 6r 1 x 7r	2 x 1r; 3 x 2r 4 x 3r; 1 x 7r	4 x 1r; 4 x 2r 1 x 3r; 1 x 4r	7 x 1r; 3 x 2r	2 x 1r; 2 x 2r 4 x 3r; 1 x 4r 1 x 7r	2 x 1r; 2 x 2r 4 x 3r; 1 x 4r 1 x 7r	5 x 1r; 3 x 2r 1 x 3r; 1 x 4r	7 x 1r; 2 x 3r 1 x 7r	C2. Evolving a professional identity within a homogeneous team
C3. Developing a professional identity within an evolving team	1 x 1r; 2 x 3r 1 x 4r; 2 x 6r 4 x 7r	4 x 1r; 2 x 2r 4 x 3r	2 x 1r; 2 x 2r 3 x 3r; 1 x 4r 1 x 5r; 1 x 7r	3 x 1r; 2 x 2r 1 x 3r; 1 x 5r 2 x 6r; 1 x 7r	1 x 1r; 5 x 2r 3 x 4r; 1 x 5r	4 x 1r; 3 x 2r 1 x 3r; 1 x 4r 1 x 6r	4 x 1r; 1 x 2r 2 x 3r; 1 x 4r 1 x 6r; 1 x 7r	3 x 1r; 2 x 3r 1 x 6r; 4 x 7r	C3. Developing a professional identity within an established team
C4. Developing processes that promote multi-skilled and flexible involvement with families	2 x 1r; 1 x 2r 3 x 5r; 2 x 6r 2 x 7r	3 x 1r; 5 x 2r 1 x 3r; 1 x 4r	5 x 1r; 3 x 2r 2 x 3r	9 x 1r; 1 x 3r	1 x 1r; 4 x 2r 2 x 3r; 2 x 4r 1 x 7r	2 x 1r; 2 x 2r 5 x 3r; 1 x 7r	2 x 1r; 4 x 2r 1 x3r; 2 x 4r 1 x 5r	9 x 1r; 1 x 2r	C4 Developing processes that constrain multi-skilled and flexible involvement with families
C5.Defining/establishing reflection as inherent within processes, practices & procedures	1 x 1r; 1 x 2r 2 x 3r; 1 x 4r 3 x 6r; 2 x 7r	2 x 1r; 3 x 2r 3 x 3r; 2 x 4r	4 x 1r; 4 x 2r 2 x 3r	7 x 1r; 2 x 2r 1 x 4r	2 x 1r; 1 x 2r 3 x 3r; 2 x 4r 1 x 5r; 1 x 7r	2 x 1r; 4 x 2r 3 x 3r; 1 x 4r	2 x 1r; 5 x 2r 3 x 4r	8 x 1r; 2 x 2r	C5. Working within a set framework & not challenging assumptions or crossing professional boundaries
C6. Developing complementary skills & knowledge-individually & as a team	1 x 1r; 1 x 2r 1 x 3r; 1 x 4r 3 x 5r; 2 x 6r 1 x 7r	3 x 1r; 2 x 2r 2 x 3r; 2 x 4r 1 x 5r	4 x 1r; 2 x 2r 3 x 3r; 1 x 4r	5 x 1r; 4 x 2r 1 x 4r	2 x 1r; 2 x 2r 2 x 3r; 1 x 5r 1 x 6r; 2 x 7r	1 x 1r; 4 x 2r 3 x 3r; 1 x 4r 1 x 7r	1 x 1r; 6 x 2r 1 x 4r; 2 x 5r	9 x 1r; 1 x 2r	C6. Having individualistic training and development
	E1	E2	E3	E4	E5	E6	E7	E8	

Table 16. Mean (average) ratings for team constructs against the 8 elements

	My role in previous team	My role in FST now	My role in FST in 12 months	My ideal role in FST	How others see my role in FST	The role of FST now	The role of FST in 12 months	The ideal role for FST	
1									7
C1. Working more in keeping with my idea of my role	3	2.8	2.9	1.8	3.3	2.7	2.2	1.7	C1. Being unable to identify a role in a MAT
C2. Evolving a professional identity within a MAT	3.6	2.7	1.9	1.3	2.9	2.9	1.8	2.0	C2. Evolving a professional identity within a homogeneous team
C3. Developing a professional identity within an evolving team	5.1	2.0	3.1	3.4	2.8	2.3	2.9	4.3	C3. Developing a professional identity within an established team
C4. Developing processes that promote multi-skilled and flexible involvement with families	4.5	2.0	1.7	1.2	3.0	2.8	2.6	1.1	C4 Developing processes that constrain multi-skilled and flexible involvement with families
C5.Defining/establishing reflection as inherent within processes, practices & procedures	4.5	2.5	1.8	1.5	3.3	2.3	2.4	1.2	C5. Working within a set framework & not challenging assumptions or crossing professional boundaries
C6. Developing complementary skills & knowledge-individually & as a team	4.4	2.6	2.1	1.7	3.7	2.9	2.7	1.1	C6. Having individualistic training and development
	E1	E2	E3	E4	E5	E6	E7	E8	

Table 17. Summary analysis of differences between individual and 'average' team ratings:

Team Member	Element	Related Constructs	Individual Rating	Average Rating	Difference in ratings
Team Manager	Role in previous team	5	7	4.5	2.5
		6	7	4.4	2.6
	Ideal role in FST	3	6	3.4	2.6
		5	4	1.5	2.5
	Ideal role for FST	2	7	2.0	5
Deputy Team Manager	Role in previous team	2	1	3.6	2.6
		3	1	5.1	4.1
		4	1	4.5	3.5
		5	1	4.5	3.5
		6	1	4.4	3.4
	How others see my role	1	6	3.3	2.7
	Ideal role for FST	3	1	4.3	3.3
Social Worker (3)	Role of FST now	3	6	2.3	3.7
	Role of FST in 12 months	3	7	2.9	4.1
	Ideal role for FST	3	7	4.3	2.7
Social Worker (4)	Role in previous team	4	1	4.5	3.5
Social Worker (2)	Role in FST in 12 months	3	7	3.1	3.9
	Ideal role in FST	3	7	3.4	3.6
	Role of FST in 12 months	3	6	2.9	3.1
	Ideal role for FST	3	7	4.3	2.7
Psychologist (2)	Role in previous team	1	6	3	3
		2	1	3.6	2.6
	How others see my role	6	1	3.7	2.7

CONSTRUCTS:

1. **Working more in keeping with my idea of my role (1) versus Being unable to identify a role in a multi-agency team (7)**
2. **Evolving a professional identity within multi-agency team (1) versus Evolving a professional identity within a homogeneous team (7)**
3. **Developing a professional identity within an evolving team (1) versus Developing a professional identity within an established team (7)**
4. **Developing processes that promote multi-skilled & flexible involvement with families (1) versus Developing processes that constrain multi-skilled & flexible involvement with families (7)**
5. **Defining & establishing reflection as inherent within processes, practices & procedures (1) versus Working with a set framework & not challenging assumptions or crossing professional boundaries (7)**
6. **Developing complementary skills & knowledge both individually & as a team (1) versus Having individualistic training & Development (7)**

Numbers in brackets represent ratings for extreme ends of the construct pole.

Table 17. (Continued):

Team Member	Element	Related Constructs	Individual Rating	Average Rating	Difference in ratings
Psychologist (1)	Role in previous team	2	1	3.6	2.6
		4	2	4.5	2.5
		5	2	4.5	2.5
	Role in FST now	1	7	2.8	4.2
		2	7	2.7	4.3
	How others see my role	1	7	3.3	3.7
		2	7	2.9	4.1
		4	7	3.0	4.0
		5	7	3.3	3.7
		6	7	3.7	3.3
	Role of FST now	1	7	2.7	4.3
		2	7	2.9	4.1
		4	7	2.8	4.2
		6	7	2.7	4.3
	Ideal role for FST	3	7	4.3	2.7
Social Work Assistant (1)	Role in previous team	2	7	3.6	3.4
		4	7	4.5	2.5
	Ideal role for FST	3	1	4.3	3.3
Social Work Assistant (3)	Ideal role for FST	3	1	4.3	3.3
Social Work Assistant (2)	Ideal role in FST	3	6	3.4	2.6
	Ideal role for FST	3	7	4.3	2.7
	Role in previous team	4	7	4.5	2.5
		5	7	4.5	2.5
	How others see my role	6	7	3.7	3.3

CONSTRUCTS:

1. **Working more in keeping with my idea of my role (1) versus Being unable to identify a role in a multi-agency team (7)**
2. **Evolving a professional identity within multi-agency team (1) versus Evolving a professional identity within a homogeneous team (7)**
3. **Developing a professional identity within an evolving team (1) versus Developing a professional identity within an established team (7)**
4. **Developing processes that promote multi-skilled & flexible involvement with families (1) versus Developing processes that constrain multi-skilled & flexible involvement with families (7)**
5. **Defining & establishing reflection as inherent within processes, practices & procedures (1) versus Working with a set framework & not challenging assumptions or crossing professional boundaries (7)**
6. **Developing complementary skills & knowledge both individually & as a team (1) versus Having individualistic training & Development (7)**

Numbers in brackets represent ratings for extreme ends of the construct pole.

The individual interviews discussing the conclusions drawn from the differences between individual and 'average' team ratings are shown in appendix 3. What follows is a comparative synopsis of those interviews in the context of Table 17.

Table 17 shows that some team members have many more individual ratings that differ (by +/- 2.5 or more) from the 'average' team ratings than others. Psychologist (1) is a case in point: she was not surprised by the differences with regard to her role in her previous team given the different backgrounds of the Family Support Team members. Psychologist (1) was however surprised by the difference in ratings for her role in the FST now. The Psychologist (1) was of the opinion that as the majority of FST team members were from a 'social care' background they had few misunderstandings about their roles. Whereas, Psychologist (2) believed that social workers in the FST were still looking for some direction in identifying their roles.

Construct 3 {*developing a professional identity within an evolving team (1) versus developing a professional identity within an established team (7)*} led to a number of differences between individual ratings and average team ratings. The 'ideal role for the FST' with regard to construct 3 was given an average team rating of 4.3. This suggested some degree of ambivalence between developing a professional identity within an evolving versus an established team. The Deputy Manager and two of the social work assistants (SWA1 and SWA3) construed the ideal role for the FST as *developing a professional identity within an evolving team.* Whereas Psychologist (1), two social workers (SW2 and SW3) and a social work assistant (SWA2) construed the ideal role for the FST as *developing a professional identity within an established team.*

The Social Worker Assistant (1) equated an evolving team with a constantly changing team in which everyone was working and developing in different ways. She added that an evolving and changing team created opportunities for learning from others and providing others with the benefits from what had been learnt. Yet Psychologist (1) saw the ideal role for the family support team as *developing a professional identity within an established team.* However, Psychologist (1) did say that at the time of rating constructs against the ideal role for the FST she thought that the ideal role for the team was to develop a professional identity once the team was established. This was because Psychologist (1) had difficulties dealing with all the changes that were occurring at the time. Psychologist 1 said that now with team processes and procedures being less manic she appreciated the evolving nature of the FST as it develops its professional identity.

In comparison, Social Worker (2), said that when she joined the FST (May 2006) it was at a time when team procedures and processes were being questioned by team members to help decide the future of the team. Social Worker (2) said that she was motivated by being part of a change process that would lead to the development of a professional identity within an established team. Social Worker (2) thought that for other more long standing team members a certain degree of pessimism had set in over the last 18 months or so because the team identity had still not been developed. Whereas Social Work Assistant (2) was more comfortable with the team developing its professional identity once it was established: this belief was based on her experiences of having previously worked in a team with an established identity. And as a student on placement in the FST she was unclear about her role and the role of the team because of the evolving policies and procedures. Social Work Assistant (2) said that she thought it would be more ideal and beneficial for her and the team once procedures and policies were established.

Social Worker (3) and one of the longest standing members of the FST appreciated the evolving nature of the team and that changes may be necessary. However she said that it was important that professionals making referrals to the team together with team members were clear about what the team did, and where it was heading. Social Worker (3) added that there were different perceptions about team members' roles and the role of the team from amongst social workers who had recently joined the team. This, she said was especially so as they had not had experience of working in a multi-agency team. Social Worker (3) said that it might take them some time to get used to a different style of working (i.e. from assessment driven to intervention led).

9.6 Meeting with the Family Support Team (27 October 2006):

Summary Notes

The purpose of the meeting was to discuss the average team ratings for all six superordinate constructs against elements 6, 7 and 8 (the role of FST now; the role of FST in 12 months; and, the ideal role for the FST). Copies of Table 16 with the 18 boxes (cells) containing the ratings for all constructs against elements 6, 7 and 8 highlighted, were distributed to team members. The team members were reminded of how Table 16 had been constructed (that is how the scores had been obtained). The team members were also reminded that each of the constructs could be rated (against each element) from 1 to 7 and that a lower rating indicated a preference for the left hand end of the construct and a higher rating indicated a preference for the right hand end of the construct. The team members were asked what conclusions they could draw about the team from the average ratings in the 18 cells. A discussion then followed with the researcher asking additional questions (prompts) as necessary. These summative notes were given back to team members.

The first comment related to how a lot of the ratings for the role of the FST now and the role of FST in 12 months were not that far apart. This was interpreted by team members as a perception that the team was not going to change very much as opposed to thinking that the team was moving in the right direction and getting there (i.e. moving towards the ideal role for the FST). When this conclusion was further investigated by looking at Table 16 in more detail, it was noted that:

- For construct 1 (*working more in keeping with my idea of my role as opposed to being unable to identify a role in a multi-agency*) there was a big enough difference between the role of the FST now and the role of the FST in 12 months to show steady progress towards the perceived ideal role for the FST, that is working more in keeping with my idea of my role.

- For construct 2 (*evolving a professional identity within a multi-agency team as opposed to evolving a professional identity within a homogeneous team*) the average rating for the role of the FST in 12 months went beyond the average rating for the ideal role for the FST. So clearly there is a suggestion of change in the direction of evolving a professional identity within a multi-agency team.

- For construct 3 (*developing a professional identity within an evolving team as opposed to developing a professional identity within an established team)* there is relatively little progress towards an ideal role for FST. The ideal role illustrating ambivalence in terms of whether the professional identity is best established in an evolving team as opposed to an established team.

- For constructs 4, 5 and 6 (*developing processes that promote multi-skilled and flexible involvement with families as opposed to developing processes that constrain multi-skilled and flexible involvement with families; defining and establishing reflection as inherent within processes, practices and procedures as opposed to working within a set framework and not challenging assumptions or crossing professional boundaries;* and, *developing complementary skills and knowledge both individually and as a team as opposed to having individualistic training and development)* there was a suggestion of there being no identifiable progress towards the ideal role for the FST in 12 months time.

Team members concluded that the role of the FST now and the role of the FST in 12 months related to how the team should be working and therefore should be quite similar. And that whether or not the team was fulfilling its role was a different question.

The researcher then asked the team to consider the fact that all of the constructs other than construct 3 had an ideal role for the team at one end of the bi-polar construct, that is:

- *Working more in keeping with my idea of my role* (construct 1).
- *Evolving a professional identity within a multi-agency team* (construct 2).
- *Developing processes that promote multi-skilled and flexible involvement with families* (construct 4).
- *Defining and establishing reflection as inherent within processes, practices and procedures* (construct 5).
- *Developing complementary skills and knowledge both individually and as a team* (construct 6).

With construct 3 there was ambivalence between developing a professional identity within an evolving as opposed to an established team (construct 3) as an ideal role for the FST. This ambivalence was construed as being because of the very nature of the family support team in comparison to CAMHS. The rationale being that a CAMHS team is full of a number of different professionals each "standing on their own spot" in terms of what they should do. And although they talked to each other they tend to go their separate ways with regard to working practices, whereas in the FST everyone got involved with families and did what needed to be done including activities outside their expected role. It was suggested that the ambivalence was likely to remain as long as the FST continued to work with families in the way it did and as long as the FST continued to create a degree of uncertainty around each team member's role.

Further discussion around the role theme included the view that as the FST was a new team, team members especially those that were not social workers, did not have an established role to move into. Social workers in the FST know exactly what they are going to be doing based on their roles in their previous team.
It was put to the team that as working practices and procedures were continually being redefined there was ambivalence in the foundation and structure of the team. As the FST matured so too would the different professionals' roles in the team become more clearly defined. Any new professional joining the FST would understand the ideal role for the team as a whole because, although everyone in the team may have different expectations of their own and others roles, there would be a common understanding of the role of the FST. The current situation in the FST was very much open to interpretation. Discussion between team members suggested that with increased clarity over each others role and the role of the team would create the need for many different adjustments in working practices amongst members of the team.

The researcher then asked the team what they meant by professional identity and their responses were:

- Being clear about each other's role and the role of the team and knowing that professionals outside the team understand the role of the FST.
- Having protocols, policies and procedures clarified.
- Having a code of conduct – framework for how people work together professionally as a team clarified. (It was acknowledged that maybe there are different assumptions amongst team members about what it means to conduct oneself as a professional in a group. The code of conduct may not be the same for the different professionals within the FST. There should be acceptance and tolerance of the different views about what constitutes professional identity within the team. Acceptance and tolerance of each others professional identity was described as "hot potato" at the moment).

The team asserted that the issue of professional identity could be widened to include transferring skills and that there may be differences between team members in their flexibility for using skill transference. The team manager then introduced a 'Venn-Diagram' concept as a model for identifying the degree of overlap between the different skills of team members. It was proposed that the ideal for the FST would be for big areas of overlap even though ambivalence may be created. However, the team could use specialist individual skills to help ensure effective outcomes for particular processes and practices say during team meetings.

And team members concluded that for the team to work well everyone had to have confidence and feel empowered to use their particular experience and skills otherwise team members would feel very vulnerable in negotiating overlaps in working practices. Individual team members would have to be clear about their skill base and how their skills are being applied. Team members had to acknowledge skill differences so that they were comfortable with the overlap in working practices.

According to the team manager, the strength of the team now was when individual team members recognised that some aspects of the required work was beyond their skill and/or knowledge base and that they needed the support of another team member to proceed with their work.

The researcher asked if there was any conflict between the 'models of working' brought into the FST from team members' roles in their previous teams. There was a view amongst non-social work professionals that a social care model had had a greater influence on the FST way of working than any other model. And that there was more of an emphasis on becoming a social care professional as part of a professional FST identity. It was also suggested that there was a need to use models of working in previous roles flexibly in the FST whilst also trying to be helpful in transferring skills used in previous roles for the benefit of the FST.

9.7 Summary of the follow-up individual interviews (April 2007):

During individual follow-up interviews with six of the original team members it was evident that there had been some changes in their behaviour and/or views of themselves in relation to their role or the role of the FST over the preceding six months:

- Individual expectations for the role of the team may have been set too high in relation to a shift away from a social care model of service delivery towards an inter-agency multi-disciplinary role (construct 1).
- Reinforced the view of the need for team members to change their way of thinking about casework and to make reflective interventions as opposed to instructive interventions (construct 5).
- Recognition that their role within the team was less readily accepted by present team manager in comparison with previous manager.
- The need for individualistic training (construct 6) due to fear of losing previously acquired skills and knowledge has been replaced with acknowledgement that these skills have not been lost but are simply not being used.

- Recognition of the importance of developing complementary skills and knowledge both individually and as a team.
- Understanding of role within the team has become more concrete.
- Clarifying that being a homogeneous team means being together in the same team but having different skills.

The differences in individual ratings now (April 2007) and previously (October 2006) that seem particularly important were:

- That the high staff turnover had reduced opportunities to talk about dilemmas in working practices and team protocols in order to be realistic about the challenges facing the team and the complexities of multi-agency working (construct 5).
- A lack of training opportunities which has disrupted team development (construct 6).
- Team processes constrained multi-skilled and flexible involvement in working with families due to changes in the composition and size of the team. However there was some individual team member flexibility in taking on tasks outside their traditional role (construct 4).
- Increased numbers of social care staff had contributed towards the move towards a social care model of service delivery (construct 1).
- The role of the FST now (April 2007) was moving towards working within a set framework where assumptions about service delivery were not challenged and professional boundaries were not crossed (construct 5).
- The role of the FST now (April 2007) related to anxieties over the future of the team – the proposed re-organisation had created a big question mark about whether or not the FST would move towards its idea role for construct 2 and construct 3 – i.e. in what kind of team (homogeneous or multi-agency and evolving or established) a professional identity is developed.

- The adoption of a social care model of intervention had created a cynical atmosphere within the team in that individual and team ideals have got lost. Part of the cynicism was because team members joined the FST in the belief that there would be alternative models of service delivery to the social care model.

Team members saw themselves and/or were behaving differently in terms of:

- On the one hand being much more relaxed about their role and being prepared to do whatever was expected, whilst on the other hand being resigned to the fact of just getting on with things even if it was not in keeping with an ideal for their role (construct 1).
- Identifying the need to take more time for personal reflection. However this meant stepping outside the team more as there was not enough time for reflection within the team at present (construct 5).
- Constantly changing roles within the team posed a threat to professional identity (construct 2 and construct 3).
- A need to adopt a defensive position outside of the team to protect FST ethos and working practices and a reluctance to challenge assumptions or cross boundaries within the team (construct 4).

9.8 Comparative ratings over time

Table 18. Comparative Ratings (October 2006 and April 2007*) for the six superordinate constructs.

	Role in previous team	Role in FST now	Role in FST in 6/12 months	Ideal role in FST	How others see my role in FST	Role of FST now	Role of FST in 6/12 months	Ideal role for FST	
1									7
Construct 1.									C1.
Psych (1)	2 (2)	7 (3)	4 (2)	1 (1)	7 (4)	7 (6)	4 (4)	1 (1)	
Manager	1 (1)	3 (3)	4 (2)	4 (2)	4 (3)	3 (3)	4 (2)	4 (2)	
Deputy	2 (2)	1 (1)	4 (4)	1 (1)	4 (6)	6 (2)	4 (4)	4 (3)	
SW (2)	4 (4)	4 (3)	1 (1)	1 (1)	3 (3)	5 (3)	4 (1)	1 (1)	
Psych (2)	6 (6)	1 (1)	1 (1)	2 (3)	2 (3)	2 (3)	2 (2)	1 (1)	
SWA (3)	3 (3)	1 (2)	1 (2)	1 (2)	2 (2)	1 (1)	1 (1)	1 (1)	
Construct 2.									C2.
Psych (1)	1 (1)	4 (7)	2 (4)	1 (1)	4 (7)	4 (7)	2 (4)	1 (1)	
Manager	6 (5)	3 (3)	2 (2)	2 (2)	5 (4)	4 (3)	4 (2)	2 (7)	
Deputy	1 (1)	1 (1)	3 (3)	1 (1)	2 (3)	6 (1)	4 (2)	4 (3)	
SW (2)	6 (6)	3 (3)	3 (1)	1 (1)	3 (3)	3 (3)	3 (1)	1 (1)	
Psych (2)	6 (1)	1 (1)	1 (1)	1 (1)	1 (1)	4 (4)	2 (1)	1 (1)	
SWA (3)	5 (5)	2 (3)	2 (2)	1 (2)	2 (2)	2 (2)	1 (2)	1 (1)	
Construct 3.									C3.
Psych (1)	3 (3)	1 (1)	1 (4)	7 (5)	1 (2)	1 (1)	1 (1)	7 (7)	
Manager	7 (7)	3 (3)	3 (5)	6 (6)	2 (4)	3 (2)	2 (4)	1 (6)	
Deputy	1 (1)	1 (1)	1 (3)	1 (1)	4 (1)	6 (1)	4 (2)	1 (1)	
SW (2)	7 (7)	3 (3)	5 (7)	7 (7)	5 (5)	3 (3)	5 (6)	7 (7)	
Psych (2)	6 (6)	1 (1)	1 (3)	5 (3)	2 (2)	1 (1)	2 (3)	5 (3)	
SWA (3)	6 (6)	3 (3)	2 (2)	2 (2)	3 (2)	4 (2)	2 (2)	2 (1)	
	E1	E2	E3	E4	E5	E6	E7	E8	

***Ratings for October 2006 are in brackets.**

CONSTRUCTS:

1. **Working more in keeping with my idea of my role (1) versus Being unable to identify a role in a multi-agency team (7)**
2. **Evolving a professional identity within multi-agency team (1) versus Evolving a professional identity within a homogeneous team (7)**
3. **Developing a professional identity within an evolving team (1) versus Developing a professional identity within an established team (7)**
4. **Developing processes that promote multi-skilled & flexible involvement with families (1) versus Developing processes that constrain multi-skilled & flexible involvement with families (7)**
5. **Defining & establishing reflection as inherent within processes, practices & procedures (1) versus Working with a set framework & not challenging assumptions or crossing professional boundaries (7)**
6. **Developing complementary skills & knowledge both individually & as a team (1) versus Having individualistic training & development (7)**

Numbers in brackets represent ratings for extreme ends of the construct pole.

Table 18 (continued). Comparative Ratings (October 2006 and April 2007*) for the six super ordinate constructs.

	Role in previous team	Role in FST now	Role in FST in 6/12 months	Ideal role in FST	How others see my role in FST	Role of FST now	Role of FST in 6/12 months	Ideal role for FST	
1									7
Construct 4.									C4
Psych (1)	2 (2)	3 (1)	1 (1)	1 (1)	3 (7)	7 (7)	6 (5)	1 (1)	
Manager	5 (5)	1 (2)	2 (2)	3 (2)	3 (2)	2 (2)	3 (4)	3 (2)	
Deputy	1 (1)	1 (1)	3 (3)	1 (1)	4 (3)	4 (1)	4 (4)	1 (1)	
SW (2)	6 (6)	4 (3)	3 (2)	1 (1)	4 (4)	4 (3)	3 (2)	1 (1)	
Psych (2)	6 (6)	2 (2)	1 (1)	1 (1)	2 (4)	5 (3)	2 (1)	1 (1)	
SWA (3)	5 (5)	3 (4)	2 (2)	7 (1)	2 (2)	3 (3)	2 (2)	1 (1)	
Construct 5.									C5.
Psych (1)	2 (2)	1 (1)	1 (1)	1 (1)	3 (7)	7 (4)	5 (4)	1 (1)	
Manager	7 (7)	2 (2)	3 (2)	3 (4)	3 (4)	2 (2)	1 (4)	3 (2)	
Deputy	1 (1)	1 (1)	1 (1)	1 (1)	1 (1)	4 (1)	4 (4)	1 (1)	
SW (2)	6 (6)	3 (3)	3 (2)	1 (1)	5 (5)	5 (3)	3 (2)	1 (1)	
Psych (2)	4 (4)	4 (3)	1 (1)	1 (1)	1 (1)	5 (3)	2 (2)	1 (1)	
SWA (3)	6 (6)	3 (4)	2 (2)	1 (1)	2 (3)	2 (2)	1 (1)	1 (1)	
Construct 6.									C6.
Psych (1)	4 (4)	3 (1)	3 (1)	3 (1)	7(7)	4 (7)	4 (5)	1 (1)	
Manager	7 (7)	2 (2)	1 (3)	3 (4)	2 (5)	2 (2)	2 (4)	3 (2)	
Deputy	1 (1)	1 (1)	1 (1)	1 (1)	1 (1)	4 (1)	5 (5)	1 (1)	
SW (2)	6 (6)	3 (3)	2 (2)	1 (1)	5 (6)	3 (3)	3 (2)	1 (1)	
Psych (2)	5 (5)	5 (5)	3 (3)	2 (2)	1 (1)	4 (5)	2 (2)	1 (1)	
SWA (3)	5 (5)	3 (3)	2 (2)	3 (2)	2 (3)	3 (2)	2 (2)	1 (1)	
	E1	E2	E3	E4	E5	E6	E7	E8	

***Ratings for October 2006 are in brackets.**

CONSTRUCTS:

1. **Working more in keeping with my idea of my role (1) versus Being unable to identify a role in a multi-agency team (7)**
2. **Evolving a professional identity within multi-agency team (1) versus Evolving a professional identity within a homogeneous team (7)**
3. **Developing a professional identity within an evolving team (1) versus Developing a professional identity within an established team (7)**
4. **Developing processes that promote multi-skilled & flexible involvement with families (1) versus Developing processes that constrain multi-skilled & flexible involvement with families (7)**
5. **Defining & establishing reflection as inherent within processes, practices & procedures (1) versus Working with a set framework & not challenging assumptions or crossing professional boundaries (7)**
6. **Developing complementary skills & knowledge both individually & as a team (1) versus Having individualistic training & development (7)**

Numbers in brackets represent ratings for extreme ends of the construct pole.

The data in Table 18 broadly illustrate that, not surprisingly the ratings for team members' roles in their previous team are the same and that their ratings for the ideal role for the team have not changed much apart from the team manager's rating which has gone from one end of the pole to the other. Individual team member's ideal role in the FST remain largely unchanged apart from SWA (3) for construct 4 in which she too has moved from one end of the pole to the other. Team members' role in the FST now (which of course in April 2007 was 6 months later than their previous rating) also remain mostly the same, albeit for psychologist (1), in relation to construct 1 in which she felt even more strongly that she is unable to identify a role in the FST. Likewise, team members' roles in the team in 6 months time (as of April 2007) are the same as their roles in 12 months (as of October 2006) where there is also generally little movement. Although where there is movement it occurs in both directions. Psychologist (1)'s ratings show the only major difference over time in relation to how others see her role. And it is the deputy team manager who sees major changes in the role of the team now.

In summary then, the results provided are both quantitative (Principal Component Analysis and General Procrustes Analysis) and qualitative (individual interviews and whole team meetings). Use has also been made of descriptive statistics and comparisons between individual ratings and 'average' team ratings for qualitative purposes.

10. DISCUSSION:

The discussion that follows considers first what has been learnt from this research in relation to the elicitation of tacit knowledge and organisational learning. The findings are then compared with the literature review. In a similar vein the nature of groups and group processes are next discussed followed by multi-agency working and the change process. The section ends by considering what knowledge has been gained from the elicited constructs and the chosen (role) elements: issues to be addressed by the Family Support Team together with questions that need answering are outlined.

10.1 The elicitation of tacit knowledge and organisational learning

The elicitation of 'tacit' knowledge amongst different professionals working in a multi-agency Family Support Team enabled the professionals in the team to review their past actions, communications, events and experiences in a form of systematic reflection (i.e. deliberative learning). The use of personal construct psychology as a method of construct elicitation within a range of role elements made it possible for team members to implicitly link past and current experiences. And, it was evident from the descriptive statistics for (role) elements (Table 9) that *'my role in my previous team'* (element 1) was the most important for at least 40% of the team and, the *ideal role for FST* (element 8) was the most important element for another 40% of the team. Element 1 was also quite different from the other seven that were clustered close together in the consensus grid for matched elements (Figure 7). The elicitation of 59 individual bi-polar constructs and the team's co-construction of six superordinate bi-polar constructs from these individual constructs were illustrative of a selection of current experiences entering consciousness (i.e. implicit learning).

The group co-construction activities that followed allowed team members to engage in deliberate decision-making, problem-solving and planned informal learning. The extent to which one team member construed the construction processes of another may have played a role in a social process involving that person (Kelly's *sociality corollary*). The recognition for learning opportunities between and amongst the team through the incidental noting of facts, opinions, impressions and ideas (i.e. reactive learning) was observed during the co-construction process. Individual and whole team interviews about repertory grid constructions meant that team members considered their future behaviour, individually and collectively. This came about via the unconscious effects of their previous experiences (implicit learning); by them being prepared for emergent learning opportunities (reactive learning); and by them determining planned learning goals (deliberative learning).

The literature review referenced 'communities of practice' as a well known example of knowledge sharing through "participation" (i.e. practising) in a community (Lave & Wenger, 1991; Wenger, 2000). According to Wenger (1998) communities of practice are beneficial for the organisation, for the community itself and for practitioners. And so, it was evident from the elicitation of the six superordinate bi-polar constructs that the team's participation in the co-construction process helped build a common language around the embedded tacit knowledge about the 59 individual bi-polar constructs. It also fostered a learning-focused sense of professional identity (that was illustrated in two of the six constructs) and provided opportunities for all team members to contribute.

Such implicit, reactive and deliberative learning processes, axiomatic with this thesis through construct elicitation and interview, confirmed Nonaka's (1994) suggestion that new knowledge, beginning with individual personal knowledge, can be transformed into organisational knowledge. This organisational knowledge proved valuable to the team as whole by providing autonomy and creating the intention for purposeful action amongst individual team members.

To this end, the methodology used for construct elicitation and sharing of repertory grid data facilitated the organisational knowledge conversion process (Nonaka and Takeuchi, 1995) as illustrated in Figure 2. It does mean that Gourlay's (2000) suggestion of there being *"cracks in the engine of the knowledge creation model"* may be unfounded, especially as the production of six superordinate bi-polar constructs began with a process of socialisation, where tacit knowledge was transferred through interactions between individuals. The 'externalisation' of tacit knowledge came about through the conversion (or co-construction) of the 59 individual bi-polar constructs into six superordinate bi-polar constructs. The interviews used to elicit these individual bi-polar constructs, spelt out that they were personal, context specific and would have been potentially hard to formalise and communicate between team members. The co-construction activities first enabled to team members to re-experience indirectly the experience of others in producing their individual constructs which has been described as internalisation process of embodying explicit knowledge into tacit knowledge. Secondly, the exchange of such explicit knowledge during small group and whole team activities enabled a diversity of knowledge sources to 'combine' and shape a new and enhanced conception of constructs about a professional's role in a multi-agency team.

Furthermore, the co-construction process provided the team with an opportunity to "codify" this 'new' knowledge and transmit it formally into a language of six superordinate bi-polar constructs. It was the difference between the hard to formalise and communicate knowledge from knowledge that was transmittable in formal systemic language that distinguished their tacit knowledge from their explicit knowledge. It would seem too from individual interviews that there was affirmation of the existence of the two dimensions of tacit knowledge amongst team members: the *technical dimension* (i.e. the "know-how") and the *cognitive dimension* (i.e. beliefs, ideals, values, mental models, schemata).

And interestingly from the interview notes social workers demonstrated an awareness of the use of the technical dimension by saying that it was easier for them to fit into the team as they had few misunderstandings about their role.
The perception that the FST was moving towards a social care model of service delivery brought the two dimensions into conflict for the non-social care professionals, especially the CAMHS professionals. It was also apparent from interviews with the deputy team manager, that his sharing of tacit knowledge on the cognitive dimension had led some social care professionals to challenge the social care service delivery model ideal. And the individual follow-up interviews (April 2007) illustrated not only how individual practitioners had responded and changed features of the situation in which they found themselves but also that the influences by which they did this were social and communal. For example, what was important in April 2007 was that the high staff turnover had reduced opportunities to talk about working practice dilemmas. The team were unable to move towards their ideal role and some team members had unrealistic ideas about the challenges facing the team in the context of the complexities of multi-agency working. Thus reinforcing Hager's (2000) argument that by theorising informal workplace learning in terms of what people actually do (e.g. make judgements) we can then account for the effect of the many variables influencing people's workplace judgements.

The previous discussion fits neatly with the typology of non-formal learning (Figure 1) from Eraut (2000), non-formal learning and tacit knowledge in professional work. However, if tacit knowledge is explained in terms of focal and subsidiary awareness (Polanyi, 1969) then the explicit/implicit distinction does not correlate with one kind of knowledge versus another. This is because subsidiary awareness, which is knowledge that is present in the mind but not attended to directly, often leads to focal awareness where knowledge is attended to when making a claim of some sort about something. It could be argued that such a transfer of awareness took place during the co-construction of the six superordinate bi-polar constructs.

It was however quite evident from the past and present structure and composition of the Family Support Team, as well as from the varying accounts of different team members during interviews, that there were situations where one professional in the team knew something that another professional did not. And yet both professionals shared the same practice (i.e. knowledge embedded in taken-for-granted activities, perceptions and group norms). This was especially so with the deputy team manager's comments about staff opposition to the team manager's leadership and management style. He suggested that this had resulted in a loss of staff training opportunities, dull casework and a high turnover of staff. In this sense, the deputy team manager's elicited tacit knowledge could be thwarting rather than helping team working (Sternberg, 1988).

The use of the element *'how others see my role in the FST'* was an attempt at tapping into professionals' tacit knowledge of how others perceived their role and whether or not they were aware. The consensus grid for matched elements (Figure 7) illustrated that *'how others see my role in the FST'* was quite different from the main cluster of elements. It was Psychologist (1), who had the most to say about this element during interview, even though she had previously rated it as one of her two least important roles (Table 3).

And it was from the individual interview with psychologist (1), following the ratings for the six superordinate bipolar constructs, that she was of the opinion that other team members did not seem to see her role in the team in the same way as she did. Also, the deputy team manager's associated constructs with *'how others see my role in the FST'* (Table 10) related in part to him being unable to identify a role in the team.

So in summary, this section has identified the importance of implicit, reactive and deliberative learning processes throughout both individual elicitation and co-construction of bi-polar constructs.

10.2 The nature of groups and group processes

Of course how people behave and perform as members of a group is as important as their behaviour or performance as individuals. A frequent turnover of staff is likely to have an adverse effect on morale and on the cohesiveness of the group. And the form of management and leadership style is one of the organisational factors likely to influence the relationship between the group and the organisation and, is a major determinant of group cohesiveness. Indeed construct 3 (developing a professional identity within an evolving team versus developing a professional identity within an established team) provided the team manager with some dilemmas around her management style (interview October 2006). On reflection the team manager acknowledged that there should have been better clarity around some of the team's operational processes as soon as she was appointed.

The evolving and established team dilemma clearly affected group cohesiveness by the manner in which the team had progressed or had not progressed through the various stages of development and maturity. It would seem from individual interviews with team members (October 2006 and April 2007) that the FST had oscillated between the forming and storming stages and had not normalised or performed yet. Some comments from the follow-up interviews support this notion. Individual team members' changes in behaviour and views of themselves in April 2007 had arisen from individual expectations of the role of the team having been set too high; a recognition that their role within the team was less readily accepted by the team manager; and constantly changing roles within the team posed a threat to professional identity.

An 'Activity System' depicting multi-agency work (Leadbetter, 2006) is one way of clarifying an understanding of a team's operational procedures. In October 2006, social worker (3) said that it would be a good idea for professionals outside the FST as well as team members to know exactly what the team does.

She thought that team members and outside agencies (especially social care professionals) were struggling to understand the role and function of the team. An activity system (*op. cit.*) would offer the FST an approach that included making explicit the tools or artefacts (e.g. language, protocols), the rules (e.g. time available, local requirements), links with the community (e.g. family members, child, voluntary agencies) and the division of labour (e.g. role demarcation, task allocations, expectations, and overlaps).

The sense gained from individual interviews (October 2006 and April 2007) and the meeting with the whole team (October 2006) was that only the 'community' aspect of the activity system was operational in a meaningful way. It can therefore be suggested that the team continued to under-perform (i.e. prevent children and young people becoming looked after) because other aspects of the activity system had not been clarified. In particular, the division of labour where the concept of roles helps clarify the structure and pattern of complex relationships within the group. The role (or roles) that an individual team member plays is influenced by situational factors (such as task requirements, leadership style) and personal factors (such as values, attitudes – the cognitive dimension of tacit knowledge, motivation, ability and personality).

An important feature of role relationship is role incongruence which seemed to have occurred with CAMHS professionals. The deputy team manager perceived himself as having a high and responsible position in one respect but felt he had a low standing in not being able to shift the focus of the role and function of the FST away from a social care model of service delivery towards a truly multi-disciplinary one. Psychologist (1)'s difference in construct ratings from the average team ratings occurred with five out of the eight (role) elements (Table 17). This difference in construct ratings was acknowledged by psychologist (1) at the follow-up interview (April 2007) who thought that she needed to inform other team members of her role.

However psychologist (1) was resigned to the fact that challenging the way the team worked was not going to make any difference to the future role of the team. This of course was likely to create role conflict arising out of role incompatibility and role ambiguity. Role incompatibility meant that compliance with one set of expectations (say of the team) made it difficult or impossible to comply with other expectations (say from her supervisor). Role ambiguity continues until formally prescribed expectations are in place.

Constructs of course are never fixed but will vary in terms of their permeability in accommodating new events or elements (Kelly's 'modulation' corollary). So psychologist (1) will admit 'how others see my role' as an element in need of change, only the same could not be said for the role of family support team in the future. This domain of meaning for psychologist (1) was part of her overall system that not only binds subsystems together, within the overarching superordinate constructs, but also has regulated the process of change within her domains (Kelly's 'fragmentation' corollary). Overall though, it was concluded that not all of the team members share the same professional identity. This was acknowledged in the whole team's construction of two out of the six super-ordinate bi-polar constructs: *evolving a professional identity within a multi-agency team* versus *evolving a professional identity within a homogeneous team* (construct 2) and *developing a professional identity within an evolving team* versus *developing a professional identity within an established team* (construct 3). However, it was not until the follow-up interviews (in April 2007) that what was meant by 'homogeneous' team was clarified.

In October 2006 the term was thought of, by most members, as being related to a team made up of professionals from the same agency. And clearly the FST was multi-agency with the ideal role for the team being that their professional identity should evolve in this context. Whereas, by April 2007 there was an understanding that being a homogeneous team meant being together in the same team but having different skills.

Nevertheless, of the six team members completing their repertory grids in April 2007, four maintained that the ideal role for the FST was for the professional identity to evolve in a multi-agency team rather than in a homogeneous team (Table 19). The team manager moved her rating from the homogeneous team to the multi-agency team whilst the deputy team manager moved his to a neutral position. The team manager also shifted her rating in the other direction for construct 3 in that by April 2007 she saw the ideal for the team as being *developing a professional identity within an established team.* Whereas, apart from psychologist (2), who moved the ideal for the team towards *developing a professional identity within an established team,* the other four team members' ratings remained unchanged. It meant that the team manager and her deputy were now thinking alike but that there were still differences within the team. It further suggested that team members might interpret experiences or events differently, allocate importance and view implications of their actions differently from their colleagues.

It must recognised, according to Bannister and Fransella (1986) that team members will move their ratings in directions that seem to make the most sense to them. This means in directions which seem to elaborate their construct system (Kelly's 'choice' corollary). And, construct systems are continually developing and changing. They change in relation to the accuracy of the anticipations. Predictions will sometimes be correct and sometimes incorrect (Kelly's 'experience' corollary). Nevertheless, if team members are not construing their constructions (about professional identity) in the same way, especially in terms of ideals for the team, then problems between peoples' inter-personal relationships are likely to occur (Ellis, 2000).

In summary then, this section has demonstrated how the findings from the research relate to a multi-agency 'activity system' with particular reference to role relationships and professional identity.

10.3 Multi-agency working

This study also supports some of the findings of the LGA Research, Report 26 (nfer, 2002) in which some key challenges to multi-agency working expressed by 139 interviewees included roles and responsibilities (32%); understanding common aims and objectives (25%); and leadership and drive (23%). However, it is Anning's work (2001) which resonates most strongly with the underpinnings of this explorative investigation, in that it is the sharing of different forms of professional knowledge and different cultural work practices which is one of the major inhibiting factors for inter-agency working. Brown and White (2006) have also commented on cultural differences and blurred boundaries between professionals and a lack of clarity around roles and responsibilities as being frequently reported barriers to integrated service provision.

Furthermore, Anning et al (2006) identified four dilemmas common to multi-professional teams (i.e. structural, ideological, procedural and inter-professional dilemmas) for both individual team members and the team as a whole. And, interestingly enough these same four dilemmas were used by one group during the re-categorisation process. This small group within the FST (Appendix 2, Table 5.1, group 1) saw, for example, structural dilemmas for the individual as being related to having increased responsibility through collaborative working contrasted with acting as a lone worker. And for the team, a hierarchical team structure was contrasted with individual practitioners coming together. Ideological dilemmas included, working towards a common goal in contrast with working to different agendas. Procedural dilemmas included having clear processes for working practices contrasted with unclear working practices. And inter-professional dilemmas encompassed uncertainty about the purpose of the role within the team being contrasted with everyone knowing everyone else's role and how roles fit together.

10.4 The change process

Within the context of personal construct psychology, Bannister and Fransella (1986) describe people as being *'in the business of anticipating events and then moving on in directions which seem to make most sense.'* As previously stated, the FST has continually undergone change and some of these changes have resulted in team members construing differently. Kelly (1991) conceptualised four emotions as arising out of constructs being in transition. McCoy, (1977) suggested three structures for these emotions, that is core, psychological and behaviour, that would result in accompanying emotional experiences. This research has mirrored these theoretical perspectives. For example with Kelly's validation versus invalidation of construing, team members (during interview) have been aware of the imminent comprehensive change in core structures and their (psychological) fear of the future has resulted in incidental change in core construing. Team members' bewilderment (behaviour) towards change in the team operation is an awareness of imminent comprehensive change in non core structures.

Individual team member's ideal role for the FST and their role in the team in April 2007 (6 months after the research began) remain largely unchanged amongst most of the six remaining team members for the most constructs. It was the deputy team manager who saw major changes in the role of the team in April 2007.

10.5 The constructs and the elements

Finally, there is a richness of construct data from the 59 individual bi-polar constructs which may well have got lost in the pursuit of exploring how the elicitation of group constructs might inform future team practice. Table 3 encapsulates the data from the individual repertory grids and there is a detailed exemplar of how this data was compiled for one team member (psychologist 1) in Appendix 1.

Interestingly enough, in October 2006, it was the team members' role in their previous team that was identifying individual constructs many of which were implicit. This suggests that professionals new to a multi-agency team are going to draw very heavily (and implicitly) on their previous experiences and knowledge, some of which will have been acquired tacitly to inform their actions and behaviour in a multi-agency team.

It was the two CAMHS professionals who identified constructs around the role of the FST now. For psychologist (1) these constructs were mostly emergent and centred on the view of her role within the team: having discussions and negotiations about the role was an implicit construct for psychologist (1). The deputy team manager's constructs were all implicit and centred on the statutory aspect of the team which from interview he clearly wanted to change.

Table 10 (the association of elements with constructs) is a duplicate of Table 3 but using the six superordinate bi-polar constructs. Table 10 is also dominated by team members' roles in their previous teams. It was psychologist (1), social worker (4) and social worker assistant (3) who identified constructs closely associated with the ideal role for the FST and, the deputy team manager who identified constructs closely associated with the role of the FST in 12 months. However, that is where the similarity ends because different constructs were identified and where the same construct was used team members were construing them at different ends of the pole.

To summarise this discussion, it is evident that the elicited tacit knowledge in the form of 59 individual and six superordinate bi-polar constructs has informed organisational learning the group processes that have taken place. The dilemmas facing multi-agency working have been illustrated as being very similar to those described in the literature review. The change process facing team members can be explained in terms of personal construct psychology. The relevance of the six superordinate constructs, in particular, to the team's professional identity have been reinforced throughout individual interviews and meetings with the whole team.

Professional identity for this team was seen in terms of clarity over role both within and for other professionals outside the team and having protocols, policies and procedures clarified together with a code of conduct for how team members work together professionally. And, as a result of the above findings Table 19 (below) was drawn up and fedback to the team.

Table 19: Issues for the team to address & questions that need answering.

Issues	Questions
1. Role identification	o Is there a generic and/or specialist role for all team members? o How does this role fit with team members' expectations of their idea of their role within a multi-agency team? o Is this role accepted and understood by the whole team?
2. Professional identity	o Is the contrast of homogeneous team with multi-agency team fully understood and accepted by team members? o What protocols, policies and procedures can be established now? o What protocols, policies and procedures can be accepted as needing to evolve over time? o Can a framework for how team members will work together professionally as a team be drawn up and agreed? o How will protocols, policies and procedures fit in with expectations of Heads of Service and/or Assistant Directors – especially in light of the re-organisation? o How will agreed established and evolving protocols, policies and procedures be communicated to district social work teams and other agencies?
3. Ways of working	o How will the protocols, policies and procedures promote multi-skilled and flexible involvement with families? o What alternative models are there for working with families? How might these be agreed amongst the different practitioners in the FST o How will the ways of working fit in with expectations of Heads of Service and/or Assistant Directors – especially with reorganisation? o How can reflective practices be established within the protocols and procedures? o How will the ways of working enable team members to cross professional boundaries and challenge assumptions?
4. Training and Development Plans	o How can continuing professional development promote the development of complementary skills and knowledge both individually and as a team?

11. CONCLUSIONS:

This thesis has used personal construct psychology to elicit the individual and whole team constructs based on tacit knowledge held by various professionals about their role and the role of the multi-agency team in which they work. The elicited constructs have been most closely associated with their role in their previous team and what they perceive as an ideal role for the team. The theory underpinning knowledge transfer (Nonaka and Takeuchi) has been largely supported and the existence of different dimensions of tacit knowledge has been affirmed. The sharing of constructs with the team has enabled team members to respond to change and alter their construing accordingly with associated changes in their views and behaviour in relation to multi-agency working. It was evident that professional identity remained a key issue for debate within the team in parallel with clarification over the homogeneity of the composition and role of the team. It was concluded that Leadbetter's (2006) Activity System depicting multi-agency work would offer the FST an approach that would help make all aspects of its processes and procedures explicit.

The thesis supported Anning's (2001, 2006) work in that it is the sharing of different forms of professional knowledge and different cultural practices which is one of the major inhibiting factors for multi-agency working. And that the sharing process has identified varying dilemmas for inter-agency working (i.e. structural, ideological, procedural and inter-professional). Individual follow-up interviews with six of the ten team members has illustrated the existence of Kelly's (1991) dimensions of emotion as a means of re-construing constructs in transition due to ongoing changes of team composition and model of service delivery.

11.1 Implications for future research

This research could obviously be replicated with more teams to look for patterns in construing based on team composition, leadership and management style, type of service delivery. Attempts could be made to link elicited constructs with stages of team development. The length of time between first and second ratings of constructs could be increased. A particular intervention could be suggested for one team based on the initial findings, using a similar team as a control group, and then both teams could be revisited at a set time later for follow-up data collection and analysis. The co-construction (re-categorisation) process could be isolated as a particular area of study, particularly as there are so many constructs to manage.

11.2 Limitations of the research

Most traditions of action research agree on the following goals: (a) the generation of new knowledge, (b) the achievement of action-oriented outcomes, (c) the education of both researcher and participants, (d) results that are relevant to the local setting, and (e) a sound and appropriate research methodology. In this research there has certainly been a generation of new knowledge. However, as Carter (1993) argues, practitioners' accounts of their reality are themselves constructions of reality and not reality itself. We cannot escape the basic problems of knowledge generation by elevating practitioners' accounts of practice to a privilege status. Although Kelly (1991) would argue that there is no such thing as absolute reality or truth. One test of the (outcome) validity of action research is the extent to which actions occur, which leads to a resolution of the problem that led to the study. Greenwood and Levin (1998) call this criteria "workability" and link it to John Dewey's notion of pragmatism. Watkins (1991) points out that "many Action Research studies abort at the stage of diagnosis of a problem or the implementation of a single solution strategy, irrespective of whether or not it resolves the presenting problem" (pp. 8).

Outcome validity acknowledges the fact that rigorous action research should make the researcher reframe the problem in a more complex way, often leading to a new set of questions or problems. Outcome validity is also dependent on process validity in the sense that if the (action research) process is superficial or flawed, then the outcome reflects it. Process validity must also deal with the much-debated problem of what counts as evidence to sustain assertions.

Of course this research did not start with a presenting problem and by its very title is simply exploratory. However, with the generation of new knowledge (the six superordinate bi-polar constructs) no strategy or strategies for intervention were suggested. Nevertheless, the researcher has planned to discuss with the team manager the applicability of the new knowledge to help generate some ideas for future action. The process must enable agreement on which of the findings count as being sustainable evidence. It must also determine the relevance of the findings to the context in which the team now finds itself. The team has a different composition and structure as well as a slightly different model of service delivery – re-naming itself as a crisis intervention and support team. There will need to be an opening for re-orientating the researcher and practitioner view of reality as well as the view of respective roles. And at this stage, there cannot be any agreed generalisability of the findings to other multi-agency teams.

Finally, in relation to personal construct psychology as a methodology, a basic question that has to be asked in relation to grid methodology is whether constructs elicited from people are likely to be a representative and stable sample. Or on the other hand whether in fact there is an almost infinite pool from which (more or less randomly) constructs appear from one occasion of inquiry to another.

A similar question could be asked about the elements supplied for the grid. If we accept that different subsystems within a person's construing system may have different degrees of stability as well as showing simple changes over time, then clearly we must expect to find, for both individuals and groups, that different elements will yield different retest correlation coefficients.

A common finding with grids is that different individuals will show widely varying degrees of stability when they are given repeat grids, in that construction reliability (or consistency) is a function of the psychological processes of individuals. This perhaps, in particular varies with their conviction for the task in hand.

12. BIBLIOGRAPHY:

Adair, J. (1986). *Effective Teambuilding.* London: Gower

Anning, A. (2001). *Knowing who I am and what I know: developing new versions of professional knowledge in integ*rated service settings. Paper presented at BERA Annual Conference, University of Leeds, 13-15 September 2001.

Anning, A., Cottrell, D., Frost, N., Green, J., & Robinson, M (2006). *Developing Multi-professional Teamwork for Integrated Children's Services.* Berkshire: Open University Press.

Atkinson, M., Wilkin, A., Stott, A., Doherty, P., & Kinder, K. (2002). *Multi-agency working: A detailed study.* LGA research: Report 26, Berkshire: NFER.

Ambrosini, V., & Bowman, C. (2001). Tacit knowledge: Some suggestions for operationalisation. *Journal of Management Studies* 38, 811-829.

Anglin, J.M. (1977). *Word, Object and Conceptual Development.* New York: Norton.

Argyris, C. (1993). *Knowledge for action.* San Francisco:Jossey-Bass.

Agyris, C. (1999). Tacit knowledge and management. In: Sternberg, R.J and Horvath, J.A., (Eds.) *Tacit knowledge in professional practice,* pp. 123-140. Mahwah, NJ and London: Lawrence Erlbaum Associates.

Argyris, C., & Schon, D. (1974). *Organisational learning: A theory in action perspective.* Reading, MA: Addison-Wesley.

Argyris, C., & Schon, D. (1996). *Organisational learning II.* Reading, MA: Addison-Wesley.

Ashby, W.R. (1956). *An Introduction to Cybernetics*, London: Champan & Hall.

Ashkenas, R., Todd, J., Ulrich, D., & Paul-Chardhurry, P (1998). *The boundaryless organisation field guide: Practical tools for building the new organisation.* San Francisco, CA: Jossey-Bass Inc.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist,* 32, 122-147.

Bannister, D. (1960). Conceptual structure in thought-disordered schizophrenics. *Journal of Mental Science,* 108, 1230-1249.

Bannister,D., & Fransella, F. (1966). *Grid Test of Thought Disorder.* Barnstaple: Psychological Test Publications.

Bannister,D., & Fransella, F. (1986). *Inquiring Man: The Psychology of Personal Constructs.* 3rd Edition. London: Croom Helm.

Baumard, P. (1999). *Tacit knowledge in organisations,* 2nd edition. London & Thousand Oaks: Sage.

Bazerman, M. (1998). *Judgement in managerial decision making,* 4th Edition. New York, Chichester: John Wiley & Sons.

Biehal, N., Clayden, J., Stein, M., & Wade, J. (1995). *Moving on: Young people and leaving care schemes.* London: HMSO.

Blomberg, J., Giacomi, J., Mosher, A. & Swenton-Hall, P. (1993). Ethnographic field methods and their relation to design. In: Schuler, D. & Namioka, A. (eds.) *Participatory Design: Principals & Practices.* New Jersey: Lawrence Erlbaum.

Boisot, M.H. (1998). *Knowledge Assets: Securing Competitiveness Advantage in the Information Economy.* Oxford: Oxford University Press.

Bourdieu, P. (1990). *The logic of practice.* Cambridge: Polity Press.

Brown, J.S., & Duguid, P. (2001). Knowledge and organisation: A social practice perspective. *Organisational Science,* 12 (2), 198-213.

Brown, K., & White, K. (2006). *Exploring the evidence base for Integrated Children's Services.* Edingburgh: Scottish Executive Education Department Publications.

Buchanan, D., & Boddy, D. (1992). *The Expertise of the Change Agent.* London: Prentice Hall.

Buchner, A., & Wippich, W. (1998). 'Differences and commonalities between implicit learning and implicit memory', Chapter 1 in Stadler, M.A., and Frensch, P.A., (eds) *Handbook of implicit learning.* Thousand Oaks and London: Sage, 3-46.

Cameron, A., & Lart, R. (2003). Factors Promoting and Obstacles Hindering Joint Working: A Systematic Review of the Research Evidence. *Journal of Integrated Care,* 11(2), 9-17.

Candy, P. (1990). Repertory grids: playing verbal chess. In Mezirow, J (ed), *Fostering Critical Reflection in Adulthood: A Guide to Transformative and Emancipatory Learning.* San Francisco: Jossey-Bass.

Caputi, P and Reddy, P. (in press). A comparison of triadic and dyadic methods of personal construct elicitation. *Journal of Constructivist Psychology.*

Carlgren, I. (1996). Professionalism and teachers as designers. In Kompf M, Bond WR, Dworet D, Boal TR (eds): *Changing Research and Practice: Teachers' Professionalism, Identities and Knowledge.* London: Falmer Press.

Carlisle, K. E. (1986). Analyzing Jobs and Tasks. Englewood Cliffs, NJ: Educational Technology Publications, Inc.

Carter, K. (1993). The place of story in the study of teaching and teacher education. *Educational Researcher,* 22(1), 5-12.

Cervo, R.M. (1992). Professional practice, learning and continuing education: an integrated perspective. *International Journal of Lifelong Education,* 11(2), 91-101.

Chin, P. (1997). Teaching and learning in teacher education: who is carrying the ball? In Loughran J, Russell T (Eds.): *Teaching about Teaching: Purpose, Passion and Pedagogy in Teacher Education.* London: Falmer Press.

Choo, C.W. (2006). *The knowing organisation: how organisations use information to construct meaning,* 2nd Edition. New York, Oxford: Oxford University Press.

Cochrane, A. (2000). Local government managerialism and modernisation. In: J.Clarke, S Gerwirtz & E. McLaughlin (Eds.), *New managerialism, new welfare?* (pp. 122-136). London:Sage.

Coghlan, D., & Brannick, T. (2005). *Doing Action Research in Your Own Organization.* Second Edition. London: Sage Publishers.

Collins, H.M. (2001). What is tacit knowledge? In: Schatzki, T.R., Knorr Cetina, K & von Savigny, E (Eds). *The Practice turn in contemporary theory, pp 107-119.* London & New York: Routledge.

Cook, S.D.N., & Brown J.S. (1999). Bridging epistemologies and the generative dance between organisational knowledge and organisational knowing. *Organisational Science,* 10, 381-400.

Cooklin, A. (ed.) (1999). *Changing Organizations: Clinicians as Agents of Change.* London: Karnac.

Craig, E. (1998). *Routledge Encyclopaedia of Philosophy.* London & New York: Routledge (10 volumes).

Craig, J., Huber, J., & Lownsbrough, H. (2004). *Schools Out – Can teachers, social workers and health staff learn to live together?* London: Hay Group UK.

Delaney, F.G. (1994). Muddling through the middle ground: Theoretical concerns in intersectorial collaboration and health promotion. *Health Promotion International,* 9(3), 17-25.

Department for Education and Skills (2003). *Every child matters.* London: HMSO.

Department for Education and Skills (2004). *Every child matters: Change for children (Common core of skills and knowledge for the children's workforce).* Nottingham: DfES Publications.

Drucker, P. (1993). "The new society of organisations", in: Howard, R (Ed), *The learning imperative. Managing People for Continuous Innovation.* Harvard Business School Press. Boston. MA.

Dunleavy, P. (2003). Authoring a PhD: How to Plan, Draft, Write and Finish a Doctoral Thesis or Dissertation. Hampshire: Palgrave Macmillan.

Easterby-Smith, M., & Lylses, M.A. (2003). *The Blackwell Handbook of Organisational Learning and Knowledge Management*. Malden, MA: Oxford: Blackwell Publishing Ltd.

Edwards, D., & Mercer, N. (1987). *Common Knowledge. The development of understanding in the classroom.* London & New York: Methuen.

Ellis, J. (2000). The professional identity of nurses: an empirical investigation of personal constructions using the Repertory Grid Technique. Unpublished PhD thesis. La Trobe University.

Engestrom, Y. (1987). *Learning by expanding: An activity-theoretical approach to developmental research.* Helsinki: Orienta-Konsulit.

Epting, F.R., Suchman, D.I., & Nickerson, K.J. (1972). An evaluation of the elicitation process for personal constructs. *British Journal of Psychology,* 62, 513-517.

Eraut, M. (2000). Non-formal learning and tacit knowledge in professional work. *British Journal of Educational Psychology,* 70, 113-136.

Eraut, M. (1994). *Developing professional knowledge and competence.* London: Falmer Press.

Eraut, M., Alderton, J., Cole, G., & Senker, P. (1998). *Development of knowledge and skills in employment.* Research Report No. 5, University of Sussex Institute of Education, Brighton.

Evans, G., & Butler, J. (1992). Expert models and feedback processes in developing competence in industrial trade areas. *Australian Journal of TAFE Research and Development,* 8 (1), pp 13-32.

Fivars, G. (Ed) (1980). Critical Incident Technique, American Institutes for Research.

Flanagan, John C. (1954). *The Critical Incident Technique*, Psychological Bulletin, 51, 4, July, 327-358.

Ford, K.M., & Adams-Weber, J.R. (1991). The structure of personal construct systems and the logic of confirmation. *International Journal of Personal Construct Psychology,* 4, 15-41.

Fowler, FJ (Jr), Mangione, T.W. (1990). *Standardised Survey Interviewing.* Sage Publications, Newbury Park.

Fransella, F. (2005). *The Essential Practitioner's Handbook of Personal Construct Psychology.* Chichester, West Sussex: Wiley.

Fransella, F. (2003). *International Handbook of Personal Construct Psychology.* Chichester, West Sussex: Wiley.

Fransella, F., & Bannister, D. (1977). *A Manual for Repertory Grid Technique.* Chichester, West Sussex: Wiley.

Fransella, F., Bell, R., & Bannister, D. (2004). *A Manual for Repertory Grid Technique, Second Edition.* London: Academic Press

Frensch, P.A. (1998). 'One concept, multiple meanings: on how to define the concept of implicit learning', Chapter 2 in Stadler, M.A., and Frensch, P.A., (Eds.) *Handbook of implicit learning.* Thousand Oaks and London: Sage, 47-104.

Fromm, M. (1993). What students really learn: students' personal constructions of learning items. In: *International Journal of Personal Construct Psychology,* pp. 195-208, 1993.

Fromm, M. (2004). *An Introduction to the Repertory Grid Interview.* New York: Waxman.

Frost, N. (2004). 'Joined-up' working with children: Some research findings, University of Leeds, on behalf of Multi-Agency Teams working for children (MATCh). *Inter-professional conference,* 8 December 2004 – Children's Trusts, Partnership Working and Outcomes for Children.

Gaines, B.R., & Shaw, M.L.G. (1980). New directions in the analysis and interactive elicitation of personal construct systems. *International Journal of Man-Machine Studies,* 13, 81-116.

Gardner, R. (2003). Working Together to Improve Children's Life Chance: The Challenge of Inter-agency Collaboration. In: Weinstein, J., Whitttington, C., &

Geddes, M. (1997). *Partnership against poverty and exclusion? Local regeneration strategies and excluded communities in the UK.* Bristol: Policy Press.

Gerwirtz, S. (2002). *The managerial school: Post-welfarism and social justice in education.* London: Routledge

Gourlay, S.N. (2000). *Some cracks in the "engine" of knowledge-creation: a conceptual critique of Nonaka & Takeuchi's (1995) model.* Refereed paper submitted to the British Academy of Management (2000), University of Edinburgh Management School.

Gourlay, S.N. (2004). Knowing as semiosis: steps towards a re-conceptualisation of 'tacit knowledge'. In: Tsoukas, H and Mylonopoulos, N., (Eds.) *Organisations as Knowledge Systems,* London: Palgrave Macmillan.

Grant, R.M. (1996). Toward a Knowledge-Based Theory of the Firm. Special issue, *Strategic Management Journal,* 17, 109-122.

Greenwood, D., & Levin, M. (1998). *Introduction to action research: Social research for social change.* Thousand Oaks, CA: Sage

Grice, J.W. (2006). *Idiogrid Manual & Software (version 2.4): Idiographic Analysis with Repertory Grids.* Oklahoma State University.

Grice, J.W. (in press). Generalized Procrustes Analysis. In: N. Salkind (Ed.) *Encyclopedia of Measurement and Statistics.* Thousand Oaks, CA: Sage.

Hagans, C.L., Neimeyer, G.J., & Goodholm, R., Jr. (2000). The effect of elicitation methods on personal construct differentiation and valence. *Journal of Construct Psychology,* 13, 155-173.

Hager, P. (2000). Know-how and workplace practical judgement. *The Journal of the Philosophy of Education.* 34 (2), 281 -296. Blackwell Publishers.

Hallet, C., & Birchall, E. (1992). *Coordination and child protection: A review of the literature.* London: HMSO.

Harbin, G. (1996). The challenge of coordination. *Infants and Young Children,* 8(3), 68-76.

Haritos, A., Gindidis, C., Doan, C., & Bell, R.C. (2004). The effect of element role titles on construct structure and content, *Journal of Construct Psychology,* 17, 221-236.

Harri-Augstein, E. S., & Thomas, L. F. (1991). *Learning conversations – the self-organised way to personal and organisational growth.* London: Routledge.

Hemmecke, J., & Stary, C. (2004). *A Framework for the Externalisation of Tacit Knowledge Embedding Repertory Grids.* Presented at the proceedings of the European Conference on organisational knowledge, learning and capabilities, 2004.

Herbig, B., Bussing, A., & Ewert, T. (2001). The role of tacit knowledge in the work context of nursing. *Journal of Advanced Nursing,* 34, 687-695.

Herr, K., & Anderson, G.L. (2005). The Action Research Dissertation: A Guide for Students and Faculty. London: Sage Publishers.

Hinkle, D.N. (1965). The Change of Personal Constructs from the Viewpoint of a Theory of Construct Implications in: Fransella, F, Bell, R & Bannister, D (2004), *A Manual for Repertory Grid Technique, Second Edition.* London: Academic Press.

Howard, R. (1993). *The learning imperative. Managing People for Continuous Innovation.* Harvard Business School Press. Boston. MA.

HMSO. (2003). *The Victoria Climbie inquiry: Report of an inquiry by Lord Laming.* London: Stationary Office.

Ichijo, K., von Krogh, G and Nonaka, I. (1998). Knowledge enablers. In: von Krogh, G., Roos, J and Kleine, D., (Eds) *Knowing in firms. Understanding, managing and measuring knowledge,* pp. 173-203. London: Sage.

Isaacson, G.I., & Landfield, A.W. (1965). Meaningfulness of personal and common constructs. *Journal of Individual Psychology,* 21, 160-166.

Janik, A. (1988). Tacit knowledge, working life and scientific method. In : Goranzon, B Josefson, I., (Eds.) *Knowledge, skill and artificial intelligence,* pp. 53-63. London & Berlin: Springer-Verlag.

Johnson, P., Wistow, G., Rockwell, S., & Hardy, B. (2003). Interagency and inter-professional collaboration in community care: the interdependence of structures and values. *Journal of Inter-professional Care,* 17(1), 69-83.

Jones, S. (1996). *Developing a Learning Culture.* London: McGraw-Hill.

Kelly, G.A. (1970). A brief introduction to personal construct theory. In: Bannister, D (Ed), *Perspectives in Personal Construct Theory,* pp 1-29, London: Academic Press.

Kelly, G.A. (1969). A mathematical approach to psychology. In: Maher, B (Ed), *Clinical Psychology and Personality: The Selected Papers of George Kelly,* pp. 94-113. New York: Wiley.

Kelly, G.A. (1966). Fixed role therapy: In Jurjuvich, M (ed): *Handbook of Direct and Behaviour Therapies.* Unpublished.

Kelly, G.A. (1955/1991). *The psychology of personal constructs* (Vols. 1 & 2). New York: W.M. Norton.

Kimberlee, R. (2001). *Chasing the money: The common and local problems facing partnerships involved in short-term funded projects for young people in areas of urban deprivation.* Paper presented at the International Conference of Mulit-organisational Partnerships and Cooperative Strategy. Bristol, 12-14 July, 2001.

Kitzinger, C. & Stainton-Rogers, R. (1985). A Q-methodological study of lesbian identities. *European Journal of Social Psychology, 15,* 167–187.

Klein, P.D. (1998). "Knowledge, concept of", entry in Craig, E (ed.) *Routledge Encyclopaedia of Philosophy.* London & New York: Routledge, 266-76.

Kogut, B., & Zanderu, U. (1992). Knowledge of the firm, combinative capabilities and the replication of technology. *Organisation Science,* 3 (3), 385-97.

Landfield, A.W. (1971). *Personal construct systems in psychotherapy,* Chicago: Rand McNally.

Lave, J., & Wenger, E. (1991). *Situated learning. Legitimate peripheral participation.* Cambridge: Cambridge University Press.

Leadbetter, J. (2006). Investigating and conceptualising the notion of consultation to facilitate multi-agency work. *Journal of Educational Psychology in Practice,* 22 (1), 19-31.

Leiba, T (2003), *Collaboration in social work practice.* London: Jessica Kingsley Publishers.

Leont'ev, A.N. (1982). *Activity, consciousness and personality.* Englewood Cliffs, NJ: Prentice Hall.

Maher, B. (1969). *Clinical Psychology and Personality: The Selected Papers of George Kelly.* New York: Wiley.

McAdam, R., & McCreedy, S. (1999). A critical review of knowledge management models. *The Learning Organisation,* 6 (3), pp. 91-100. MCB University Press.

McCoyy, M.M. (1977). 'A reconstruction of emotion' in D. Bannister (Ed.), *New Perspectives in Personal Construct Theory.* London: Academic Press.

Mitsos, S.B. (1958). Representative elements in the role construct technique, *Journal of Consulting Psychology,* 22, 311-313.

Neimeyer, G.J., Bowman, J.Z., & Saferstein, J. (2004). The effects of elicitation techniques on repertory grid outcomes: difference, opposite and contrast methods, *Journal of Construct Psychology,* 18, 237-252.

Neimeyer, G.J., Neimeyer, R.A., Hagans, C.L., & van Brunt, D.L. (2002). Is there madness in our method? The effects of repertory grid variations on measures of construct system structure. In R. Neimeyer & G. Meimeyer (Eds.) *Advances in Personal Construct Psychology,* 5, New York: Praeger Publications.

Neisser, U. (1976). *General, academic and artificial intelligence. In L. Resnick (Ed), The nature of intelligence (pp. 135-144).* Hillside, NJ: Lawrence Erlbaum Associates.

Nelson, G. (1971). *Critical Incidents in Training* (mimeographed questionnaire), Corvallis, Oregon: United States International University.

Nelson, R., & Winter, S. (1982). *An evolutionary theory of economic change.* Cambridge: Belknap Press.

Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science, 5 (1),* 14-37.

Nonaka, I., & Konno, N. (1998). The concept of "Ba": Building a foundation for knowledge creation. *California Management Review,* 40 (3), 40-54.

Nonaka, I., & Takeuchi, H. (1995). *The Knowledge-Creating Company.* New York: Oxford University Press, Inc.

Nystedt L., & Magnusson, D. (1982). Construction of experience. In Mancuso J, Adams-Webber J (eds): *The construing Person.* New York: Praeger Publishers.

Patel, V.L., Arocha, J.F., & Kaufman, D.R. (1999). Expertise and tacit knowledge in medicine. In: Sternberg, R.J and Horvath, J.A., (Eds.) *Tacit knowledge in professional practice,* pp. 123-140. Mahwah, NJ and London: Lawrence Erlbaum Associates.

Payne, J. (1998). The attractions of joined up thinking. *Adults Learning.* 10(4), 12-14.

Pearce, N & Hillman, J. (1988). *Wated youth: Raising achievement and tackling social exclusion.* London: Institute for Public Policy Research.

Penrose, E. T. (1959). *The Theory of the Growth of the Firm.* Oxford: Blackwell.

Perby, M-L. (1988). "Computerisation and skill in local weather forecasting", Chapter 5 in Goranzon, B. and Josefson, I. (Eds) *Knowledge, skill and artificial intelligence,* London: Springer-Verlag.

Percy-Smith, J. (2005). *What works in strategic partnerships for children?* Essex: Barnardos.

Polanyi, M. (1962). *Personal Knowledge: Towards a Post-Critical Philosophy.* Chicago: University of Chicago Press.

Polanyi, M. (1966). *The Tacit Dimension*. London: Routledge & Kegan Paul.

Polanyi, M. (1969). Tacit Knowledge. In Grene, M (Ed), *Knowing and Being.* Chicago: University of Chicago Press.

Reber, A.S. (1993). *Implicit learning and tacit knowledge: An essay on the cognitive unconscious.* Oxford: Oxford University Press.

Rogers, D.S., & Whetten, D.A (Eds.) (1982). *Inter-organisational coordination: Theory, research and implementation.* Ames, IA: IOWA State University.

Rushmer, R., & Pallis, G. (2002). Inter-professional working: the wisdom of integrated working and the disaster of blurred boundaries. *Public Money & Management,* 23(1), 59-66.

Schein, E.H. (1988). *Organisational Psychology 3rd Edition.* Englewood Cliffs, NJ: Prentice Hall.

Schon, D.A. (1983). *The reflective practitioner.* New York: Basic.

Schon, D.A. (1987). *Educating the Reflective Practitioner: Towards a new design for Teaching and Learning in the Professions.* San Francisco: Jossey-Bass.

Senge, P.M. (1990). *The fifth discipline: the age practice of the learning organisation.* London: Century Business.

Shani, A.B, (Rami) &., Pasmore, W.A. (1985). Organizational inquiry: Towards a new model of action research process, in: D.D. Warwick (Ed.), *Contemporary Organization Development: Current Thinking and Applications.* Glenview, IL: Scott Foresman, pp. 438-448.

Slater, P. (1972). The measurement of consistency in repertory grids. *British Journal of Psychology.* 121, 45-51.

Sloper, P. (2004). Facilitators and barriers for co-ordinated multi-agency services. *Childcare, Health & Development,* 30(6), 571-580.

Smith, E.A. (2001). The role of tacit and explicit knowledge in the workplace. *Journal of Knowledge Management* 5 (4), 311-321. MCB University Press.

Smith, E.E., & Medin, D.L. (1981). *Concepts and categories.* Cambridge, MA: Harvard University Press.

Smith, H. J. (2000). The Reliability and Validity of Structural Measures Derived from Repertory Grids. *Journal of Constructivist Psychology* 13, 221-230. Taylor and Francis.

Spender, J.C. (1996a). Competitive advantage from tacit knowledge? Unpacking the concept and its strategic implication. In: Moigeon, B & Edonson, A. (Eds), *Organisational learning and competitive advantage, pp 56-73.* London: Sage.

Spender, J.C. (1996b). Organisational knowledge learning and memory: three concepts in search of a theory. *Journal of Organisational Change Management.* 9(1), 63-78.

Stadler, M.I., & Frensch, P.A. (1998). *Handbook of implicit learning.* London: Sage.

Stainton-Rogers, R. (1995). Q methodology. In J.A. Smith, R. Harre & L. Van Langenhove (Eds.), *Rethinking methods in psychology.* London: Sage.

Stenner, P. & Stainton-Rogers, R. (2004). Q methodology and qualiquantology. In Z. Todd, B. Nerlich, S. McKeown & D.D. Clarke (Eds.), *Mixing methods in psychology: The integration of qualitative and quantitative methods in theory and practice.* East Sussex: Psychology Press.

Sternberg, R.J. (1988). *The triarchic mind: A new theory of human intelligence.* New York: Penguin.

Sternberg, R.J., & Horvath, J.A. (eds) (1999). *Tacit Knowledge in professional practice: Research and Practioner Perspectives.* Mahwah, NJ: Lawrence Erlbaum Associates.

Sternberg, R.J. Wagner, R.K., & Okagaki, L. (1993). *Practical intelligence: The nature and role of knowledge in work and school. In H. W. Reese & J.M. Puckett (Eds), Mechanisms of everyday cognition* (pp. 205-227), Hillside, NJ: Lawrence Erlbaum Associates.

Stewart, A., Petch, A., & Curtice, L. (2003). Moving towards integrated working in health and social care in Scotland: from maze to matrix. *Journal of Inter-professional Care,*17 (4), 335-350.

Stewart, V., Stewart A., & Fonda, N. (1981). *Business applications of repertory grids.* Berkshire: McGraw-Hill.

Stringer, E.T. (1999). *Action Research: A handbook for Practitioners,* 2nd Edition. Thousand Oaks, CA: Sage.

Teece, D.J. (Ed.) (1987). *The Competitive Challenge: Strategies for Industrial Innovation and Renewal.* Cambridge: Ballinger Publishers.

Thomas L.F., & Harri-Augstein S. (1985). *Self Organised Learning: Foundation of a Conversational Science of Psychology.* London: Routledge & Kegan Paul.

Tsoukas, H. (2003). Do we really understand tacit knowledge? In: Easterby-Smith, M and Lylses, M.A., (Eds) *The Blackwell Handbook of Organisational Learning and Knowledge Management,* pp. 410-427. Malden, MA: Oxford: Blackwell Publishing Ltd.

Tuckman, B.W. (1965). Development Sequence in Small Groups, *Psychological Bulletin,* 63, 384-99.

Tuomi, I. (1999). Data is more than knowledge implications of the reversed knowledge hierarchy for knowledge management and organisational memory. *Proceedings of 32nd Hawaii International Conference on systems science,* IEEE (http://www.computer.org/proceedings/hics/001/00011/00011071.PDF).

Von Krogh, G., Ichijo, K & Nonaka, I. (2000). *Enabling knowledge creation: How to unlock the mystery of tacit knowledge and release the power of innovation.* Oxford: Oxford University Press.

Wagner, R.K., and Sternberg, R.J. (1987). "Tacit knowledge in managerial success", *Journal of Business and Psychology,* pp. 303-12.

Walker, B., & Haslett, T. (2002). 'Action research in management – ethical dilemmas', *Systematic Practice and Action Research,* 15 (6), 523-33.

Watkins, K. (1991). *Validity in action research.* Paper presented at the annual meeting of the American Educational Research Association, Chicago. (ED 334 246).

Webb, R., &Vulliamy, G. (2001). Joining up solutions: The rhetoric and practice of inter-agency cooperation. *Children and Society,* 15, 315-332.

Weinstein, J., Whittington, C., & Leiba, T. (2003). *Collaboration in social work practice.* London: Jessica Kinglsey Publishers.

Wenger, E. (1998). *Communities of Practice.* Cambridge University Press.

Whetten, D. A. (1982). Objectives and issues: Setting the stage. In: D.S. Rogers & D.A. Whetton (Eds), *Inter-organisational coordination: Theory, research and implementation.* Ames, IA: IOWA State University.

Wikipedia. (2007). *Wikipedia, the free encyclopedia (retrieved from http://en.wikipedia.org.).*

Williams, A.M., Davids, K and Williams, J.G. (1999). *Visual perception and action in sport.* London & New York: E and F Spon,

Winter, S.G. (1987). Knowledge and competence as strategic assets. In: *The Competitive Challenge: Strategies for Industrial Innovation and Renewal,* edited by DJ Teece, pp 159-84. Cambridge: Ballinger Publishers.

Zapkta, J.G., Marrocco, G.R., Lewis, B., McCusker, J., Sullivan, J., McCarthy, J & Birch, F.X. (1992). Inter-organisational responses to AIDS: A case study of the Worcester AIDS Consortium. *Health Education Research: Theory & Practice* 7, 31-46 (cited in Delaney, 1994).

13. APPENDICES:

Appendix 1:

Table 3.1 Individual grid for psychologist (1)

Psychologist (1)	My role in my previous team	My role in the FST now	My role in the FST in 12 months	My ideal role in the FST	How others see my role in FST	The role of the FST now	The role of the FST in 12 months	The ideal role for the FST	
1									7
C1. **Implementing psychology in a multi-agency team**	**1**	**1**	**1**	**1**	**1**	**2**	**2**	**1**	C1. **Not implementing psychology in a multi-agency team**
C2. **Having a more 'hands on' role**	**1**	**1**	**1**	**1**	**2**	**7**	**1**	**1**	C2. **Having discussions & negotiations about roles**
C3. **Lack of clarity about multi-agency working**	**4**	**5**	**7**	**7**	**6**	**3**	**7**	**7**	C3. **Team working harmoniously towards same outcome**
C4. **Uncertainty about the purpose of the role within the team**	**7**	**7**	**7**	**7**	**1**	**2**	**7**	**7**	C4. **Everyone knowing everyone else's role & how roles fit together**
C5. **Having a consistent approach in working as a psychologist**	**6**	**7**	**7**	**7**	**4**	**4**	**4**	**4**	C5. **Having a loose sense of role due to influence of other agencies & team**
C6. **Having a stereotypical view of the role of the CP**	**7**	**7**	**7**	**7**	**1**	**1**	**7**	**7**	C6. **Being open-minded about role of CP**
	E1	E2	E3	E4	E5	E6	E7	E8	
	My role in my previous team	My role in the FST now	My role in the FST in 12 months	My ideal role in the FST	How others see my role in FST	The role of the FST now	The role of the FST in 12 months	The ideal role for the FST	

Principal Component Analysis for psychologist 1 (based on data in Table 3.1).

Table 3.1.1 ***Construct Correlation Matrix***

		1	2	3	4	5	6
1	Implementing psych. in MAT	1.00					
2	Having more 'hands on' role	0.62	1.00				
3	Lack of clarity about MA working	0.00	-0.34	1.00			
4	Uncertainty about purpose of role	-0.27	-0.70	0.23	1.00		
5	Consistent approach as psych	- 0.56	-0.43	-0.08	0.56	1.00	
6	Stereotypical view of role of CP	-0.33	-0.77	0.26	0.99	0.56	1.00

The first construct, implementing psychology in a multi-agency team is most closely linked with having a more 'hands on' role (construct 2) and less in-keeping with a consistent approach as a psychologist (construct 5) or of the stereotypical view of the role of a clinical psychologist (construct 6) or uncertainty about the purpose of the role (construct 4).

Table 3.1.2 ***Eigenvalues for Unrotated Components***

	Eigenvalue	% Variance	Cumulative %	Scree
PC_1	3.43	57.14	57.14	|**********
PC_2	1.20	19.98	77.12	|*****
PC_3	0.82	13.65	90.77	|****
PC_4	0.44	7.27	98.04	|**
PC_5	0.12	1.96	100.00	|*
PC_6	0.00	0.00	100.00	|*

The first two principal components (or factors) account for 77% of the variance in the data with both having Eigen values greater than 1. These two components are analysed graphically (figure 3.1)

Table 3.1.3 ***Element Loadings (Varimax)***

		PC1	PC2
1	My role in my previous team	0.53	0.03
2	My role in FST now	0.60	-0.16
3	My role in FST in 12 months	0.46	-0.49
4	My ideal role in FST	0.46	-0.49
5	How others see my role in FST	-0.55	0.68
6	The role of FST now	-1.18	1.22
7	The role of FST in 12 months	-0.37	-0.39
8	The ideal role for FST	0.05	-0.42

Note. *These are the values used for plotting elements in the rotated component space (figure 3.1).*

Table 3.1.4 ***Construct Loadings (Varimax)***

		PC1	PC2
Con1	Implementing psych. in MAT	-0.62	-0.49
Con 2	Having more 'hands on' role	-0.88	0.11
Con 3	Lack of clarity about MA working	0.29	-0.81
Con 4	Uncertainty about purpose of role	0.90	-0.18
Con 5	Consistent approach as psych	0.72	0.48
Con 6	Stereotypical view of role of CP	0.93	-0.17

Note. *These are the values used for plotting constructs in the rotated component space (figure 3.1).*

The loadings of the constructs and the elements listed in Tables 3.1.3 and 3.1.4) indicate the psychological contents of the two major components. These connect the most notable properties of the table of correlations between the constructs Table 3.1.2) and the table of distances between the elements (Table 3.1.6). For Principal Component 1, *my role in the family support team now* (element 2) is associated with implementing psychology in a multi-agency team and having a loose sense of role (constructs 1 and 5 respectively). Together they define the positive pole of the component. Whereas for Principal Component 2, *the role of the family support team now* (element 6) is associated with having discussions and negotiations about role (construct 2), uncertainty about the purposes of the role of the clinical psychologist (construct 4) and having a stereotypical view of the role of the clinical psychologist (construct 6). Elements 3 and 4 (my role in FST in 12 months and my ideal role in the FST) appear towards the opposite end of the pole for Principal Component 2, only they are not closely associated with any specific constructs. These observations are also shown in graphical form in figure 3.1

Table 3.1.5

Descriptive Statistics for Elements

Element	Mean	Sum of Squares	%age Total SS
1. My role in my previous team	-0.33	39.33	12.83
2. My role in FST now	-0.67	43.33	14.14
3. My role in FST in 12 months	-1.00	48.00	15.66
4. My ideal role in FST	-1.00	48.00	15.66
5. How others see my role in FST	1.50	21.50	7.01
6. The role of FST now	0.50	25.50	8.32
7. The role of FST in 12 months	-0.67	37.33	12.18
8. The ideal role for FST	-0.50	43.50	14.19

Total SS: 306.50

The relative salience of the elements can be inferred from table 3.1.5 above. Evidently the most important elements in determining the elicited constructs are my role in the Family Support Team in 12 months and my ideal role in the Family Support Team. They are not the same elements associated with constructs within the principal component analysis (Table 3.11). The least salient features are how others see my role in the Family Support Team and the role of the Family Support Team now.

Table 3.1.6 ***Element Euclidean Distances***

	1	2	3	4	5	6	7	8
1. My role in my previous team	0.00							
2. My role in FST now	1.41	0.00						
3. My role in FST in 12 months	3.16	2.00	0.00					
4. My ideal role in FST	3.16	2.00	0.00	0.00				
5. How others see my role in FST	9.00	9.11	9.11	9.11	0.00			
6. The role of FST now	10.15	10.34	10.54	10.54	5.29	0.00		
7. The role of FST in 12 months	3.74	3.74	3.16	3.16	8.66	10.05	0.00	
8. The ideal role for FST	3.61	3.61	3.00	3.00	8.60	10.10	1.00	0.00

Any pair of elements that are separated by a distance close to 0 are seen as being similar, with a distance close to 12 they are seen as being dissimilar, and with a distance close to 6 as being neither similar nor dissimilar but indifferent to each other. It is known (from Table 3.1.5) that my role in the Family Support Team in 12 months (element 3) and my ideal role in the Family Support Team (element 4) are particularly important: these are seen as being similar. Also from Table 3.1.5, the least salient features are how others see my role in the Family Support Team (element 5) and the role of the Family Support Team now (element 6) and these two elements can be regarded as indifferent to each other. Psychologist (1)'s role in the FST now (element 2) is quite similar to her ideal role in the team (element 4), although this is not so for how others see her role (element 5).

Figure 3.1

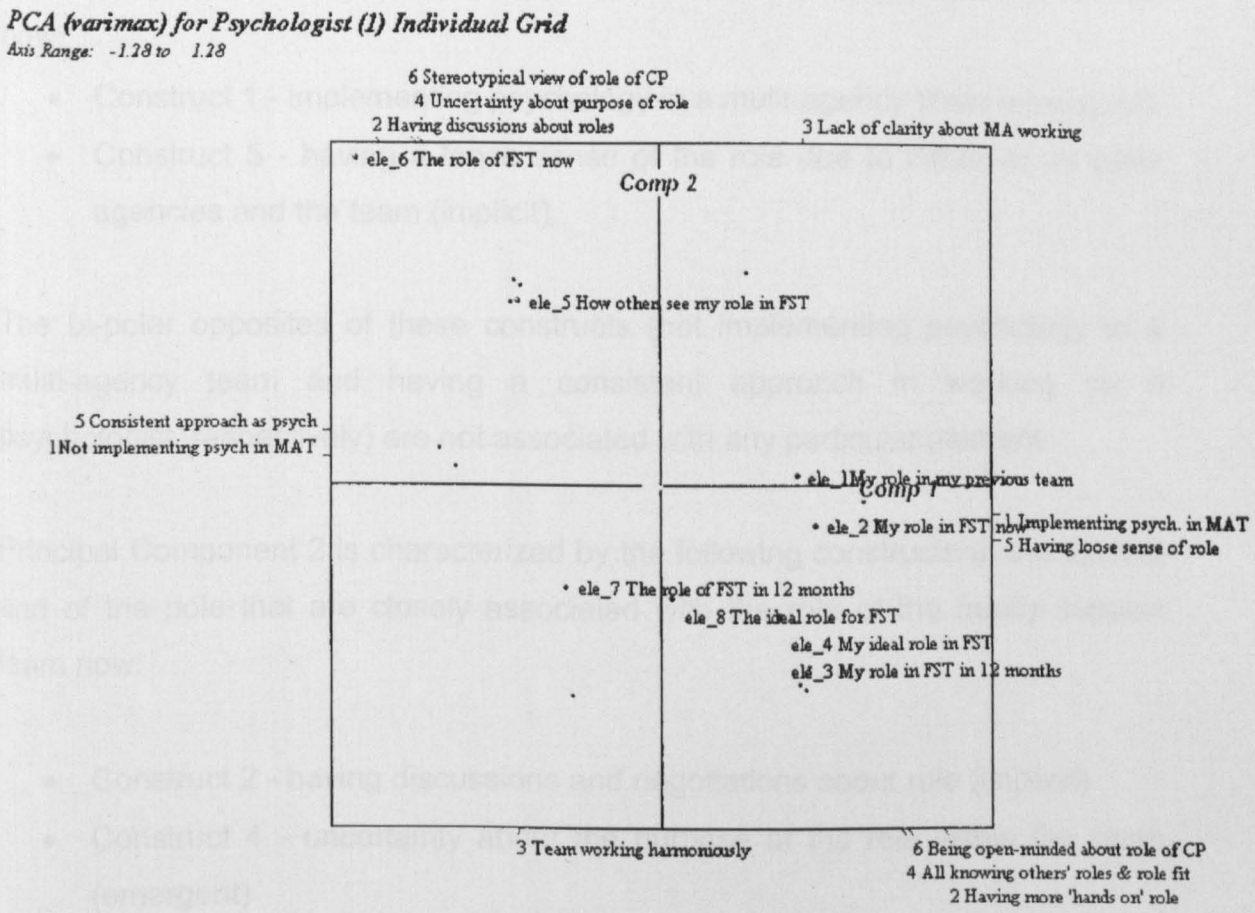


Figure 3.1 represents the plane of Principal Components 1 and 2 as a cross-section of the construct-space. The elements are shown as points and the constructs as axes projected onto the surface, their poles being marked around the circumference of a rectangle wide enough to enclose all the elements.

Principal Component 1 is characterized by the following constructs at the elicited end of the pole that are closely associated with my role in the family support team now:

- Construct 1 - implementing psychology in a multi-agency team (emergent)
- Construct 5 - having a loose sense of the role due to influence of other agencies and the team (implicit).

The bi-polar opposites of these constructs (not implementing psychology in a multi-agency team and having a consistent approach in working as a psychologist, respectively) are not associated with any particular element

Principal Component 2 is characterized by the following constructs at the elicited end of the pole that are closely associated with the role of the family support team now:

- Construct 2 - having discussions and negotiations about role (implicit)
- Construct 4 - uncertainty about the purpose of the role within the team (emergent)
- Construct 6 - having a stereotypical view of the role of the clinical psychologist (emergent)

The bi-polar opposite of these constructs (having a more 'hands on' role, everyone knowing everyone else's role and how roles fit together, being open-minded about the role of the clinical psychologist) are not associated with any particular element.

Construct 5 - lack of clarity about multi-agency working (emergent) and the team working harmoniously towards the same outcome (implicit), also occurs within Principal Component 2 but it is not associated with any particular element.

Principal Components Analysis for Psychologist (1) for Group Grid – extracted from Table 7 and Table 8 (pages 113 and 114 respectively):

Eigenvalues for Unrotated Components

	Eigenvalue	% Variance	Cumulative %	Scree
PC_1	4.53	75.51	75.51	|**********
PC_2	1.07	17.82	93.33	|*****
PC_3	0.30	4.94	98.27	|**
PC_4	0.08	1.32	99.60	|*
PC_5	0.02	0.40	100.00	|*
PC_6	0.00	0.00	100.00	|*

The first two principal components (or factors) account for 93% of the variance in the data with both having Eigen values greater than 1. These two components are analysed graphically (figure 3.1.1)

Element Loadings (Varimax)

		PC1	PC2
1	My role in my previous team	0.22	-0.44
2	My role in FST now	0.28	0.46
3	My role in FST in 12 months	0.53	-0.27
4	My ideal role in FST	0.71	-0.83
5	How others see my role in FST	-1.15	0.89
6	The role of FST now	-0.91	0.88
7	The role of FST in 12 months	-0.46	0.30
8	The ideal role for FST	0.79	-1.00

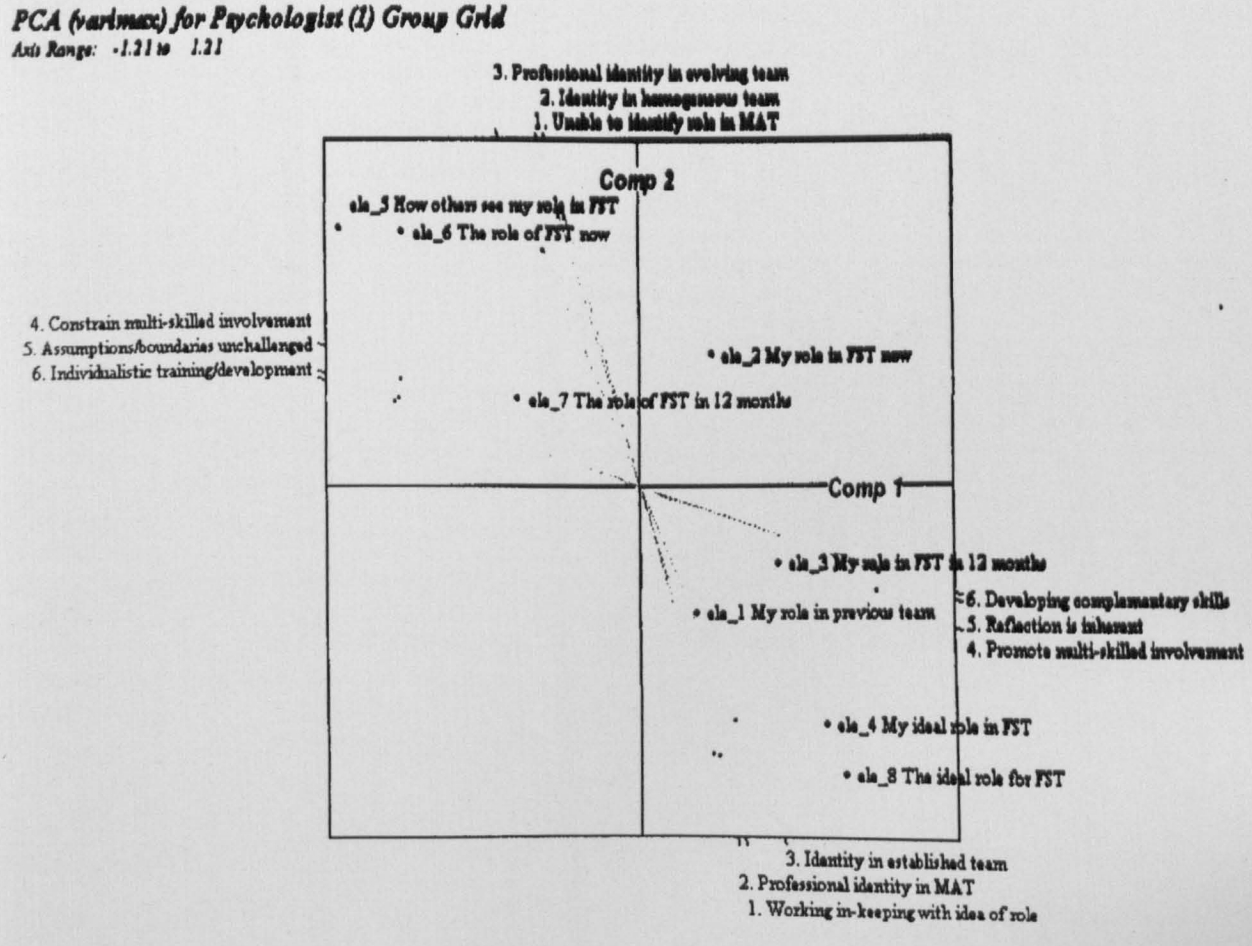
Note. *These are the values used for plotting elements in the rotated component space (figure 3.1.1).*

Table 3.1.4 ***Construct Loadings (Varimax)***

		PC1	PC2
Con1	Working in-keeping with idea of role	0.30	-0.94
Con 2	Professional identity in MAT	0.28	-0.94
Con 3	Professional identity in evolving team	-0.36	0.82
Con 4	Promote multi-skilled involvement	0.91	-0.37
Con 5	Reflection is inherent	0.92	-0.30
Con 6	Developing complementary skills	0.94	-0.29

Note. *These are the values used for plotting constructs in the rotated component space (figure 3.1.1).*

Figure 3.11



The elements are shown as points and the constructs as axes projected onto the surface, their poles being marked around the circumference of a rectangle wide enough to enclose all the elements.

Principal Component 1 is characterised by constructs 4, 5 and 6 at the contrast end of the pole. These constructs are most closely associated with the element, *how others see my role in the FST.* The bi-polar opposites of constructs 4, 5 and 6 are 'weakly' associated with the element, *my role in the FST in 12 months.*

Principal Component 2 is characterised by constructs 1, 2 and 3 with constructs 1 and 2 being at the contrast end of the pole and construct 3 at the elicited end. All three constructs are most closely associated with the element, *the ideal role for the FST.* The bi-polar opposites are 'weakly' associated with the element, *the ideal role for the FST.*

Appendix 2: Re-categorisation activity (7 July 2006)

Table 5.1 Small Group 1 (comprising 1 x 3 team members)

Structural Dilemmas	Ideological Dilemmas	Procedural Dilemmas	Inter-professional Dilemmas
4. Uncertainty about the purpose of the role within the team versus everyone knowing everyone else's role & how roles fit together	**15. Developmental & evolving role for team versus statutory brief for individuals & the team**	**1. Implementing a discipline in a multi-agency team versus not implementing a discipline in a multi-agency team**	4. Uncertainty about the purpose of the role within the team versus everyone knowing everyone else's role & how roles fit together
16. Hierarchical team structure versus individual practitioners coming together	**20. Becoming a recognised asset in the community versus being a another centrally funded government project**	**2. Having a more 'hands on' role versus having discussions & negotiations about roles**	**12. Working between different perspectives versus having the same training & assumptions**
23. Having sole responsibility for child versus sharing responsibility for the child with others	**30. Encompassing change versus being rigid & unwilling to bend**	**3. Lack of clarity about multi-agency working versus team working harmoniously towards same outcome**	**13. Working with people from different disciplines versus working in a team from the same discipline**
24. Individuals taking on more responsibility within team versus individuals acting as lone workers	**31. Enhancing individual learning versus being stuck in what you know and having a closed mind**	**7. Clear process for working practices versus unclear working practices**	**14. Learning new approaches versus not having professional boundaries challenged**
25. Individuals working effectively within the team versus individuals working ineffectively in a team	**32. Having a preventative & supportive role in working with clients versus having a monitoring role in working with clients**	**8. Clear process for recording work versus having a range of recording work**	**17. Reflective practitioners – thinking outside the box versus working within the Children Act Framework**

Note: Some constructs appear in more than one category and these are shown in bold.

Table 5.1 Small Group 1 (Continued)

Structural Dilemmas	Ideological Dilemmas	Procedural Dilemmas	Inter-professional Dilemmas
26. Offering a training role within and outside team versus being unwilling to offer a training role	**35. Engaging in evolving and experimental approaches to case work versus having well-established approaches for managing complex case work**	**9. Having confidence in facilitating meetings versus feeling threatened & overwhelmed at meetings**	**18. Working as a systemic consultant/therapist versus being more disengaged with clients & colleagues**
27. Having a 'hands on' role versus being less involved with children & families	**36. Using some assessment-based involvement versus having intervention-based involvement**	**10. Casework no longer directed entirely by manager versus manager giving directions & writing case notes**	**19. Responsibility for development of individuals & team versus being a family therapist seconded to the team**
39. Pigeon-holing the role versus seeing a more expansive role	**37. Working more in-keeping with my idea of my role versus being unable to find an established way of working**	**11. Feeling constantly overwhelmed versus having a more manageable working day**	**21. Co-operation between colleagues within the team versus working unilaterally outside the team**
41. Team continually re-defining itself versus the team remaining static	44. Working towards a common goal versus working to different agendas	**28. Developing ideas and strategies versus having deliverable programmes in place**	**22. Doing statutory work versus doing preventative work**
42. An awareness of roles is more established versus there being a lack of knowledge about what individuals and/or the team do	**45. Having statutory-based working versus working creatively**	**43. Having some room for the assessment of families versus there being a reliance on assessments from outside the team**	**23. Having sole responsibility for child versus sharing responsibility for the child with others**
46. Working alone within the team versus working collaboratively within team	48. Using intervention-based approaches versus using assessment-based approaches	44. Working towards a common goal versus working to different agendas	**33. Bringing learnt skills into practice for the benefit of clients versus working without any focus or understanding of family processes**

Note: Some constructs appear in more than one category and these are shown in bold.

Table 5.1 Small Group 1 (Continued)

Structural Dilemmas	Ideological Dilemmas	Procedural Dilemmas	Inter-professional Dilemmas
49. Having a clearly defined role versus having a flexible role	49. Having a clearly defined role versus having a flexible role	**47. Having statutory-based working versus working creatively**	**34. Having the flexibility to use and develop therapeutic approaches in casework versus having a limited approach to working with clients**
52. Knowing others' roles versus being unclear about others' roles	**50. Being mostly out working with families versus being mostly office based**	48. Using intervention-based approaches versus using assessment-based approaches	**38. Consistently collaborating with a variety of team members versus working alone or with one other team member**
55. Having awareness of issues impacting on families versus being unaware of issues impacting on families	**55. Having awareness of issues impacting on families versus being unaware of issues impacting on families**	**50. Being mostly out working with families versus being mostly office based**	**39. Pigeon-holing the role versus seeing a more expansive role**
56. Taking on complex casework versus taking on low level casework	57. Supporting relationship building between children and their families versus not supporting relationship building between children and their families	51. Doing preventative work versus being engaged in crises management	**40. Working towards aims set for team versus working in complete chaos without focus or direction**
	59. Helping prevent children from becoming accommodated versus not providing preventative support so that children may become accommodated	54. Referring children & families on to other agencies versus providing services for children & families	**41. The team continually re-defining itself versus the team remaining static**
		57. Supporting relationship building between children and their families versus not supporting relationship building between children and their families	**44. Working towards a common goal versus working to different agendas**

Note: Some constructs appear in more than one category and these are shown in bold.

Table 5.1 Small Group 1 (Continued)

Structural Dilemmas	Ideological Dilemmas	Procedural Dilemmas	Inter-professional Dilemmas
			45. Having statutory-based working versus working creatively
			51. Doing preventative work versus being engaged in crises management
			52. Knowing others' roles versus being unclear about others' roles
			53. Having a practical role versus having a specialist role
			54. Referring children & families on to other agencies versus providing services for children & families
			55. Having awareness of issues impacting on families versus being unaware of issues impacting on families
			56. Taking on complex casework versus taking on low level casework
			57. Supporting relationship building between children and their families versus not supporting relationship building between children and their families

Note: Some constructs appear in more than one category and these are shown in bold.

Table 5.2. Small Group 2 (comprising 1 x 4 team members)

Multi-agency	Role	Process	Structure
1. Implementing a discipline in a multi-agency team versus not implementing a discipline in a multi-agency team	2. Having a more 'hands on' role versus having discussions & negotiations about roles	7. Clear process for working practices versus unclear working practices	16. Hierarchical team structure versus individual practitioners coming together
3. Lack of clarity about multi-agency working versus team working harmoniously towards same outcome	4. Uncertainty about the purpose of the role within the team versus everyone knowing everyone else's role & how roles fit together	8. Clear process for recording work versus having a range of recording work	20. Becoming a recognised asset in the community versus being a another centrally funded government project
12. Working between different perspectives versus having the same training & assumptions	5. Having a consistent approach for working versus having a loose sense of role due to influence of other agencies & team	10. Casework no longer directed entirely by manager versus manager giving directions & writing case notes	28. Developing ideas and strategies versus having deliverable programmes in place
13. Working with people from different disciplines versus working in a team from the same discipline	6. Having a stereotypical view of a role versus being open-minded about the role	16. Hierarchical team structure versus individual practitioners coming together	45. Having statutory-based working versus working creatively
	9. Having confidence in facilitating meetings versus feeling threatened & overwhelmed at meetings	21. Co-operation between colleagues within the team versus working unilaterally outside the team	52. Knowing others' roles versus being unclear about others' roles
	18. Working as a systemic consultant/therapist versus being more disengaged with clients & colleagues	22. Doing statutory work versus doing preventative work	
	19. Responsibility for development of individuals & team versus being a family therapist seconded to the team	40. Working towards aims set for team versus working in complete chaos without focus or direction	
	23. Having sole responsibility for child versus sharing responsibility for the child with others	41. The team continually re-defining itself versus the team remaining static	

Table 5.2 Small Group 2 (Continued)

Multi-agency	Role	Process	Structure
	27. Having a 'hands on' role versus being less involved with children & families	43. Having some room for the assessment of families versus there being a reliance on assessments from outside the team	
	32. Having a preventative & supportive role in working with clients versus having a monitoring role in working with clients	54. Referring children & families on to other agencies versus providing services for children & families	
	39. Pigeon-holing the role versus seeing a more expansive role		
	42. An awareness of roles is more established versus there being a lack of knowledge about what individuals and/or the team do		
	53. Having a practical role versus having a specialist role		

Feelings:

- **Feeling constantly overwhelmed versus having a more manageable working day (11)**

Table 5.3 Small Group 3 (comprising 1 x 3 team members)

Role*	Team Focus/Remit	Approaches	Skill Building/Training
1. Implementing a discipline in a multi-agency team versus not implementing a discipline in a multi-agency team	4. Uncertainty about the purpose of the role within the team versus everyone knowing everyone else's role & how roles fit together	5. Having a consistent approach for working versus having a loose sense of role due to influence of other agencies & team	9. Having confidence in facilitating meetings versus feeling threatened & overwhelmed at meetings
2. Having a more 'hands on' role versus having discussions & negotiations about roles	7. Clear process for working practices versus unclear working practices	17. Reflective practitioners – thinking outside the box versus working within the Children Act Framework	10. Casework no longer directed entirely by manager versus manager giving directions & writing case notes
3. Lack of clarity about multi-agency working versus team working harmoniously towards same outcome	8. Clear process for recording work versus having a range of recording work	18. Working as a systemic consultant/therapist versus being more disengaged with clients & colleagues	11. Feeling constantly overwhelmed versus having a more manageable working day
6. Having a stereotypical view of a role versus being open-minded about the role	15. Developmental & evolving role for team versus statutory brief for individuals & the team	28. Developing ideas and strategies versus having deliverable programmes in place	19. Responsibility for development of individuals & team versus being a family therapist seconded to the team
12. Working between different perspectives versus having the same training & assumptions	21. Co-operation between colleagues within the team versus working unilaterally outside the team	34. Having the flexibility to use and develop therapeutic approaches in casework versus having a limited approach to working with clients	26. Offering a training role within and outside team versus being unwilling to offer a training role
13. Working with people from different disciplines versus working in a team from the same discipline	22. Doing statutory work versus doing preventative work	36. Using some assessment-based involvement versus having intervention-based involvement	30. Encompassing change versus being rigid & unwilling to bend
14. Learning new approaches versus not having professional boundaries challenged	23. Having sole responsibility for child versus sharing responsibility for the child with others	43. Having some room for the assessment of families versus there being a reliance on assessments from outside the team	31. Enhancing individual learning versus being stuck in what you know and having a closed mind
16. Hierarchical team structure versus individual practitioners coming together	33. Bringing learnt skills into practice for the benefit of clients versus working without any focus or understanding of family processes	48. Using intervention-based approaches versus using assessment-based approaches	35. Engaging in evolving and experimental approaches to case work versus having well-established approaches for managing complex case work

* Includes role identification in a multi-agency/multi-disciplinary team; ratio of hands on role to discussions and paperwork and role flexibility in a discipline

Table 5.3 Small Group 3 (Continued)

Role*	Team Focus/Remit	Approaches	Skill Building/Training
24. Individuals taking on more responsibility within team versus individuals acting as lone workers	40. Working towards aims set for team versus working in complete chaos without focus or direction		55. Having awareness of issues impacting on families versus being unaware of issues impacting on families
25. Individuals working effectively within the team versus individuals working ineffectively in a team	41. The team continually re-defining itself versus the team remaining static		
27. Having a 'hands on' role versus being less involved with children & families	44. Working towards a common goal versus working to different agendas		
29. Building good relationships with families versus struggling to find a way in with families	45. Having statutory-based working versus working creatively		
32. Having a preventative & supportive role in working with clients versus having a monitoring role in working with clients	51. Doing preventative work versus being engaged in crises management		
37. Working more in-keeping with my idea of my role versus being unable to find an established way of working	56. Taking on complex casework versus taking on low level casework		
38. Consistently collaborating with a variety of team members versus working alone or with one other team member			

* Includes role identification in a multi-agency/multi-disciplinary team; ratio of hands on role to discussions and paperwork and role flexibility in a discipline

Table 5.3 Small Group 3 (Continued)

Role*	Team Focus/Remit	Approaches	Skill Building/Training
39. Pigeon-holing the role versus seeing a more expansive role			
42. An awareness of roles is more established versus there being a lack of knowledge about what individuals and/or the team do			
46. Working alone within the team versus working collaboratively within team			
47. Spending more time with clients versus doing more paperwork			
49. Having a clearly defined role versus having a flexible role			
50. Being mostly out working with families versus being mostly office based			
52. Knowing others' roles versus being unclear about others' roles			
53. Having a practical role versus having a specialist role			
57. Supporting relationship building between children and their families versus not supporting relationship building between children and their families			
58. Spending quality time with families and actively listening to their issues versus not allowing enough time to sit down with families			
59. Helping prevent children from becoming accommodated versus not providing preventative support so that children may become accommodated			

OTHER:

- **Becoming a recognised asset in the community versus being a another centrally funded government project (20)**
- **Referring children & families on to other agencies versus providing services for children & families (54)**

* Includes role identification in a multi-agency/multi-disciplinary team; ratio of hands on role to discussions and paperwork and role flexibility in a discipline

Appendix 3: Table 15.1 Element 1: *My role in my previous team.*

	1	2	3	4	5	6	7	
C1. Working more in keeping with my idea of my role		SW3; SWA1; Psych1; Deputy; SWA2	SW4; SWA3	Manager; SW2		Psych2		C1. Being unable to identify a role in a multi-agency team
C2. Evolving a professional identity within a multi-agency team	Psych1; Deputy; Psych2			SW4	Manager; SWA3	SW3; SWA2; SW2	SWA1	C2. Evolving a professional identity within a homogeneous team
C3. Developing a professional identity within an evolving team	Deputy		SW3; Psych1	SW4		Psych2; SWA3	SWA1; SWA2; Manager; SW2	C3. Developing a professional identity within an established team
C4. Developing processes that promote multi-skilled and flexible involvement with families	SW4; Deputy	Psych1			SW3; Manager; SWA3	SW2; Psych2	SWA1; SWA2	C4 Developing processes that constrain multi-skilled and flexible involvement with families
C5. Defining & establishing reflection as inherent within processes, practices & procedures	Deputy	Psych1	SWA1; SW4	Psych2		SW3; SW2; SWA3	SWA2; Manager	C5. Working within a set framework & not challenging assumptions or crossing professional boundaries
C6. Developing complementary skills and knowledge both individually and as a team	Deputy	SW4	SWA1	Psych1	SW3; Psych2; SWA3	SWA2; SW2	Manager	C6. Having individualistic training and development
	1	2	3	4	5	6	7	

Table 15.2 Element 2: My role in the Family Support Team now.

	1	2	3	4	5	6	7	
C1. Working more in keeping with my idea of my role	Psych2; Deputy	SWA3; SWA1	SW2; Manager; SWA2; SW4; SW3				Psych1	C1. Being unable to identify a role in a multi-agency team
C2. Evolving a professional identity within a multi-agency team	Psych2; Deputy	SWA2; SWA1; SW3	SWA3; SW2; Manager; SW4				Psych1	C2. Evolving a professional identity within a homogeneous team
C3. Developing a professional identity within an evolving team	Psych2; Deputy; Psych1; SW3	SWA2; SWA1	SWA3; SW2 Manager; SW4					C3. Developing a professional identity within an established team
C4. Developing processes that promote multi-skilled and flexible involvement with families	Deputy; Psych1; SW3	Psych2; Manager; SWA2; SW4; SWA1	SW2	SWA3				C4 Developing processes that constrain multi-skilled and flexible involvement with families
C5. Defining & establishing reflection as inherent within processes, practices & procedures	Deputy; Psych1	Manager; SWA1; SW3	Psych2; SW2; SWA2	SWA3; SW4				C5. Working within a set framework & not challenging assumptions or crossing professional boundaries
C6. Developing complementary skills and knowledge both individually and as a team	Deputy; Psych1 SW3	Manager; SWA1	SWA3; SW2	SWA2; SW4	Psych2			C6. Having individualistic training and development
	1	2	3	4	5	6	7	

Table 15.3 Element 3: *My role in the Family Support Team in 12 months*

	1	2	3	4	5	6	7	
C1. Working more in keeping with my idea of my role	SWA1; SW2; Psych2	SW3; SW4; Manager; SWA3	SWA2	Psych1; Deputy			Psych1	C1. Being unable to identify a role in a multi-agency team
C2. Evolving a professional identity within a multi-agency team	SW3; SWA1 SW2; Psych2	SW4; SWA2 Manager; SWA3	Deputy	Psych1				C2. Evolving a professional identity within a homogeneous team
C3. Developing a professional identity within an evolving team	SW3; SWA1	SWA2; SWA3	SW4; Deputy; Psych2	Psych1	Manager		SW2	C3. Developing a professional identity within an established team
C4. Developing processes that promote multi-skilled and flexible involvement with families	SW3; SWA1; Psych1; SW4; Psych2	SWA2; Manager; SW2	Deputy; SWA3					C4 Developing processes that constrain multi-skilled and flexible involvement with families
C5. Defining & establishing reflection as inherent within processes, practices & procedures	SWA1; Psych1; Deputy; Psych2	SW3; SW4; SW2; SWA3	SWA2; Manager					C5. Working within a set framework & not challenging assumptions or crossing professional boundaries
C6. Developing complementary skills and knowledge both individually and as a team	SW3; SWA1 Psych1; Deputy	SW2; SWA3	SW4; Manager; Psych2	SWA2				C6. Having individualistic training and development
	1	2	3	4	5	6	7	

Table 15.4 Element 4: *My ideal role in the Family Support Team*

	1	2	3	4	5	6	7	
C1. Working more in keeping with my idea of my role	SW3; SWA1 Psych1; Deputy; SW2	SW4; Manager; SWA3	Psych2	SWA2				C1. Being unable to identify a role in a multi-agency team
C2. Evolving a professional identity within a multi-agency team	SW3; SWA1 Psych1; Deputy; SWA2; SW2; Psych2	SW4; Manager; SWA3						C2. Evolving a professional identity within a homogeneous team
C3. Developing a professional identity within an evolving team	SW3; SWA1; Deputy	SW4; SWA3	Psych2		Psych1	SWA2; Manager	SW2	C3. Developing a professional identity within an established team
C4. Developing processes that promote multi-skilled and flexible involvement with families	SW3; SWA1; SW4; Deputy; SWA2; SW2; Psych2; SWA3; Psych1		Manager					C4 Developing processes that constrain multi-skilled and flexible involvement with families
C5. Defining & establishing reflection as inherent within processes, practices & procedures	SW3; SWA1; Manager; SW2; Psych2; SWA3; Psych1	SW4; SWA2		Manager				C5. Working within a set framework & not challenging assumptions or crossing professional boundaries
C6. Developing complementary skills and knowledge both individually and as a team	SW3; SWA1 Deputy; SW2; Psych1	SW4; SWA2; Psych2; SWA3		Manager				C6. Having individualistic training and development
	1	2	3	4	5	6	7	

Table 15.5 Element 5: *How others see my role in the Family Support Team*

	1	2	3	4	5	6	7	
C1. Working more in keeping with my idea of my role	SWA1	SWA3; SWA2	Psych2; SW2; SW4; Manager; SW3			Deputy	Psych1	C1. Being unable to identify a role in a multi-agency team
C2. Evolving a professional identity within a multi-agency team	Psych2; SWA1	SWA3; SWA2	SW2; Deputy; SW4; SW3	Manager			Psych1	C2. Evolving a professional identity within a homogeneous team
C3. Developing a professional identity within an evolving team	SWA1	SWA3; Psych2; SWA2; Psych1; SW3		Manager; Deputy; SW4	SW2			C3. Developing a professional identity within an established team
C4. Developing processes that promote multi-skilled and flexible involvement with families	SW4	SWA3; Manager SWA2; SWA1	Psych2; Deputy	SW2; SW3			Psych1	C4 Developing processes that constrain multi-skilled and flexible involvement with families
C5. Defining & establishing reflection as inherent within processes, practices & procedures	Psych2; Deputy	SWA1	SWA3; SWA2; SW3	Manager; SW4	SW2		Psych1	C5. Working within a set framework & not challenging assumptions or crossing professional boundaries
C6. Developing complementary skills and knowledge both individually and as a team	Psych2; Deputy	SWA1; SW3	SWA3; SW4		Manager	SW2	SWA2; Psych1	C6. Having individualistic training and development
	1	2	3	4	5	6	7	

Table 15.6 Element 6: *The role of the Family Support Team now*

	1	2	3	4	5	6	7	
C1. Working more in keeping with my idea of my role	SWA3; SWA1	SWA2; Deputy; SW3;	Psych2; SW2; Manager; SW4;				Psych1;	C1. Being unable to identify a role in a multi-agency team
C2. Evolving a professional identity within a multi-agency team	SWA2; Deputy	SWA3; SW3;	SW2; Manager; SW4; SWA1	Psych2;			Psych1;	C2. Evolving a professional identity within a homogeneous team
C3. Developing a professional identity within an evolving team	Psych2; SWA2; Deputy; Psych1;	SWA3; Manager; SWA1;	SW2;	SW4;		SW3;		C3. Developing a professional identity within an established team
C4. Developing processes that promote multi-skilled and flexible involvement with families	Deputy; SWA1	Manager; SW3;	SWA3; Psych2; SW2; SW4; SWA2				Psych1;	C4 Developing processes that constrain multi-skilled and flexible involvement with families
C5. Defining & establishing reflection as inherent within processes, practices & procedures	Deputy; SWA1	SWA3; Manager; SWA2; SW3;	Psych2; SW2; SW4;	Psych1;				C5. Working within a set framework & not challenging assumptions or crossing professional boundaries
C6. Developing complementary skills and knowledge both individually and as a team	Deputy;	SWA3; Manager; SWA2; SWA1;	SW2; SW4; SW3;	Psych2;			Psych1;	C6. Having individualistic training and development
	1	2	3	4	5	6	7	

Table 15.7 Element 7: *The role of the Family Support Team in 12 months*

	1	2	3	4	5	6	7	
C1. Working more in keeping with my idea of my role	SWA1; SW2; SWA3	SW3; SW4; Manager; Psych2	SWA2	Psych1; Deputy				C1. Being unable to identify a role in a multi-agency team
C2. Evolving a professional identity within a multi-agency team	SW3; SWA1; SW2; Psych2; SWA3	Deputy; SWA2; Manager	SW4	Psych1				C2. Evolving a professional identity within a homogeneous team
C3. Developing a professional identity within an evolving team	SWA1; Psych1; Deputy; SWA3	SWA2	SW4; Psych2	Manager		SW2	SW3	C3. Developing a professional identity within an established team
C4. Developing processes that promote multi-skilled and flexible involvement with families	SWA1; Psych2	SW3; SW4; SW2; SWA3	SWA2	Deputy; Manager	Psych1			C4 Developing processes that constrain multi-skilled and flexible involvement with families
C5. Defining & establishing reflection as inherent within processes, practices & procedures	SWA1; SWA3	SW3; SW4 SWA2; SW2; Psych2		Psych1; Deputy; Manager				C5. Working within a set framework & not challenging assumptions or crossing professional boundaries
C6. Developing complementary skills and knowledge both individually and as a team	SWA1	SW3; SW4; SWA2; SW2; Psych2; SWA3		Manager	Psych1; Deputy			C6. Having individualistic training and development
	1	2	3	4	5	6	7	

Table 15.8 Element 8: *The ideal role for the Family Support Team*

	1	2	3	4	5	6	7	
C1. Working more in keeping with my idea of my role	SWA3; Psych2; SW2; Psych1; SWA1	Manager; SWA2; SW4	Deputy; SW3					C1. Being unable to identify a role in a multi-agency team
C2. Evolving a professional identity within a multi-agency team	SWA3; Psych2; SW2; SWA2; Psych1; SWA1; SW3		Deputy; SW4				Manager	C2. Evolving a professional identity within a homogeneous team
C3. Developing a professional identity within an evolving team	SWA3; Deputy; SWA1		Psych2; SW4			Manager	SW2; SWA2; Psych1; SW3	C3. Developing a professional identity within an established team
C4. Developing processes that promote multi-skilled and flexible involvement with families	SWA3; Psych2; SW2; SWA2; Deputy; SW4; Psych1; SWA1 SW3	Manager						C4 Developing processes that constrain multi-skilled and flexible involvement with families
C5. Defining & establishing reflection as inherent within processes, practices & procedures	SWA3; Psych2; SW2; SWA2; Deputy; Psych1; SWA1; SW3	Manager; SW4						C5. Working within a set framework & not challenging assumptions or crossing professional boundaries
C6. Developing complementary skills and knowledge both individually and as a team	SWA3; Psych2; SW2; SWA2; SWA1; Deputy; SW4; Psych1; SW3	Manager						C6. Having individualistic training and development
	1	2	3	4	5	6	7	

APPENDIX 4:

Individual interviews discussing the differences between individual ratings and 'average' team ratings for the 6 constructs in Tables 16 and 17.

4.1 Interview with Team Manager, Senior Social Worker (9 October 2006)

The differences between the Team Manager's individual ratings and the 'average' team ratings chosen for discussion during the interview were as follows:

- *My role in my previous team* (constructs 5 and 6)
- *My ideal role in the Family Support Team* (construct 3 and 5)
- *The ideal role for the Family Support Team* (construct 2)

The Team Manager said that in her previous role she was very clear about what she was doing and her training and development plan fitted in with the role she was undertaking (Team Manager in a children's social work team). She pointed out that this didn't mean that the training provided had a narrow focus but rather that it had clear goals. She hypothesised that training plans for other professionals in the FST were now probably geared towards their area of expertise. She thought that the training for social work assistants was narrow focused in that it was simply helping them to become social workers. In her previous role the Team Manager was not looking to progress into any other type of management.

Construct 3 provided the Team Manager with some dilemmas around her management style. The Team Manager said that she was aware on her arrival (April 2006) that at least half of the FST had been in post for more than 1 year. She was also aware that social workers joining the FST from district teams had experienced working in evolving teams because of the high turnover of staff. As a consequence the Team Manager wanted to allow the FST to "carry on what it was doing" when she first arrived. She wanted to encourage and promote change where she could identify a specific need for change.

However, on reflection the Team Manager acknowledged that there should have been better clarity and structure around some of the team's operational processes right from the outset. The Team Manager said at first that she may have misunderstood construct 5 as her ideal role both in and for the FST would be more towards reflection. She believed that change works best when managers carry people with them and that this was best done when ideas were embedded through reflection. The Team Manager said that her management style was towards a tendency to go with where people were at any given time and to let change evolve. In the multi-agency FST she believed that there should be room for different working practices coming out of different professional roles to be allowed to gradually *"bubble to the surface"*. Then at the end of the interview the Team Manager said that her preferred management style was to work within a set framework so that maybe her ideal (management) role within the FST was to oscillate between encouraging reflection and working within a set framework.

Finally the Team Manager was clear that she meant that an ideal role for the FST was to establish a professional identity within a multi-agency team rather than a homogeneous team (construct 2).

4.2. Interview with the Deputy Team Manager, Family Therapist (5 October 2006)

The differences between the Deputy Team Manager's individual ratings and the 'average' team ratings chosen for discussion during the interview were as follows:

- *My role in my previous team* (constructs 2,3 4 and 5)
- *How others see my role* (construct 1)
- *The ideal role for the FST* (construct 3)

The Deputy Team Manager's role in CAMHS was to take an oppositional stance to the concept of role. In CAMHS the concept of 'role' was seen as static and prescriptive and professionals considered 'positioning' within a team as being a more helpful concept. This difference he said created problems for CAMHS professionals working with social care professionals. In particular, the Deputy Team Manager believed that as a result of the FST Team Manager never having worked with different professionals, (in a multi-agency way), the team manager was trying to replicate a Child in Need (i.e. social care) model of working for the FST. The Deputy Team Manager suggested that the FST Team Manager was limited to a repertoire of containment in casework and did not have any theory of organisational change. The Deputy Team Manager said that managers of social care teams held responsibility for casework and therefore had to ensure that operational procedures were 'tight' and informed by statutory requirements. This meant that there was little time for reflection in casework supervision. The Deputy Team Manager believed in a model of listening to others in supervision rather than using prescribed solutions. The Deputy Team Manager said that supervision should be used to co-construct solutions for working with clients rather than being told what to do.

According to the Deputy Team Manager the FST Team Manager was trying to fit team members into concrete and prescribed roles without any understanding of the knowledge and skills requirement of team members which team members opposed. The Deputy Team Manager said that training and staff development had been lost through a lack of understanding, on the part of the team manager, of individual team member and whole team roles to meet referred clients needs. Opposition to the team manager's had, according to the Deputy Team Manager, resulted in a high staff turnover. The high staff turnover had also been the result of casework not being exciting or interesting enough and not challenging knowledge and skills.

The Deputy Team Manager closely aligned himself to the two psychologists in terms of the role and function of the team. The Deputy Team Manager said that the psychologists did not see his role in the FST the same way as other team members. The Deputy Team Manager believed that the psychologists saw him as being collegial and fluid in his role. The Deputy Team Manager suggested that this was because social workers came from a 'boxed in' role. The Deputy Team Manager said that he was constantly trying to 'open up' the social work role and that he was helping others (mostly social workers) re-position themselves in their role in the team. The Deputy Team Manager suggested that he would like others to see him as someone with whom they can discuss casework in a different way to the team manager.

The Deputy Team Manager believed that the team was engaged in a process of anxiety and loss simultaneously as it tried to move away from working a social care model of service delivery. Training was required to skill up and support team members to move out of their state of almost permanent flux. Team members needed help to acknowledge their limitations: they needed to understand what were good outcomes for families with whom they were working. The Deputy Team Manager said that there was procedural and process structures within casework but not within the team. The Deputy Team Manager said that he would like team members to become more confident in applying newly acquired knowledge and skills through training to enable successful working with challenging families.

4.3. Interview with Social Worker (3) (9 October 2006)

The differences between social worker (3)'s individual ratings and the 'average' team ratings chosen for discussion during the interview were as follows:

- *The role of the Family Support Team now (construct 3)*
- *The role of the Family Support Team in 12 months* (construct 3)
- *The ideal role for the Family Support Team* (construct 3)

Social Worker (3) informed me that she was one of a few original members of the Family Support Team: Social Worker (3) had been a member of the team since February 2005.

It was pointed out to Social Worker (3) that all role elements above related to construct 3 (developing a professional identity within an evolving team as opposed to developing a professional identity within an established team). Social Worker (3) began by saying that she thought that a good ideal for the FST would be that those outside the team as well as team members knew exactly what the team did. This was because team members and outside agencies (especially social care professionals) were struggling with understanding the role and function of the team. Social Worker (3) added that she knew what her role was within the FST but recognised that this may not be the same for other team members and Social Worker (3) would like this position to change over the next 12 months.

When asked how she knew what her role was within the FST whereas others did not know what their role was Social Worker (3) said that she recognised these differences through talking to other team members and through the discussions at team meetings. Social Worker (3) said that whilst she appreciated the evolving nature of the team and that changes needed to be made, it was important that professionals making referrals to the FST together with team members were clear about what the team did and where it was heading.

Social Worker (3) said that there were different perceptions about team members' roles and the role of the team from amongst the social workers who had recently joined the team especially as they had not had experience of working in a multi-agency team and it might take them some time to get used to a different style of working (e.g. from assessment based to intervention led).

4.4 Interview with Social Worker (2) (9 October 2006)

The differences between Social Worker (2)'s individual ratings and the 'average' team ratings chosen for discussion during the interview were as follows:

- *My role in the Family Support Team in 12 months* (construct 3)
- *My ideal role in the Family Support Team* (construct 3)
- *The role of the Family Support Team in 12 months* (constructs 3)
- *The ideal role for the Family Support Team* (construct 3)

It was pointed out to Social Worker (2) that all role elements above related to construct 3 (developing a professional identity within an evolving team as opposed to developing a professional identity within an established team). Social Worker (2) thought it would help to understand her different ratings to the 'average' for the team by making reference to her role in her previous team. JP previously worked in a *children with disabilities team* in another London borough where her role was clearly defined in a well established team: certain procedures had to be followed and there was a clear cut difference between the role of the social worker and the role of a social work assistant with little room for ambiguity.

Social Worker (2) explained that she joined the Family Support Team (in May 2006) at a time when team procedures and processes were being questioned by team members to help decide the future of the team. Being part of a change process was what had motivated Social Worker (2) to look towards the future. She had used the ratings to help the team develop a professional identity within an established team. Social Worker (2) thought that for other long standing team members a certain degree of pessimism had set in over the last 18 months or so because the team had still not changed nor had it developed a professional identity.

4.5. Interview with Social Worker (4) (13 October 2006)

Social Worker (4) was the newest member of the FST having joined from housing (where she worked for 6 years) as a newly qualified social worker in June 2006.

The differences between Social Worker (4)'s individual ratings and the 'average' team ratings chosen for discussion during the interview were as follows:

- *My role in my previous team (construct 4)*

Social Worker (4) said that her role in her previous team was clearly defined as were the issues she faced on a daily basis and so she was able to develop processes that promoted multi-skilled and flexible involvement with families. Social Worker (4) thought that maybe other team members' roles in their previous teams were constrained due to financial difficulties or the management style, individual ethics and values or office politics that promoted policies and procedures and constrained multi-skilled and flexible working.

When asked to comment on the similarities between her ratings and the average for the FST, Social Worker (4) commented that she rather like the team was still grasping what they were all meant to be doing as a team and that the team was all together with grappling with this. She believed it would only be a matter of time before the FST formulated a clear policy and procedures for working practices. She added that team meetings were helping with the move towards clarity over the role the FST and that outside professionals (e.g. from CAMHS) were helping the team think about their role as a team.

She commented too that some of the uncertainty around FST working practices had meant that social workers in the FST were sometimes asked to fulfill a role that should be carried out by social workers in district teams.

4.6. Interview with Psychologist (2) (9 October 2006)

The differences between Psychologist (2)'s individual ratings and the 'average' team ratings chosen for discussion during the interview were as follows:

- *My role in my previous team* (constructs 1 and 2)
- *How others see my role* (construct 6)

Surprise was registered at Psychologist (2)'s ratings for constructs 1 and 2 in that she had used ratings at the opposite ends of the pole from what would have been expected for both these constructs. It transpired that although Psychologist (2) acknowledged that her previous team was not a multi-agency team and that her role in that team was not as she had expected following initial training. Psychologist (2) said that her training had led her to believe that her role when starting in her previous team would be more of an intervention based rather than an assessment role. The attraction to the FST was that it offered an intervention based role. Psychologist (2) did acknowledge that her role as an EP became easily identifiable and she soon became aware of what was expected, whereas in the FST she has had to carve out a role for herself.

With regard to construct 2 Psychologist (2) said that she focused on the word 'evolving' rather than the difference between multi-agency and homogeneous teams by saying that there was no need for her professional identity to evolve in the homogeneous team in which she was working because her role was already carved out for her (e.g. using a variety of assessment tools with children and young people following consultation with school staff).

Psychologist (2) said that there was some confusion about how team members identified their roles and themselves within the FST and therefore it was difficult for many team members to understand others' roles. Psychologist (2) reported that social workers saw their role in the FST as very different from their previous roles. Psychologist (2) believed that social workers in the FST were therefore looking for some direction in identifying their roles in this team. When asked why she thought other team members could easily identify the EP role in the FST Psychologist (2) said that it was because the concept of 'education' was tangible and easily identifiable by everyone including herself. As she was now clear in identifying what she could and could not do it allowed other team members to see her role more clearly.

Finally Psychologist (2) acknowledged her surprise at the degree of similarity between her ratings and the average ratings for the team on many elements and constructs. She could not suggest any reasons for why the similar ratings had occurred.

4.7. Interview with Psychologist (1) (16 October 2006)

Psychologist (1) had been a member of the Family Support Team for four months. The differences between Psychologist (1)'s individual ratings and the 'average' team ratings chosen for discussion during the interview were as follows:

- *My role in my previous team* (constructs 2, 4 and 5)
- *My role in the FST now* (constructs 1 and 2)
- *How others see my role* (constructs 1, 2, 4, 5 and 6)
- *The role of the FST now* (constructs 1, 2, 4 and 6)
- *The ideal role for the FST* (construct 3)

Psychologist (1) said the differences regarding her role in her previous team were not surprising given the different factions within the FST and the different backgrounds of the team members. Psychologist (1) said that she would have been surprised by the differences if there were more psychologists in the team. Psychologist (1) said that as she moved through her previous team over a two year period she began to think more like other team members.

Psychologist (1) was really very surprised by the difference in ratings for her role in the FST now. She was quite clear that when she started in the FST she was unable to establish a role for herself or a professional identity. Psychologist (1) said that at that time she wondered whether the FST actually needed a psychologist and whether or not team members knew what a psychologist did. She said that her supervisor had also raised the issue of whether or not the FST really needed a psychologist.
Psychologist (1) thought that other team members had found their place in the team and that they each understood each others' roles. Psychologist (1) said that as the majority of the FST came from a 'social care' background they had few misunderstandings about their roles. This was not the case for her as a psychologist in that other team members did not seem to see her role in the same way she did. Psychologist (1) also commented that other team members without a social care background had been in the FST long enough for them to understand who they were and where they were at. This was particularly the case with Psychologist (2).

Psychologist (1) said that the FST now had a long way to go in working in keeping within its role and in evolving a professional identity (constructs 1 and 2) and that the training and development was still largely individualistic (construct 6). However Psychologist (1) did believe that the FST had moved more towards developing processes that promoted multi-skilled and flexible involvement with families.

Psychologist (1) said that this movement had come about through more 'multi-agency' talk with lots of informal peer casework practice discussion in twos and threes as well as through formal one-on-one discussion with the Team Manager and discussion at team meetings.

At the time of rating the constructs against the ideal role for the FST Psychologist (1) thought that the ideal for the team was to develop a professional identity once the team was established. This was because Psychologist (1) had difficulties dealing with all the changes that were occurring at the time. Psychologist (1) said that with team processes and procedures being less manic she appreciated the evolving nature of the FST as it developed its professional identity.

4.8. Interview with Social Worker Assistant (2) (3 October 2006)

Social Worker Assistant (2) was (in fact) a student social worker who was on a 4 day-a-week 6 month placement with the Family Support Team, as part of her Social Work Training/Social Work Qualification via The Open University. Prior to this placement Social Worker Assistant (2) worked full-time in the Children in Need Long Term Team. The differences between Social Worker Assistant (2)'s individual rating and the 'average' team rating chosen for discussion during the interview were as follows:

- *My ideal role in the Family Support Team* (construct 3)
- *The ideal role for the Family Support Team* (construct 3)
- *My role in my previous team* (constructs 4 and 5)
- *How others see my role* (construct 6)

Social Worker Assistant (2)'s ideal role in and for the Family Support Team were seen in terms of developing a professional identity within an established team whereas the 'average' ratings for the team were more towards an ambivalence or neutrality in developing a professional identity within an established team in contrast with developing a professional identity within an evolving team.

Social Worker Assistant (2) explained this difference in terms of having moved from an established team where she was more comfortable in developing her professional identity. So much so that as a student on placement in the Family Support Team which, because of its very nature, was evolving its policies and procedures, she was unclear about her role and the role of the team. She recognised that the uncertainty around her personal role definition and the role of the team was slightly exacerbated by the fact that she was a student on placement in the Family Support Team. Social Worker Assistant (2) therefore thought it would be more ideal and beneficial for her and the team once procedures and policies were established.

Social Worker Assistant (2)'s role in her previous team was very much within the context of developing processes that constrained multi-skilled and flexible involvement with families, whereas the 'average' for other team members in their roles in previous teams were somewhere between such involvement and processes that constrained multi-skilled and flexible involvement with families (construct 4). Social Worker Assistant (2) explained this difference in relation to her previous role as having had to work within a statutory framework and tight policies and procedures for recording work (e.g. on a central database).

Social Worker Assistant (2) went on to explain that she thought there was much greater flexibility for working with families in a therapeutic way and that recording confidential information on a central database was not within the remit of all professionals in the Family Support Team. She added that team members were also encouraged to challenge practices (such as sharing confidential information) on a central database and that professional boundaries became blurred as professionals from different backgrounds were working with the same client group.

Finally, according to Social Worker Assistant (2), her unique role as a student meant that other team members would inevitably see her role in terms having individualistic training and development (construct 6), whereas, on average, team members neither perceived Social Worker Assistant (2)'s role in this way nor did they see her developing complementary skills and knowledge that would be of benefit to her and to the team.

4.9. Interview with Social Worker Assistant (3) (12 October 2006)

Social Worker Assistant (3) is also a student social worker, but unlike Social Worker Assistant (2) she is following a 4 year part-time degree course in which she spends 2 days-a-week at the Family Support team. Social Worker Assistant (3) had been a member of the FST since February 2005.The differences between Social Worker Assistant (3)'s individual ratings and the 'average' team ratings chosen for discussion during the interview was as follows:

- *The ideal role for the Family Support Team* (construct 3)

Social Worker Assistant (3) had some difficulties recalling why she rated construct 3 as a 1 that is developing a professional identity within an evolving team as opposed to developing a professional identity within an established team (7). Social Worker Assistant (3) began by saying that she was quite clear that her role in the FST was going to be changing because of her training as a social worker.

Social Worker Assistant (3) said the team was evolving through ongoing changes in practice and conversations about practice within the team. She said that the FST was getting new ideas about practice all the time through different influences and that was why there were ongoing changes. She said that the FST was a developing team in response to the variety of referrals received and the different client needs.

When asked what kind of discussions were going on that led her to make these conclusions about the FST being an ever evolving team she gave the following examples:

- Whether interventions with families should be long or short term – this had led to discussions about whether or not there was a need to monitor the impact of interventions
- Whether the work of the team should have set boundaries
- Conflict over whether or not the team should take on court work

Social Worker Assistant (3) went on to suggest that even when these (and other) dilemmas were solved there would probably be more issues, based on clients' and team members' needs, to take their place and so the professional identity of the team would always be evolving.

When asked why Social Worker Assistant (3) thought the majority of her scores were consistent with the average ratings for the team she said that she was not very opinionated. She was often willing to make compromises for the benefit of the team. She said that she listened to others and created her own views based on others needs. She said that she worked well within the team.

4.10. Interview with Social Worker Assistant (1) (20 October 2006)

The differences between Social Worker Assistant (1)'s individual ratings and the 'average' team ratings chosen for discussion during the interview were as follows:

- *My role in my previous team* (constructs 2 and 4
- *The ideal role for the Family Support Team* (construct 3)

Social Worker Assistant (1) said that in her role in her previous team in the housing department of the council there was only one way of doing things and this constrained multi-skilled and flexible involvement with families (construct 4) and in case the housing department was not a multi-agency team (construct 2).

Social Worker Assistant (1) equated an evolving team (construct 3) with a constantly changing team in which everyone was working and developing in different ways. Social Worker Assistant (1) said that this created opportunities for learning from others and providing others with the benefits of what she had learnt. The learning Social Worker Assistant (1) said came from daily casework and group work experiences as well as from receiving formal training from others outside the team.

APPENDIX 5: FOLLOW-UP INTERVIEWS (April 2007):

5.1.1 Deputy Team Manager, Family Therapist (15.4.07)

(i) The Deputy Team Manager believed that his ratings six months ago were a bit skewed in comparison with rest of team. However the Deputy Team Manager then went on to describe how the Team Manager was trying to position the role of team members and the team as social workers in a long-term care team, thereby creating conflict in the FST. The Deputy Team Manager acknowledged that this attempt at re-positioning was as a result of demands put on the Team Manager by the assistant director to meet the objectives of the local authority in reducing the numbers of looked after children. The Deputy Team Manager believed that some social workers and assistant social workers were more readily accepting of this shift in the method of service delivery.

The Deputy Team Manager also believed that a high staff turnover of staff had been a complimentary factor in the move towards a social care model of service delivery. For the Deputy Team Manager this model operated within the narrow framework of the Children Act, telling social workers what to do and in what specified time limits, in which they follow a script, rather akin to putting ticks in boxes. The Deputy Team Manager said that he had struggled to accept a social care model of service delivery rather than multi-disciplinary models and that there had never been an opportunity for open discussion with the team about the change in service delivery.

The Deputy Team Manager was clear that his role in CAMHS was one where professional identity was developed in a constantly evolving (CAMHS) team (construct 3). The Deputy Team Manager had a clear view that the team should develop flexible approaches in working with clients (construct 4) and that team members should become reflective practitioners (construct 5) and develop complementary skills and knowledge through joint training. FL saw his role in the team as one of coach/mentor as the Team Manager did not have the requisite skills for supervising team members from professions other than social care.

(ii) The Deputy Team Manager believed that his expectations for the role of the team were initially set too high. He was determined to have an inter-agency/multi-disciplinary role for the team rather than a social care model of service delivery. He said that he thought there should be reflective interventions as opposed to instructive interventions (construct 5). The Deputy Team Manager said that the mental demands of inter-agency/multi-disciplinary working meant that professionals had to put the social work model of service delivery to one side and had to create a different entity and purpose for their work. He said that the use of repertory grids helped him look more at himself rather than simply relying on academic theories. The use of grids helped him reflect on how he was positioning himself in relation to the constructs. It reinforced his view on the need for team members to change their way of thinking about casework because thinking the same way about cases inevitably led to the same results, that is, children becoming looked after. The Deputy Team Manager was of the view that his role within the team was more readily accepted by the previous Team Manager as there were more opportunities to negotiate his role. The Deputy Team Manager believed that the present Team Manager had wanted to silence team members from challenging the shift in the model of service delivery.

(iii) The Deputy Team Manager said that his new ratings reflected the high staff turnover and the lack of opportunity for open discussion amongst team members about the changes to service delivery. He expressed anger over the lack of training opportunities for team members and how this had disrupted the development of the team. The Deputy Team Manager believed that the Team Manager did not see other professionals (both within and external to the FST) as training resources and that the Team Manager did not want to recognise and/or value the different skills and knowledge of others within the team.

The Deputy Team Manager said that his new ratings reflected the fact that the FST had started to take on long term cases which prevented keeping to the protocol of renewable 6 week interventions with clients. He understood that the FST was meant to be working with families at the point of imminent breakdown or in helping with the re-integration of young people back to their families.

(iv) The Deputy Team Manager had now decided to leave the FST citing the Team Manager's wish to have sole responsibility for the development of the team. And that the Team Manager was unwilling to accept the construct of a continuously evolving team where all professionals would be challenging each other from time to time in the interests of being reflective practitioners. He believed that the Team Manager was stuck in the concreteness of a social care model of service delivery.

5.2 Psychologist (1) (16.4.07)

(i) The view of how others saw Psychologist (1)'s role confirmed that her construing was quite different from other team members and that it was based on the multi-agency composition of the team. This made Psychologist (1) think that maybe she needed to take a different approach and inform others of her role. She still believed that the team had a limited knowledge of her role because team members came from different professional backgrounds operating different frameworks of working. This view had been reinforced by the Team Manager as team members found out more about Psychologist (1)'s role.

Psychologist (1) said that the use of repertory grids had demonstrated that constructs can be interpreted in different ways and that she did not know how other team members had interpreted the different constructs. However, she was resigned to the fact that challenging the way the team worked was not going to make any difference to the future role of the team.

(ii) Psychologist (1) said that she was holding onto the need for having individualistic training (construct 6) because she thought she would lose the skills and knowledge she had acquired and that she would become de-skilled as a psychologist. However, through supervision with her new line manager she had gained confidence in her abilities as a psychologist and realised that she had not lost any skills but that rather she was not using them. As a consequence she could now see why it was important to develop complementary skills and knowledge both individually and as a team (opposite end of construct 6 pole).

(iii) Psychologist (1) acknowledged that other team members saw her as being difficult because she liked speaking out loudly about issues that concerned her. However, she now believed that she was demonstrating her flexibility in involvement with families (construct 4) by agreeing to carry out tasks outside her traditional (clinical psychologist) role in the interests of the family. This had been reinforced by comments from team members such as..... *"I realise that this is outside your remit but thanks for doing it."*

(iv) Psychologist (1) said that she was now much more relaxed about her role within the FST and that she was prepared to do whatever was expected of her. She added that she would just get on with things even if it was not within her expectations of her role as a clinical psychologist. Psychologist (1) made reference to the Deputy Team Manager having fought hard for change in FST service delivery over the last 2½ years

5.3 Psychologist (2) (17.4.07)

(i) The issue of professional identity within the FST (construct 2 and construct 3) made a strong impression on Psychologist (2). She said that six months ago (when Psychologist (2) had been in the team about 1½ years) she was feeling a bit unsure about her professional identity within the team. Psychologist (2) said it was helpful that the FST came up with professional identity as constructs because six months ago there were lots of developments in the team such as a relatively new team manager and staff changes. She believed that there were feelings of instability over future directions for the FST amongst team members.

(ii) Psychologist (2)'s understanding of her role within the team became more concrete. The process of having time to reflect and think through issues had been helpful and the use of repertory grids had been a valuable catalyst in this process.

(iii) For Psychologist (2)the role of the FST now (April 2007) had moved more towards developing processes that constrained multi-skilled and flexible involvement with families due to even more changes in the team composition and size of the team. She commented that it was important for the team to recognise this movement as a backward step. Psychologist (2) saw the role of the FST now as moving more towards a homogeneous team (construct 2) as the team composition moved towards an increase in the number of social care staff as compared with six months ago. The increase in social care staff Psychologist (2) believed was a contributory factor in the move towards a social care model of service delivery as opposed to multi-agency models. She also saw the role of the FST now as moving more towards working within a set framework where assumptions about service delivery were not challenged and professional boundaries not crossed. Consequently reflection on working practices was not happening (opposite pole of construct 5) unless external professionals came into the team to facilitate the process of reflection.

Psychologist (2)'s ideal role in the FST now (April 2007) was moving towards developing her professional identity within an established team as the constant recruitment of more staff was making her feel like the team was constantly evolving.

(iv) Psychologist (2) said that it was difficult to say how her behaviour may change in the light of these new ratings with the team being in an even more evolving mode than it was six months. Although her new ratings have triggered thoughts about Psychologist (2)'s adjustment to these changes and that as a consequence, she will need to take more time for personal reflection. This would mean stepping outside the team a bit more because she did not feel there was enough time for reflection from within the team. And she was concerned about maintaining her professional identity as a psychologist within the FST when carrying out her role. This was because she had recognised that she needed to adjust and expand her role as a psychologist in order to respond to referred casework. However, her role as a psychologist, as the role of the team was constantly changing, posed a threat to her professional identity.

5.4 Team Manager, Senior Social Worker (19.04.07)

(i) The Team Manager wanted the different professionals within the FST to have a strong sense of their professional identities such that the ideal would be for the team to be considered homogeneous within a multi-agency context (construct 2). The Team Manager was clear that she did not want team members to lose their professional identities and to become social workers in a social work team. The Team Manager said that individual team members should consider whether they were compromising their professional identity or whether they could maintain their professional identity but do their work in a different way when taking on referred cases (construct 3). She found the co-construction process and team feedback on the comparative data (for individual and average team ratings) for the team constructs really helpful.

(ii) The Team Manager believed that the team thought she wanted them to become a homogeneous social work team: she was clear that being a homogeneous team meant being together in the same team but having a different set of skills.

(iii) The role of the FST in 6 months related to the anxieties over the future of the team. And the Team Manager's rating for her role in the FST in 6 months had become more ambivalent, that is, neither working more in keeping with her idea of her role nor being unable to identify her role in the FST. The Team Manager said that the proposed re-organisation of the team had created a big question mark about whether the team could move towards its ideal especially for construct 2 and construct 3. She did not know whose 'concept' of the team would prevail as there had been fairly significant changes in personnel. These changes would have a huge impact on the team both in terms of how she managed the changes and where the FST was placed within the organisation.

(iv) The Team Manager was also not certain about her ability to move the team towards her ideal nor did she know whether her principals around service delivery were going to remain in tact. FK said that she may need to adopt a defensive position outside of the FST in order to protect team ethos and working practices. FK said that today she had to keep looking at each end of the construct poles to remind herself of what they mean in the context of the proposed re-organisation and the consequent demands and anxieties that had been created both for her and the team.

5.5 Social Worker (2) (20.04.07)

(i) Six months ago the construct that made a strong impression on Social Worker (2) was *developing a professional within an evolving team versus established team* (construct 3) because her ideal role in and the ideal role for the team was to develop a professional identity within an established family support team. This was because she came from an established team where her professional identity was clearly identified. Social Worker (2) said that individual factors such as personality, past experiences and reasons for joining the team, would determine whether or not the ideal of developing professional identities with an established family support team could be achieved.

(ii) Six months ago the FST was a complete team in which there was a reasonably high level of optimism about the future direction of the team and an understanding that the team was an evolving team. At that time it was helpful to talk about the dilemmas about working practices and team protocols at meetings in order to be realistic about the challenges facing the team. This helped with exploring the dynamics of the people within the team and the complexities of working in a multi-agency team. It also enabled Social Worker (2) to have a clear sense of her current role and her ideal role in the team.

(iii) Social Worker (2) was moving further away from her ideal role and an ideal role for the team because of all the changes that were happening within the team, (i.e. the turnover of staff and structural changes) that were limiting what the team wanted to achieve. She said that she started in the team thinking that the interventions delivered would make a difference for clients. Now the team was adopting a social care model of intervention which was not what team members were led to believe when appointed. So she had now become somewhat cynical of what the team could achieve and sensed a cynical atmosphere within the team. Social Worker (2) said that everything that the team had set out to achieve had got lost.

There was no connection between internal and external management expectations for the team and what the team could realistically achieve. There was less flexibility in the team's ways of working and no emphasis on what was best for the clients. Team training (e.g. in reflective practices) had disappeared and no consideration had been given to the consequent loss in learning and knowledge acquisition. The team ethos had become mechanical and somewhat analogous to a 'tick box' culture.

(iv) Social Worker (2) said that it was not possible for team members to have a different view to the management view. She intended to look for another job or at the very least will not commit herself long-term to the team.

5.6 Social Worker Assistant (3) (4.5.07)

(i) Social Worker Assistant (3) said that her scores (across most elements and constructs) generally tied in with the average ratings for the team. The one that stuck out was the ideal role for the team (element 8) in relation to construct 3, developing a professional identity within an evolving team as opposed to within an established team. Social Worker Assistant (3)'s impression 6 months ago was that the team was forever changing and evolving and that therefore the ideal role for the team would be to establish a professional identity within that context. She was not surprised that her ratings were pretty similar to the average ratings for the team. Social Worker Assistant (3) had been in the team right from the start and had therefore been involved in many discussions about the possible development of the team. She also said that she had always been aware of the team's needs.

(ii) Social Worker Assistant (3) had not changed her views about herself or the team, although her behaviour had changed. This was because, as a student social worker, she was a part-time member of the team. This meant that she needed to have more informal discussions with team members to find out what she had missed when she had been away, especially what had been discussed at team meetings.

(iii) There was a fair degree of similarity between Social Worker Assistant (3)'s ratings six months ago and now: there had been a slight shift towards the emergent end of the poles for many of the constructs and this was especially true of her ideal role in the team. The move towards ambivalence in the team now in establishing a professional identity as it evolved as opposed to when it was established was a noticeable difference. The team now was also moving towards having individualistic training and development as opposed to developing complementary skills and knowledge (construct 6). Social Worker Assistant (3)'s role in the team now was moving towards developing processes that promoted rather than constrained multi-skilled and flexible involvement with families (construct 4). Her role in the team now was also helping define and establish reflection as inherent within processes, practices and procedures as opposed to working within a set framework and not challenging assumptions or crossing professional boundaries (construct 5).

(iv) Social Worker Assistant (3) felt that the ideal for the team would be to slowly move towards developing a professional identity as the team became established with the introduction of new members and new processes and procedures.

APPENDIX 6: Informed consent details.

The text below was given to each professional prior to their agreement to sign the consent form overleaf

"Deconstructing multi-agency working: An exploration of how the elicitation of *'tacit knowledge'* amongst professionals working in a multi-agency team can inform future practice."

The Knowledge we have is highly personal and valuable for us. It represents co-operation, pooled expertise and the exchange of information with others. The value of our knowledge is increased when it has a key purpose and focuses on the objectives, core values and strategic priorities of the team and organisation in which we work. How we use our knowledge in practice has been and continues to be an important professional activity. How practice is conceptualised, performed and monitored is undoubtedly influenced by what informs it. Yet, as a number of research studies have concluded, practitioners often are not clear about or find it difficult to articulate the basis of their professional behaviour. This is because much of the knowledge that people use to succeed *'on the job'* is acquired implicitly without the intention to learn or an awareness of having learned. There are often varied working practices and procedures amongst different professionals in multi-agency teams. In well-functioning teams practitioners share knowledge between themselves and within the team through the establishment of common understanding and through practice itself. Research has also shown that there is a high rate of acceptance as well as a high degree of effectiveness when sharing each others knowledge.

The purpose of this research study is to evaluate a method for finding out what knowledge about working practices exists amongst practitioners in multi-agency teams. The information gathered will then be shared with practitioners with the aim of improving the working of the team. The method used involves individually interviewing each practitioner about their working practices and then meet with the whole team to share the information gathered from the interviews, to construct a common understanding of working practices and to discuss possible new ways of working. A second meeting with the team will take place about 12 months later to review what has happened during this period. I will be carrying out this research for my doctoral thesis. In line with the British Psychological Society ethical principles for conducting research with human participants, I am seeking your consent to participate in the research study based on the description that has just been provided. There is separate consent form for you to sign if you are willing to take part in this research. Even so, you have the right to withdraw from the research at any time without having to give a reason.

In order to help me with collecting the data I may decide to tape the meetings with the whole team and I can send you all copy of the tape and/or transcript. There are no costs associated with taking part in this study except for the time you spend with me. And subject to the requirements of legislation, including the Data Protection Act, information obtained about you during the research is confidential and anonymity can be guaranteed in the write up of the thesis. You will not be identified (e.g. by name) in any reports or publications of this study.

Michael Hymans. C. Psychol, AFBPsS. Chartered Psychologist.

INFORMED CONSENT FORM:

Title of research:

Deconstructing multi-agency working: An exploration of how the elicitation of *'tacit knowledge'* amongst professionals working in a multi-agency team can inform future practice.

Name of researcher: ***Michael Hymans.*** **C. Psychol, AFBPsS.**
Chartered Psychologist

Commitment:

I have had the purposes of the above named research explained to my full satisfaction.

I understand that in giving my consent to participate I may withdraw at any stage in the research without having to give a reason.

Signed: ..... **Date:** .....

Name: .....

What needs to be put in place at an operational level to enable an integrated children's service to promote successful integrated working?

CONTENTS

ABSTRACT:

The need for multi-agency working has been illustrated through recent research studies, government legislation and from views within the educational psychology profession. Areas for investigation were classified in the form of identified and categorized statements for successful integrated working gleaned from the literature review. This research project delineated eight factors with defining statements from the 'classification' system which could be incorporated within strategic planning for the successful delivery of integrated children's services.
Q-Sort methodology was used as a means of enabling a number of professionals working in different multi-agency teams to express their views about the provided statements for successful working: it is primarily an 'exploratory' technique and so cannot prove hypotheses. The use of Q methodology did however bring a sense of coherence to this potentially complex and socially contested research.

The literature review offered and challenged a range of opinion as to what constitutes successful multi-agency working in an attempt to understand the day-to-day implications for conceptualizing good practice in multi-agency teams. A factor analysis of the relationship of each (Q sort) configuration with every other (Q sort) configuration captures a 'different' item configuration characteristic of professionals who load on that factor: a mathematical ('varimax') procedure explains the amount of 'variance' of each of the eight extracted factors. These extracted factors represent eight different viewpoints or constructions about successful multi-agency working and they were closely aligned with the classification system identified from the literature review. In relation to the 'Every Child Matters' agenda some factors were more notably linked to some of the categorized statements than others. If these factors are accurate representations of professional viewpoints then they could be operationalised to promote successful multi-agency working within integrated children's services.

1. INTRODUCTION

1.1 The rationale for multi-agency working:

The need to improve multi-agency working to ensure effective child protection services was highlighted in the Laming Report on the Victoria Climbie Inquiry (Laming 2003). As the Secretary of State for health's response to the report noted: *'Down the years, inquiry after inquiry has called for better communication and better coordination"* (Department of Health - DOH 2003). Both the Green Paper, *Every Child Matters* (Department for Education and Skills – DfES 2003) and the Children's national Service Framework Standard for Hospital Services (Department of Health 2004) emphasise the need for agencies to work together around the needs of the child.

In 1998, Payne put forward an argument for multi-agency working within local authorities: *' ..... the case for treating social problems in a holistic fashion is overwhelming. People know, in simple every day fashion, that crime, poverty, low achievement at school, bad housing and so on are connected'* (Payne, 1998, p.12.).

Given this basic rationale, it is perhaps not surprising that much of the literature relating to multi-agency working espouses its benefits – both in specific and broad general terms. Recent Government strategies have also supported the belief in multi-agency working. The Children Act, 1989, Quality Protects legislation and documents such as *Working Together to Safeguard Children* (DoH, HO and DfEE, 1999) have drawn together in this way. This report states that:

Promoting children's well-being and safeguarding them from significant harm depends crucially upon effective information sharing, collaboration and understanding between agencies and professionals. (pp. 2-3).

Delaney (1994) cites various authors who suggest other reasons why agencies may choose to collaborate. These include: increased efficiency in the face of declining resources and minimisation of client frustration when using the service (Whetten, 1982), and pre-existing networks or collaboration (Rogers and Whetten, 1982; Zapka et., 1992).

The need for multi-agency working between health, education and social services has also been highlighted by numerous studies of, for example: looked after children (e.g. Biehal *et al,* 1995); disaffected and excluded pupils (e.g. Webb & Vulliamy 2001); child protection (e.g. Hallet & Birchall 1992); child mental health (e.g. Mental Health Foundation 1999); and, services for disabled or chronically ill children (e.g. Sloper 1999). The demands placed on families by having to deal with many different professionals and agencies have been well documented in such studies. These research studies also illustrated difficulties in obtaining information about the roles and responsibilities of different services, problems of conflicting advice, and the likelihood that children's and families needs will fall into the gaps between different agency provision. Parents' and children's views on the services they receive have highlighted the need for a coordinated service delivered through a single point of contact, a 'key worker' or 'named person' or 'link worker'. This has been recognised in government policy for over 20 years – from the Court Report (Department of Health and Social Security – DHSS 1976) onwards. However, research continually points to a lack of coordinated multi-agency working, scarcity of key workers in services (especially social services) and the fact that services for children remain fragmented.

1.2 Recent legislation

Non-statutory guidance to Every Child Matters: Change for Children (Common Core of Skills and Knowledge for the Children's Workforce), states:

"Multi-agency working is about different services, agencies and teams of professionals and other staff working together to provide the services that fully meet the needs of children, young people and their parents or carers. To work successfully on a multi-agency basis you need to be clear about your own role and aware of the roles of other professionals; you need to be confident about your own standards and targets and respectful of those that apply to other services, actively seeking and respecting the knowledge and input others can make to delivering best outcomes for children and young people."

The Common Core *framework* to Every Child Matters (*op.cit*) suggests that 'skills' of assertiveness, communication and teamwork are important along with 'knowledge' of role and remit, policies, procedures and working methods. In fact the government vision is looking to overcome the (so called) restrictive impact that professional and organisational boundaries can have so that increasingly professionals and practitioners from different sectors work better together in multi-disciplinary teams around the needs of children and young people and share an increasingly common language and understanding.

The government sees developing more integrated services to improve outcomes for children and young people as a key strategic challenge: suggesting that fragmentation and working in silos can result in uncoordinated and less effective support for families. The government plans to build on the good practice that already exists in multi-agency working to develop a workforce that is confident in operating across professional and institutional boundaries.

Furthermore children's trust arrangements (Every Child Matters: Change for Children) will have four essential components:

1. professionals enabled and encouraged to work together in more integrated front-line services, built around the needs of children and young people;
2. common processes which are designed to create and underpin joint working;
3. a planning and commissioning framework which brings together agencies' planning, supported as appropriate by the pooling of resources, and ensures key priorities are identified and addressed; and
4. strong inter-agency governance arrangements, in which shared ownership is coupled with clear accountability

So to work effectively on an inter-agency basis professional and support staff will need both a strong commitment to flexible working and appropriate clinical or professional supervision to support continuous improvement in the delivery of specialist interventions. Lines of accountability will need to be clear, and will have to support staff development as well as integrated working. Multi-disciplinary teams will need to ensure effective day-to-day leadership as well as professional supervision and guidance. The DfES aims to produce web-based guidance on the role of lead professionals and some best practice examples of inter-agency and multi-disciplinary working.

The government suggests that most areas should have Trusts by 2006 and that these should go beyond children, families and schools departments by including health services (through Section 31 of the Health Act, 1999). Trusts can also include other services such as Connexions and Youth Offending Teams. The key services that should be within the Trust are:

1. Local education authority – potentially all education functions, including the education welfare service, youth service, special educational needs and educational psychology, childcare and early years education and school improvement.
2. Children's social services – including assessment and services for children in need such as family support, foster and residential care, adoption services and child protection and services for care leavers.
3. Community and acute health services – such as community paediatrics, services commissioned by Drug Action Teams, teenage pregnancy co-ordinators and locally commissioned and provided Child and Adolescent Mental Health Services. They could also include speech and language therapy, health visiting and occupational therapy services concerned with children and families.

Children's Trusts will commission services and may provide them directly or contract with public, private or voluntary sector organisations. Staff providing the services may be seconded into the Trust or transferred. The integration of objectives, planning and commissioning through Children's Trusts is designed to achieve the integration of front line service provision. This is expected to include:

1. Co-located services such as Children's Centres and extended schools.
2. Multi-disciplinary teams and a key worker system.
3. Common assessment framework across services.
4. Information sharing across services so that warning signs are aggregated and children's outcomes are measured over time.
5. Joint training with some identical modules so that staff have a single message about key policies and procedures such as child protection and can learn about each other's roles and responsibilities.
6. Effective arrangements for safeguarding children.
7. Arrangements for addressing interface issues with other services, such as services for parents with mental health problems.

Finally, The Government indicates that it is an ambitious move (towards Children's Trusts), although it does expect local authorities to develop a change programme for the implementation of the framework set out in the entire Green Paper. The idea of a change programme for implementation is what lies behind this study. However before going into the suggested methodology, it's worth considering some pros and cons.

1.3 Views from within the Educational Psychology Profession

Despite the many voices calling for increased multi-agency collaboration, it seems that this is still difficult to achieve in practice. There are several reasons why this may be so. Multi-agency working requires changes at the level of individual practice within agencies and at the multi-agency organisational level. This challenges existing professional cultures. Many people dislike change because it challenges their current work and they may become defensive and find reasons why it will not work before it has been tried.

Turner and Stringer, Hampshire LEA (DECP debate, June 2004) fear that the emphasis on ensuring swift and co-ordinated reactions to referrals may make it difficult (for educational psychologists in particular) to invest time, energy and expertise in more preventative approaches. They see the emphasis on individual referrals as leading to the potential for a 'gate-keeping' role access to professionals in children's services based on 'eligibility criteria'. This in turn could lead to *over-bureaucratisation* in comparison with the consultation approach to service delivery that many EP Services have developed.

Roger Booker, PEP, Surrey, at the May 2004 National Association of PEPs Annual Conference, highlighted that in making use of psychology, systems thinking, social constructionism, taking a holistic perspective, there's a conflict between consultation and referral for EPs in multi-agency teams in terms of the mediating variable of the learning setting; a single point of referral not being viable; the introduction 'consultation' service delivery to a social care model; and, problems associated with defining levels of need for multi-agency referral.

Turner and Stringer (*op. cit*) also question whether 'good interventions' can only be multi-professional and that there is a curious *double-think* in that the Green Paper makes reference to both individual contributions from professionals and the need for common training, assessment, interventions and language – thereby undermining what each individual professional group brings to an integrated service for children. Booker (*op cit*) says that issues for EPs in multi-agency working centre on maintaining professional identity; making assumptions and knowledge explicit; tolerating regressive management styles; demonstrating expertise without flaunting it; and dual accountability.

Turner and Stringer suggest that if we (psychologists) get our contribution to professional teams right (through good management and supervision of psychologists) we can become rich, diverse and complementary – *like a fresh green salad.* If we (psychologists) get it wrong, then the *dubious value of an amorphous green puree lies ahead.*

1.4 Some recent research

A detailed study of multi-agency working (Atkinson, et al.,2002) identified five models of multi-agency activity:

1. *decision-making groups* (to provide a forum whereby professionals from different agencies could meet to discuss issues and to make decisions - e.g. a mental health strategy steering group);
2. *consultation and training* (where professionals from one agency enhance the expertise of those of another by providing consultation and training for them, usually at an operational level – e.g. consultation and/or training regarding children with emotional, social and behavioural difficulties);
3. *centre-based delivery* (to gather a range of expertise together in one place in order to deliver a more co-ordinated and comprehensive service – e.g. a child development service for pre-school children with complex needs);
4. *coordinated-led delivery* (to draw together a number of agencies involved in the delivery of services so that a more co-ordinated and cohesive response to need could be adopted – e.g. a Healthy Schools Initiative Coordinator linking local health community workers with PSHE coordinators in mainstream schools); and,
5. *operational-team delivery* (where professionals from different agencies work together on a day-to-day basis to form a multi-agency team that delivers services directly to clients – e.g. a child assessment service for children with disabilities, where health professionals work with social services, education and voluntary organisations).

Atkinson et al's research which was conducted by interviewing 139 professionals working in multi-agency teams and the results are summarised overleaf.

Sloper (2004) detailed factors facilitating multi-agency working and at the organisational level these were found in the planning, implementation and ongoing management of multi-agency services. In planning, successful multi-agency working was found to be promoted by:

- clear and realistic aims and objectives that are easily understood and accepted;
- clearly defined roles and responsibilities with clear lines of accountability;
- commitment of both senior and frontline staff;
- strong leadership and a multi-agency steering or management group;
- ensuring good systems of communication and information sharing at all levels; and,
- an agreed timetable and incremental approach for change.

Aims of multi-agency working should be to:	**Key Challenges to multi-agency working are:**	**Key factors and skills required for multi-agency working are:**
Improve and co-ordinate services	Fiscal resources	Commitment or willingness
Raise educational achievement	Roles and responsibilities	Understanding roles and responsibilities
Improve and explore joint working in a holistic approach – especially through information sharing and through raising awareness and understanding of other agencies, and the early identification and intervention with improved outcomes for children and families	Competing priorities Other resources – time, staff, space Communication Professional and agency cultures; and management	Common aims and objectives Communication and information sharing Leadership or drive Involving relevant personnel; and funding/resources Good working relationships and having adequate time

Summary of LGA Research: Report 26 (Atkinson, et al., 2002)

Sloper (*op cit*) cited evidence to suggest that the implementation and ongoing management requires:

- shared and adequate resources;
- recruitment of staff with the right experience, knowledge and approach;
- joint training and team building;
- appropriate support and supervision for staff; and monitoring; and,
- evaluation of service policies and procedures.

Frost (2004), carried out a research project funded by ESRC entitled, Multi-Agency Teams working for children (or MATCh). The research focussed on five multi-agency teams, all of which were quite well established, but were nevertheless very diverse and different. During the 15 months' fieldwork Frost and his colleagues used observation, documentary study, semi-structured interviews, critical diaries, group discussions of critical incidents and focus groups to identify some practical implications for conceptualising good practice in multi-agency teams. These included structures and systems; professional beliefs and ideologies; and developing learning communities through inter-professional team building and individual recognition.

An inter-agency group (comprising Local Government Association; Association of Directors of Social Services; National Children's Homes; The Connaught Group; NHS Confederation; Barnardos; SOLACE; National Children's Bureau; Confederation of Education Service Managers; Association of Chief Education Officers; National Council of Voluntary Child Care Organisations and the NSPCC) produced a publication entitled *'From vision to reality: transforming outcomes for children and families'* in which some central questions were highlighted (page 9):

1. Which services to integrate?
2. Do they target gaps and areas of poor performance?
3. Will it reduce inequality and increase inclusion?
4. Is there local support and commitment?
5. Does it meet national requirements?
6. Have we explored everyone's views?
7. Have we the capacity to manage these changes?
8. Can we learn from others?
9. What can be done quickly and what will take time?
10. How must we change existing plans, policies, people, processes and structures?
11. Which systems need improving or upgrading?
12. What changes in attitudes and professional practice are needed?
13. What evidence do we need to gather and learn from?

However, Cameron and Lart (2003) undertook a systematic review and concluded that there is little good evidence on the effectiveness of multi-agency working in relation to the effects on service users. Cameron *et al* commented that of the few evaluations that have been carried out they were methodologically poor.

Other authors (Geddes, 1997; Pearce & Hillman, 1998) have outlined a number of inhibiting factors to inter-agency working, including the sharing of different forms of professional knowledge and different cultural work practices (Anning, 2001); external monitoring (Cochrane, 2000; Gewirtz, 2002), and the time pressures in meeting externally opposed targets, hindering the development of collaborative strategies (Kimberlee, 2001); and the building of trust and reciprocity (Bank, 1992).

Anning (*op cit*) also highlighted the fact that, to date, conceptual frameworks relating to the establishment and successful delivery of inter-agency approaches are underdeveloped and theorised.

To identify the areas for investigation within this research project I have 'informally' classified 38 statements relating to successful working in multi-agency teams based on the key points from the literature review as shown in Figure 1 overleaf.

Figure 1: Proposed 'classification' of 38 statements about working successfully in multi-agency teams
(Numbers in brackets relate to each of the 38 statements shown at the end of the appendices section)

Leadership	People	Processes & procedures	Practice
Team manager ensures good practice is shared (1)	Team members are involved in planning and management of the team (7)	Team is effective at working with other teams (13) There are effective communication procedures in place to support sharing of good practice (10)	Having transparent structures for communication with partnership agencies (23) Having role clarification around clearly defined work flow processes (29)
Approaches are in place for the effective management of key activities (2) Team manager plans & supports team and individual efforts to help people achieve plans & objectives (4)	Training and development plans and innovative approaches to staff support are used to help team members work more effectively (8) Team members are given the chance & support to show what they can do (9)	Processes are in place to assess service users' current & future needs (5) Team is good at welcoming and responding to new ideas & approaches (14) Team shares its priorities & activities with service users (17)	Having clear lines of accountability to other agencies (24) Team awareness of the impact of professional values, attitudes & practice on service users (27) Co-location of team members (26)
Having a visionary and flexible team manager (35)	Line management & professional supervision is adjusted to meet individual team members' needs (25)	Team is active &responsive to change & initiative (15) Team is effective at changing and developing what it does to meet and create what service users need (16) Creating common protocols, procedures and documentation for team (19)	Acknowledging the contribution of peripheral team members (31) Having joint client-focused activities such as shared assessment and consultation with families (28) Team is effective at initiating & participating in collaborative activities (3)

Figure 1 (continued)

Policy & Strategy	Partnership/ Resources	Ideological	Inter-professional	Customer Results
Team policy and strategy is developed, reviewed and updated (6)	Identifying and working with other partner agencies to identify current & future needs (11)	Creating new forms of knowledge (38)	Acknowledging specific expertise & professional diversity within team (21) Addressing barriers related to status hierarchies (30) Retaining 'specialist skills' within the team (32)	Team uses qualitative and quantitative measures to review, monitor and improve performance (18)
Team strategy includes time for reflecting on presenting problems prior to prescribing solutions (36) Agreeing strategic objectives for service delivery (20)			Set aside regular time for discussion for developing shared values & for enhancing trust and commitment (22) Acknowledging and respecting professional identities (33) Acknowledging professional diversity whilst nurturing team cohesion (34)	Achieving targets & goals set by local & national imperatives (37) Internal and external performance data analysis is used to ensure effective approaches (12)

2. METHODOLOGY

This research is about the attitudes of professionals working in different multi-disciplinary teams towards the literature review of multi-agency working. The measurement of attitudes has a long history in social psychology dating back to (Thurston)1928. Subsequently a number of methods for measuring attitudes have been devised. Two of these methods, most commonly used at present, are the Likert Scale and Semantic Differential. The Likert Scale, developed by Renis Likert, is a technique for measuring attitudes. The key feature of this method is that respondents are asked to rate the extent of their agreement or disagreement with a set of statements about the attitude object. A set of statements or items are usually collected about a chosen area, then a set of respondents are asked to express the extent of their agreement or disagreement with each of the items. Responses are measured in terms of strength of agreement or disagreement and a respondent's agreement ratings are summed to obtain a score representing his or her attitude. Manstead and Semin (2001) argue that a strength of the Likert Scale is its ability to capture different aspects of attitude ranging from beliefs to behaviour. It is also possible to assess strength of agreement or disagreement with relatively complex belief statements. However, the various strengths and weaknesses of this approach are also outlined in the literature (McIver and Carmines, 1981; Manstead and Semin, 2001).

The Semantic Differential, developed by Osgood *et al.* (Osgood *et al.*, 1957) asks respondents to rate the attitude object on a set of bipolar adjective scales by placing a tick or cross in one of seven spaces on each of the rating scales (Manstead and Semin, 2001). In contrast with the Likert Scale, the Semantic Differential focuses on simple evaluative beliefs and is suited to measuring affective and behavioural aspects of attitudes. A strength of the Semantic Differential is the ease and speed with which it can be used (Manstead and Semin, 2001).

The disadvantage of both these self-report measures, however, is that it is not always to collect self-report data completely unobtrusively: participants are always aware that they are under investigation and may modify their responses as a result. In particular, there is ample opportunity for answers to be influenced by motivational factors such as social desirability

This research makes use of Q-Sort methodology as a means of extracting subjective opinion about multi-agency working. Q methodology was invented in 1935 by the British physicist and psychologist William Stephenson but it has been applied and has continued to evolve primarily in the United States and outside academic psychology, most notably in the fields of communication and political science, and more recently in the health sciences. It is most often associated with quantitative analysis arising out of its use of factor analysis.

Stephenson was a *protégé* of Charles Spearman, the inventor of factor analysis who adopted conventional "R-methodological" approaches to the measurement and study of subjective phenomena such as opinions, attitudes and values. And according to Brown (1996) Stephenson was primarily interested in life as lived from the standpoint of the person living it and so it is this qualitative sense that Q methodology is also designed to examine: that is looking at individuals measuring rather than being measured – correlating people rather than tests. So despite Brown's reference to Spearman quoting Stephenson as the most creative statistician in psychology, from virtually the moment of its inception, the broader considerations of Q methodology were destined to be controversial and to be shunned by most of academic psychology until the 1980s when it was re-discovered by British social constructionists as a rich technique for applying quantitative analysis to qualitative issues (Kitzinger and Stainton Rogers 1985, Stainton Rogers 1995, Stenner and Stainton Rogers 2004).

Q methodology is primarily an *exploratory* technique: it cannot prove hypotheses. It can however, bring a sense of coherence to research *questions* that have many, potentially complex and socially contested answers (Stainton Rogers, 1995). Fundamentally Q methodology asks participants to decide what is 'meaningful', what does and what does not have value and significance *from their perspective.* The Q set is a collection of 'heterogeneous items' that participants will sort. The main concern using Q methodology is the relative likes and dislikes, meanings, interpretations and overall understandings which inform the participants' *engagement* with the Q set.

Thus in Q methodology the 'sample' is composed of the items in the Q sort and the people who complete the Q sort are equivalent to, in R methodology, the experimental condition (Kitzinger, 1987). Q methodology begins with the notion of finite diversity (Stainton Rogers, 1995), the aim being not to obtain the truth, but rather to collect and explore the variety of accounts people construct (Kitzinger, 1987). Therefore it is possible to centre on the subjective experience and understanding of the people taking part. It is not, however, the 'constructor' (the participants) who are the focus of the approach but the 'constructions' themselves (Stainton Rogers, 1995).

The instrumental basis of Q methodology is the Q-sort technique which conventionally involves the rank-ordering of a set of statements from 'agree' to 'disagree'. Usually the statements are taken from interviews and are therefore grounded in concrete existence. However 38 statements were generated by the researcher from the literature review. These statements have been nominally 'loosely' classified into nine broad *categories* as shown in figure 1.

DESIGN:

In order to gauge the likely extent of respondents' understanding of all 38 statements, other colleagues on the same doctoral programme as this researcher were asked to read through the statements to check for any ambiguity.

SAMPLE

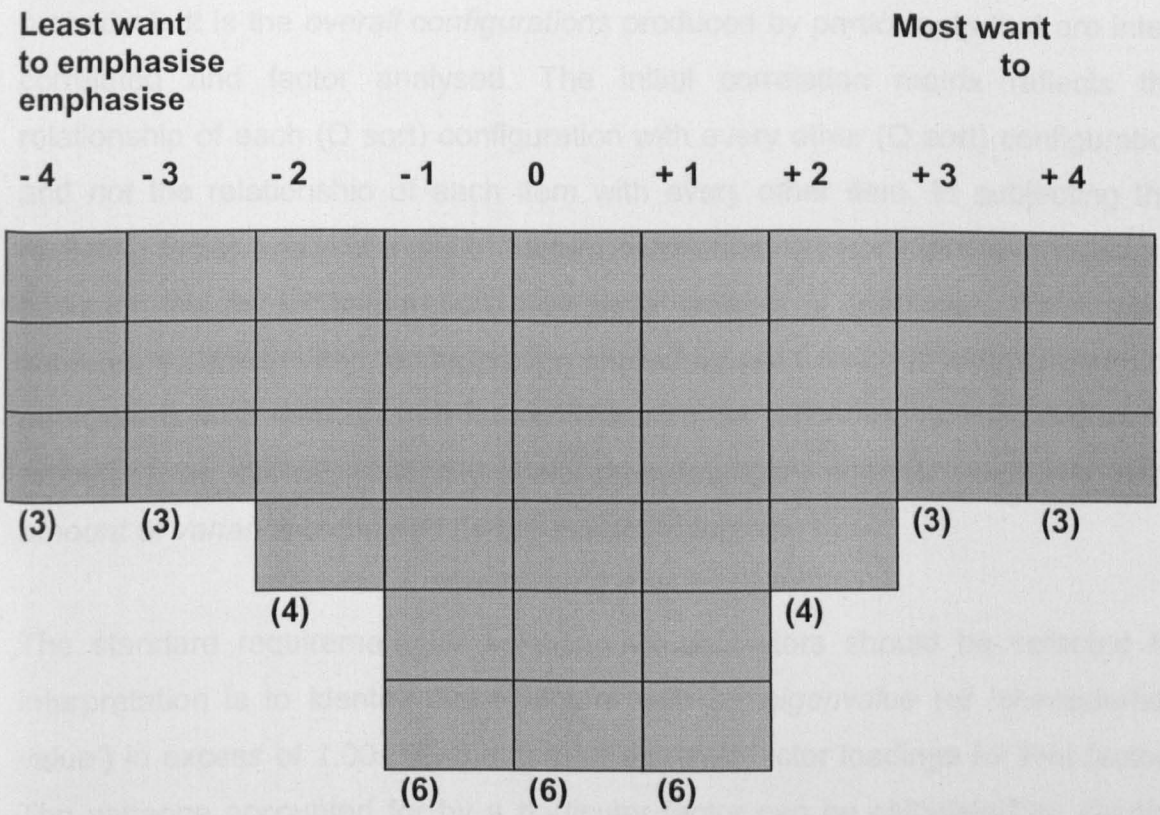
Fifty four participants chosen for this particular study were working in multi-agency teams (i.e. Behaviour and Education Support Team – BEST; Early Years SEN Support Team; Family Support Team; Sure Start and Youth Offending Team) and as a consequence they were made up of the following professionals: clinical and educational psychologists; family therapists and psychotherapists; health visitors; nursery nurses; police officers; portage workers; social workers and assistant social workers; speech and language therapists; teachers; teaching assistants and youth workers. Each team manager was asked to select professionals from their teams to participate in the research.

Anonymity and confidentiality was assured and participants were given the opportunity of not taking part in the research if they wished. The participants were given the following instruction (on a sheet of paper and repeated orally by the researcher):

There are 38 statements about working in teams. I want you to sort these statements in terms of what you would "most want to emphasise" and what you would "least want to emphasise" for working successfully in 'multi-agency teams'.

The participants were then asked to place each of these statements on a normal distribution grid on a 9 point scale from '*least want to emphasise*' (-4) to '*most* want *to emphasise*' (+4). This is the "technical means whereby data are obtained for factoring." (See the grid overleaf)

Scoring Sheet



The grid (scoring sheet) overleaf shows that the 38 statements can be sorted so that each statement relates to each of the shaded cells which means that subjects are allowed to place six statements in the '0' (neutral) column, three statements in each of the extreme columns, -4 (least want to emphasise) and +4 (most want to emphasise) and so on. This structure of grid enables statements to be sorted in a 'forced' and *quasi* normal distribution.

The grids were then factor analysed using a PQ Method statistical package (Schmolck, 2002) employing a *by-person* correlation and factor analytic procedure. It is the *overall configurations* produced by participants that are inter-correlated and factor analysed. The initial correlation matrix reflects the relationship of each (Q sort) configuration with every other (Q sort) configuration and *not* the relationship of each item with every other item. In subjecting this matrix to factor analysis a set of factors onto which the participants load on the basis of the item configuration they have created is produced. Each factor captures a *different* item configuration shared by (and which is characteristic of) participants who load on that factor. The varimax procedure is used within the procedure as this automatically seeks mathematically superior solutions to the *amount of variance* explained by the extracted factors.

The standard requirement for selecting which factors should be selected for interpretation is to identify those factors with an *eigenvalue* (or 'characteristic value') in excess of 1.00 (i.e. the sum of squared factor loadings for that factor). The variance accounted for by a particular factor can be calculated by dividing the eigenvalue by the number of participants and multiplying the result by 100.

A second standard requirement is that an interpretable Q methodological factor must ordinarily have at least two Q sorts that load significantly on it alone and such significantly loading Q sorts are called "factor exemplars." In effect, the Q sorts of all participants that load significantly on a given factor are merged together. This will yield a single (factor exemplifying) Q sort that serves as an interpretable 'best-estimate' of the pattern or item configuration which characterises that factor.

The end point of the statistical analysis is reached when each of the selected factors is represented by its own best-estimate Q sort or 'factor array'. These factor arrays are then subjected to interpretation.

3. RESULTS

INTRODUCTION:

The data analysed by the PQ Method (version 2.11) standard computer programme (Schmolck, 2002) produced rich and detailed information about professionals' constructions of working successfully in multi-agency teams. I have been selective in choosing a representative sample of tables from the computer programme and from that selection, I have chosen to present the following tables in the main text:

- The un-rotated factor matrix (Table 1)
- The rotated factor matrix (Table 2)
- Correlations between factors (Table 3)
- Normalised factor scores for each factor (Table 4)
- Factor Q-Sort values for each statement (Table 5)

A brief explanation of each of these tables is provided in order to clarify to the reader what is being reported with an interpretation provided in Section 4. The statement descriptions have been abbreviated in order for them to fit the tables in both this section and in the appendices. A full description of all 38 statements is provided at the end of the appendices.

The following tables can be found in the appendices:

- Rank Statement totals (Table 6)
- Differences between factors (Tables 7.1 to 7.28)
- Factor Q-Sort values for statements sorted by consensus versus disagreement (Table 8)
- Distinguishing statements for each factor (Table 9)
- Consensus statements (Table 10)

TABLE 1 Un-rotated factor matrix

This table shows the eight un-rotated factors extracted using the Principal Component Analysis method of factor extraction: this analysis is the default method of factor analysis in statistical packages such as SPSS. The alternative option, Centroid analysis, is the choice of Stephenson, et al, only it was not used here as it is rarely used outside the Q community nowadays.

The eight identified factors are labelled across the top of the table with each of the participants listed on the left had side (2nd column) in the table and their 'loadings' under each factor represents the degree to which their Q Sort correlates with each of the factors. The professionals' initials are coded in order to fit the table (rather like the statements). So for example, Sort 1, professional FSTCP (a clinical psychologist working in the family support team) correlates 0.1487 with factor 1; 0.597 with factor 2; 0.3432 with factor 3 and so on.

Eigenvalues can be found at the foot of the table and, as noted earlier, these are measures of the explanatory value of each factor: so the larger the Eigenvalue the more of the variance in the data is explained by that factor. It can be seen from Table 1 that all eight factors meet the criteria (of being greater than 1) and so are retained for further analysis.

Table 1: Un-rotated factor matrix

		FACTORS							
		1	2	3	4	5	6	7	8
SORTS									
1	FSTCP	0.1487	0.597	0.3432	-0.2243	0.1379	-0.1822	0.0752	0.1627
2	FSTEP	0.3265	0.3067	0.5375	-0.27	-0.0166	-0.023	0.0594	-0.2462
3	FSTSW1	0.3224	-0.3811	-0.0266	-0.2519	-0.2549	0.0281	-0.0226	0.1681
4	FSTSW2	0.3374	0.1336	0.1185	0.065	-0.0147	-0.6992	-0.0061	0.4266
5	FSTSW3	0.2335	-0.0996	-0.3568	0.1457	-0.0049	-0.4841	-0.1783	0.1696
6	FSTSWA1	0.3113	0.1545	-0.4551	-0.3345	0.1583	-0.2467	-0.1053	-0.0208
7	FSTSWA2	0.0139	0.2177	-0.371	-0.0162	-0.055	0.3231	-0.1014	0.572
8	YOTOFFIC	0.5199	-0.5819	0.0085	-0.207	-0.1606	0.1801	-0.293	-0.0206
9	YOTOFFIC	0.1761	0.0756	-0.2711	-0.405	0.2027	0.2899	0.1828	-0.0326
10	YOTOFFIC	0.1284	0.5701	0.3244	0.1105	0.2273	0.0167	0.0779	0.1722
11	YOTOFFIC	0.3833	-0.1125	0.3308	0.3282	0.0995	0.1738	0.1273	-0.0522
12	YOTOFFIC	0.364	-0.0928	-0.3946	-0.0037	0.4211	-0.1482	0.4147	0.069
13	YOTTM1	0.1982	0.5552	0.1245	0.2287	-0.0027	0.0693	0.2205	0.2583
14	YOTTM2	0.1585	-0.014	0.1206	0.4594	0.3958	0.0312	0.3773	0.1942
15	YOTEO	0.4935	-0.0288	-0.2859	-0.308	-0.4192	0.0441	0.145	-0.0655
16	YOTPO	0.292	0.3918	0.3726	0.1275	-0.015	-0.354	-0.0172	-0.3076
17	YOTPT1	0.4775	-0.208	0.1626	0.1789	0.351	0.2532	-0.046	0.029
18	YOTPT2	0.1249	0.3602	-0.1121	-0.0244	0.4524	0.4195	-0.0296	0.1333
19	YOTROP1	0.2117	0.1246	0.1081	-0.0082	0.0806	-0.2782	0.5925	0.1792
20	YOTROP2	0.347	0.2504	-0.123	-0.1609	-0.1931	-0.22	0.3347	-0.245
21	YOTSMC	0.3393	0.1337	-0.1774	0.3759	-0.5334	0.1956	0.0871	-0.1406
22	YOTRAC	0.6397	-0.1745	-0.139	-0.2081	0.2812	0.0223	0.1448	0.0124
23	YOTRO	-0.1598	-0.404	0.1944	0.0859	0.1587	0.0664	0.1968	-0.2855
24	YOTCON	0.6349	0.0902	-0.0539	-0.1584	0.369	-0.0552	-0.0691	0.1958
25	YOTST	-0.1491	0.2788	0.2322	0.3714	-0.0707	-0.048	-0.3962	0.0724
26	EYSENEP1	0.3351	0.373	-0.0586	-0.0046	-0.586	0.0171	0.0025	-0.1589
27	EYSENEP2	0.3354	-0.1865	0.5846	-0.1838	0.0982	-0.0313	0.1088	-0.2594
28	EYSENST	0.6632	-0.1266	-0.1109	0.1416	-0.127	0.0926	-0.2008	-0.0475
29	EYSENTE	0.7258	0.1127	-0.1238	-0.1892	-0.0883	-0.015	-0.0293	0.05

Table 1: Un-rotated factor matrix (continued)

		FACTORS							
		1	2	3	4	5	6	7	8
SORTS									
30	EYSENNN	0.338	0.0633	-0.5389	0.0586	0.2508	-0.0348	-0.1473	-0.1708
31	BIPEP1	0.4189	0.2124	0.453	0.4034	-0.2172	0.1753	-0.2252	0.1846
32	BIPEP2	0.3259	-0.4898	0.2501	-0.1028	0.04	-0.2449	-0.0717	0.0122
33	BIPAEP	0.4784	0.1611	-0.0545	-0.2401	-0.1597	-0.1931	0.0878	0.0878
34	BIPT1	0.4745	-0.2063	-0.1342	0.5351	0.1978	0.1996	-0.0243	-0.0052
35	BIPT2	0.2753	-0.3311	-0.3144	0.1185	0.219	-0.3279	0.0539	-0.141
36	BIPYW1	0.0434	-0.2699	0.2392	0.0588	-0.2468	0.1213	0.5744	-0.0984
37	BIPYW2	0.1704	0.3448	-0.3423	0.2656	0.3168	0.0656	-0.1801	-0.3727
38	BIPYW3	0.086	0.1419	-0.2759	-0.0128	0.0453	0.4524	-0.1677	0.0302
39	BIPYWC1	0.3727	0.1182	-0.2184	0.0421	-0.4777	0.1344	0.0043	-0.0723
40	BIPYWC2	0.2904	-0.3307	0.118	0.4073	0.3698	0.4544	0.1115	-0.0541
41	BIPFT1	0.6005	0.167	-0.291	0.2444	-0.2818	0.0321	0.0432	0.1724
42	BIPPT1	0.2607	-0.4717	0.1205	-0.3052	0.1235	-0.092	0.2733	0.2829
43	BIPPT2	0.4077	0.4143	-0.0057	0.0131	0.4219	-0.0247	0.1445	-0.497
44	SSTL1	0.5348	-0.2946	0.1214	0.2304	-0.1368	-0.2904	-0.2743	-0.0416
45	SSTL2	0.2209	-0.3216	0.2353	-0.1677	-0.236	0.3059	0.1957	0.2331
46	SSSALT1	0.4827	0.1745	0.1691	-0.4823	0.3055	-0.059	-0.3625	-0.0949
47	SSSALT2	0.5548	-0.2241	0.339	0.0384	-0.1869	-0.1623	-0.3081	-0.0943
48	SSFLSC	0.5747	-0.1133	-0.1026	0.3491	0.1509	-0.0888	-0.2182	-0.1497
49	SSMW	0.4001	0.1906	0.1837	-0.2025	0.0459	0.3253	-0.2066	0.2173
50	SSHV	0.3478	-0.0327	0.1093	0.5299	-0.1835	-0.1687	0.1504	0.1912
51	SSNN	0.501	0.0823	-0.2354	0.3025	-0.274	0.0934	0.3282	-0.0819
52	SSTPSW1	0.3892	0.0594	-0.3625	-0.4094	-0.1252	0.2344	0.1235	-0.0432
53	SSTPSW2	0.2143	0.2403	0.3986	-0.2577	-0.304	0.346	0.1225	-0.1855
54	SSCDT	0.4875	-0.054	0.5282	-0.3091	0.2366	0.167	-0.187	0.1784
Eigen Values	8.0189		4.216	4.1561	3.6385	3.5551	2.9456	2.5517	2.1093
Percentage Explained Variance.	15		8	8	7	7	5	5	4

le 2: Factor Matrix following 'Varimax' rotation (see previous section – thodology for a fuller explanation) with an X Indicating a *Defining Sort*.

eight factors were retained for rotation using varimax which is an automated gramme that rotates factors in order to achieve greater simplicity in the structure. Sorts are exemplars of the factor are referred to as 'defining sorts' and are marked (in bold) an X. So for example, professionals FSTCP (clinical psychologist working in the ily support team) – subject 1; YOTOFFICER3 (a Youth Offending Team Officer) – ject 10; YOTTM1 (a Youth Offending Team Manager) and YOTROP1 (a referral order gramme YOT worker) – subject 19 are 'defining sorts' of factor 2 in that they 'load' ly on this factor and no other factor.

ble 2: Factor Matrix following 'Varimax' rotation with an X Indicating a *Defining* ort.

	LOADINGS							
QSORT	1	2	3	4	5	6	7	8
1 FSTCP	-0.0088	**0.6753X**	0.3395	-0.2229	-0.0276	-0.0356	0.0667	0.0585
2 FSTEP	-0.0163	0.3412	0.4866	-0.0702	0.1376	-0.2719	0.0173	0.4193
3 FSTSW1	0.1622	-0.2824	0.253	0.0045	0.2258	0.1295	-0.4117	-0.0228
4 FSTSW2	-0.0564	0.4409	0.1885	-0.0936	0.0745	**0.7274X**	-0.1754	0.117
5 FSTSW3	0.0583	-0.0791	-0.0159	-0.0275	0.1249	0.6846X	0.0965	-0.0608
6 FSTSWA1	0.4477	-0.0183	0.2317	-0.2409	0.1313	0.3241	0.2926	-0.1299
7 FSTSWA2	0.0332	0.1126	-0.0024	-0.0339	0.123	0.0329	-0.0841	**-0.7696X**
8 YOTOFFICER1	0.1059	-0.5822	0.5015	0.224	0.2339	0.1019	-0.2807	0.0249
9 YOTOFFICER2	**0.5444X**	-0.0093	0.1643	-0.0356	0.0384	-0.2393	0.0747	-0.2118
10 YOTOFFICER3	-0.1372	**0.6655X**	0.1979	0.0947	-0.0425	-0.097	0.1507	-0.0541
11 YOTOFFICER4	-0.0865	0.1181	0.1605	**0.5707X**	0.1169	-0.0699	-0.0829	0.1936
12 YOTOFFICER5	**0.6718X**	0.1435	-0.0736	0.3024	-0.0037	0.3084	0.0879	-0.0351
13 YOTTM1	-0.0905	**0.6478X**	0.0052	0.138	0.2305	-0.0485	0.0526	-0.1742
14 YOTTM2	0.0904	0.3821	-0.17	**0.6072X**	-0.1541	0.1072	-0.0393	0.0073
15 YOTEO	0.3696	-0.1411	0.1726	-0.1347	**0.6305X**	0.0295	-0.1455	-0.0072
16 YOTPO	-0.1949	0.3963	0.2279	-0.0104	0.196	0.0909	0.2756	0.4945
17 YOTPT1	0.0918	-0.0284	0.3613	**0.6154X**	-0.0333	0.0099	0.009	-0.0108
18 YOTPT2	0.1848	0.2653	0.2094	0.2241	-0.1291	-0.2451	0.3069	-0.4339
19 YOTROP1	0.3357	**0.5233X**	-0.1131	0.0929	0.0706	0.1549	-0.2395	0.2117
20 YOTROP2	0.3413	0.2248	0.0076	-0.1496	0.4493	0.0418	0.0948	0.2824
21 YOTSMC	-0.1528	-0.032	-0.169	0.2041	**0.7448X**	-0.0554	0.0483	-0.0342
22 YOTRAC	**0.5499X**	-0.0192	0.3942	0.3085	0.1392	0.1713	-0.019	0.0248
23 YOTRO	0.0621	-0.2285	-0.1651	0.2521	-0.2618	-0.1809	-0.1003	0.3543
24 YOTCON	0.3465	0.2027	0.5438	0.2375	0.0613	0.2806	0.0975	-0.1278
25 YOTST	**-0.6220X**	0.1503	0.0273	0.0088	-0.0367	0.0653	0.1988	-0.0775
26 EYSENEP1	-0.1143	0.1203	0.0779	-0.1999	**0.7322X**	-0.0791	0.069	0.0568
27 EYSENEP2	0.0535	0.0509	0.437	0.1977	-0.0462	-0.1696	-0.1879	**0.5576X**
28 EYSENST	0.0342	-0.1914	0.3558	0.3457	0.4731	0.2082	0.0601	-0.0307
29 EYSENTE	0.2916	0.081	0.4744	0.0893	0.4886	0.19	0.0187	-0.0466
30 EYSENNN	0.3326	-0.1589	0.0747	0.1411	0.1693	0.2641	0.4873	-0.1728
31 BIPEP1	-0.5392	0.273	0.3435	0.3749	0.3447	-0.0095	-0.086	-0.0336
32 BIPEP2	0.0628	-0.2243	0.328	0.1722	-0.0672	0.2928	-0.304	0.3345
33 BIPAEP	0.2442	0.193	0.297	-0.1231	0.3782	0.2038	-0.0789	0.0514
34 BIPT1	0.0132	-0.1058	0.0353	**0.7306X**	0.1963	0.1901	0.146	-0.0963
35 BIPT2	0.3275	-0.224	-0.0567	0.2244	0.0075	0.4618	0.1382	0.1823
36 BIPYW1	0.144	0.0397	-0.2516	0.2212	0.1773	-0.2596	-0.4478	0.3416
37 BIPYW2	0.076	0.0238	-0.0061	0.1926	0.1072	0.0218	**0.7419X**	-0.0763
38 BIPYW3	0.0631	-0.119	0.0943	0.0981	0.137	-0.2253	0.2079	**-0.4361X**
39 BIPYWC1	0.0126	-0.0789	0.0394	-0.0112	**0.6619X**	-0.016	0	-0.0864
40 BIPYWC2	0.0625	-0.1197	0.0596	**0.8211X**	-0.0893	-0.1654	0.0022	-0.0285
41 BIPFT1	0.0724	0.1274	0.0807	0.2358	**0.6612X**	0.2711	0.024	-0.2236
42 BIPPT1	0.3998	-0.0563	0.214	0.1416	-0.1411	0.1732	-0.5367	0.0992

Table 2: Factor Matrix with an X Indicating a Defining Sort (continued)

	LOADINGS							
ORT	1	2	3	4	5	6	7	8
BIPPT2	0.3286	0.3118	0.2246	0.2125	0.1092	-0.1191	0.6075	0.2977
SSTL1	-0.1784	-0.1992	0.3178	0.2784	0.277	0.4701	-0.0559	0.2644
SSTL2	0.0824	-0.0899	0.1827	0.1769	0.1574	-0.2007	**-0.5761X**	-0.0344
SSSALT1	0.1912	0.0545	**0.8053X**	-0.1114	-0.0446	0.0453	0.2288	0.071
SSSALT2	-0.2195	-0.1614	0.5203	0.1907	0.2789	0.2416	-0.1226	0.3271
SSFLSC	-0.0033	-0.1238	0.248	0.4716	0.2468	0.3557	0.2839	0.0939
SSMW	-0.013	0.1438	**0.5656X**	0.1043	0.141	-0.1589	-0.0559	-0.263
SSHV	-0.2118	0.2262	-0.1111	0.4113	0.3309	0.3372	-0.1633	0.0935
SSNN	0.182	0.1083	-0.1404	0.3348	**0.6491X**	0.064	0.0191	0.0196
SSTPSW1	0.5049	-0.1078	0.2184	-0.1075	0.4006	-0.1277	0.0036	-0.1981
SSTPSW2	-0.0516	0.166	0.3115	-0.0688	0.3368	-0.5423	-0.1456	0.1726
SSCDT	0.0162	0.1357	**0.7919X**	0.211	-0.1094	-0.0959	-0.2258	0.056
rcentage plained riance	7	7	9	8	9	6	6	5

Table 3: Correlations between Factor Scores

	1	2	3	4	5	6	7	8
1	1	0.0448	0.2202	0.275	0.1316	0.1109	0.0589	-0.005
2	0.0448	1	0.2908	0.0221	0.0885	0.1877	0.1128	-0.0636
3	0.2202	0.2908	1	0.1638	-0.013	-0.0812	0.0997	0.1443
4	0.275	0.0221	0.1638	1	0.0927	-0.0594	0.0958	0.0519
5	0.1316	0.0885	-0.013	0.0927	1	0.138	0.0691	-0.2092
6	0.1109	0.1877	0.0812	-0.0594	0.138	-1	0.0183	-0.0054
7	0.0589	0.1128	-0.0997	0.0958	0.0691	-0.0183	1	-0.1186
8	-0.005	-0.0636	0.1443	0.0519	-0.2092	-0.0054	-0.1186	1

This table shows the extent to which the eight factors correlate with each other, so for example, factor 4 correlates 0.275 with factor 1, 0.0221 with factor 2 and 0.1638 with factor 3.

Tables 4.1 to 4.8 Normalized Factor Scores for each Factor

These tables show the normalized factor scores for all eight factors. So for factor 1 (Table 4.1) statement number 1 (*'leader shares good practice'*) is most strongly agreed with by the four professionals (all from the Youth Offending Team) whose sorts have been described as 'defining sorts' for the factor 1 viewpoint. In comparison, for factor 3 (Table 4.3) statement number 16 (*'team is effective at changing to meet users' needs*) is most strongly agreed by three professionals (all from Sure Start) as their sorts have been described as 'defining sorts' for the factor 3 viewpoint.

The normalized score or z-score is calculated from the four different scores given that item by these four 'exemplar' sorts. The group of sorts used as *exemplars* of the factor are referred to as the 'factor array.'

Table 4.1: Normalized Factor Scores - For Factor 1 (*Team strategy includes time for reflecting on presenting problems prior to prescribing solutions).*

No.	Statement	Z-SCORES
1	Leader shares good practice	1.821
4	Leader plans & supports people achieve objectives	1.693
25	Management & supervision meets team member needs	1.657
22	Discussion of shared values to enhance trust & commitment	1.446
36	Time for reflecting on problems prior to prescribing solutions	1.272
27	Awareness of impact of values, attitude & practice on users	1.206
9	Team members given chance to show what they can do	1.186
24	Clear lines of accountability to other agencies	1.173
16	Team is effective at changing to meet users' needs	1.114
35	Visionary & flexible team leader	0.94
11	Working with other partners to identify users' needs	0.795
10	Effective communication for sharing good practice	0.734
14	Team is good at responding to new ideas & approaches	0.613
32	Retaining specialist skills in team	0.419
38	Creating new forms of knowledge	0.17
13	Team is effective working with other teams	0.063
34	Acknowledging professional diversity & nurturing cohesion	0.003
31	Acknowledging contribution of peripheral team members	-0.073
29	Role clarification around work flow processes	-0.172
33	Acknowledging & respecting professional identities	-0.222
37	Achieving local & national targets	-0.363
19	Creating team protocols, procedures & documentation	-0.413
3	Team is effective at collaborative activities	-0.443
8	Training & development helps team work effectively	-0.488
7	Team members are involved in planning & management	-0.583
30	Addressing barriers related to status	-0.712
5	Processes are in place to assess users' needs	-0.712
28	Joint client-focused activities	-0.787
17	Team shares priorities & activities with users	-0.86
6	Team policy & strategy is developed & reviewed	-0.867
21	Acknowledging specific expertise & diversity in team	-0.964
15	Team is active & responsive to change & initiative	-0.981
26	Co-location of team members	-1.005
23	Transparent structures for communication with partners	-1.105
2	Effective management approaches of key activities	-1.197
18	Team uses measures to improve performance	-1.292
12	Performance data analysis used for effective approaches	-1.408
20	Agreeing strategic objectives for service delivery	-1.657

Table 4.1 illustrates that leadership and management in which good practice is shared; team plans support people achieving their objectives; supervision meets team members' needs; and, shared values enhance trust and commitment strongly support the construction of factor 1. In contrast, the co-location of team members; the effective planning of strategic objectives and management of key activities within a performance management framework are not distinguishing features of factor 1.

Table 4.2: Normalized Factor Scores - For Factor 2 (*Team members are given a chance and support to show what they can do)*

No.	Statement	Z-SCORES
29	Role clarification around work flow processes	1.989
9	Team members given chance to show what they can do	1.874
19	Creating team protocols, procedures & documentation	1.769
6	Team policy & strategy is developed & reviewed	1.367
23	Transparent structures for communication with partners	1.276
13	Team is effective working with other teams	1.119
26	Co-location of team members	0.942
28	Joint client-focused activities	0.816
20	Agreeing strategic objectives for service delivery	0.813
25	Management & supervision meets team member needs	0.698
21	Acknowledging specific expertise & diversity in team	0.446
4	Leader plans & supports people achieve objectives	0.432
27	Awareness of impact of values, attitude & practice on users	0.348
33	Acknowledging & respecting professional identities	0.193
11	Working with other partners to identify users' needs	0.115
10	Effective communication for sharing good practice	0.08
34	Acknowledging professional diversity & nurturing cohesion	0.05
35	Visionary & flexible team leader	0.036
14	Team is good at responding to new ideas & approaches	-0.016
36	Time for reflecting on problems prior to prescribing solutions	-0.089
16	Team is effective at changing to meet users' needs	-0.122
15	Team is active & responsive to change & initiative	-0.181
24	Clear lines of accountability to other agencies	-0.187
2	Effective management approaches of key activities	-0.255
32	Retaining specialist skills in team	-0.265
1	Leader shares good practice	-0.266
5	Processes are in place to assess users' needs	-0.388
12	Performance data analysis used for effective approaches	-0.475
8	Training & development helps team work effectively	-0.513
18	Team uses measures to improve performance	-0.752
22	Discussion of shared values to enhance trust & commitment	-0.861
3	Team is effective at collaborative activities	-0.918
7	Team members are involved in planning & management	-0.996
17	Team shares priorities & activities with users	-1.064
31	Acknowledging contribution of peripheral team members	-1.151
37	Achieving local & national targets	-1.46
30	Addressing barriers related to status	-2.104
38	Creating new forms of knowledge	-2.301

Table 4.2 illustrates that role clarification around work flow processes through the creation of team protocols, procedures and documentation strongly support the construction of factor 2. In contrast, addressing barriers related to status and creating new forms of knowledge are not key features of this factor.

Table 4.3: Normalized Factor Scores - For Factor 3 (*Team is effective at changing and developing what it does to meet and create what service users need*)

No.	Statement	Z-SCORES
16	Team is effective at changing to meet users' needs	1.908
4	Leader plans & supports people achieve objectives	1.534
35	Visionary & flexible team leader	1.428
15	Team is active & responsive to change & initiative	1.377
29	Role clarification around work flow processes	1.377
26	Co-location of team members	1.192
25	Management & supervision meets team member needs	1.175
10	Effective communication for sharing good practice	1.078
32	Retaining specialist skills in team	0.893
3	Team is effective at collaborative activities	0.843
2	Effective management approaches of key activities	0.708
33	Acknowledging & respecting professional identities	0.678
9	Team members given chance to show what they can do	0.4
34	Acknowledging professional diversity & nurturing cohesion	0.346
5	Processes are in place to assess users' needs	0.336
1	Leader shares good practice	0.316
19	Creating team protocols, procedures & documentation	0.299
22	Discussion of shared values to enhance trust & commitment	0.299
7	Team members are involved in planning & management	-0.017
14	Team is good at responding to new ideas & approaches	-0.261
8	Training & development helps team work effectively	-0.303
17	Team shares priorities & activities with users	-0.362
21	Acknowledging specific expertise & diversity in team	-0.43
36	Time for reflecting on problems prior to prescribing solutions	-0.497
18	Team uses measures to improve performance	-0.527
11	Working with other partners to identify users' needs	-0.531
6	Team policy & strategy is developed & reviewed	-0.564
20	Agreeing strategic objectives for service delivery	-0.632
13	Team is effective working with other teams	-0.658
23	Transparent structures for communication with partners	-0.699
30	Addressing barriers related to status	-0.847
28	Joint client-focused activities	-1.045
31	Acknowledging contribution of peripheral team members	-1.129
37	Achieving local & national targets	-1.226
12	Performance data analysis used for effective approaches	-1.323
38	Creating new forms of knowledge	-1.659
24	Clear lines of accountability to other agencies	-1.693
27	Awareness of impact of values, attitude & practice on users	-1.786

Table 4.3 illustrates that a visionary and flexible team leader, who plans and supports people achieve objectives is what strongly supports the construction of factor 3. In contrast, creating new forms of knowledge; having clear lines of accountability to other agencies; and an awareness of the impact of values, attitudes and practice on users is of relative little importance within factor 3.

Table 4.4: Normalized Factor Scores - For Factor 4 (*Achieving specific expertise and professional diversity within the team and sharing priorities with users*)

No.	Statement	Z-SCORES
25	Management & supervision meets team member needs	2.035
4	Leader plans & supports people achieve objectives	1.81
7	Team members are involved in planning & management	1.509
27	Awareness of impact of values, attitude & practice on users	1.177
1	Leader shares good practice	1.163
16	Team is effective at changing to meet users' needs	1.152
18	Team uses measures to improve performance	1.031
37	Achieving local & national targets	0.965
3	Team is effective at collaborative activities	0.887
6	Team policy & strategy is developed & reviewed	0.877
20	Agreeing strategic objectives for service delivery	0.77
11	Working with other partners to identify users' needs	0.717
14	Team is good at responding to new ideas & approaches	0.644
35	Visionary & flexible team leader	0.637
2	Effective management approaches of key activities	0.375
5	Processes are in place to assess users' needs	0.342
8	Training & development helps team work effectively	0.05
19	Creating team protocols, procedures & documentation	0.045
36	Time for reflecting on problems prior to prescribing solutions	-0.103
12	Performance data analysis used for effective approaches	-0.17
24	Clear lines of accountability to other agencies	-0.199
21	Acknowledging specific expertise & diversity in team	-0.347
29	Role clarification around work flow processes	-0.496
13	Team is effective working with other teams	-0.5
32	Retaining specialist skills in team	-0.546
33	Acknowledging & respecting professional identities	-0.587
10	Effective communication for sharing good practice	-0.636
22	Discussion of shared values to enhance trust & commitment	-0.717
38	Creating new forms of knowledge	-0.87
28	Joint client-focused activities	-0.903
15	Team is active & responsive to change & initiative	-0.931
34	Acknowledging professional diversity & nurturing cohesion	-0.933
26	Co-location of team members	-1.08
31	Acknowledging contribution of peripheral team members	-1.156
17	Team shares priorities & activities with users	-1.197
23	Transparent structures for communication with partners	-1.213
9	Team members given chance to show what they can do	-1.664
30	Addressing barriers related to status	-1.939

Table 4.4 illustrates that management and supervision that meets team member needs and supports them in meeting their objectives is what strongly supports the construction of factor 4. In contrast, team members being given a chance to show what they can do and addressing barriers related to status is relatively unimportant for factor 4.

Table 4.5: Normalized Factor Scores - For Factor 5 (*Identifying and working with other partner agencies to identify current and future service user needs*)

No.	Statement	Z-SCORES
11	Working with other partners to identify users' needs	1.625
28	Joint client-focused activities	1.512
23	Transparent structures for communication with partners	1.481
3	Team is effective at collaborative activities	1.272
10	Effective communication for sharing good practice	1.121
14	Team is good at responding to new ideas & approaches	1.053
16	Team is effective at changing to meet users' needs	1.032
13	Team is effective working with other teams	1.025
34	Acknowledging professional diversity & nurturing cohesion	0.972
22	Discussion of shared values to enhance trust & commitment	0.961
24	Clear lines of accountability to other agencies	0.914
7	Team members are involved in planning & management	0.725
15	Team is active & responsive to change & initiative	0.623
18	Team uses measures to improve performance	0.615
5	Processes are in place to assess users' needs	0.306
8	Training & development helps team work effectively	0.255
35	Visionary & flexible team leader	0.252
27	Awareness of impact of values, attitude & practice on users	0.217
17	Team shares priorities & activities with users	0.148
21	Acknowledging specific expertise & diversity in team	-0.003
9	Team members given chance to show what they can do	-0.014
1	Leader shares good practice	-0.061
37	Achieving local & national targets	-0.263
6	Team policy & strategy is developed & reviewed	-0.424
19	Creating team protocols, procedures & documentation	-0.57
20	Agreeing strategic objectives for service delivery	-0.614
4	Leader plans & supports people achieve objectives	-0.628
32	Retaining specialist skills in team	-0.693
31	Acknowledging contribution of peripheral team members	-0.747
36	Time for reflecting on problems prior to prescribing solutions	-0.863
29	Role clarification around work flow processes	-0.951
2	Effective management approaches of key activities	-0.989
25	Management & supervision meets team member needs	-1.285
38	Creating new forms of knowledge	-1.527
26	Co-location of team members	-1.556
33	Acknowledging & respecting professional identities	-1.586
30	Addressing barriers related to status	-1.646
12	Performance data analysis used for effective approaches	-1.689

Table 4.5 illustrates that having joint client-focused activities with transparent structures for communication with partners is what strongly supports the construction of factor 5. In contrast: creating new forms of knowledge in a co-located team; acknowledging and respecting professional identities whilst addressing barriers related to status; and, using performance data analysis are of little importance for factor 5.

Table 4.6: Normalized Factor Scores - For Factor 6 (*Acknowledging specific expertise and professional diversity within the team and sharing priorities with service users*)

No.	Statement	Z-SCORES
6	Team policy & strategy is developed & reviewed	1.636
21	Acknowledging specific expertise & diversity in team	1.636
4	Leader plans & supports people achieve objectives	1.588
28	Joint client-focused activities	1.54
34	Acknowledging professional diversity & nurturing cohesion	1.395
17	Team shares priorities & activities with users	1.252
10	Effective communication for sharing good practice	1.011
33	Acknowledging & respecting professional identities	1.011
7	Team members are involved in planning & management	0.866
22	Discussion of shared values to enhance trust & commitment	0.818
8	Training & development helps team work effectively	0.674
27	Awareness of impact of values, attitude & practice on users	0.577
15	Team is active & responsive to change & initiative	0.289
19	Creating team protocols, procedures & documentation	0.289
16	Team is effective at changing to meet users' needs	0.241
23	Transparent structures for communication with partners	0.241
32	Retaining specialist skills in team	0.193
29	Role clarification around work flow processes	0.144
14	Team is good at responding to new ideas & approaches	0.048
12	Performance data analysis used for effective approaches	0
1	Leader shares good practice	0
36	Time for reflecting on problems prior to prescribing solutions	-0.048
24	Clear lines of accountability to other agencies	-0.096
9	Team members given chance to show what they can do	-0.386
35	Visionary & flexible team leader	-0.481
38	Creating new forms of knowledge	-0.529
25	Management & supervision meets team member needs	-0.625
26	Co-location of team members	-0.722
30	Addressing barriers related to status	-0.77
18	Team uses measures to improve performance	-0.818
37	Achieving local & national targets	-0.818
11	Working with other partners to identify users' needs	-1.107
20	Agreeing strategic objectives for service delivery	-1.252
3	Team is effective at collaborative activities	-1.3
31	Acknowledging contribution of peripheral team members	-1.395
13	Team is effective working with other teams	-1.636
2	Effective management approaches of key activities	-1.636
5	Processes are in place to assess users' needs	-1.829

Table 4.6 illustrates that team policy and strategy need to be developed and reviewed and, team members need to be supported in providing joint client-focused activities in the construction of factor 6. In contrast, it is much less important for processes to be in place to assess users' needs. Surprisingly, the effective management of key activities especially in working effectively with other teams is also of little importance in the construction of factor 6.

Table 4.7: Normalized Factor Scores - For Factor 7 (*Training and development plans are used to help the team work more effectively with other teams*)

No.	Statement	Z-SCORES
13	Team is effective working with other teams	1.982
8	Training & development helps team work effectively	1.796
14	Team is good at responding to new ideas & approaches	1.61
29	Role clarification around work flow processes	1.1
10	Effective communication for sharing good practice	1.084
24	Clear lines of accountability to other agencies	1.084
2	Effective management approaches of key activities	1.068
28	Joint client-focused activities	0.882
6	Team policy & strategy is developed & reviewed	0.744
16	Team is effective at changing to meet users' needs	0.712
12	Performance data analysis used for effective approaches	0.696
20	Agreeing strategic objectives for service delivery	0.558
33	Acknowledging & respecting professional identities	0.558
27	Awareness of impact of values, attitude & practice on users	0.542
38	Creating new forms of knowledge	0.372
18	Team uses measures to improve performance	0.356
1	Leader shares good practice	0.356
3	Team is effective at collaborative activities	0.34
31	Acknowledging contribution of peripheral team members	0.186
25	Management & supervision meets team member needs	0.17
22	Discussion of shared values to enhance trust & commitment	-0.186
4	Leader plans & supports people achieve objectives	-0.202
9	Team members given chance to show what they can do	-0.356
21	Acknowledging specific expertise & diversity in team	-0.526
5	Processes are in place to assess users' needs	-0.542
32	Retaining specialist skills in team	-0.68
36	Time for reflecting on problems prior to prescribing solutions	-0.728
15	Team is active & responsive to change & initiative	-0.728
30	Addressing barriers related to status	-0.882
17	Team shares priorities & activities with users	-0.898
34	Acknowledging professional diversity & nurturing cohesion	-0.898
26	Co-location of team members	-0.914
7	Team members are involved in planning & management	-1.068
11	Working with other partners to identify users' needs	-1.1
23	Transparent structures for communication with partners	-1.238
35	Visionary & flexible team leader	-1.456
19	Creating team protocols, procedures & documentation	-1.812
37	Achieving local & national targets	-1.982

Table 4.7 illustrates that training and development will help the team work effectively with other teams so that the team will be good at responding to new ideas and approaches. Creating team protocols, procedures and documentation and, achieving local and national targets are not necessary in this respect.

Table 4.8: Normalized Factor Scores - For Factor 8 (*Achieving targets and goals set by local and national imperatives by agreeing strategic objectives for service delivery*)

No.	Statement	Z-SCORES
37	Achieving local & national targets	1.929
20	Agreeing strategic objectives for service delivery	1.592
29	Role clarification around work flow processes	1.543
33	Acknowledging & respecting professional identities	1.447
4	Leader plans & supports people achieve objectives	1.399
22	Discussion of shared values to enhance trust & commitment	1.158
19	Creating team protocols, procedures & documentation	1.013
10	Effective communication for sharing good practice	0.868
34	Acknowledging professional diversity & nurturing cohesion	0.868
31	Acknowledging contribution of peripheral team members	0.821
1	Leader shares good practice	0.82
5	Processes are in place to assess users' needs	0.772
38	Creating new forms of knowledge	0.626
3	Team is effective at collaborative activities	0.386
18	Team uses measures to improve performance	0.193
35	Visionary & flexible team leader	0.049
26	Co-location of team members	0
30	Addressing barriers related to status	0
6	Team policy & strategy is developed & reviewed	0
9	Team members given chance to show what they can do	-0.001
24	Clear lines of accountability to other agencies	-0.048
16	Team is effective at changing to meet users' needs	-0.192
28	Joint client-focused activities	-0.193
7	Team members are involved in planning & management	-0.289
2	Effective management approaches of key activities	-0.531
8	Training & development helps team work effectively	-0.579
12	Performance data analysis used for effective approaches	-0.579
11	Working with other partners to identify users' needs	-0.772
21	Acknowledging specific expertise & diversity in team	-0.868
17	Team shares priorities & activities with users	-0.917
23	Transparent structures for communication with partners	-0.917
25	Management & supervision meets team member needs	-1.013
14	Team is good at responding to new ideas & approaches	-1.061
36	Time for reflecting on problems prior to prescribing solutions	-1.109
32	Retaining specialist skills in team	-1.35
15	Team is active & responsive to change & initiative	-1.592
13	Team is effective working with other teams	-1.736
27	Awareness of impact of values, attitude & practice on users	-1.737

Table 4.8 illustrates that role clarification around work flow processes with plans that support people achieving their objectives whilst also acknowledging and respecting professional identities are important features in the construction of factor 8. In this respect the team does not have to be effective at working with other teams and an awareness of the impact of values, attitude and practice on users does not feature in the construction of factor 8.

Table 5: Factor Q-Sort Values for Each Statement

This table shows each of the statements and the positions they would be assigned on the grid in a sort by each of the factors. SO for example, statement 9 (*team members given chance to show what they can do*) would be placed in position 2 on the grid for factor 1; position 4 (most want to emphasise) for factor 2; position 1 for factor 3; position -4 (least want to emphasise) for factor 4; position 0 (neutral) for factors 5 and 8 and position -1 for factors 6 and 7.

No.	Statement	1	2	3	4	5	6	7	8
1	Leader shares good practice	4	-1	1	3	0	0	0	1
2	Effective management approaches of key activities	-3	-1	1	1	-2	-4	2	-1
3	Team is effective at collaborative activities	-1	-2	2	2	3	-3	0	1
4	Leader plans & supports people achieve objectives	4	1	4	4	-1	4	0	3
5	Processes are in place to assess users' needs	-1	-1	1	1	1	-4	-1	1
6	Team policy & strategy is developed & reviewed	-2	3	-1	2	-1	4	2	0
7	Team members are involved in planning & management	-1	-3	0	4	1	2	-3	-1
8	Training & development helps team work effectively	-1	-2	0	0	1	1	4	-1
9	Team members given chance to show what they can do	2	4	1	-4	0	-1	-1	0
10	Effective communication for sharing good practice	1	1	2	-1	3	2	3	2
11	Working with other partners to identify users' needs	1	1	-1	1	4	-2	-3	-1
12	Performance data analysis used for effective approaches	-4	-1	-3	0	-4	0	1	-1
13	Team is effective working with other teams	1	3	-2	-1	2	-4	4	-4
14	Team is good at responding to new ideas & approaches	1	0	0	1	3	0	4	-3
15	Team is active & responsive to change & initiative	-2	0	3	-2	1	1	-1	-4
16	Team is effective at changing to meet users' needs	2	0	4	3	2	1	2	0
17	Team shares priorities & activities with users	-2	-3	0	-3	0	3	-2	-2
18	Team uses measures to improve performance	-4	-2	-1	2	1	-2	0	1
19	Creating team protocols, procedures & documentation	0	4	0	0	-1	1	-4	2
20	Agreeing strategic objectives for service delivery	-4	2	-1	1	-1	-3	1	4

Table 5 (continued)

No.	Statement	1	2	3	4	5	6	7	8
21	Acknowledging specific expertise & diversity in team	-2	1	-1	0	0	4	-1	-2
22	Discussion of shared values to enhance trust/commitment	3	-2	0	-1	2	2	0	3
23	Transparent structures for communication with partners	-3	3	-2	-4	4	1	-3	-2
24	Clear lines of accountability to other agencies	2	-1	-4	0	1	-1	3	0
25	Management & supervision meets team member needs	4	2	2	4	-3	-1	0	-2
26	Co-location of team members	-3	2	3	-3	-3	-1	-2	0
27	Awareness of impact of values/attitude/practice on users	3	1	-4	3	0	1	1	-4
28	Joint client-focused activities	-1	2	-2	-2	4	3	2	-1
29	Role clarification around work flow processes	0	4	3	-1	-2	0	3	4
30	Addressing barriers related to status	-1	-4	-2	-4	-4	-2	-2	0
31	Acknowledging contribution of peripheral team members	0	-3	-3	-3	-2	-3	0	2
32	Retaining specialist skills in team	1	-1	2	-1	-1	0	-1	-3
33	Acknowledging & respecting professional identities	0	1	1	-1	-4	2	1	3
34	Acknowledging professional diversity/nurturing cohesion	0	0	1	-2	2	3	-2	2
35	Visionary & flexible team leader	2	0	4	1	0	-1	-4	1
36	Reflection time for problems prior to prescribing solutions	3	0	-1	0	-2	0	-1	-3
37	Achieving local & national targets	0	-4	-3	2	-1	-2	-4	4
38	Creating new forms of knowledge	1	-4	-4	-2	-3	-1	1	1

4. DISCUSSION

The eight 'factors' identified in this research represent eight distinct and different viewpoints or constructions about what constitutes *successful* multi-agency working from amongst different professionals (psychologists, social workers, YOT workers, speech and language therapists, youth workers, family therapists, psychotherapists, teachers, nursery nurses, health visitors and midwives) who are already part of multi-agency teams and who have been asked to use their experiences to give their opinions on this topical area – especially in the light of the most recent legislation, the Children Act 2005.

The discussion that follows is my interpretation of a rich array of data. One of the beauties of this type of methodological research is that it offers the reader an opportunity to critically evaluate researcher's interrogation of the data and to put forward confirming or alternative opinions.

4.1 The eight factors (*viewpoints* or *constructions*)

It is worth commenting that there is not a dominant factor amongst the eight factors (see Table 2) which suggests that they are all of relative equal importance. The eight factors can therefore be regarded as heterarchies.

FACTOR 1 Construction – *"Team strategy includes time for reflecting on presenting problems prior to prescribing solutions".*

This factor accounts for 7% of the variance in the sample and has four defining sorts from amongst YOT workers. This construction is supported by *'the team leader or manager ensuring that good practice is shared'* and by *"team members being given the chance to show what they can do".*

This construction 'fits' with leadership of people for developing policy and strategy (see figure 1). It also supports the idea that the *"leader plans and supports team and individual efforts to help people achieve plans and objectives"* and that both *'line management and professional supervision should be adjusted to meet individual team members' needs'* as well as *'setting aside time for regular discussion for developing shared values and enhancing trust and commitment.'* This factor further supports the notion of the team leader influencing the inter-professional people component in successful multi-agency teams (see figure 1).

Factor 1 suggests much less emphasis on the idea of *'agreeing strategic objectives for service delivery'*, that *'internal and external performance data analysis should be used to ensure effective approaches* and that *'successful teams should use quantitative and qualitative measures to review, monitor and improve performance'.* Thereby rejecting the team leader's use of certain performance measures (customer results) to measure success (see figure 1).

In relation to other factors, factor 1 has most in common with factors 3 and 4 (with correlations of 0.2202 and 0.275 respectively) and least in common with factor 8 (with a correlation of -0.005) – see Table 3, page 20.

What differentiates factors 1 and 3 is the extent of *"team awareness of the impact of professional values, attitude and practice on service users"* and *"having clear lines of accountability to other agencies"* – (see table 7.2 in appendices). The difference between factor 1 and factor 4 (see table 7.3 in the appendices), is in relation to *'team members being given a chance and support to show what they can do* and *'setting aside time for regular discussion for developing shared values and enhancing trust and commitment.'*

FACTOR 2 Construction – *"Team members are given a chance and support to show what they can do".*

This factor also accounts for 7% of the variance in the sample and also has four defining sorts from amongst 3 YOT workers and a clinical psychologist working in the Family Support Team. This construction is supported by the '*creation of team protocols, procedures and documentation'.*

This construction 'fits' with people involvement in procedures and processes (see figure 1 – pages 9 and 10), supported by the need for *role clarification around work flow processes* (Table 4.2).

Factor 2 places much less emphasis on the idea of *"creating new forms of knowledge"* and the need to *'address barriers related to status hierarchies'.* And in relation to other factors, factor 2 has most in common with factor 3 (with a correlation of 0.2908) and least in common with factor 8 (with a correlation of -0.0636) – see Table 3.

What differentiates factor 2 from factor 3 is *"team awareness of the impact of professional values, attitudes and practice on service users"* – see Table 7.8 in the appendices.

FACTOR 3 Construction – *"Team is effective at changing and developing what it does to meet and create what service users need."*

This factor accounts for 9% of the variance in the sample and has three defining sorts from amongst Sure Start professionals. This construction is also supported by the team being *'active and responsive to change and initiative'* – all of which is part of 'processes, procedures and practice' domains outlined in figure 1. It is supported by the '*team manager planning and supporting team and individual efforts to help people achieve plans and objectives'.*

Factor 3 places much less emphasis on the idea of the need for *"team awareness of the impact of professional values, attitudes and practice on service users,"* the need for *"clear lines of accountability to other agencies"* and *"creating new forms of knowledge".*

In relation to other factors, factor 3 has most in common with factor 1 (with a correlation of 0.2202) and with factor 2 (with a correlation of 0.2908) and least in common with factors 5 and 7 (with correlations of -0.013 and -0.0997). The difference between factor 3 and factor 1 (Table 7.2 in appendices) is *"team awareness of the impact of professional values, attitudes and practice on service users"* and *"having clear lines of accountability to other agencies."* And the difference between factor 3 and factor 2 (Table 7.8 in appendices) is also *"team awareness of the impact of professional values, attitudes and practice on service users"* and *"having clear lines of accountability to other agencies."*

FACTOR 4 Construction – *"Achieving targets and goals set by local and national imperatives through effective communication for sharing good practice."*

This factor accounts for 8% of the variance in the sample and has five defining sorts from amongst two different teams (YOT and Behaviour Improvement Programme). This construction is also supported by the need for *'line management and professional supervision to be adjusted to meet individual team members' needs'* in order to achieve local and national targets. Factor 4 suggests much less of a need for *"addressing barriers related to status hierarchies"* and for *'team members being given a chance and support to show what they can do".*

In relation to other factors, factor 4 has most in common with factor 1 (correlation is 0.275) – Table 3, what differentiates these two factors (see table 7.3 in the appendices), is in relation to *'team members being given a chance and support to show what they can do* and *'setting aside time for regular discussion for developing shared values and enhancing trust and commitment.'*

FACTOR 5 Construction – *"Identifying and working with other partner agencies to identify current and future service user needs."*

This factor accounts for 9% of the variance in the sample and has six defining sorts from amongst four different teams (YOT, Behaviour Improvement Programme, Early Years SEN and Sure Start). This construction suggests that there is no need to *'acknowledge and respect professional identities* in working with other partners even when *having joint client-focused activities such as shared assessment and consultation with families.* Factor 5 suggests that there is much less of a need for *'internal and external performance data analysis to ensure effective approaches'* and the need to *'address barriers related to status hierarchies.'*

In relation to other factors, factor 5 has most in common with factor 1 (correlation is 0.1316) and with factor 6 (correlation is 0.138) and least in common with factor 8 (correlation is -0.2092) – see Table 3.

What differentiates factor 5 from factor 1 (Table 7.4 in appendices) is *'line management and professional supervision being adjusted to meet individual team members' needs,'* and the *'team leader planning and supporting the team and individual efforts to help people achieve plans and objectives,'* together *'team strategy including time for reflecting on presenting problems prior to prescribing solutions.'*

What differentiates factor 5 from factor 6 (Table 7.23 in appendices) is *'the team being effective at initiating and participating in collaborative activities when working with other teams'* and *'processes being in place to assess service users' current and future needs.'*

FACTOR 6 Construction – *"Acknowledging specific expertise and professional diversity within the team and sharing priorities with service users."*

This factor accounts for 6% of the variance in the sample with one defining sort from a Family Support Team social worker. This construction is supported by the *'the development, review and updating of team policy and strategy* and by *'the team leader planning and supporting team and individual efforts to help people achieve plans and objectives.'*

This construction 'fits' with the leadership style accounting for inter-professional issues when considering policy and strategy for delivering services in practice (see figure 1), although factor 6 places much less of an emphasis on the need for *'processes to be in place to assess service users' current and future needs' or* for *'approaches to be in place for the effective management of key activities'* in *working with other teams'.*

In relation to other factors, factor 6 has most in common with factor 2 (correlation is 0.1128) and least in common with factor 8 (correlation is -0.0054) – Table, although what differentiates these two factors (Table 7.11 in appendices) is *'team members being given the chance and support to show what they can do'* and *'agreement of strategic objectives for service delivery'.*

FACTOR 7 Construction – *"Training and development plans are used to help the team work effectively with other teams and training".*

This factor accounts for 6% of the variance in the sample with two defining sorts from two different teams (Behaviour Improvement Programme and Sure Start). *"Creating common protocols, procedures and documentation for the team"* are not strongly emphasised though.

Nevertheless, this construction does emphasise that the successful *'team should be good at welcoming and responding to new ideas and approaches'.* Once again this construction fits with the 'people, processes and procedures' element (as in figure 1). In relation to other factors, factor 7 has most in common with factor 2 (correlation of 0.1128) and has least in common with factor 1 (correlation is 0.0589) – Table 3. What differentiates factor 7 from factor 2 (Table 7.12 in the appendices) is *"creating common protocols, procedures and documentation for the team"; "having transparent structures for communication with partnership agencies"* and *'team members being given the chance and support to show what they can do".*

FACTOR 8 Construction - *"Achieving targets and goals set by local and national imperatives by agreeing strategic objectives for service delivery".*
This factor accounts for 5% of the variance in the sample with three defining sorts from three different teams (Family Support Team, Early Years SEN Team and the Behaviour Improvement programme). *"Having role clarification around clearly defined work flow processes"* and *"acknowledging and respecting professional identities"* are also strongly emphasised to support this construction – this is the 'inter-professional aspect of working practice' as shown in figure 1.

In relation to other factors, factor 8 has most in common with factors 3 (correlation of 0.1443) and 4 (correlation of 0.0519) and least in common with factor 7 (correlation of -0.1186) – Table 3. What differentiates factor 8 from factor 3 (Table 7.18 in the appendices) is the *'team being active and responsive to change and initiative'* and *'retaining 'specialist' skills'* with *'line management and professional supervision being adjusted to meet individual team members' needs'.* And what differentiates factor 8 from factor 4 (Table 7.22 in the appendices) is also *'line management and professional supervision being adjusted to meet individual team members' needs'* together with *'team awareness of the impact of professional values, attitude and practice on service users'.*

4.2 Links between the factor constructions and the classification system – practical implications and implications for future research

When all eight factors are considered in relation to the proposed 'classification' of statements about working successfully in multi-agency teams (figure 1) it can be seen that the factors fit into six of these classifications:

- 'people' (factors 2 and 7);
- 'processes and procedures' (factor 3);
- 'policy and strategy' (factor 1);
- 'partnership and resources' (factor 5);
- 'inter-professional' (factor 6); and,
- 'customer results' (factor 4).

This suggests that further research could be conducted in any one or more of these six areas and/or the link between them as it is highly unlikely that 'people', 'processes and procedures', 'policy and strategy", 'partnership and resources' and 'customer results' are mutually exclusive. And for multi-agency working, 'inter-professional' (factor 6) issues would seem particularly worthy of further research. Interestingly from this research, factor 6 places much less emphasis on the need for processes to be in place to assess service users current and future needs or for approaches to be in place for the effective management of key activities for working successfully with other teams. Furthermore, *"having role clarification around clearly defined work flow processes"* is a supporting statement for both factors 2 and 8 (Table 3), and is described as the 'practice' classification in figure 1. This suggests that the clarity of role and work process is a key to successful multi-agency working which could be investigated by more detailed research. It also has implications for Educational Psychologists (EPs) working in multi-agency teams in that both their role in the team and team processes will need clarification in order for EPs to be given a chance and support to show what they can do in helping the team achieve its objectives.

The 'leadership' classification whilst not, somewhat surprisingly, emerged as a discrete factor, provides supporting statements for three factors (figure 1) in that, *"team manager plans and supports team and individual efforts to help people achieve plans and objects"* supports factors 1, 3 and 6 (Table 3). This suggests that multi-agency team managers (leaders) will need to ensure that, at an operational level, there is time for reflecting on presenting problems prior to prescribing solutions; the team is effective at changing and developing what it does in order to meet and create what service users need and that specific expertise and professional diversity needs to be acknowledged and shared with service users.

The statement *"line management and professional supervision is adjusted to meet individual team members' needs"* is positioned under the 'people' classification in figure 1, although it could also be considered a 'leadership' criterion: this statement also supports factors 1 and 4 (Table 3). Line management and professional supervision are key factors for EPs working in multi-agency teams where their 'day-to-day' immediate line manager is not a psychologist. It is fairly common for EPs in this situation to receive their professional or clinical supervision from a (senior) member of the Educational Psychology Service (EPS) and to manage the allocation of case work in discussion with their team manager. In some instances three-way meetings are convened between EP, team manager and a senior member of the EPS. This research supports the practice previously described in that time for reflection (factor 1) and communication for sharing good practice (factor 4) are key for achieving targets and goals set by local and national imperatives.

4.3 Assumptions and Caveats to the Research

I now need to make some comments about the methodology. The problem with the Q-methodology approach is that it introduces arbitrary subjectivity – in this case, the social scientist's - in an '*a priori*' way into the measurement process. Respondents either want to emphasise or do not want to emphasise that team members are given a chance and support to show what they can do – supported by role clarification around work flow processes (factor 2) to a greater or lesser degree by virtue of the researcher's categorical operational definition. Categorical definitions always carry the risk of missing or misinterpreting meaning from the respondent's own frame of reference. The point is that, *being given a chance to show what you can do* is amenable to individually determined definitions drawn from personal experiences just like the issues and events that might elicit concerns about this statement. As such, '*being given a chance to show what you can do*', is subject to a host of meanings, each of which may well be "sensible" from the standpoint of the respondent's own logic.

Secondly, there is the issue of *contextuality,* especially as it relates to factor interpretation. The principle of contextuality is tied to self-reference and to Q's premises as a *'method of impression'*, as opposed to expression, especially as the 'impression versus expression' distinction lies at the heart of the differences between Q- and R-method. Under methods of *expression,* respondents are measured for traits, attitudes, etc, from an *external* point of view. The respondent's own point of view on any matter is of little theoretical interest and technical significance. With methods of *impression* on the other hand, the personal, intra-individual significance of "test stimuli" is of primary importance. The importance of contextuality in Q methodology stems directly from its status as a method of impression.

The statements used in this research were not taken from respondents' oral or written communications (i.e. '*naturalistic*'). The advantage of naturalistic Q-samples is that they mirror the opinions of the people performing the Q-sorts and they expedite both the Q-sorting process and the attributions of meaning since items are based on the respondents' own narratives. Naturalistic Q-samples greatly reduce the risk of missing respondents' meanings or confusing them with alternative meanings deriving from an external frame of reference. Indeed the 'meanings' of a number of the 'provided' statements had to be clarified by the researcher for a few respondents who 'complained' that some of the statements were too similar in meaning. However, obtaining naturalistic statements (e.g. through interview) are of course time consuming though for both subjects and researcher.

Questions could also be raised about the process of selecting some statements whilst excluding others: there are two basic techniques for choosing statements. The first is based on *unstructured sampling,* in which statements are presumed to be relevant to the topic of success multi-agency team working without undue effort being made to ensure coverage of all possible sub-issues. The unstructured sample, therefore, provides a reasonably accurate "survey" of positions taken or likely to be taken with regard to multi-agency working. The risk with unstructured samples is that some issue components may be under-sampled or over-sampled and consequent bias of some kind is then incorporated inadvertently into the final Q-sample.

It could be argued in one sense that *structured samples* were used in this study in that the 38 statements were 'classified' as shown in figure 1.In a 'true' structural sample these statements would have been assigned to (experimental) conditions designated and defined by the researcher which could then have been applied to a *deductive* or *inductive* design.

Deductive designs are based on *a priori* hypothetical or theoretical considerations whereas inductive designs emerge from the patterns that are observed as statements are collected. This study I believe fell somewhere between these two design methodologies in that the literature review highlighted both 'important' statements for successful multi-agency working and demonstrated how such statements might be classified.

5. CONCLUSION

This study has identified eight factors with 'defining' statements for working successfully in multi-agency teams by a wide range of professionals from five different teams with experience of working in this way. These defining statements also fit a 'classification' system that incorporates leadership, people, processes and procedures, practice, policy and strategy, partnership and resources, customer results and inter-professional issues.

If these distinct and different viewpoints or constructions are accurate then they could be incorporated in strategic planning for integrated children's service delivery aimed at meeting desired outcomes highlighted by the non-statutory guidance to 'Every Child Matters: Change for Children (Common Core of Skills and Knowledge for the Children's Workforce). This is particularly so in terms of role clarification (for factors 2 and 8); achieving targets and goals (factor 4), especially when working with other partner agencies (factor 5 and factor 7); and, actively seeking and respecting knowledge and input from different professionals to deliver the best outcomes for children and young people (factor 6 and factor 8).

APPENDICES

Table 6: Rank Statement Totals with Each Factor

No.	Statement	FACTORS 1	2	3	4	5	6	7	8
1	Leader shares good practice	1.82 1	-0.27 26	0.32 16	1.16 5	-0.06 22	0.00 21	0.36 17	0.82 11
2	Effective management approaches of key activities	-1.20 35	-0.25 24	0.71 11	0.37 15	-0.99 32	-1.64 37	1.07 7	-0.53 25
3	Team is effective at collaborative activities	-0.44 23	-0.92 32	0.84 10	0.89 9	1.27 4	-1.30 34	0.34 18	0.39 14
4	Leader plans & supports people achieve objectives	1.69 2	0.43 12	1.53 2	1.81 2	-0.63 27	1.59 3	-0.20 22	1.40 5
5	Processes are in place to assess users' needs	-0.71 27	-0.39 27	0.34 15	0.34 16	0.31 15	-1.83 38	-0.54 25	0.77 12
6	Team policy & strategy is developed & reviewed	-0.87 30	1.37 4	-0.56 27	0.88 10	-0.42 24	1.64 2	0.74 9	0.00 19
7	Team members involved in planning/management	-0.58 25	-1.00 33	-0.02 19	1.51 3	0.72 12	0.87 9	-1.07 33	-0.29 24
8	Training & development helps team work effectively	-0.49 24	-0.51 29	-0.30 21	0.05 17	0.25 16	0.67 11	1.80 2	-0.58 26
9	Team members given chance to show what they can do	1.19 7	1.87 2	0.40 13	-1.66 37	-0.01 21	-0.39 24	-0.36 23	0.00 20
10	Effective communication for sharing good practice	0.73 12	0.08 16	1.08 8	-0.64 27	1.12 5	1.01 8	1.08 6	0.87 9
11	Working with other partners to identify users' needs	0.80 11	0.12 15	-0.53 26	0.72 12	1.62 1	-1.11 32	-1.10 34	-0.77 28
12	Performance data analysis used for effective approaches	-1.41 37	-0.47 28	-1.32 35	-0.17 20	-1.69 38	0.00 21	0.70 11	-0.58 27
13	Team is effective working with other teams	0.06 16	1.12 6	-0.66 29	-0.50 24	1.03 8	-1.64 37	1.98 1	-1.74 37
14	Team is good at responding to new ideas & approaches	0.61 13	-0.02 19	-0.26 20	0.64 13	1.05 6	0.05 19	1.61 3	-1.06 33
15	Team is active & responsive to change & initiative	-0.98 32	-0.18 22	1.38 5	-0.93 31	0.62 13	0.29 14	-0.73 28	-1.59 36
16	Team is effective at changing to meet users' needs	1.11 9	-0.12 21	1.91 1	1.15 6	1.03 7	0.24 16	0.71 10	-0.19 22
17	Team shares priorities & activities with users	-0.86 29	-1.06 34	-0.36 22	-1.20 35	0.15 19	1.25 6	-0.90 31	-0.92 30
18	Team uses measures to improve performance	-1.29 36	-0.75 30	-0.53 25	1.03 7	0.62 14	-0.82 31	0.36 17	0.19 15
19	Creating team protocols, procedures & documentation	-0.41 22	1.77 3	0.30 18	0.05 18	-0.57 25	0.29 14	-1.81 37	1.01 7
20	Agreeing strategic objectives for service delivery	-1.66 38	0.81 9	-0.63 28	0.77 11	-0.61 26	-1.25 33	0.56 13	1.59 2
21	Acknowledging specific expertise & diversity in team	-0.96 31	0.45 11	-0.43 23	-0.35 22	0.00 20	1.64 2	-0.53 24	-0.87 29
22	Discussion of shared values to enhance trust/commitment	1.45 4	-0.86 31	0.30 18	-0.72 28	0.96 10	0.82 10	-0.19 21	1.16 6

Table 6: Rank Statement Totals with Each Factor (continued)

No	Statement	FACTORS 1	2	3	4	5	6	7	8
23	Transparent structures for communication with partners	-1.11 34	1.28 5	-0.70 30	-1.21 36	1.48 3	0.24 16	-1.24 35	-0.92 31
24	Clear lines of accountability to other agencies	1.17 8	-0.19 23	-1.69 37	-0.20 21	0.91 11	-0.10 23	1.08 6	-0.05 21
25	Management & supervision meets team member needs	1.66 3	0.70 10	1.18 7	2.04 1	-1.28 33	-0.63 27	0.17 20	-1.01 32
26	Co-location of team members	-1.01 33	0.94 7	1.19 6	-1.08 33	-1.56 35	-0.72 28	-0.91 32	0.00 17
27	Awareness of impact of values/attitude on practice	1.21 6	0.35 13	-1.79 38	1.18 4	0.22 18	0.58 12	0.54 14	-1.74 38
28	Joint client-focused activities	-0.79 28	0.82 8	-1.04 32	-0.90 30	1.51 2	1.54 4	0.88 8	-0.19 23
29	Role clarification around work flow processes	-0.17 19	1.99 1	1.38 5	-0.50 23	-0.95 31	0.14 18	1.10 4	1.54 3
30	Addressing barriers related to status	-0.71 26	-2.10 37	-0.85 31	-1.94 38	-1.65 37	-0.77 29	-0.88 29	0.00 18
31	Acknowledging contribution of peripheral team members	-0.07 18	-1.15 35	-1.13 33	-1.16 34	-0.75 29	-1.40 35	0.19 19	0.82 10
32	Retaining specialist skills in team	0.42 14	-0.27 25	0.89 9	-0.55 25	-0.69 28	0.19 17	-0.68 26	-1.35 35
33	Acknowledging & respecting professional identities	-0.22 20	0.19 14	0.68 12	-0.59 26	-1.59 36	1.01 8	0.56 13	1.45 4
34	Acknowledging professional diversity/nurturing cohesion	0.00 17	0.05 17	0.35 14	-0.93 32	0.97 9	1.40 5	-0.90 31	0.87 9
35	Visionary & flexible team leader	0.94 10	0.04 18	1.43 3	0.64 14	0.25 17	-0.48 25	-1.46 36	0.05 16
36	Time for reflecting on problems prior to solutions	1.27 5	-0.09 20	-0.50 24	-0.10 19	-0.86 30	-0.05 22	-0.73 28	-1.11 34
37	Achieving local & national targets	-0.36 21	-1.46 36	-1.23 34	0.97 8	-0.26 23	-0.82 31	-1.98 38	1.93 1
38	Creating new forms of knowledge	0.17 15	-2.30 38	-1.66 36	-0.87 29	-1.53 34	-0.53 26	0.37 15	0.63 13

Table 7.1 Descending Array of Differences between Factors 1 and 2

No.	Statement	Factor 1	Factor 2	Difference
38	Creating new forms of knowledge	0.17	-2.301	2.471
22	Discussion of shared values to enhance trust & commitment	1.446	-0.861	2.307
1	Leader shares good practice	1.821	-0.266	2.088
30	Addressing barriers related to status	-0.712	-2.104	1.392
36	Time for reflecting on problems prior to prescribing solutions	1.272	-0.089	1.362
24	Clear lines of accountability to other agencies	1.173	-0.187	1.359
4	Leader plans & supports people achieve objectives	1.693	0.432	1.261
16	Team is effective at changing to meet users' needs	1.114	-0.122	1.237
37	Achieving local & national targets	-0.363	-1.46	1.097
31	Acknowledging contribution of peripheral team members	-0.073	-1.151	1.078
25	Management & supervision meets team member needs	1.657	0.698	0.959
35	Visionary & flexible team leader	0.94	0.036	0.903
27	Awareness of impact of values, attitude & practice on users	1.206	0.348	0.858
32	Retaining specialist skills in team	0.419	-0.265	0.684
11	Working with other partners to identify users' needs	0.795	0.115	0.68
10	Effective communication for sharing good practice	0.734	0.08	0.655
14	Team is good at responding to new ideas & approaches	0.613	-0.016	0.628
3	Team is effective at collaborative activities	-0.443	-0.918	0.474
7	Team members are involved in planning & management	-0.583	-0.996	0.413
17	Team shares priorities & activities with users	-0.86	-1.064	0.204
8	Training & development helps team work effectively	-0.488	-0.513	0.025
34	Acknowledging professional diversity & nurturing cohesion	0.003	0.05	-0.047
5	Processes are in place to assess users' needs	-0.712	-0.388	-0.324
33	Acknowledging & respecting professional identities	-0.222	0.193	-0.416
18	Team uses measures to improve performance	-1.292	-0.752	-0.54
9	Team members given chance to show what they can do	1.186	1.874	-0.687
15	Team is active & responsive to change & initiative	-0.981	-0.181	-0.8
12	Performance data analysis used for effective approaches	-1.408	-0.475	-0.933
2	Effective management approaches of key activities	-1.197	-0.255	-0.942
13	Team is effective working with other teams	0.063	1.119	-1.056
21	Acknowledging specific expertise & diversity in team	-0.964	0.446	-1.411
28	Joint client-focused activities	-0.787	0.816	-1.604
26	Co-location of team members	-1.005	0.942	-1.947
29	Role clarification around work flow processes	-0.172	1.989	-2.161
19	Creating team protocols, procedures & documentation	-0.413	1.769	-2.182
6	Team policy & strategy is developed & reviewed	-0.867	1.367	-2.234
23	Transparent structures for communication with partners	-1.105	1.276	-2.381
20	Agreeing strategic objectives for service delivery	-1.657	0.813	-2.47

Table 7.2 Descending Array of Differences between Factors 1 and 3

No.	Statement	Factor 1	Factor 3	Difference
27	Awareness of impact of values, attitude & practice on users	1.206	-1.786	2.992
24	Clear lines of accountability to other agencies	1.173	-1.693	2.866
38	Creating new forms of knowledge	0.17	-1.659	1.829
36	Time for reflecting on problems prior to prescribing solutions	1.272	-0.497	1.769
1	Leader shares good practice	1.821	0.316	1.505
11	Working with other partners to identify users' needs	0.795	-0.531	1.326
22	Discussion of shared values to enhance trust & commitment	1.446	0.299	1.147
31	Acknowledging contribution of peripheral team members	-0.073	-1.129	1.056
14	Team is good at responding to new ideas & approaches	0.613	-0.261	0.874
37	Achieving local & national targets	-0.363	-1.226	0.863
9	Team members given chance to show what they can do	1.186	0.4	0.786
13	Team is effective working with other teams	0.063	-0.658	0.721
25	Management & supervision meets team member needs	1.657	1.175	0.482
28	Joint client-focused activities	-0.787	-1.045	0.257
4	Leader plans & supports people achieve objectives	1.693	1.534	0.159
30	Addressing barriers related to status	-0.712	-0.847	0.135
12	Performance data analysis used for effective approaches	-1.408	-1.323	-0.085
8	Training & development helps team work effectively	-0.488	-0.303	-0.185
6	Team policy & strategy is developed & reviewed	-0.867	-0.564	-0.303
34	Acknowledging professional diversity & nurturing cohesion	0.003	0.346	-0.343
10	Effective communication for sharing good practice	0.734	1.078	-0.344
23	Transparent structures for communication with partners	-1.105	-0.699	-0.406
32	Retaining specialist skills in team	0.419	0.893	-0.474
35	Visionary & flexible team leader	0.94	1.428	-0.488
17	Team shares priorities & activities with users	-0.86	-0.362	-0.497
21	Acknowledging specific expertise & diversity in team	-0.964	-0.43	-0.535
7	Team members are involved in planning & management	-0.583	-0.017	-0.566
19	Creating team protocols, procedures & documentation	-0.413	0.299	-0.712
18	Team uses measures to improve performance	-1.292	-0.527	-0.765
16	Team is effective at changing to meet users' needs	1.114	1.908	-0.794
33	Acknowledging & respecting professional identities	-0.222	0.678	-0.901
20	Agreeing strategic objectives for service delivery	-1.657	-0.632	-1.026
5	Processes are in place to assess users' needs	-0.712	0.336	-1.049
3	Team is effective at collaborative activities	-0.443	0.843	-1.286
29	Role clarification around work flow processes	-0.172	1.377	-1.549
2	Effective management approaches of key activities	-1.197	0.708	-1.905
26	Co-location of team members	-1.005	1.192	-2.198
15	Team is active & responsive to change & initiative	-0.981	1.377	-2.359

Table 7.3 Descending Array of Differences between Factors 1 and 4

No.	Statement	Factor 1	Factor 4	Difference
9	Team members given chance to show what they can do	1.186	-1.664	2.85
22	Discussion of shared values to enhance trust & commitment	1.446	-0.717	2.164
36	Time for reflecting on problems prior to prescribing solutions	1.272	-0.103	1.375
24	Clear lines of accountability to other agencies	1.173	-0.199	1.371
10	Effective communication for sharing good practice	0.734	-0.636	1.37
30	Addressing barriers related to status	-0.712	-1.939	1.227
31	Acknowledging contribution of peripheral team members	-0.073	-1.156	1.083
38	Creating new forms of knowledge	0.17	-0.87	1.04
32	Retaining specialist skills in team	0.419	-0.546	0.965
34	Acknowledging professional diversity & nurturing cohesion	0.003	-0.933	0.935
1	Leader shares good practice	1.821	1.163	0.658
13	Team is effective working with other teams	0.063	-0.5	0.563
33	Acknowledging & respecting professional identities	-0.222	-0.587	0.365
17	Team shares priorities & activities with users	-0.86	-1.197	0.337
29	Role clarification around work flow processes	-0.172	-0.496	0.324
35	Visionary & flexible team leader	0.94	0.637	0.303
28	Joint client-focused activities	-0.787	-0.903	0.115
23	Transparent structures for communication with partners	-1.105	-1.213	0.107
11	Working with other partners to identify users' needs	0.795	0.717	0.079
26	Co-location of team members	-1.005	-1.08	0.074
27	Awareness of impact of values, attitude & practice on users	1.206	1.177	0.028
14	Team is good at responding to new ideas & approaches	0.613	0.644	-0.031
16	Team is effective at changing to meet users' needs	1.114	1.152	-0.037
15	Team is active & responsive to change & initiative	-0.981	-0.931	-0.05
4	Leader plans & supports people achieve objectives	1.693	1.81	-0.116
25	Management & supervision meets team member needs	1.657	2.035	-0.378
19	Creating team protocols, procedures & documentation	-0.413	0.045	-0.458
8	Training & development helps team work effectively	-0.488	0.05	-0.537
21	Acknowledging specific expertise & diversity in team	-0.964	-0.347	-0.617
5	Processes are in place to assess users' needs	-0.712	0.342	-1.054
12	Performance data analysis used for effective approaches	-1.408	-0.17	-1.237
37	Achieving local & national targets	-0.363	0.965	-1.328
3	Team is effective at collaborative activities	-0.443	0.887	-1.33
2	Effective management approaches of key activities	-1.197	0.375	-1.572
6	Team policy & strategy is developed & reviewed	-0.867	0.877	-1.744
7	Team members are involved in planning & management	-0.583	1.509	-2.093
18	Team uses measures to improve performance	-1.292	1.031	-2.323
20	Agreeing strategic objectives for service delivery	-1.657	0.77	-2.427

Table 7.4 Descending Array of Differences between Factors 1 and 5

No.	Statement	Factor 1	Factor 5	Difference
25	Management & supervision meets team member needs	1.657	-1.285	2.942
4	Leader plans & supports people achieve objectives	1.693	-0.628	2.322
36	Time for reflecting on problems prior to prescribing solutions	1.272	-0.863	2.135
1	Leader shares good practice	1.821	-0.061	1.882
38	Creating new forms of knowledge	0.17	-1.527	1.697
33	Acknowledging & respecting professional identities	-0.222	-1.586	1.364
9	Team members given chance to show what they can do	1.186	-0.014	1.201
32	Retaining specialist skills in team	0.419	-0.693	1.112
27	Awareness of impact of values, attitude & practice on users	1.206	0.217	0.989
30	Addressing barriers related to status	-0.712	-1.646	0.934
29	Role clarification around work flow processes	-0.172	-0.951	0.779
35	Visionary & flexible team leader	0.94	0.252	0.687
31	Acknowledging contribution of peripheral team members	-0.073	-0.747	0.675
26	Co-location of team members	-1.005	-1.556	0.55
22	Discussion of shared values to enhance trust & commitment	1.446	0.961	0.485
12	Performance data analysis used for effective approaches	-1.408	-1.689	0.282
24	Clear lines of accountability to other agencies	1.173	0.914	0.259
19	Creating team protocols, procedures & documentation	-0.413	-0.57	0.157
16	Team is effective at changing to meet users' needs	1.114	1.032	0.083
37	Achieving local & national targets	-0.363	-0.263	-0.1
2	Effective management approaches of key activities	-1.197	-0.989	-0.208
10	Effective communication for sharing good practice	0.734	1.121	-0.386
14	Team is good at responding to new ideas & approaches	0.613	1.053	-0.44
6	Team policy & strategy is developed & reviewed	-0.867	-0.424	-0.443
8	Training & development helps team work effectively	-0.488	0.255	-0.742
11	Working with other partners to identify users' needs	0.795	1.625	-0.829
21	Acknowledging specific expertise & diversity in team	-0.964	-0.003	-0.961
13	Team is effective working with other teams	0.063	1.025	-0.962
34	Acknowledging professional diversity & nurturing cohesion	0.003	0.972	-0.969
17	Team shares priorities & activities with users	-0.86	0.148	-1.008
5	Processes are in place to assess users' needs	-0.712	0.306	-1.019
20	Agreeing strategic objectives for service delivery	-1.657	-0.614	-1.044
7	Team members are involved in planning & management	-0.583	0.725	-1.308
15	Team is active & responsive to change & initiative	-0.981	0.623	-1.604
3	Team is effective at collaborative activities	-0.443	1.272	-1.716
18	Team uses measures to improve performance	-1.292	0.615	-1.907
28	Joint client-focused activities	-0.787	1.512	-2.3
23	Transparent structures for communication with partners	-1.105	1.481	-2.586

Table 7.5 Descending Array of Differences between Factors 1 and 6

No.	Statement	Factor 1	Factor 6	Difference
25	Management & supervision meets team member needs	1.657	-0.625	2.282
11	Working with other partners to identify users' needs	0.795	-1.107	1.902
1	Leader shares good practice	1.821	0	1.821
13	Team is effective working with other teams	0.063	-1.636	1.7
9	Team members given chance to show what they can do	1.186	-0.386	1.572
35	Visionary & flexible team leader	0.94	-0.481	1.421
31	Acknowledging contribution of peripheral team members	-0.073	-1.395	1.323
36	Time for reflecting on problems prior to prescribing solutions	1.272	-0.048	1.32
24	Clear lines of accountability to other agencies	1.173	-0.096	1.269
5	Processes are in place to assess users' needs	-0.712	-1.829	1.116
16	Team is effective at changing to meet users' needs	1.114	0.241	0.874
3	Team is effective at collaborative activities	-0.443	-1.3	0.856
38	Creating new forms of knowledge	0.17	-0.529	0.699
27	Awareness of impact of values, attitude & practice on users	1.206	0.577	0.629
22	Discussion of shared values to enhance trust & commitment	1.446	0.818	0.628
14	Team is good at responding to new ideas & approaches	0.613	0.048	0.565
37	Achieving local & national targets	-0.363	-0.818	0.455
2	Effective management approaches of key activities	-1.197	-1.636	0.439
32	Retaining specialist skills in team	0.419	0.193	0.226
4	Leader plans & supports people achieve objectives	1.693	1.588	0.105
30	Addressing barriers related to status	-0.712	-0.77	0.058
10	Effective communication for sharing good practice	0.734	1.011	-0.276
26	Co-location of team members	-1.005	-0.722	-0.283
29	Role clarification around work flow processes	-0.172	0.144	-0.316
20	Agreeing strategic objectives for service delivery	-1.657	-1.252	-0.406
18	Team uses measures to improve performance	-1.292	-0.818	-0.473
19	Creating team protocols, procedures & documentation	-0.413	0.289	-0.702
8	Training & development helps team work effectively	-0.488	0.674	-1.162
33	Acknowledging & respecting professional identities	-0.222	1.011	-1.233
15	Team is active & responsive to change & initiative	-0.981	0.289	-1.27
23	Transparent structures for communication with partners	-1.105	0.241	-1.346
34	Acknowledging professional diversity & nurturing cohesion	0.003	1.395	-1.393
12	Performance data analysis used for effective approaches	-1.408	0	-1.408
7	Team members are involved in planning & management	-0.583	0.866	-1.449
17	Team shares priorities & activities with users	-0.86	1.252	-2.111
28	Joint client-focused activities	-0.787	1.54	-2.328
6	Team policy & strategy is developed & reviewed	-0.867	1.636	-2.503
21	Acknowledging specific expertise & diversity in team	-0.964	1.636	-2.6

Table 7.6 Descending Array of Differences between Factors 1 and 7

No.	Statement	Factor 1	Factor 7	Difference
35	Visionary & flexible team leader	0.94	-1.456	2.396
36	Time for reflecting on problems prior to prescribing solutions	1.272	-0.728	2
11	Working with other partners to identify users' needs	0.795	-1.1	1.896
4	Leader plans & supports people achieve objectives	1.693	-0.202	1.895
22	Discussion of shared values to enhance trust & commitment	1.446	-0.186	1.632
37	Achieving local & national targets	-0.363	-1.982	1.619
9	Team members given chance to show what they can do	1.186	-0.356	1.542
25	Management & supervision meets team member needs	1.657	0.17	1.487
1	Leader shares good practice	1.821	0.356	1.465
19	Creating team protocols, procedures & documentation	-0.413	-1.812	1.399
32	Retaining specialist skills in team	0.419	-0.68	1.099
34	Acknowledging professional diversity & nurturing cohesion	0.003	-0.898	0.901
27	Awareness of impact of values, attitude & practice on users	1.206	0.542	0.664
7	Team members are involved in planning & management	-0.583	-1.068	0.485
16	Team is effective at changing to meet users' needs	1.114	0.712	0.402
30	Addressing barriers related to status	-0.712	-0.882	0.17
23	Transparent structures for communication with partners	-1.105	-1.238	0.133
24	Clear lines of accountability to other agencies	1.173	1.084	0.089
17	Team shares priorities & activities with users	-0.86	-0.898	0.038
26	Co-location of team members	-1.005	-0.914	-0.091
5	Processes are in place to assess users' needs	-0.712	-0.542	-0.17
38	Creating new forms of knowledge	0.17	0.372	-0.202
15	Team is active & responsive to change & initiative	-0.981	-0.728	-0.253
31	Acknowledging contribution of peripheral team members	-0.073	0.186	-0.259
10	Effective communication for sharing good practice	0.734	1.084	-0.35
21	Acknowledging specific expertise & diversity in team	-0.964	-0.526	-0.438
33	Acknowledging & respecting professional identities	-0.222	0.558	-0.78
3	Team is effective at collaborative activities	-0.443	0.34	-0.783
14	Team is good at responding to new ideas & approaches	0.613	1.61	-0.997
29	Role clarification around work flow processes	-0.172	1.1	-1.272
6	Team policy & strategy is developed & reviewed	-0.867	0.744	-1.611
18	Team uses measures to improve performance	-1.292	0.356	-1.648
28	Joint client-focused activities	-0.787	0.882	-1.669
13	Team is effective working with other teams	0.063	1.982	-1.919
12	Performance data analysis used for effective approaches	-1.408	0.696	-2.104
20	Agreeing strategic objectives for service delivery	-1.657	0.558	-2.215
2	Effective management approaches of key activities	-1.197	1.068	-2.265
8	Training & development helps team work effectively	-0.488	1.796	-2.284

Table 7.7 Descending Array of Differences between Factors 1 and 8

No.	Statement	Factor 1	Factor 8	Difference
27	Awareness of impact of values, attitude & practice on users	1.206	-1.737	2.943
25	Management & supervision meets team member needs	1.657	-1.013	2.67
36	Time for reflecting on problems prior to prescribing solutions	1.272	-1.109	2.381
13	Team is effective working with other teams	0.063	-1.736	1.8
32	Retaining specialist skills in team	0.419	-1.35	1.769
14	Team is good at responding to new ideas & approaches	0.613	-1.061	1.674
11	Working with other partners to identify users' needs	0.795	-0.772	1.567
16	Team is effective at changing to meet users' needs	1.114	-0.192	1.307
24	Clear lines of accountability to other agencies	1.173	-0.048	1.221
9	Team members given chance to show what they can do	1.186	-0.001	1.187
1	Leader shares good practice	1.821	0.82	1.001
35	Visionary & flexible team leader	0.94	0.049	0.891
15	Team is active & responsive to change & initiative	-0.981	-1.592	0.611
4	Leader plans & supports people achieve objectives	1.693	1.399	0.294
22	Discussion of shared values to enhance trust & commitment	1.446	1.158	0.289
8	Training & development helps team work effectively	-0.488	-0.579	0.091
17	Team shares priorities & activities with users	-0.86	-0.917	0.057
21	Acknowledging specific expertise & diversity in team	-0.964	-0.868	-0.097
10	Effective communication for sharing good practice	0.734	0.868	-0.133
23	Transparent structures for communication with partners	-1.105	-0.917	-0.189
7	Team members are involved in planning & management	-0.583	-0.289	-0.294
38	Creating new forms of knowledge	0.17	0.626	-0.457
28	Joint client-focused activities	-0.787	-0.193	-0.595
2	Effective management approaches of key activities	-1.197	-0.531	-0.666
30	Addressing barriers related to status	-0.712	0	-0.712
12	Performance data analysis used for effective approaches	-1.408	-0.579	-0.829
3	Team is effective at collaborative activities	-0.443	0.386	-0.829
34	Acknowledging professional diversity & nurturing cohesion	0.003	0.868	-0.865
6	Team policy & strategy is developed & reviewed	-0.867	0	-0.867
31	Acknowledging contribution of peripheral team members	-0.073	0.821	-0.893
26	Co-location of team members	-1.005	0	-1.005
19	Creating team protocols, procedures & documentation	-0.413	1.013	-1.426
18	Team uses measures to improve performance	-1.292	0.193	-1.484
5	Processes are in place to assess users' needs	-0.712	0.772	-1.485
33	Acknowledging & respecting professional identities	-0.222	1.447	-1.669
29	Role clarification around work flow processes	-0.172	1.543	-1.716
37	Achieving local & national targets	-0.363	1.929	-2.292
20	Agreeing strategic objectives for service delivery	-1.657	1.592	-3.25

Table 7.8 Descending Array of Differences between Factors 2 and 3

No.	Statement	Factor 2	Factor 3	Difference
27	Awareness of impact of values, attitude & practice on users	0.348	-1.786	2.134
23	Transparent structures for communication with partners	1.276	-0.699	1.975
6	Team policy & strategy is developed & reviewed	1.367	-0.564	1.931
28	Joint client-focused activities	0.816	-1.045	1.861
13	Team is effective working with other teams	1.119	-0.658	1.777
24	Clear lines of accountability to other agencies	-0.187	-1.693	1.507
9	Team members given chance to show what they can do	1.874	0.4	1.474
19	Creating team protocols, procedures & documentation	1.769	0.299	1.47
20	Agreeing strategic objectives for service delivery	0.813	-0.632	1.445
21	Acknowledging specific expertise & diversity in team	0.446	-0.43	0.876
12	Performance data analysis used for effective approaches	-0.475	-1.323	0.848
11	Working with other partners to identify users' needs	0.115	-0.531	0.646
29	Role clarification around work flow processes	1.989	1.377	0.612
36	Time for reflecting on problems prior to prescribing solutions	-0.089	-0.497	0.407
14	Team is good at responding to new ideas & approaches	-0.016	-0.261	0.246
31	Acknowledging contribution of peripheral team members	-1.151	-1.129	-0.022
8	Training & development helps team work effectively	-0.513	-0.303	-0.21
18	Team uses measures to improve performance	-0.752	-0.527	-0.225
37	Achieving local & national targets	-1.46	-1.226	-0.234
26	Co-location of team members	0.942	1.192	-0.251
34	Acknowledging professional diversity & nurturing cohesion	0.05	0.346	-0.296
25	Management & supervision meets team member needs	0.698	1.175	-0.477
33	Acknowledging & respecting professional identities	0.193	0.678	-0.485
1	Leader shares good practice	-0.266	0.316	-0.582
38	Creating new forms of knowledge	-2.301	-1.659	-0.642
17	Team shares priorities & activities with users	-1.064	-0.362	-0.702
5	Processes are in place to assess users' needs	-0.388	0.336	-0.725
2	Effective management approaches of key activities	-0.255	0.708	-0.963
7	Team members are involved in planning & management	-0.996	-0.017	-0.979
10	Effective communication for sharing good practice	0.08	1.078	-0.998
4	Leader plans & supports people achieve objectives	0.432	1.534	-1.102
32	Retaining specialist skills in team	-0.265	0.893	-1.159
22	Discussion of shared values to enhance trust & commitment	-0.861	0.299	-1.16
30	Addressing barriers related to status	-2.104	-0.847	-1.257
35	Visionary & flexible team leader	0.036	1.428	-1.391
15	Team is active & responsive to change & initiative	-0.181	1.377	-1.558
3	Team is effective at collaborative activities	-0.918	0.843	-1.761

Table 7.9 Descending Array of Differences between Factors 2 and 4

No.	Statement	Factor 2	Factor 4	Difference
9	Team members given chance to show what they can do	1.874	-1.664	3.538
23	Transparent structures for communication with partners	1.276	-1.213	2.489
29	Role clarification around work flow processes	1.989	-0.496	2.485
26	Co-location of team members	0.942	-1.08	2.021
19	Creating team protocols, procedures & documentation	1.769	0.045	1.724
28	Joint client-focused activities	0.816	-0.903	1.719
13	Team is effective working with other teams	1.119	-0.5	1.619
34	Acknowledging professional diversity & nurturing cohesion	0.05	-0.933	0.983
21	Acknowledging specific expertise & diversity in team	0.446	-0.347	0.793
33	Acknowledging & respecting professional identities	0.193	-0.587	0.781
15	Team is active & responsive to change & initiative	-0.181	-0.931	0.75
10	Effective communication for sharing good practice	0.08	-0.636	0.716
6	Team policy & strategy is developed & reviewed	1.367	0.877	0.49
32	Retaining specialist skills in team	-0.265	-0.546	0.28
17	Team shares priorities & activities with users	-1.064	-1.197	0.133
20	Agreeing strategic objectives for service delivery	0.813	0.77	0.043
36	Time for reflecting on problems prior to prescribing solutions	-0.089	-0.103	0.013
24	Clear lines of accountability to other agencies	-0.187	-0.199	0.012
31	Acknowledging contribution of peripheral team members	-1.151	-1.156	0.005
22	Discussion of shared values to enhance trust & commitment	-0.861	-0.717	-0.143
30	Addressing barriers related to status	-2.104	-1.939	-0.165
12	Performance data analysis used for effective approaches	-0.475	-0.17	-0.304
8	Training & development helps team work effectively	-0.513	0.05	-0.563
35	Visionary & flexible team leader	0.036	0.637	-0.6
11	Working with other partners to identify users' needs	0.115	0.717	-0.602
2	Effective management approaches of key activities	-0.255	0.375	-0.629
14	Team is good at responding to new ideas & approaches	-0.016	0.644	-0.66
5	Processes are in place to assess users' needs	-0.388	0.342	-0.73
27	Awareness of impact of values, attitude & practice on users	0.348	1.177	-0.83
16	Team is effective at changing to meet users' needs	-0.122	1.152	-1.274
25	Management & supervision meets team member needs	0.698	2.035	-1.337
4	Leader plans & supports people achieve objectives	0.432	1.81	-1.378
1	Leader shares good practice	-0.266	1.163	-1.43
38	Creating new forms of knowledge	-2.301	-0.87	-1.431
18	Team uses measures to improve performance	-0.752	1.031	-1.783
3	Team is effective at collaborative activities	-0.918	0.887	-1.805
37	Achieving local & national targets	-1.46	0.965	-2.425
7	Team members are involved in planning & management	-0.996	1.509	-2.506

Table 7.10 Descending Array of Differences between Factors 2 and 5

No.	Statement	Factor 2	Factor 5	Difference
29	Role clarification around work flow processes	1.989	-0.951	2.94
26	Co-location of team members	0.942	-1.556	2.497
19	Creating team protocols, procedures & documentation	1.769	-0.57	2.339
25	Management & supervision meets team member needs	0.698	-1.285	1.983
9	Team members given chance to show what they can do	1.874	-0.014	1.888
6	Team policy & strategy is developed & reviewed	1.367	-0.424	1.791
33	Acknowledging & respecting professional identities	0.193	-1.586	1.779
20	Agreeing strategic objectives for service delivery	0.813	-0.614	1.426
12	Performance data analysis used for effective approaches	-0.475	-1.689	1.215
4	Leader plans & supports people achieve objectives	0.432	-0.628	1.06
36	Time for reflecting on problems prior to prescribing solutions	-0.089	-0.863	0.774
2	Effective management approaches of key activities	-0.255	-0.989	0.734
21	Acknowledging specific expertise & diversity in team	0.446	-0.003	0.449
32	Retaining specialist skills in team	-0.265	-0.693	0.428
27	Awareness of impact of values, attitude & practice on users	0.348	0.217	0.13
13	Team is effective working with other teams	1.119	1.025	0.094
23	Transparent structures for communication with partners	1.276	1.481	-0.205
1	Leader shares good practice	-0.266	-0.061	-0.206
35	Visionary & flexible team leader	0.036	0.252	-0.216
31	Acknowledging contribution of peripheral team members	-1.151	-0.747	-0.404
30	Addressing barriers related to status	-2.104	-1.646	-0.458
5	Processes are in place to assess users' needs	-0.388	0.306	-0.695
28	Joint client-focused activities	0.816	1.512	-0.696
8	Training & development helps team work effectively	-0.513	0.255	-0.768
38	Creating new forms of knowledge	-2.301	-1.527	-0.774
15	Team is active & responsive to change & initiative	-0.181	0.623	-0.804
34	Acknowledging professional diversity & nurturing cohesion	0.05	0.972	-0.922
10	Effective communication for sharing good practice	0.08	1.121	-1.041
14	Team is good at responding to new ideas & approaches	-0.016	1.053	-1.069
24	Clear lines of accountability to other agencies	-0.187	0.914	-1.101
16	Team is effective at changing to meet users' needs	-0.122	1.032	-1.154
37	Achieving local & national targets	-1.46	-0.263	-1.197
17	Team shares priorities & activities with users	-1.064	0.148	-1.212
18	Team uses measures to improve performance	-0.752	0.615	-1.367
11	Working with other partners to identify users' needs	0.115	1.625	-1.51
7	Team members are involved in planning & management	-0.996	0.725	-1.721
22	Discussion of shared values to enhance trust & commitment	-0.861	0.961	-1.822
3	Team is effective at collaborative activities	-0.918	1.272	-2.19

Table 7.11 Descending Array of Differences between Factors 2 and 6

No.	Statement	Factor 2	Factor 6	Difference
13	Team is effective working with other teams	1.119	-1.636	2.755
9	Team members given chance to show what they can do	1.874	-0.386	2.259
20	Agreeing strategic objectives for service delivery	0.813	-1.252	2.065
29	Role clarification around work flow processes	1.989	0.144	1.846
26	Co-location of team members	0.942	-0.722	1.664
19	Creating team protocols, procedures & documentation	1.769	0.289	1.48
5	Processes are in place to assess users' needs	-0.388	-1.829	1.441
2	Effective management approaches of key activities	-0.255	-1.636	1.382
25	Management & supervision meets team member needs	0.698	-0.625	1.324
11	Working with other partners to identify users' needs	0.115	-1.107	1.222
23	Transparent structures for communication with partners	1.276	0.241	1.035
35	Visionary & flexible team leader	0.036	-0.481	0.518
3	Team is effective at collaborative activities	-0.918	-1.3	0.382
31	Acknowledging contribution of peripheral team members	-1.151	-1.395	0.245
18	Team uses measures to improve performance	-0.752	-0.818	0.066
36	Time for reflecting on problems prior to prescribing solutions	-0.089	-0.048	-0.042
14	Team is good at responding to new ideas & approaches	-0.016	0.048	-0.064
24	Clear lines of accountability to other agencies	-0.187	-0.096	-0.091
27	Awareness of impact of values, attitude & practice on users	0.348	0.577	-0.23
1	Leader shares good practice	-0.266	0	-0.266
6	Team policy & strategy is developed & reviewed	1.367	1.636	-0.269
16	Team is effective at changing to meet users' needs	-0.122	0.241	-0.363
32	Retaining specialist skills in team	-0.265	0.193	-0.458
15	Team is active & responsive to change & initiative	-0.181	0.289	-0.47
12	Performance data analysis used for effective approaches	-0.475	0	-0.475
37	Achieving local & national targets	-1.46	-0.818	-0.642
28	Joint client-focused activities	0.816	1.54	-0.724
33	Acknowledging & respecting professional identities	0.193	1.011	-0.818
10	Effective communication for sharing good practice	0.08	1.011	-0.931
4	Leader plans & supports people achieve objectives	0.432	1.588	-1.156
8	Training & development helps team work effectively	-0.513	0.674	-1.187
21	Acknowledging specific expertise & diversity in team	0.446	1.636	-1.19
30	Addressing barriers related to status	-2.104	-0.77	-1.334
34	Acknowledging professional diversity & nurturing cohesion	0.05	1.395	-1.345
22	Discussion of shared values to enhance trust & commitment	-0.861	0.818	-1.679
38	Creating new forms of knowledge	-2.301	-0.529	-1.772
7	Team members are involved in planning & management	-0.996	0.866	-1.862
17	Team shares priorities & activities with users	-1.064	1.252	-2.316

Table 7.12 Descending Array of Differences between Factors 2 and 7

No.	Statement	Factor 2	Factor 7	Difference
19	Creating team protocols, procedures & documentation	1.769	-1.812	3.581
23	Transparent structures for communication with partners	1.276	-1.238	2.514
9	Team members given chance to show what they can do	1.874	-0.356	2.23
26	Co-location of team members	0.942	-0.914	1.856
35	Visionary & flexible team leader	0.036	-1.456	1.492
11	Working with other partners to identify users' needs	0.115	-1.1	1.215
21	Acknowledging specific expertise & diversity in team	0.446	-0.526	0.972
34	Acknowledging professional diversity & nurturing cohesion	0.05	-0.898	0.948
29	Role clarification around work flow processes	1.989	1.1	0.889
36	Time for reflecting on problems prior to prescribing solutions	-0.089	-0.728	0.639
4	Leader plans & supports people achieve objectives	0.432	-0.202	0.634
6	Team policy & strategy is developed & reviewed	1.367	0.744	0.623
15	Team is active & responsive to change & initiative	-0.181	-0.728	0.547
25	Management & supervision meets team member needs	0.698	0.17	0.528
37	Achieving local & national targets	-1.46	-1.982	0.522
32	Retaining specialist skills in team	-0.265	-0.68	0.415
20	Agreeing strategic objectives for service delivery	0.813	0.558	0.255
5	Processes are in place to assess users' needs	-0.388	-0.542	0.154
7	Team members are involved in planning & management	-0.996	-1.068	0.072
28	Joint client-focused activities	0.816	0.882	-0.066
17	Team shares priorities & activities with users	-1.064	-0.898	-0.166
27	Awareness of impact of values, attitude & practice on users	0.348	0.542	-0.195
33	Acknowledging & respecting professional identities	0.193	0.558	-0.365
1	Leader shares good practice	-0.266	0.356	-0.622
22	Discussion of shared values to enhance trust & commitment	-0.861	-0.186	-0.675
16	Team is effective at changing to meet users' needs	-0.122	0.712	-0.835
13	Team is effective working with other teams	1.119	1.982	-0.863
10	Effective communication for sharing good practice	0.08	1.084	-1.004
18	Team uses measures to improve performance	-0.752	0.356	-1.108
12	Performance data analysis used for effective approaches	-0.475	0.696	-1.171
30	Addressing barriers related to status	-2.104	-0.882	-1.222
3	Team is effective at collaborative activities	-0.918	0.34	-1.258
24	Clear lines of accountability to other agencies	-0.187	1.084	-1.271
2	Effective management approaches of key activities	-0.255	1.068	-1.323
31	Acknowledging contribution of peripheral team members	-1.151	0.186	-1.337
14	Team is good at responding to new ideas & approaches	-0.016	1.61	-1.626
8	Training & development helps team work effectively	-0.513	1.796	-2.309
38	Creating new forms of knowledge	-2.301	0.372	-2.673

Table 7.13 Descending Array of Differences between Factors 2 and 8

No.	Statement	Factor 2	Factor 8	Difference
13	Team is effective working with other teams	1.119	-1.736	2.855
23	Transparent structures for communication with partners	1.276	-0.917	2.193
27	Awareness of impact of values, attitude & practice on users	0.348	-1.737	2.085
9	Team members given chance to show what they can do	1.874	-0.001	1.874
25	Management & supervision meets team member needs	0.698	-1.013	1.711
15	Team is active & responsive to change & initiative	-0.181	-1.592	1.411
6	Team policy & strategy is developed & reviewed	1.367	0	1.367
21	Acknowledging specific expertise & diversity in team	0.446	-0.868	1.314
32	Retaining specialist skills in team	-0.265	-1.35	1.085
14	Team is good at responding to new ideas & approaches	-0.016	-1.061	1.045
36	Time for reflecting on problems prior to prescribing solutions	-0.089	-1.109	1.02
28	Joint client-focused activities	0.816	-0.193	1.009
26	Co-location of team members	0.942	0	0.942
11	Working with other partners to identify users' needs	0.115	-0.772	0.887
19	Creating team protocols, procedures & documentation	1.769	1.013	0.756
29	Role clarification around work flow processes	1.989	1.543	0.446
2	Effective management approaches of key activities	-0.255	-0.531	0.276
12	Performance data analysis used for effective approaches	-0.475	-0.579	0.105
16	Team is effective at changing to meet users' needs	-0.122	-0.192	0.07
8	Training & development helps team work effectively	-0.513	-0.579	0.066
35	Visionary & flexible team leader	0.036	0.049	-0.012
24	Clear lines of accountability to other agencies	-0.187	-0.048	-0.139
17	Team shares priorities & activities with users	-1.064	-0.917	-0.147
7	Team members are involved in planning & management	-0.996	-0.289	-0.707
20	Agreeing strategic objectives for service delivery	0.813	1.592	-0.779
10	Effective communication for sharing good practice	0.08	0.868	-0.788
34	Acknowledging professional diversity & nurturing cohesion	0.05	0.868	-0.818
18	Team uses measures to improve performance	-0.752	0.193	-0.945
4	Leader plans & supports people achieve objectives	0.432	1.399	-0.967
1	Leader shares good practice	-0.266	0.82	-1.087
5	Processes are in place to assess users' needs	-0.388	0.772	-1.16
33	Acknowledging & respecting professional identities	0.193	1.447	-1.254
3	Team is effective at collaborative activities	-0.918	0.386	-1.304
31	Acknowledging contribution of peripheral team members	-1.151	0.821	-1.971
22	Discussion of shared values to enhance trust & commitment	-0.861	1.158	-2.018
30	Addressing barriers related to status	-2.104	0	-2.104
38	Creating new forms of knowledge	-2.301	0.626	-2.928
37	Achieving local & national targets	-1.46	1.929	-3.389

Table 7.14 Descending Array of Differences between Factors 3 and 4

No.	Statement	Factor 3	Factor 4	Difference
15	Team is active & responsive to change & initiative	1.377	-0.931	2.308
26	Co-location of team members	1.192	-1.08	2.272
9	Team members given chance to show what they can do	0.4	-1.664	2.064
29	Role clarification around work flow processes	1.377	-0.496	1.873
10	Effective communication for sharing good practice	1.078	-0.636	1.714
32	Retaining specialist skills in team	0.893	-0.546	1.439
34	Acknowledging professional diversity & nurturing cohesion	0.346	-0.933	1.278
33	Acknowledging & respecting professional identities	0.678	-0.587	1.266
30	Addressing barriers related to status	-0.847	-1.939	1.092
22	Discussion of shared values to enhance trust & commitment	0.299	-0.717	1.016
17	Team shares priorities & activities with users	-0.362	-1.197	0.834
35	Visionary & flexible team leader	1.428	0.637	0.791
16	Team is effective at changing to meet users' needs	1.908	1.152	0.756
23	Transparent structures for communication with partners	-0.699	-1.213	0.514
2	Effective management approaches of key activities	0.708	0.375	0.333
19	Creating team protocols, procedures & documentation	0.299	0.045	0.254
31	Acknowledging contribution of peripheral team members	-1.129	-1.156	0.027
5	Processes are in place to assess users' needs	0.336	0.342	-0.005
3	Team is effective at collaborative activities	0.843	0.887	-0.044
21	Acknowledging specific expertise & diversity in team	-0.43	-0.347	-0.083
28	Joint client-focused activities	-1.045	-0.903	-0.142
13	Team is effective working with other teams	-0.658	-0.5	-0.158
4	Leader plans & supports people achieve objectives	1.534	1.81	-0.276
8	Training & development helps team work effectively	-0.303	0.05	-0.352
36	Time for reflecting on problems prior to prescribing solutions	-0.497	-0.103	-0.394
38	Creating new forms of knowledge	-1.659	-0.87	-0.789
1	Leader shares good practice	0.316	1.163	-0.847
25	Management & supervision meets team member needs	1.175	2.035	-0.86
14	Team is good at responding to new ideas & approaches	-0.261	0.644	-0.905
12	Performance data analysis used for effective approaches	-1.323	-0.17	-1.153
11	Working with other partners to identify users' needs	-0.531	0.717	-1.247
20	Agreeing strategic objectives for service delivery	-0.632	0.77	-1.402
6	Team policy & strategy is developed & reviewed	-0.564	0.877	-1.442
24	Clear lines of accountability to other agencies	-1.693	-0.199	-1.495
7	Team members are involved in planning & management	-0.017	1.509	-1.526
18	Team uses measures to improve performance	-0.527	1.031	-1.558
37	Achieving local & national targets	-1.226	0.965	-2.191
27	Awareness of impact of values, attitude & practice on users	-1.786	1.177	-2.964

Table 7.15 Descending Array of Differences between Factors 3 and 5

No.	Statement	Factor 3	Factor 5	Difference
26	Co-location of team members	1.192	-1.556	2.748
25	Management & supervision meets team member needs	1.175	-1.285	2.46
29	Role clarification around work flow processes	1.377	-0.951	2.328
33	Acknowledging & respecting professional identities	0.678	-1.586	2.264
4	Leader plans & supports people achieve objectives	1.534	-0.628	2.162
2	Effective management approaches of key activities	0.708	-0.989	1.697
32	Retaining specialist skills in team	0.893	-0.693	1.586
35	Visionary & flexible team leader	1.428	0.252	1.175
16	Team is effective at changing to meet users' needs	1.908	1.032	0.876
19	Creating team protocols, procedures & documentation	0.299	-0.57	0.869
30	Addressing barriers related to status	-0.847	-1.646	0.799
15	Team is active & responsive to change & initiative	1.377	0.623	0.754
9	Team members given chance to show what they can do	0.4	-0.014	0.414
1	Leader shares good practice	0.316	-0.061	0.377
12	Performance data analysis used for effective approaches	-1.323	-1.689	0.367
36	Time for reflecting on problems prior to prescribing solutions	-0.497	-0.863	0.366
5	Processes are in place to assess users' needs	0.336	0.306	0.03
20	Agreeing strategic objectives for service delivery	-0.632	-0.614	-0.018
10	Effective communication for sharing good practice	1.078	1.121	-0.043
38	Creating new forms of knowledge	-1.659	-1.527	-0.132
6	Team policy & strategy is developed & reviewed	-0.564	-0.424	-0.141
31	Acknowledging contribution of peripheral team members	-1.129	-0.747	-0.382
21	Acknowledging specific expertise & diversity in team	-0.43	-0.003	-0.427
3	Team is effective at collaborative activities	0.843	1.272	-0.429
17	Team shares priorities & activities with users	-0.362	0.148	-0.511
8	Training & development helps team work effectively	-0.303	0.255	-0.557
34	Acknowledging professional diversity & nurturing cohesion	0.346	0.972	-0.626
22	Discussion of shared values to enhance trust & commitment	0.299	0.961	-0.662
7	Team members are involved in planning & management	-0.017	0.725	-0.741
37	Achieving local & national targets	-1.226	-0.263	-0.963
18	Team uses measures to improve performance	-0.527	0.615	-1.142
14	Team is good at responding to new ideas & approaches	-0.261	1.053	-1.314
13	Team is effective working with other teams	-0.658	1.025	-1.683
27	Awareness of impact of values, attitude & practice on users	-1.786	0.217	-2.004
11	Working with other partners to identify users' needs	-0.531	1.625	-2.155
23	Transparent structures for communication with partners	-0.699	1.481	-2.18
28	Joint client-focused activities	-1.045	1.512	-2.557
24	Clear lines of accountability to other agencies	-1.693	0.914	-2.607

Table 7.16 Descending Array of Differences between Factors 3 and 6

No.	Statement	Factor 3	Factor 6	Difference
2	Effective management approaches of key activities	0.708	-1.636	2.344
5	Processes are in place to assess users' needs	0.336	-1.829	2.165
3	Team is effective at collaborative activities	0.843	-1.3	2.142
26	Co-location of team members	1.192	-0.722	1.914
35	Visionary & flexible team leader	1.428	-0.481	1.909
25	Management & supervision meets team member needs	1.175	-0.625	1.801
16	Team is effective at changing to meet users' needs	1.908	0.241	1.667
29	Role clarification around work flow processes	1.377	0.144	1.234
15	Team is active & responsive to change & initiative	1.377	0.289	1.089
13	Team is effective working with other teams	-0.658	-1.636	0.978
9	Team members given chance to show what they can do	0.4	-0.386	0.786
32	Retaining specialist skills in team	0.893	0.193	0.7
20	Agreeing strategic objectives for service delivery	-0.632	-1.252	0.62
11	Working with other partners to identify users' needs	-0.531	-1.107	0.576
1	Leader shares good practice	0.316	0	0.316
18	Team uses measures to improve performance	-0.527	-0.818	0.291
31	Acknowledging contribution of peripheral team members	-1.129	-1.395	0.267
10	Effective communication for sharing good practice	1.078	1.011	0.067
19	Creating team protocols, procedures & documentation	0.299	0.289	0.01
4	Leader plans & supports people achieve objectives	1.534	1.588	-0.054
30	Addressing barriers related to status	-0.847	-0.77	-0.076
14	Team is good at responding to new ideas & approaches	-0.261	0.048	-0.309
33	Acknowledging & respecting professional identities	0.678	1.011	-0.333
37	Achieving local & national targets	-1.226	-0.818	-0.408
36	Time for reflecting on problems prior to prescribing solutions	-0.497	-0.048	-0.449
22	Discussion of shared values to enhance trust & commitment	0.299	0.818	-0.519
7	Team members are involved in planning & management	-0.017	0.866	-0.883
23	Transparent structures for communication with partners	-0.699	0.241	-0.94
8	Training & development helps team work effectively	-0.303	0.674	-0.977
34	Acknowledging professional diversity & nurturing cohesion	0.346	1.395	-1.05
38	Creating new forms of knowledge	-1.659	-0.529	-1.13
12	Performance data analysis used for effective approaches	-1.323	0	-1.323
24	Clear lines of accountability to other agencies	-1.693	-0.096	-1.597
17	Team shares priorities & activities with users	-0.362	1.252	-1.614
21	Acknowledging specific expertise & diversity in team	-0.43	1.636	-2.066
6	Team policy & strategy is developed & reviewed	-0.564	1.636	-2.201
27	Awareness of impact of values, attitude & practice on users	-1.786	0.577	-2.364
28	Joint client-focused activities	-1.045	1.54	-2.585

Table 7.17 Descending Array of Differences between Factors 3 and 7

No.	Statement	Factor 3	Factor 7	Difference
35	Visionary & flexible team leader	1.428	-1.456	2.884
19	Creating team protocols, procedures & documentation	0.299	-1.812	2.111
26	Co-location of team members	1.192	-0.914	2.106
15	Team is active & responsive to change & initiative	1.377	-0.728	2.105
4	Leader plans & supports people achieve objectives	1.534	-0.202	1.736
32	Retaining specialist skills in team	0.893	-0.68	1.573
34	Acknowledging professional diversity & nurturing cohesion	0.346	-0.898	1.244
16	Team is effective at changing to meet users' needs	1.908	0.712	1.196
7	Team members are involved in planning & management	-0.017	-1.068	1.051
25	Management & supervision meets team member needs	1.175	0.17	1.005
5	Processes are in place to assess users' needs	0.336	-0.542	0.879
37	Achieving local & national targets	-1.226	-1.982	0.756
9	Team members given chance to show what they can do	0.4	-0.356	0.756
11	Working with other partners to identify users' needs	-0.531	-1.1	0.569
23	Transparent structures for communication with partners	-0.699	-1.238	0.539
17	Team shares priorities & activities with users	-0.362	-0.898	0.536
3	Team is effective at collaborative activities	0.843	0.34	0.503
22	Discussion of shared values to enhance trust & commitment	0.299	-0.186	0.485
29	Role clarification around work flow processes	1.377	1.1	0.277
36	Time for reflecting on problems prior to prescribing solutions	-0.497	-0.728	0.231
33	Acknowledging & respecting professional identities	0.678	0.558	0.12
21	Acknowledging specific expertise & diversity in team	-0.43	-0.526	0.096
30	Addressing barriers related to status	-0.847	-0.882	0.035
10	Effective communication for sharing good practice	1.078	1.084	-0.006
1	Leader shares good practice	0.316	0.356	-0.04
2	Effective management approaches of key activities	0.708	1.068	-0.36
18	Team uses measures to improve performance	-0.527	0.356	-0.883
20	Agreeing strategic objectives for service delivery	-0.632	0.558	-1.19
6	Team policy & strategy is developed & reviewed	-0.564	0.744	-1.309
31	Acknowledging contribution of peripheral team members	-1.129	0.186	-1.315
14	Team is good at responding to new ideas & approaches	-0.261	1.61	-1.872
28	Joint client-focused activities	-1.045	0.882	-1.927
12	Performance data analysis used for effective approaches	-1.323	0.696	-2.019
38	Creating new forms of knowledge	-1.659	0.372	-2.031
8	Training & development helps team work effectively	-0.303	1.796	-2.099
27	Awareness of impact of values, attitude & practice on users	-1.786	0.542	-2.328
13	Team is effective working with other teams	-0.658	1.982	-2.64
24	Clear lines of accountability to other agencies	-1.693	1.084	-2.777

Table 7.18 Descending Array of Differences between Factors 3 and 8

No.	Statement	Factor 3	Factor 8	Difference
15	Team is active & responsive to change & initiative	1.377	-1.592	2.969
32	Retaining specialist skills in team	0.893	-1.35	2.243
25	Management & supervision meets team member needs	1.175	-1.013	2.188
16	Team is effective at changing to meet users' needs	1.908	-0.192	2.1
35	Visionary & flexible team leader	1.428	0.049	1.379
2	Effective management approaches of key activities	0.708	-0.531	1.239
26	Co-location of team members	1.192	0	1.192
13	Team is effective working with other teams	-0.658	-1.736	1.079
14	Team is good at responding to new ideas & approaches	-0.261	-1.061	0.8
36	Time for reflecting on problems prior to prescribing solutions	-0.497	-1.109	0.612
17	Team shares priorities & activities with users	-0.362	-0.917	0.554
3	Team is effective at collaborative activities	0.843	0.386	0.457
21	Acknowledging specific expertise & diversity in team	-0.43	-0.868	0.438
9	Team members given chance to show what they can do	0.4	-0.001	0.4
8	Training & development helps team work effectively	-0.303	-0.579	0.276
7	Team members are involved in planning & management	-0.017	-0.289	0.272
11	Working with other partners to identify users' needs	-0.531	-0.772	0.241
23	Transparent structures for communication with partners	-0.699	-0.917	0.218
10	Effective communication for sharing good practice	1.078	0.868	0.21
4	Leader plans & supports people achieve objectives	1.534	1.399	0.135
27	Awareness of impact of values, attitude & practice on users	-1.786	-1.737	-0.049
29	Role clarification around work flow processes	1.377	1.543	-0.166
5	Processes are in place to assess users' needs	0.336	0.772	-0.436
1	Leader shares good practice	0.316	0.82	-0.505
34	Acknowledging professional diversity & nurturing cohesion	0.346	0.868	-0.522
6	Team policy & strategy is developed & reviewed	-0.564	0	-0.564
19	Creating team protocols, procedures & documentation	0.299	1.013	-0.714
18	Team uses measures to improve performance	-0.527	0.193	-0.72
12	Performance data analysis used for effective approaches	-1.323	-0.579	-0.744
33	Acknowledging & respecting professional identities	0.678	1.447	-0.769
30	Addressing barriers related to status	-0.847	0	-0.846
28	Joint client-focused activities	-1.045	-0.193	-0.852
22	Discussion of shared values to enhance trust & commitment	0.299	1.158	-0.859
24	Clear lines of accountability to other agencies	-1.693	-0.048	-1.645
31	Acknowledging contribution of peripheral team members	-1.129	0.821	-1.949
20	Agreeing strategic objectives for service delivery	-0.632	1.592	-2.224
38	Creating new forms of knowledge	-1.659	0.626	-2.286
37	Achieving local & national targets	-1.226	1.929	-3.155

Table 7.19 Descending Array of Differences between Factors 4 and 5

No.	Statement	Factor 4	Factor 5	Difference
25	Management & supervision meets team member needs	2.035	-1.285	3.32
4	Leader plans & supports people achieve objectives	1.81	-0.628	2.438
12	Performance data analysis used for effective approaches	-0.17	-1.689	1.519
20	Agreeing strategic objectives for service delivery	0.77	-0.614	1.384
2	Effective management approaches of key activities	0.375	-0.989	1.364
6	Team policy & strategy is developed & reviewed	0.877	-0.424	1.301
37	Achieving local & national targets	0.965	-0.263	1.228
1	Leader shares good practice	1.163	-0.061	1.224
33	Acknowledging & respecting professional identities	-0.587	-1.586	0.999
27	Awareness of impact of values, attitude & practice on users	1.177	0.217	0.96
7	Team members are involved in planning & management	1.509	0.725	0.785
36	Time for reflecting on problems prior to prescribing solutions	-0.103	-0.863	0.76
38	Creating new forms of knowledge	-0.87	-1.527	0.657
19	Creating team protocols, procedures & documentation	0.045	-0.57	0.615
26	Co-location of team members	-1.08	-1.556	0.476
29	Role clarification around work flow processes	-0.496	-0.951	0.455
18	Team uses measures to improve performance	1.031	0.615	0.416
35	Visionary & flexible team leader	0.637	0.252	0.384
32	Retaining specialist skills in team	-0.546	-0.693	0.147
16	Team is effective at changing to meet users' needs	1.152	1.032	0.12
5	Processes are in place to assess users' needs	0.342	0.306	0.036
8	Training & development helps team work effectively	0.05	0.255	-0.205
30	Addressing barriers related to status	-1.939	-1.646	-0.293
21	Acknowledging specific expertise & diversity in team	-0.347	-0.003	-0.344
3	Team is effective at collaborative activities	0.887	1.272	-0.385
31	Acknowledging contribution of peripheral team members	-1.156	-0.747	-0.409
14	Team is good at responding to new ideas & approaches	0.644	1.053	-0.409
11	Working with other partners to identify users' needs	0.717	1.625	-0.908
24	Clear lines of accountability to other agencies	-0.199	0.914	-1.113
17	Team shares priorities & activities with users	-1.197	0.148	-1.345
13	Team is effective working with other teams	-0.5	1.025	-1.525
15	Team is active & responsive to change & initiative	-0.931	0.623	-1.554
9	Team members given chance to show what they can do	-1.664	-0.014	-1.65
22	Discussion of shared values to enhance trust & commitment	-0.717	0.961	-1.678
10	Effective communication for sharing good practice	-0.636	1.121	-1.757
34	Acknowledging professional diversity & nurturing cohesion	-0.933	0.972	-1.904
28	Joint client-focused activities	-0.903	1.512	-2.415
23	Transparent structures for communication with partners	-1.213	1.481	-2.693

Table 7.20 Descending Array of Differences between Factors 4 and 6

No.	Statement	Factor 4	Factor 6	Difference
25	Management & supervision meets team member needs	2.035	-0.625	2.661
3	Team is effective at collaborative activities	0.887	-1.3	2.186
5	Processes are in place to assess users' needs	0.342	-1.829	2.171
20	Agreeing strategic objectives for service delivery	0.77	-1.252	2.022
2	Effective management approaches of key activities	0.375	-1.636	2.011
18	Team uses measures to improve performance	1.031	-0.818	1.849
11	Working with other partners to identify users' needs	0.717	-1.107	1.823
37	Achieving local & national targets	0.965	-0.818	1.783
1	Leader shares good practice	1.163	0	1.163
13	Team is effective working with other teams	-0.5	-1.636	1.136
35	Visionary & flexible team leader	0.637	-0.481	1.118
16	Team is effective at changing to meet users' needs	1.152	0.241	0.911
7	Team members are involved in planning & management	1.509	0.866	0.643
27	Awareness of impact of values, attitude & practice on users	1.177	0.577	0.6
14	Team is good at responding to new ideas & approaches	0.644	0.048	0.596
31	Acknowledging contribution of peripheral team members	-1.156	-1.395	0.239
4	Leader plans & supports people achieve objectives	1.81	1.588	0.221
36	Time for reflecting on problems prior to prescribing solutions	-0.103	-0.048	-0.055
24	Clear lines of accountability to other agencies	-0.199	-0.096	-0.103
12	Performance data analysis used for effective approaches	-0.17	0	-0.17
19	Creating team protocols, procedures & documentation	0.045	0.289	-0.244
38	Creating new forms of knowledge	-0.87	-0.529	-0.341
26	Co-location of team members	-1.08	-0.722	-0.358
8	Training & development helps team work effectively	0.05	0.674	-0.625
29	Role clarification around work flow processes	-0.496	0.144	-0.639
32	Retaining specialist skills in team	-0.546	0.193	-0.739
6	Team policy & strategy is developed & reviewed	0.877	1.636	-0.759
30	Addressing barriers related to status	-1.939	-0.77	-1.169
15	Team is active & responsive to change & initiative	-0.931	0.289	-1.22
9	Team members given chance to show what they can do	-1.664	-0.386	-1.278
23	Transparent structures for communication with partners	-1.213	0.241	-1.453
22	Discussion of shared values to enhance trust & commitment	-0.717	0.818	-1.535
33	Acknowledging & respecting professional identities	-0.587	1.011	-1.598
10	Effective communication for sharing good practice	-0.636	1.011	-1.647
21	Acknowledging specific expertise & diversity in team	-0.347	1.636	-1.983
34	Acknowledging professional diversity & nurturing cohesion	-0.933	1.395	-2.328
28	Joint client-focused activities	-0.903	1.54	-2.443
17	Team shares priorities & activities with users	-1.197	1.252	-2.449

Table 7.21 Descending Array of Differences between Factors 4 and 7

No.	Statement	Factor 4	Factor 7	Difference
37	Achieving local & national targets	0.965	-1.982	2.948
7	Team members are involved in planning & management	1.509	-1.068	2.577
35	Visionary & flexible team leader	0.637	-1.456	2.093
4	Leader plans & supports people achieve objectives	1.81	-0.202	2.012
25	Management & supervision meets team member needs	2.035	0.17	1.865
19	Creating team protocols, procedures & documentation	0.045	-1.812	1.857
11	Working with other partners to identify users' needs	0.717	-1.1	1.817
5	Processes are in place to assess users' needs	0.342	-0.542	0.884
1	Leader shares good practice	1.163	0.356	0.807
18	Team uses measures to improve performance	1.031	0.356	0.675
27	Awareness of impact of values, attitude & practice on users	1.177	0.542	0.635
36	Time for reflecting on problems prior to prescribing solutions	-0.103	-0.728	0.625
3	Team is effective at collaborative activities	0.887	0.34	0.547
16	Team is effective at changing to meet users' needs	1.152	0.712	0.44
20	Agreeing strategic objectives for service delivery	0.77	0.558	0.212
21	Acknowledging specific expertise & diversity in team	-0.347	-0.526	0.179
32	Retaining specialist skills in team	-0.546	-0.68	0.134
6	Team policy & strategy is developed & reviewed	0.877	0.744	0.133
23	Transparent structures for communication with partners	-1.213	-1.238	0.025
34	Acknowledging professional diversity & nurturing cohesion	-0.933	-0.898	-0.035
26	Co-location of team members	-1.08	-0.914	-0.166
15	Team is active & responsive to change & initiative	-0.931	-0.728	-0.203
17	Team shares priorities & activities with users	-1.197	-0.898	-0.299
22	Discussion of shared values to enhance trust & commitment	-0.717	-0.186	-0.531
2	Effective management approaches of key activities	0.375	1.068	-0.693
12	Performance data analysis used for effective approaches	-0.17	0.696	-0.866
14	Team is good at responding to new ideas & approaches	0.644	1.61	-0.966
30	Addressing barriers related to status	-1.939	-0.882	-1.057
33	Acknowledging & respecting professional identities	-0.587	0.558	-1.145
38	Creating new forms of knowledge	-0.87	0.372	-1.243
24	Clear lines of accountability to other agencies	-0.199	1.084	-1.283
9	Team members given chance to show what they can do	-1.664	-0.356	-1.308
31	Acknowledging contribution of peripheral team members	-1.156	0.186	-1.342
29	Role clarification around work flow processes	-0.496	1.1	-1.596
10	Effective communication for sharing good practice	-0.636	1.084	-1.72
8	Training & development helps team work effectively	0.05	1.796	-1.746
28	Joint client-focused activities	-0.903	0.882	-1.785
13	Team is effective working with other teams	-0.5	1.982	-2.482

Table 7.22 Descending Array of Differences between Factors 4 and 8

No.	Statement	Factor 4	Factor 8	Difference
25	Management & supervision meets team member needs	2.035	-1.013	3.048
27	Awareness of impact of values, attitude & practice on users	1.177	-1.737	2.914
7	Team members are involved in planning & management	1.509	-0.289	1.799
14	Team is good at responding to new ideas & approaches	0.644	-1.061	1.705
11	Working with other partners to identify users' needs	0.717	-0.772	1.488
16	Team is effective at changing to meet users' needs	1.152	-0.192	1.344
13	Team is effective working with other teams	-0.5	-1.736	1.237
36	Time for reflecting on problems prior to prescribing solutions	-0.103	-1.109	1.006
2	Effective management approaches of key activities	0.375	-0.531	0.906
6	Team policy & strategy is developed & reviewed	0.877	0	0.877
18	Team uses measures to improve performance	1.031	0.193	0.838
32	Retaining specialist skills in team	-0.546	-1.35	0.805
15	Team is active & responsive to change & initiative	-0.931	-1.592	0.661
8	Training & development helps team work effectively	0.05	-0.579	0.628
35	Visionary & flexible team leader	0.637	0.049	0.588
21	Acknowledging specific expertise & diversity in team	-0.347	-0.868	0.521
3	Team is effective at collaborative activities	0.887	0.386	0.501
4	Leader plans & supports people achieve objectives	1.81	1.399	0.411
12	Performance data analysis used for effective approaches	-0.17	-0.579	0.409
1	Leader shares good practice	1.163	0.82	0.343
24	Clear lines of accountability to other agencies	-0.199	-0.048	-0.151
17	Team shares priorities & activities with users	-1.197	-0.917	-0.28
23	Transparent structures for communication with partners	-1.213	-0.917	-0.296
5	Processes are in place to assess users' needs	0.342	0.772	-0.43
28	Joint client-focused activities	-0.903	-0.193	-0.71
20	Agreeing strategic objectives for service delivery	0.77	1.592	-0.822
37	Achieving local & national targets	0.965	1.929	-0.964
19	Creating team protocols, procedures & documentation	0.045	1.013	-0.968
26	Co-location of team members	-1.08	0	-1.08
38	Creating new forms of knowledge	-0.87	0.626	-1.497
10	Effective communication for sharing good practice	-0.636	0.868	-1.503
9	Team members given chance to show what they can do	-1.664	-0.001	-1.664
34	Acknowledging professional diversity & nurturing cohesion	-0.933	0.868	-1.801
22	Discussion of shared values to enhance trust & commitment	-0.717	1.158	-1.875
30	Addressing barriers related to status	-1.939	0	-1.939
31	Acknowledging contribution of peripheral team members	-1.156	0.821	-1.977
33	Acknowledging & respecting professional identities	-0.587	1.447	-2.034
29	Role clarification around work flow processes	-0.496	1.543	-2.039

Table 7.23 Descending Array of Differences between Factors 5 and 6

No.	Statement	Factor 5	Factor 6	Difference
11	Working with other partners to identify users' needs	1.625	-1.107	2.731
13	Team is effective working with other teams	1.025	-1.636	2.661
3	Team is effective at collaborative activities	1.272	-1.3	2.572
5	Processes are in place to assess users' needs	0.306	-1.829	2.135
18	Team uses measures to improve performance	0.615	-0.818	1.433
23	Transparent structures for communication with partners	1.481	0.241	1.24
24	Clear lines of accountability to other agencies	0.914	-0.096	1.01
14	Team is good at responding to new ideas & approaches	1.053	0.048	1.005
16	Team is effective at changing to meet users' needs	1.032	0.241	0.791
35	Visionary & flexible team leader	0.252	-0.481	0.734
31	Acknowledging contribution of peripheral team members	-0.747	-1.395	0.648
2	Effective management approaches of key activities	-0.989	-1.636	0.647
20	Agreeing strategic objectives for service delivery	-0.614	-1.252	0.638
37	Achieving local & national targets	-0.263	-0.818	0.556
9	Team members given chance to show what they can do	-0.014	-0.386	0.371
15	Team is active & responsive to change & initiative	0.623	0.289	0.334
22	Discussion of shared values to enhance trust & commitment	0.961	0.818	0.143
10	Effective communication for sharing good practice	1.121	1.011	0.11
28	Joint client-focused activities	1.512	1.54	-0.028
1	Leader shares good practice	-0.061	0	-0.061
7	Team members are involved in planning & management	0.725	0.866	-0.141
27	Awareness of impact of values, attitude & practice on users	0.217	0.577	-0.36
8	Training & development helps team work effectively	0.255	0.674	-0.42
34	Acknowledging professional diversity & nurturing cohesion	0.972	1.395	-0.424
25	Management & supervision meets team member needs	-1.285	-0.625	-0.659
36	Time for reflecting on problems prior to prescribing solutions	-0.863	-0.048	-0.815
26	Co-location of team members	-1.556	-0.722	-0.834
19	Creating team protocols, procedures & documentation	-0.57	0.289	-0.859
30	Addressing barriers related to status	-1.646	-0.77	-0.876
32	Retaining specialist skills in team	-0.693	0.193	-0.886
38	Creating new forms of knowledge	-1.527	-0.529	-0.998
29	Role clarification around work flow processes	-0.951	0.144	-1.095
17	Team shares priorities & activities with users	0.148	1.252	-1.104
21	Acknowledging specific expertise & diversity in team	-0.003	1.636	-1.639
12	Performance data analysis used for effective approaches	-1.689	0	-1.689
6	Team policy & strategy is developed & reviewed	-0.424	1.636	-2.06
4	Leader plans & supports people achieve objectives	-0.628	1.588	-2.217
33	Acknowledging & respecting professional identities	-1.586	1.011	-2.597

Table 7.24 Descending Array of Differences between Factors 5 and 7

No.	Statement	Factor 5	Factor 7	Difference
11	Working with other partners to identify users' needs	1.625	-1.1	2.725
23	Transparent structures for communication with partners	1.481	-1.238	2.719
34	Acknowledging professional diversity & nurturing cohesion	0.972	-0.898	1.87
7	Team members are involved in planning & management	0.725	-1.068	1.793
37	Achieving local & national targets	-0.263	-1.982	1.72
35	Visionary & flexible team leader	0.252	-1.456	1.709
15	Team is active & responsive to change & initiative	0.623	-0.728	1.351
19	Creating team protocols, procedures & documentation	-0.57	-1.812	1.242
22	Discussion of shared values to enhance trust & commitment	0.961	-0.186	1.147
17	Team shares priorities & activities with users	0.148	-0.898	1.046
3	Team is effective at collaborative activities	1.272	0.34	0.932
5	Processes are in place to assess users' needs	0.306	-0.542	0.848
28	Joint client-focused activities	1.512	0.882	0.63
21	Acknowledging specific expertise & diversity in team	-0.003	-0.526	0.523
9	Team members given chance to show what they can do	-0.014	-0.356	0.342
16	Team is effective at changing to meet users' needs	1.032	0.712	0.32
18	Team uses measures to improve performance	0.615	0.356	0.259
10	Effective communication for sharing good practice	1.121	1.084	0.037
32	Retaining specialist skills in team	-0.693	-0.68	-0.013
36	Time for reflecting on problems prior to prescribing solutions	-0.863	-0.728	-0.135
24	Clear lines of accountability to other agencies	0.914	1.084	-0.17
27	Awareness of impact of values, attitude & practice on users	0.217	0.542	-0.325
1	Leader shares good practice	-0.061	0.356	-0.417
4	Leader plans & supports people achieve objectives	-0.628	-0.202	-0.426
14	Team is good at responding to new ideas & approaches	1.053	1.61	-0.557
26	Co-location of team members	-1.556	-0.914	-0.642
30	Addressing barriers related to status	-1.646	-0.882	-0.764
31	Acknowledging contribution of peripheral team members	-0.747	0.186	-0.933
13	Team is effective working with other teams	1.025	1.982	-0.957
6	Team policy & strategy is developed & reviewed	-0.424	0.744	-1.168
20	Agreeing strategic objectives for service delivery	-0.614	0.558	-1.172
25	Management & supervision meets team member needs	-1.285	0.17	-1.455
8	Training & development helps team work effectively	0.255	1.796	-1.542
38	Creating new forms of knowledge	-1.527	0.372	-1.899
29	Role clarification around work flow processes	-0.951	1.1	-2.051
2	Effective management approaches of key activities	-0.989	1.068	-2.057
33	Acknowledging & respecting professional identities	-1.586	0.558	-2.144
12	Performance data analysis used for effective approaches	-1.689	0.696	-2.385

Table 7.25 Descending Array of Differences between Factors 5 and 8

No.	Statement	Factor 5	Factor 8	Difference
13	Team is effective working with other teams	1.025	-1.736	2.762
23	Transparent structures for communication with partners	1.481	-0.917	2.398
11	Working with other partners to identify users' needs	1.625	-0.772	2.396
15	Team is active & responsive to change & initiative	0.623	-1.592	2.215
14	Team is good at responding to new ideas & approaches	1.053	-1.061	2.114
27	Awareness of impact of values, attitude & practice on users	0.217	-1.737	1.954
28	Joint client-focused activities	1.512	-0.193	1.705
16	Team is effective at changing to meet users' needs	1.032	-0.192	1.224
17	Team shares priorities & activities with users	0.148	-0.917	1.065
7	Team members are involved in planning & management	0.725	-0.289	1.014
24	Clear lines of accountability to other agencies	0.914	-0.048	0.962
3	Team is effective at collaborative activities	1.272	0.386	0.886
21	Acknowledging specific expertise & diversity in team	-0.003	-0.868	0.865
8	Training & development helps team work effectively	0.255	-0.579	0.833
32	Retaining specialist skills in team	-0.693	-1.35	0.657
18	Team uses measures to improve performance	0.615	0.193	0.422
10	Effective communication for sharing good practice	1.121	0.868	0.253
36	Time for reflecting on problems prior to prescribing solutions	-0.863	-1.109	0.246
35	Visionary & flexible team leader	0.252	0.049	0.204
34	Acknowledging professional diversity & nurturing cohesion	0.972	0.868	0.104
9	Team members given chance to show what they can do	-0.014	-0.001	-0.014
22	Discussion of shared values to enhance trust & commitment	0.961	1.158	-0.197
25	Management & supervision meets team member needs	-1.285	-1.013	-0.272
6	Team policy & strategy is developed & reviewed	-0.424	0	-0.424
2	Effective management approaches of key activities	-0.989	-0.531	-0.458
5	Processes are in place to assess users' needs	0.306	0.772	-0.466
1	Leader shares good practice	-0.061	0.82	-0.881
12	Performance data analysis used for effective approaches	-1.689	-0.579	-1.11
26	Co-location of team members	-1.556	0	-1.556
31	Acknowledging contribution of peripheral team members	-0.747	0.821	-1.568
19	Creating team protocols, procedures & documentation	-0.57	1.013	-1.583
30	Addressing barriers related to status	-1.646	0	-1.646
4	Leader plans & supports people achieve objectives	-0.628	1.399	-2.027
38	Creating new forms of knowledge	-1.527	0.626	-2.153
37	Achieving local & national targets	-0.263	1.929	-2.192
20	Agreeing strategic objectives for service delivery	-0.614	1.592	-2.206
29	Role clarification around work flow processes	-0.951	1.543	-2.494
33	Acknowledging & respecting professional identities	-1.586	1.447	-3.033

Table 7.26 Descending Array of Differences between Factors 6 and 7

No.	Statement	Factor 6	Factor 7	Difference
34	Acknowledging professional diversity & nurturing cohesion	1.395	-0.898	2.293
21	Acknowledging specific expertise & diversity in team	1.636	-0.526	2.162
17	Team shares priorities & activities with users	1.252	-0.898	2.15
19	Creating team protocols, procedures & documentation	0.289	-1.812	2.101
7	Team members are involved in planning & management	0.866	-1.068	1.934
4	Leader plans & supports people achieve objectives	1.588	-0.202	1.79
23	Transparent structures for communication with partners	0.241	-1.238	1.479
37	Achieving local & national targets	-0.818	-1.982	1.164
15	Team is active & responsive to change & initiative	0.289	-0.728	1.017
22	Discussion of shared values to enhance trust & commitment	0.818	-0.186	1.004
35	Visionary & flexible team leader	-0.481	-1.456	0.975
6	Team policy & strategy is developed & reviewed	1.636	0.744	0.892
32	Retaining specialist skills in team	0.193	-0.68	0.873
36	Time for reflecting on problems prior to prescribing solutions	-0.048	-0.728	0.68
28	Joint client-focused activities	1.54	0.882	0.658
33	Acknowledging & respecting professional identities	1.011	0.558	0.453
26	Co-location of team members	-0.722	-0.914	0.192
30	Addressing barriers related to status	-0.77	-0.882	0.112
27	Awareness of impact of values, attitude & practice on users	0.577	0.542	0.035
11	Working with other partners to identify users' needs	-1.107	-1.1	-0.007
9	Team members given chance to show what they can do	-0.386	-0.356	-0.03
10	Effective communication for sharing good practice	1.011	1.084	-0.073
1	Leader shares good practice	0	0.356	-0.356
16	Team is effective at changing to meet users' needs	0.241	0.712	-0.471
12	Performance data analysis used for effective approaches	0	0.696	-0.696
25	Management & supervision meets team member needs	-0.625	0.17	-0.795
38	Creating new forms of knowledge	-0.529	0.372	-0.901
29	Role clarification around work flow processes	0.144	1.1	-0.956
8	Training & development helps team work effectively	0.674	1.796	-1.122
18	Team uses measures to improve performance	-0.818	0.356	-1.174
24	Clear lines of accountability to other agencies	-0.096	1.084	-1.18
5	Processes are in place to assess users' needs	-1.829	-0.542	-1.287
14	Team is good at responding to new ideas & approaches	0.048	1.61	-1.562
31	Acknowledging contribution of peripheral team members	-1.395	0.186	-1.581
3	Team is effective at collaborative activities	-1.3	0.34	-1.64
20	Agreeing strategic objectives for service delivery	-1.252	0.558	-1.81
2	Effective management approaches of key activities	-1.636	1.068	-2.704
13	Team is effective working with other teams	-1.636	1.982	-3.618

Table 7.27 Descending Array of Differences between Factors 6 and 8

No.	Statement	Factor 6	Factor 8	Difference
21	Acknowledging specific expertise & diversity in team	1.636	-0.868	2.504
27	Awareness of impact of values, attitude & practice on users	0.577	-1.737	2.314
17	Team shares priorities & activities with users	1.252	-0.917	2.168
15	Team is active & responsive to change & initiative	0.289	-1.592	1.881
28	Joint client-focused activities	1.54	-0.193	1.733
6	Team policy & strategy is developed & reviewed	1.636	0	1.636
32	Retaining specialist skills in team	0.193	-1.35	1.543
8	Training & development helps team work effectively	0.674	-0.579	1.253
23	Transparent structures for communication with partners	0.241	-0.917	1.158
7	Team members are involved in planning & management	0.866	-0.289	1.155
14	Team is good at responding to new ideas & approaches	0.048	-1.061	1.109
36	Time for reflecting on problems prior to prescribing solutions	-0.048	-1.109	1.061
12	Performance data analysis used for effective approaches	0	-0.579	0.579
34	Acknowledging professional diversity & nurturing cohesion	1.395	0.868	0.528
16	Team is effective at changing to meet users' needs	0.241	-0.192	0.433
25	Management & supervision meets team member needs	-0.625	-1.013	0.388
4	Leader plans & supports people achieve objectives	1.588	1.399	0.189
10	Effective communication for sharing good practice	1.011	0.868	0.143
13	Team is effective working with other teams	-1.636	-1.736	0.1
24	Clear lines of accountability to other agencies	-0.096	-0.048	-0.048
11	Working with other partners to identify users' needs	-1.107	-0.772	-0.335
22	Discussion of shared values to enhance trust & commitment	0.818	1.158	-0.34
9	Team members given chance to show what they can do	-0.386	-0.001	-0.385
33	Acknowledging & respecting professional identities	1.011	1.447	-0.436
35	Visionary & flexible team leader	-0.481	0.049	-0.53
26	Co-location of team members	-0.722	0	-0.722
19	Creating team protocols, procedures & documentation	0.289	1.013	-0.724
30	Addressing barriers related to status	-0.77	0	-0.77
1	Leader shares good practice	0	0.82	-0.82
18	Team uses measures to improve performance	-0.818	0.193	-1.011
2	Effective management approaches of key activities	-1.636	-0.531	-1.105
38	Creating new forms of knowledge	-0.529	0.626	-1.156
29	Role clarification around work flow processes	0.144	1.543	-1.4
3	Team is effective at collaborative activities	-1.3	0.386	-1.685
31	Acknowledging contribution of peripheral team members	-1.395	0.821	-2.216
5	Processes are in place to assess users' needs	-1.829	0.772	-2.601
37	Achieving local & national targets	-0.818	1.929	-2.747
20	Agreeing strategic objectives for service delivery	-1.252	1.592	-2.844

Table 7.28 Descending Array of Differences between Factors 7 and 8

No.	Statement	Factor 7	Factor 8	Difference
13	Team is effective working with other teams	1.982	-1.736	3.719
14	Team is good at responding to new ideas & approaches	1.61	-1.061	2.671
8	Training & development helps team work effectively	1.796	-0.579	2.375
27	Awareness of impact of values, attitude & practice on users	0.542	-1.737	2.279
2	Effective management approaches of key activities	1.068	-0.531	1.599
12	Performance data analysis used for effective approaches	0.696	-0.579	1.275
25	Management & supervision meets team member needs	0.17	-1.013	1.183
24	Clear lines of accountability to other agencies	1.084	-0.048	1.132
28	Joint client-focused activities	0.882	-0.193	1.075
16	Team is effective at changing to meet users' needs	0.712	-0.192	0.905
15	Team is active & responsive to change & initiative	-0.728	-1.592	0.864
6	Team policy & strategy is developed & reviewed	0.744	0	0.744
32	Retaining specialist skills in team	-0.68	-1.35	0.67
36	Time for reflecting on problems prior to prescribing solutio	-0.728	-1.109	0.381
21	Acknowledging specific expertise & diversity in team	-0.526	-0.868	0.342
10	Effective communication for sharing good practice	1.084	0.868	0.216
18	Team uses measures to improve performance	0.356	0.193	0.163
17	Team shares priorities & activities with users	-0.898	-0.917	0.019
3	Team is effective at collaborative activities	0.34	0.386	-0.046
38	Creating new forms of knowledge	0.372	0.626	-0.254
23	Transparent structures for communication with partners	-1.238	-0.917	-0.321
11	Working with other partners to identify users' needs	-1.1	-0.772	-0.328
9	Team members given chance to show what they can do	-0.356	-0.001	-0.356
29	Role clarification around work flow processes	1.1	1.543	-0.443
1	Leader shares good practice	0.356	0.82	-0.464
31	Acknowledging contribution of peripheral team members	0.186	0.821	-0.635
7	Team members are involved in planning & management	-1.068	-0.289	-0.779
30	Addressing barriers related to status	-0.882	0	-0.882
33	Acknowledging & respecting professional identities	0.558	1.447	-0.889
26	Co-location of team members	-0.914	0	-0.914
20	Agreeing strategic objectives for service delivery	0.558	1.592	-1.034
5	Processes are in place to assess users' needs	-0.542	0.772	-1.314
22	Discussion of shared values to enhance trust & commitment	-0.186	1.158	-1.344
35	Visionary & flexible team leader	-1.456	0.049	-1.505
4	Leader plans & supports people achieve objectives	-0.202	1.399	-1.601
34	Acknowledging professional diversity & nurturing cohesion	-0.898	0.868	-1.766
19	Creating team protocols, procedures & documentation	-1.812	1.013	-2.825
37	Achieving local & national targets	-1.982	1.929	-3.912

Table 8: Factor Q-Sort Values for Statements sorted by Consensus vs. Disagreement (Variance across normalized Factor Scores)

No.	Statement	1	2	3	4	5	6	7	8
10	Effective communication for sharing good practice	1	1	2	-1	3	2	3	2
1	Leader shares good practice	4	-1	1	3	0	0	0	1
30	Addressing barriers related to status	-1	-4	-2	-4	-4	-2	-2	0
16	Team is effective at changing to meet users' needs	2	0	4	3	2	1	2	0
32	Retaining specialist skills in team	1	-1	2	-1	-1	0	-1	-3
36	Time for reflecting on problems prior to prescribing solutions	3	0	-1	0	-2	0	-1	-3
31	Acknowledging contribution of peripheral team members	0	-3	-3	-3	-2	-3	0	2
8	Training & development helps team work effectively	-1	-2	0	0	1	1	4	-1
12	Performance data analysis used for effective approaches	-4	-1	-3	0	-4	0	1	-1
18	Team uses measures to improve performance	-4	-2	-1	2	1	-2	0	1
17	Team shares priorities & activities with users	-2	-3	0	-3	0	3	-2	-2
14	Team is good at responding to new ideas & approaches	1	0	0	1	3	0	4	-3
5	Processes are in place to assess users' needs	-1	-1	1	1	1	-4	-1	1
21	Acknowledging specific expertise & diversity in team	-2	1	-1	0	0	4	-1	-2
34	Acknowledging professional diversity & nurturing cohesion	0	0	1	-2	2	3	-2	2
22	Discussion of shared values to enhance trust & commitment	3	-2	0	-1	2	2	0	3
35	Visionary & flexible team leader	2	0	4	1	0	-1	-4	1
3	Team is effective at collaborative activities	-1	-2	2	2	3	-3	0	1
7	Team members are involved in planning & management	-1	-3	0	4	1	2	-3	-1
6	Team policy & strategy is developed & reviewed	-2	3	-1	2	-1	4	2	0
24	Clear lines of accountability to other agencies	2	-1	-4	0	1	-1	3	0
4	Leader plans & supports people achieve objectives	4	1	4	4	-1	4	0	3
2	Effective management approaches of key activities	-3	-1	1	1	-2	-4	2	-1
33	Acknowledging & respecting professional identities	0	1	1	-1	-4	2	1	3
15	Team is active & responsive to change & initiative	-2	0	3	-2	1	1	-1	-4
26	Co-location of team members	-3	2	3	-3	-3	-1	-2	0
11	Working with other partners to identify users' needs	1	1	-1	1	4	-2	-3	-1
38	Creating new forms of knowledge	1	-4	-4	-2	-3	-1	1	1
9	Team members given chance to show what they can do	2	4	1	-4	0	-1	-1	0
19	Creating team protocols, procedures & documentation	0	4	0	0	-1	1	-4	2
29	Role clarification around work flow processes	0	4	3	-1	-2	0	3	4
28	Joint client-focused activities	-1	2	-2	-2	4	3	2	-1
23	Transparent structures for communication with partners	-3	3	-2	-4	4	1	-3	-2
20	Agreeing strategic objectives for service delivery	-4	2	-1	1	-1	-3	1	4
27	Awareness of impact of values, attitude & practice on users	3	1	-4	3	0	1	1	-4
25	Management & supervision meets team member needs	4	2	2	4	-3	-1	0	-2
37	Achieving local & national targets	0	-4	-3	2	-1	-2	-4	4
13	Team is effective working with other teams	1	3	-2	-1	2	-4	4	-4

Table 9.1 **Distinguishing Statements for Factor 1 (P < .05; Asterisk (*) Indicates Significance at P < .01) (Normalized Scores are shown).**

		FACTORS							
		1	2	3	4	5	6	7	8
Statement	**No.**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**
Leader shares good practice	1	1.82	-1.27	0.32	1.16	-0.06	0.00	0.36	0.82
Time for reflecting on problems prior to solutions	36	**1.27***	-0.09	-1.5	-0.10	-2.86	-0.05	-1.73	-4.11
Team members given chance to show what they can do	9	1.19	1.87	0.40	-5.66	-0.01	-1.39	-1.36	0.00

Table 9.2 **Distinguishing Statements for Factor 2 (P < .05; Asterisk (*) Indicates Significance at P < .01) (Normalized Scores are shown).**

		FACTORS							
		1	2	3	4	5	6	7	8
Statement	**No.**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**
Team members given chance to show what they can do	9	1.19	1.87	0.40	-5.66	-0.01	-1.39	-1.36	0.00
Creating team protocols, procedures & documentation	19	-0.41	1.77	0.30	0.05	-1.57	0.29	-5.81	1.01

Table 9.3 Distinguishing Statements for Factor 3 (P < .05; Asterisk (*) Indicates Significance at P < .01) (Normalized Scores are shown).

		FACTORS							
		1	2	3	4	5	6	7	8
Statement	**No.**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**
Team is effective at changing to meet users' needs	16	1.11	-0.12	4 1.91	3 1.15	1.03	0.24	0.71	-0.19
Team is active & responsive to change & initiative	15	-2.98	-0.18	3 1.38	-2.93	0.62	0.29	-1.73	-5.59
Clear lines of accountability to other agencies	24	1.17	-1.19	-1.69*	-0.20	0.91	-1.1	1.08	-0.05

Table 9.4 Distinguishing Statements for Factor 4 (P < .05; Asterisk (*) Indicates Significance at P < .01) (Normalized Scores are shown).

		FACTORS							
		1	2	3	4	5	6	7	8
Statement	**No.**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**
Achieving local & national targets	37	-0.36	-5.46	-4.23	0.97*	-1.26	-2.82	-5.98	1.93
Effective communication for sharing good practice	10	0.73	0.08	1.08	-1.64	1.12	1.01	1.08	0.87
Team members given chance to show what they can do	9	1.19	1.87	0.40	-1.66*	-0.01	-1.39	-1.36	0.00

Table 9.5 ***Distinguishing Statements for Factor 5 (P < .05; Asterisk (*)*** **Indicates Significance at P < .01) (Normalized Scores are shown).**

		FACTORS							
		1	2	3	4	5	6	7	8
No. Statement	**No.**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**
Working with other partners to identify users' needs	11	0.80	0.12	-1.53	0.72	1.62*	-3.11	-4.1	-1.77
Acknowledging & respecting professional identities	33	-0.22	0.19	0.68	-1.59	-1.59*	1.01	0.56	1.45

Table 9.6 **Distinguishing Statements for Factor 6 (P < .05; Asterisk (*) Indicates Significance at P < .01) (Normalized Scores are shown).**

		FACTORS							
		1	2	3	4	5	6	7	8
Statement	**No.**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**
Acknowledging specific expertise & diversity in team	21	-2.96	0.45	-1.43	-0.35	0.00	1.64*	-1.53	-2.87
Team shares priorities & activities with users	17	-2.86	-4.06	-0.36	-4.2	0.15	1.25*	-2.9	-2.92
Transparent structures for communication with partners	23	-4.11	1.28	-2.7	-5.21	1.48	0.24	-4.24	-2.92
Processes are in place to assess users' needs	5	-1.71	-1.39	0.34	1 0.34	0.31	-1.83*	-1.54	0.77

Table 9.7 ***Distinguishing Statements for Factor 7 (P < .05; Asterisk (*)***
Indicates Significance at P < .01) (Normalized Scores are shown).

		FACTORS							
		1	2	3	4	5	6	7	8
Statement	**No.**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**
Team is effective working with other teams	13	0.06	1.12	-2.66	-1.5	1.03	-5.64	1.98	-5.74
Training & development helps team work effectively	8	-1.49	-2.51	-0.30	0.05	0.25	0.67	1.80	-1.58
Visionary & flexible team leader	35	0.94	0.04	1.43	0.64	0.25	-1.48	-5.46	0.05
Creating team protocols, procedures & documentation	19	-0.41	1.77	0.30	0.05	-1.57	0.29	-1.81*	1.01

Table 9.8 Distinguishing Statements for Factor 8 (P < .05; Asterisk (*) Indicates Significance at P < .01) (Normalized Scores are shown).

		FACTORS							
		1	2	3	4	5	6	7	8
Statement	**No.**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**
Achieving local & national targets	37	-0.36	-5.46	-4.23	0.97	-1.26	-2.82	-5.98	1.93*
Agreeing strategic objectives for service delivery	20	-5.66	0.81	-1.63	0.77	-1.61	-4.25	0.56	1.59
Team is good at responding to new ideas & approaches	14	0.61	-0.02	-0.26	0.64	1.05	0.05	1.61	-4.06

Table 10: Consensus Statements - those that do not distinguish between ANY pair of factors.

All listed statements are non-significant at P>.01, and those flagged with an * are also non-significant at P>.05.

There Were NO Consensus Statements

A full description of the 38 statements used for the Q Sort:

The team leader/manager ensures good practice is shared (1).	Approaches are in place for the effective management of key activities (2).	The team is effective at initiating and participating in collaborative activities (3).
The team leader plans and supports team and individual efforts to help people achieve plans and objectives (4).	Processes are in place to assess service users' current and future needs (5).	Team policy and strategy is developed, reviewed and updated (6).
Team members are involved in the planning and management of the team (7).	Training & development plans are used to help team members work more effectively (8).	Team members are given the chance and support to show what they can do (9).
There are effective communication processes in place to support sharing of good practice (10).	Identifying and working with other partner agencies to identify current and future service user needs (11).	Internal and external performance data analysis is used to ensure effective approaches (12).
The team is effective at working with other teams (13).	The team is good at welcoming and responding to new ideas and approaches (14).	The team is active and responsive to change and initiative (15).
The team is effective at changing & developing what it does to meet &create what service users need (16).	The team shares its priorities and activities with service users (17).	The team uses quantitative and qualitative measures to review, monitor and improve its performance (18).
Creating common protocols, procedures & documentation for the team (19).	Agreeing strategic objectives for service delivery (20).	Acknowledging specific expertise & professional diversity within the team (21).
Setting aside regular time for discussion for developing shared values & enhancing trust & commitment (22).	Having transparent structures for communication with partnership agencies (23).	Having clear lines of accountability to other agencies (24).
Line management & professional supervision is adjusted to meet individual team members' needs (25).	Co-location of team members (26).	Team awareness of the impact of professional values, attitude & practice on service users (27).

Having joint client-focused activities such as shared assessment and consultation with families (28).	Having role clarification around clearly defined work flow processes (29).	Addressing barriers related to status hierarchies (30).
Acknowledging the contribution of peripheral team members (31).	Retaining 'specialist' skills within the team (32).	Acknowledging and respecting professional identities (33).
Acknowledging professional diversity whilst nurturing team cohesion (34).	Having a visionary and flexible team leader (35).	Team strategy includes time for reflecting on presenting problems prior to prescribing solutions (36).
Achieving targets and goals set by local and national imperatives (37).	Creating new forms of knowledge (38).	

REFERENCES:

Anning, A. (2001). *Knowing who I am and what I know: developing new versions of professional knowledge in integrated service settings.* Paper presented at BERA Annual Conference, University of Leeds, 13-15 September 2001.

Atkinson, M., Stott, A., Doherty, P., & Kinder, K. (2002). *Multi-agency working: a detailed study.* LGA research: Report 26. Berkshire: nfer.

Bank, J. (1992). *The essence of total quality management.* Hemel Hempstead: Prentice Hall.

Biehal, N., Clayden, J., Stein, M., & Wade, J. (1995). *Moving on: Young People and Leaving Care Schemes.* London: HMSO.

Booker, R (2004). Paper presentation at National Association of Principal Educational Psychologists' Annual Conference, May 2004.

Brown, S.R. (1996). *Q Methodology and Qualitative Research.* Qualitative Health Research, 1996 (November), 6 (4), 561-567.

Cameron, A., & Lart R. (2003). Factors Promoting and Obstacles Hindering Joint Working: A Systematic Review of the Research Evidence. *Journal of Integrated Care,* 11(2), 9-17.

Cochrane, A. (2000). *Local government managerialism and modernisation, in:* J. Clarke, S. Gerwirtz & E. McLaughlin (Eds) *New managerialism, new welfare?* London: Sage, 122-136

Delaney, F., G. (1994). *Muddling through the middle ground: theoretical concerns in Intersectoral collaboration and health promotion.* Health Promotion International, **9,** 3, 17-25.

DfES (2003). *Every Child Matters.* London: HMSO.

DHSS (1976). *Fit for the Future: Court Committee Report on Child Health Services.* London: HMSO.

DOH (2003). *Getting the Right Start: National Framework for Children, Young People And Maternity Services, Standard for Hospital Services.* London: Department of Health.

Frost, N. (2004). *'Joined-up' working with children – some research findings,* University of Leeds, on behalf of Multi-Agency Teams working for children (MATCh). Inter-professional conference (8.12.04) – Children's Trusts, Partnership Working and Outcomes for Children.

Geddes, M. (1997). *Partnership against poverty and exclusion? Local regeneration strategies and excluded communities in the UK.* Bristol: Policy Press.

Gerwirtz, S. (2002). *The managerial school: post-welfarism and social justice in education.* London: Routledge.

Hallet, C & Birchall, E. (1992). *Coordination and Child Protection: a Review of the Literature.* London: HMSO.

HMSO (2003). *The Victoria Climbie Inquiry: Report of an inquiry by Lord Laming.* London: Stationary Office.

Kitzinger, C. (1987). *The Social Construction of Lesbianism.* Bristol: Sage.

Kimberlee, R. (2001). *Chasing the money: the common and local problems facing partnerships involved in short-term funded projects for young people. In areas of urban deprivation,* paper presented at the *International Conference of Multi organisational Partnerships and Cooperative Strategy.* Bristol, 12-14 July 2001.

Kitzinger, C & Stainton-Rogers, R. (1985). A Q-methodological study of lesbian identities. *European Journal of Social Psychology* 15: 167 – 187.

McKeown, B & Thomas, D (1988). *Q Methodology.* London: SAGE.

McIver, J.P., & Carmines, E.G. (1981). *Uni-dimensional Scaling.* Newbury Park, CA: Sage

Manstead, A.S.R., & Semin, G.R. (2001). Methodology in social psychology: tools to test theories. In: Hewstone, M and Stroebe, W (Eds), *Introduction to Social Psychology,* 3rd Edition. Oxford: Blackwell (pp. 81-122).

Mental Health Foundation. (2001). *Bright Future: Promoting Children and Young People's Mental Health.* London: Mental Health Foundation.

Osgood, C.E., Suci, G.J., & Tannebaum, P.H. (1957). *The Measures of Meaning.* Urbana, IL: University of Illinois Press.

Payne, J. (1998). *The attraction of joined up thinking.* Adults Learning, 10, 4, 12-14.

Pearce, N., & Hillman, J. (1988) *Wasted youth: raising achievement and tackling social exclusion.* London: Institute for Public Policy Research.

Rogers, D., S & Whetten, D. A. (Eds) (1982). *Inter-organisational co-ordination. Theory Research & Implementation.*Ames, IA: IOWA State University. Cited in DELANEY (1994).

Schmolck, P. (2002). PQ Method (version 2.11). [Computer software]. Available at: www.rz.unibw-muenchen.de/~p41bsmk/qmethod.

Sloper, P. (2004). *Facilitators and barriers for coordinated multi-agency services.* Blackwell Publishing: Childcare, Health & Development, 30, 6, 571-580.

Stainton- Rogers, R. (1995). Q methodology. In Smith, J. A., Harre, R & Van Langenhove, L. (Eds) *Rethinking methods in psychology.* London: Sage.

Stenner, P & Stainton- Rogers, R. (2004). *Q methodology and qualiquantology* in *Mixing Methods in Psychology. The Integration of Qualitative and Quantitative Methods in Theory and Practice.* East Sussex: Psychology Press.

Stephenson, W. (1953). *The Study of behaviour: Q technique and its methodology.* Chicago: University of Chicago Press.

Turner, C., & Stringer, P. (2004). Green Salad or Green Puree? *DECP Debate,* 110, 3-4.

Webb, R., & Vulliamy, G. (2001). *Joining up solutions: the rhetoric and practice of inter-agency Co-operation.* Children and Society, 15, 315-332.

Whetten, D.A. (1982). *Objectives and issues: setting the stage.* In Rogers & Whetten (1982).

Zapka, J.G., Marrocco, G.R., Lewis, B., McCusker, J., Sullivan, J., McCarthy, J & Birch, F.X. (1992). *Inter-organisational responses to AIDS: a case study of the Worcester AIDS Consortium.* Health Education Research: Theory & Practice, 7, 31-46 Cited in DELANEY (1994)

What are the key events leading to the placement of children with emotional, social and behaviour difficulties (ESBD) in out-borough residential special schools?

CONTENTS

ABSTRACT:

In spite of recent government strategy aimed at supporting schools in developing effective inclusive education practices, local authorities continue to haphazardly place children with emotional, social and behavioural difficulties (ESBD) in residential special education provisions often for social rather than educational reasons. This research project identified some key sequences of events that need to be broken in order to prevent such expensive residential special school placements. The relevance of different student profiles in provision decision making warrants further research as this would either substantiate or refute the findings of this research project as well as provide useful additional information for local authorities to aid their placement practices. Sequential analysis was the chosen methodology as this is the most appropriate means of identifying and analyzing chains of events which might be broken in order to obtain more successful outcomes for children and young people: in this research the outcome would be the prevention of costly residential school placements.

This research project promotes the spirit of the Children Act 2004 by identifying which key local authority sequential decision making events in the placement of children with ESBD in residential need to be broken to promote early intervention and prevention. The successful use of sequential analysis as a methodology is dependent on the choice, use and analysis of the coding system approach in tracking the key residential placement decision making events. A 'state transitional diagram', tests of 'standard normal residuals' and graphical representations of the data provided a wealth of information about the significance of key sequences of events in this respect. And 'profiling data' for all of the students tracked identified individual differences which could be equated with the suggestion of haphazard placement decisions in the literature review.

This research project has highlighted the need for local authority officers (including EPs) to prioritize their involvement with children and families where mainstream school placement breakdown and/or a parental request for a change of school placement has been identified in order to break the sequential chain of events leading to expensive residential special school placements.

1. The rationale for choosing this study.

There has been much discussion recently amongst educationalists and researchers concerning the relationship between two key government policies: raising standards and encouraging inclusion. The question being: How can schools devote efforts to raising standards of the majority of their pupils whilst, at the same time, directing resources to pupils whose presence has the potential to disrupt the smooth running of the school? And it is pupils with emotional, social and behavioural difficulties (ESBD) who have the potential to disrupt the smooth running of schools.

There is evidence that mainstream schools are becoming increasingly reluctant to accommodate such pupils (Ainscow et al., 1999) and that, once they have been placed in a special school, mainstream schools are reluctant to re-admit them (Farrell and Tsakalidou, 1999). The government in recognizing this problem developed new guidance for schools giving them more power to exclude. However there is concern that government policies on inclusion may not be working for pupils with ESBD. The development of practice and provision for pupils described as having ESBD has, by necessity, always been influenced by the nature of practice and provision for all pupils. That which counts as *'normal'* always seeks to define that which counts as not acceptable whether this is in terms of behaviour or indeed any other indicator or marker of difference. Changes in mainstream and special schooling over the last decade or so have increased demands on teachers. This is particularly so with instructional practice in the context of increased pressure to raise standards of attainment through teaching and assessing the National Curriculum under a more stringent inspection system.

Special schools for pupils with ESBD, both day and residential, have existed for many years and local authorities are prepared to spend quite substantial sums of money educating pupils in these schools. However Ofsted reports are quite often critical of the quality of education provided.

This has meant that many ESBD schools are no longer able to prioritise personal and social education as the primary reason for their existence (e.g. Laslett, 1977). The shifting historical equilibrium between achieving control, providing welfare, social training and education has therefore been subject to significant new pressures. Furthermore, Hyland, (1993) and Cole et al., (1999) have questioned the amount of money being spent on a tiny minority of children in Community Homes with Education CHEs) and residential schools for children with ESBD when the prognosis for investment may well be poor. These researchers have asked whether money spent on early intervention instead would save society greater expense in the future. Nevertheless provision of effective education for pupils with ESBD still presents major challenges for teachers, support staff, local education authority officers, the government and of course parents and the pupils themselves. And, in many ways this is not surprising as typically pupils placed in ESBD schools come from economically and socially disadvantaged families that have experienced many problems unrelated to school (Cooper, 1993).

The initial idea for this study into the key events leading to placements of children in out borough residential special ESBD schools came from the Complex Cases (or Placements Panel) Meeting that I attend. The local education authority where I work currently has 26 students placed in out borough special provision of which 11 are in day provision and 15 residential. It should be noted that the local education authority (LEA) also has a 40 place day special primary school for children with ESBD and key stage 3 and key stage 4 pupil referral units for excluded pupils. At the Complex Cases Meeting we often have to discuss placements of children with ESBD when we cannot meet their needs locally (i.e. either in mainstream provision or at our local special ESBD school). My line manager (Head of SEN) has agreed that it should prove helpful to the LEA to identify the events that lead up to making decisions for out borough residential provision – especially if the chain of events could be broken and some alternative and less expensive provision or arrangements could be made.

2. Literature Review

By definition, pupils placed in special schools for children with emotional, social and behavioural difficulties (ESBD) have failed to benefit from the curriculum and extra curricular activities offered in ordinary schools and, children with ESBD are amongst the most difficult to teach. Their behaviour often requires particularly skilful and vigilant management. This places their teachers under considerable pressure as they strive to provide a worthwhile and coherent education that offers pupils with ESBD opportunities to make steady progress, comparable where possible with that of their peers in ordinary schools (HMCI, 1999). Special schools know that, in the main, they are seen by referring agencies as a last resort. Most maintained special schools, for example, are obliged to accept any pupil whom the local education authority (LEA) considers to be outside the competence of a mainstream school. Some of these pupils may have temporary needs, perhaps provoked by sudden traumas in the family, or they may have had a long history of serious disturbing or delinquent behaviour. Alongside them may be children with conditions such as Tourette's Syndrome, Asperger's Syndrome or other psychiatric disorders. Additionally a growing number of admissions to schools for children with ESBD are the casualties of child protection cases.

Most ESBD schools are also required to admit pupils who in times past would have been placed in Community Homes with Education on the premises (CHEs), or even a psychiatric hospital. With the closure of many such establishments, the breakdown of a previous placement sometimes in a children's home, or the change in policy of a local authority regarding residential placements, a wider range of pupils is being placed in ESBD special schools (HMCI,1999). An Ofsted review of inspections of independent special schools, 1999-2002 (Ofsted/Audit Commission, November 2002) found that the level of disturbance of the pupil population, within virtually all of these special schools, was at the extreme end of the continuum. Most pupils placed in ESBD schools presented significant problems to their previous school or schools they attended.

And for a good number of the pupils, that experience was many months earlier, since many had been out of school prior to their placement.

There is of course a long historical debate concerning the most appropriate placements for children with ESBD (Smith and Thomas 1993). Children now deemed ESBD presented problems to society in Victorian times and were receiving help in a range of provision (Cole 1989). Similarly, the word *'maladjusted'* was in official use by 1930 and, the first LEA schools for the maladjusted were founded in the 1930s even though the term 'maladjusted' only gained official recognition in the regulations that followed the 1944 Education Act. This Act required LEAs to ascertain all children in need of special educational *treatment* (my italics) and to make suitable provision according to each child's age, aptitude and ability. In the case of the maladjusted the purpose was 'to effect their personal, social or educational readjustment' (Ministry of Education 1953). Laslett (1983) argued that this particular ordering of the words signified the dominance of a so-called 'medical model' (hence the use of my italics for the word 'treatment'). Most schools for the maladjusted generally dealt with a diverse clientele many of whose difficulties could be said to be reactions to environmental factors rather than 'within-child' problems requiring medical-learning 'treatment' (DES 1974, Laslett 1977, Wilson and Evans 1980).

In 1950, the Underwood Committee began a major enquiry (Ministry of Education 1955) into provision for maladjusted children. The Underwood Report (as it became known) highlighted tensions which persist to this day between staff from and within different professions about what constitutes effective provision for children with ESBD. The 1963 Children and Young Persons' Act (Hyland 1993) restated that truants and 'at risk' or 'problem children' not convicted of crimes could be placed in the Home Office Approved Schools, which after the 1969 Children and Young Persons' Act evolved into Social Service Community Homes with Education.

Laslett (1983) commented that *'maladjusted'* was a kind of catch-all for children showing a wide range of behaviour and learning difficulties. Although maladjusted children were conceptualised as a separate group many children thus labelled could equally have been described as socially deprived, disruptive, disaffected, delinquent or mentally ill. These descriptions applied to many children placed in schools for the maladjusted. Conversely, from the 1970s children who might have been seen as genuinely maladjusted were placed in special units designed primarily for the so called *'disruptive'*.

By the time the Schools Council Project (1975 – 1978) published their findings (Dawson 1980, Wilson and Evans 1980) on evidence for good practice in schools for the maladjusted, many more day schools and special classes attached to mainstream schools existed. These schools and classes co-existed with a variety of special 'units' throughout the country, although the number of specialist residential schools had also increased (from 33 in 1955 to 220 in 1983).

The key messages of The Elton Report (DES 1989) advocated whole school preventative approaches to behaviour management and the need for all teachers to learn to apply basic classroom techniques and to display more *'withitness'* (Kounin, 1997). These messages fed into Circular 8/94 (DfE 1994) *Pupil Behaviour and Discipline* and have been carried forward in the current advice on children with ESBD (Circulars 9/94 and 10/94, DfE 1994 and Circular 10/99 – *Social Inclusion:* Pupil Support, DfEE, 1999). In this respect HMI saw no essential differences between effective teaching of mainstream children in 'ordinary schools' and pupils with ESBD in special schools.

However, Cooper's (1993) account of residential schooling found pupils being helped in three major areas – respite, relationships and resignification. According to Cooper, children from complex and sometimes fraught family backgrounds and unsatisfactory mainstream experiences were seen to be provided with respite in boarding schools where they were able to form beneficial relationships with staff and peers.

These children were also provided with learning experiences and emotional support that enabled them to cast off negative labels with which they had been tagged and according to which they had lived, resignifying themselves in a new positive light. Cooper (1993) suggested further that mainstream schools seeking to improve their effectiveness could usefully follow some special school practices.

Grimshaw and Berridge (1994) conducted a detailed study of four contrasting boarding schools looking at the circumstances of 67 children and their families. They found that students arrived in residential provision in a haphazard manner when the resources of mainstream schools, support services and families were exhausted, usually created by the child's challenging behaviour.

Interestingly Galloway and Goodwin (1987) suggested that referrals to special schools commonly involved children whose behaviour had disturbed mainstream schools beyond their levels of tolerance. It was not that the identified behaviour constituted learning difficulties for the pupils deemed ESBD, although it usually did: it was more that the behaviour was seen to cause learning difficulties for their mainstream peers. Thus, suggesting that referrals to special schools were socially and not educationally driven. Many parents also bemoaned that more could have and should have been done to make residential placements unnecessary.

Nonetheless, the Audit Commission's report, *Special Educational Needs – a mainstream issue* (2002), highlighted that children who should be able to be taught in mainstream settings are sometimes turned away usually because too many staff feel ill equipped to meet the wide range of pupil needs in today's classrooms: families of such children also face unacceptable variations in the level of support available from their school, local authority or local health service.

The latest government strategy, *Removing Barriers to Achievement* (DfES, 2004) aims to support schools in developing effective inclusive practice through a new Inclusion Development Programme. This strategy is aimed at bringing together education, health, social care and the voluntary sector to focus on those children that are placing growing demands on schools such as children with ESBD. The government also aims to take steps within the national behaviour strategy to improve the quality of education for children with more severe ESBD. In the interim, local educational authorities continue to use local day special provision (both in and out borough), dependent in the first instances on distance and travel time, as well as out borough residential special school placements.

The Children Act, 2004, which secured Royal Assent on 15 November 2004, places a duty on Local Authorities to make arrangements to promote co-operation between agencies and other appropriate bodies (such as voluntary and community organisations) in order to improve children's well-being. This act places a duty on key partners to take part in the co-operation arrangements. Well-being is defined by reference to five outcomes: that is, being healthy; staying safe; enjoying and achieving; making a positive contribution and economic well-being. The Children Act also promotes early intervention and preventative work. Studies such as the one I have undertaken can illustrate what *key* events might be prevented thereby determining where early intervention is needed. Hopefully early intervention will be via inter-agency co-ordination and partnership working, especially as money spent on early intervention may well save local authorities greater expense in the future (Hyland, 1993 and Cole, et al 1999).

3. METHODOLOGY

I decided to use *sequential analysis* as the chosen methodology. This is most appropriate when identifying and analysing chains of events in order to see if there are points in the chain that could be broken. And, to see whether an alternative and/or less expensive arrangements could be made. Gottman and Roy (1990) suggest that there are two goals in sequential analysis. The first is to discover probabilistic patterns in the data: this is equivalent to *"cracking a secret code"*, in that probabilistic patterns of redundancy may be determined from a collection of codes. In effect we want to discover the order and common sequences that characterise such data. The second goal of sequential analysis is to assess the effect of contextual or explanatory variables.

The success of sequential analysis depends on those distinctions that early on become enshrined in the coding scheme, which itself represents an hypothesis, even if it is rarely treated as such (Bakeman & Gottman, 1997). Accordingly when developing coding schemes it is helpful to describe each of the behaviours in as specific way as possible (Bakeman & Brownlee, 1980). It is useful to keep the coding system simple by having clear conceptual categories that are essentially at the same level of description. Codes also need to be reasonably distinct so that even when events appear somewhat similar they should not be put in the same category if there is a good reason to think that either their causes or their functions are different. Bakeman & Gottman (op. cit) add that it is better to *"split"* than to *"lump"* codes as behaviour categories can always be lumped together during data analysis: behavioural events lumped together by the coding scheme cannot be split out later. These authors suggest further that codes for any behavioural event can be defined in ways that make them mutually exclusive and exhaustive

Sequential analysis makes use of a less absolute, more probabilistic and flexible approach to the investigation of sequences comprising two or more events by using what is known as the "lag" sequential method. This method was first developed by Sackett (1979) and later described by others (Bakeman & Dabbs, 1976; Bakeman, 1978; Gottman & Bakeman, 1979). To begin with, the investigator selects one code to serve as the "criterion" or "given" event (Lag 0). Then a transitional probability can be calculated for the "target" event that occurs immediately after the criterion (Lag 1). The results for a number of coded events are a series of transitional probabilities, each of which can be tested for significance. One advantage of the lag sequential approach is the ease with which sequences containing random elements can still be detected. The main advantage is in its ability to detect sequences involving two or more elements without requiring as much data as absolute methods require.

Sequential analysis has been applied to an in-depth accident causation study of young drivers (Clarke, D et al, 2002). Nearly 1300 accidents in the Midlands, involving drivers aged 17-25 and covering the years 1994-1996 inclusive, were summarised on a database and judgements were made by the researchers emphasising the sequence of events leading up to the accident. The aim of entering facts and figures, prose accounts, standardised graphics and explanatory factors in the database was to build a library of analysed cases stored as a series of case studies. In this sense, the database was used to find groups and recurring patterns, rather than being considered as 'raw' data awaiting analysis.

It was therefore possible to find patterns, sequences and processes within each group of accidents. The reliability of this technique was assessed in two previous studies (Clarke, Forsythe and Wright, 1998; Clarke, Ward and Jones, 1998).

Sequential analysis has also been applied to group interaction and critical thinking (e.g. Jeong, 2001) where it was effective in identifying patterns of student interactions and measuring the events that follow specific interactions.

The tools and methods in Jeong's study provided the means to obtain a birds-eye view of the complex processes and patterns of interaction that occur in threaded discussions. They also provided the means to examine group interactions, processes and associated outcomes using both quantitative measures (transitional probabilities) and qualitative/graphical descriptions (state transitional diagrams).

Danis, Bernard and Leproux (2000) investigated a sequential analysis of adult-child verbal interactions during shared picture book reading: the purpose of their study was to determine whether adults and children influence each other's representations of objects or events during joint picture book reading. They found that adults appeared to stimulate the child's representational abilities since the child was found to follow the adult when the adult changed the level of abstraction.

Sequential analysis is reliant on probabilities. A simple (or unconditional) probability is just the probability with which a particular "target" event occurs relative to a total set of events. A conditional probability on the other hand, is the probability with which a particular "target" event occurs relative to another "given" event. A transitional probability is simply one kind of conditional probability. It is distinguished from other conditional probabilities in that the target and given events occur at different times. Often the word *"lag"* is used to indicate this displacement in time.

Transitional frequency matrices can be easily constructed from the number of times a particular transition occurs. Similarly *transitional probability matrices* are easily computed by dividing the frequency for a particular cell in the matrix by the frequency for that row. Transitional probabilities are often presented graphically, as *state transitional diagrams* (Bakeman & Brown, 1977 and Stern, 1974, provide examples). Such diagrams make visible how events are sequenced with circles representing the codes and arrows representing transitional probabilities amongst them.

This particular study began by trawling through pupil files (both SEN and EPS) to identify 'key events' leading up to the students' placement in residential EBD schools. These key event grids are detailed in the appendix. A coding system was devised taking into account the points raised above (i.e. keeping the codes simple, splitting and lumping codes and using mutually exclusive and exhaustive codes). The event grids from 12 student files resulted in 'Coding System 1'. This coding system led to a 58 x 58 *transitional frequency matrix* which was clearly unmanageable for any kind of meaningful analysis. So 'Coding System 2' was created by *lumping together* key events from coding system 1. This new coding system shows how the codes have been 'lumped together' from coding system 1. Coding System1 uses upper case letters and Coding System 2 uses lowed case letters for the codes.

A tally system was then used for insertion in appropriate cells for the occurrence of the coded events in particular sequences. The transitional probabilities matrix arising from this grid enabled me to see whether, according to Grimshaw and Berridge (*op cit*) students do indeed arrive at residential provision in a haphazard manner. This is why I have chosen to look at event profiles for the individual pupils as well as considering a 'collective' overall analysis

It will be interesting to see if referrals are socially and not educationally driven. Galloway and Goodwin (*op cit*) also suggested that referrals to special schools commonly involved children whose behaviour had disturbed mainstream schools beyond their levels of tolerance. Consequently I have also collected 'social data' on the pupils by using a "file-maker pro" database.

CODING SYSTEM 1:

A. Fixed-term exclusion from mainstream primary school
B. Permanent exclusion from mainstream primary school
C. Fixed-term exclusion from mainstream secondary school
D. Permanent exclusion from mainstream secondary school
E. Mainstream secondary school challenges request for placement at secondary transfer
F. LEA seeks placement at out borough (o/b) day EBD secondary school
G. No o/b day EBD secondary school able to offer place
H. LEA initiates 6 monthly review
I. LEA has to chase Annual Review documentation
J. Statutory assessment takes place
K. EP involvement at school action plus
L. Paediatric/SALT involvement prior to statutory assessment
M. EP involvement at/for/post Annual Review
N. Exclusions Officer involvement
O. CAMHS involvement
P. Social Services involvement
Q. Involvement of school counsellor/learning mentor
R. Professionals (inter-services) meeting
S. Delay in statutory advice for Statement of SEN
T. Fixed-term exclusion from o/b day EBD secondary school
U. Permanent exclusion from o/b day EBD secondary school
V. Student placed at in-borough PRU
W. Student placed on home tuition
X. School request for statutory assessment
Y. Parental request for statutory assessment
Z. LEA turns down request for statutory assessment
AA. Student placed at in borough day EBD primary school
BB. Student interviewed/offered 'trial' at o/b day EBD secondary school
CC. Student placed at out borough day EBD secondary school
DD. LEA seeks placement at residential EBD school
EE. Student interviewed/offered 'trial' at residential EBD school
FF. Student placed at residential EBD school
GG. Parent & student attend school post fixed term exclusion
HH. No EP involvement post fixed term exclusion
II. EP involvement post fixed term exclusion
JJ. Statutory assessment leads to additional support
KK. Annual review results in increase in additional support/change of provision
LL. Annual review results in no change to statement/additional support
MM. Parent informs LEA of choice of secondary school
NN. LEA has to chase parental choice for secondary school
OO. LEA SEN Officer involvement at annual review
PP. No LEA SEN Officer involvement at annual review
QQ. No EP involvement at annual review
RR. Parent removes student from school
SS. Parent/school requests change of placement/provision
TT. Parent requests home tuition
UU. Parent makes formal complaint regarding lack of education
VV. Educational Welfare Service involvement
WW. LEA applies/chases request for tripartite funding
XX. Tripartite funding agreed
YY. Placement in mainstream school Learning Support Unit
ZZ. Internal meeting in mainstream school
AAA. Student placed at in borough secondary day MLD school
BBB. Fixed term exclusion from in borough secondary day MLD school
CCC. Permanent exclusion from in borough secondary day MLD school
DDD. Parent appeals to SENDIST
EEE. SENDIST finds in favour of parental appeal
FFF. Parent meets with LEA SEN Officer

CODING SYSTEM 2:

a. Excluded from school (A, B, C, D, T, U, BB,CC)
b. No outside agency involvement post exclusion (II)
c. Parent & student meeting at school (GG)
d. Parent – LEA Officer Meeting (FFF)
e. Outside school agency involvement at SAP (K, L, N, 0, R, VV)
f. Delay in statutory advice for Statement of SEN (J, S, X, Y)
g. Parent has to be chased for choice of secondary school (NN, MM by default)
h. Statutory assessment leads to additional support in mainstream school (J, JJ, X, Y)
i. Statutory assessment leads to change of provision (J, S, X, Y, AA)
j. LEA initiates review (H)
k. No LEA Officer (including EP) involvement at Annual Review (PP, QQ & OO – by default)
l. EP involvement post Annual Review/exclusion (M, HH)
m. LEA has to chase review documentation (I)
n. Annual review results in increase in additional support/change of provision (KK)
o. Annual review results in no change to statement/additional support (LL)
p. 'In-house' school arrangements/interventions made (Q, YY, ZZ)
q. Parent/school requests change of placement/provision – including refusal to admit and request for home tuition (E, SS, TT)
r. Parent removes student from school/nursery (RR)
s. Student placed on home tuition and/or at in-borough PRU (V, W)
t. Student placed at in borough day primary EBD school (AA)
u. Student placed at out borough day EBD secondary school (via interview and/or 'trial') – BB, CC
v. No o/b day EBD secondary school able to offer place (G)
w. Student placed at in borough secondary day MLD school (AAA)
x. Student interviewed/offered 'trial' at residential EBD school (EE)
y. Tripartite funding agreed prior to placement at residential EBD school (WW, XX)
z. Parent makes formal complaint regarding lack of education and/or appeals to SENDIST (UU, DDD, EEE – as a consequence)
aa. Multi-agency (professionals) case conference (meeting)

Profile data (file-maker pro):

FIELDS:

- **Name (first name only)**
- **DOB**
- **Gender**
- **Ethnicity**
- **Position in family**
- **Post code**
- **Normal birth (Y/N)**
- **Age appropriate developmental milestones (Y/N)**
- **Parent/carer reports management difficulties at home (Y/N)**
- **Experience of bereavement/loss (Y/N)**
- **Parent with mental health difficulties (Y/N)**
- **Medication (Y/N) – if yes, what for?**
- **Social Services involvement (Y/N)**
- **CAMHS involvement (Y/N)**
- **SALT involvement**
- **Child Protection Register (Y/N)**
- **Placement in specialist psychiatric unit**
- **Number of changes of primary school**
- **Number of fixed term exclusions**
- **Number of permanent exclusions**
- **Length of time out of school**
- **Length of time on home tuition**
- **Number of applications to residential EBD schools**
- **Age on entry to residential EBD school**
- **Year group on entry to residential EBD school**

PLUS FREE TEXT

4. RESULTS

<u>CODING SEQUENCES – using coding system 1</u>:

1. Thomas (5.6.91)

K ---- O ---- A ---- II ---- A ---- HH ---- X ---- Z---- Y ---- SS ---- J ----

SS ---- AA ---- S ---- F ---- BB ---- CC ---- T ---- HH ---- GG ---- T----

HH ---- U ---- DD ---- EE ---- FF

2. Stuart (20.9.89)

K ---- J ---- O ---- S ---- JJ ----- KK ---- H ---- M ---- I ---- AA ---- LL

---- H ---- LL ---- I ---- LL ---- M ---- MM ---- H ---- E ---- I ---- F ----

BB ---- R ---- E ----BB ---- CC ---- PP ---- QQ ---- I ---- T ---- I ---- GG

---- RR ---- I ---- SS ---- I ---- J ---- U ---- V ---- DD ---- R ---- W ----

UU ---- SS ---- EE ---- FF ---- XX

3. Ricardo P (18.10.89)

A ---- HH ---- A ---- HH ---- O ---- A ---- HH ---- A ---- HH ---- B ----

AA ---- J ---- S ---- M ---- I ---- M ---- H ---- NN ---- KK ---- H ---- I ----

KK ---- I ---- ZZ ---- C ---- R ---- SS ---- N ---- P ---- N ---- R ---- P ----

W ---- UU ---- F ---- VV ---- WW ---- I ---- PP ---- QQ ---- P ---- G ----

DD ---- R ---- EE ---- FF ---- XX

4. Victor (26.12.88)

A ---- HH ---- N ---- A ---- HH ---- N ---- B ---- O ---- R ---- R ---- N ----

ZZ ---- Q ---- ZZ ---- O ---- R ---- K ---- ZZ ---- C ---- HH ---- GG ---- X

---- O ---- C ---- HH ---- J ---- C ---- HH ---- O ---- S ---- R ---- GG ----

JJ ---- YY ---- UU ---- D ---- W ---- F ---- BB ---- BB ---- BB ---- G ----

DD ---- EE ---- EE ---- W ---- O ---- EE ---- FF

5. Kadeisha (7.7.90)

Y ---- K ---- J ---- JJ ---- PP ---- QQ ---- I ---- O ---- PP ---- QQ ----

KK ---- H ---- I ---- O ---- PP ---- QQ ---- LL ---- M ---- I ---- M ---- PP

---- QQ ---- LL ---- M ---- I ---- M ---- PP ---- QQ ---- I ---- MM ---- KK

---- R ---- PP ---- QQ ---- LL ---- N ---- PP ---- QQ ---- LL ---- M ---- C

---- HH ---- C ---- II ---- O ---- D ---- UU ---- R ---- W ---- UU ---- R ----

PP ---- QQ ---- UU ---- SS ---- PP ---- QQ ---- R ---- O ---- WW ----

DD ---- EE ---- PP ---- QQ ---- FF ---- WW

6. Richard (19.1.90)

L ---- K ---- R ---- L ---- K ---- J ---- FFF ---- SS ---- JJ ---- PP ---- M

---- KK ---- PP ---- QQ ---- LL ---- PP ---- QQ ---- I ---- I ---- M ---- SS

---- KK ---- SS ---- J ---- S ---- JJ ---- O ---- H ---- PP ---- M ---- H ----

PP ---- M ---- SS ---- R ---- LL ---- H ---- PP ---- QQ ---- LL ---- O ----

PP ---- QQ ---- SS ---- KK ---- PP ---- QQ ---- SS ---- M ---- F ---- BB

---- G ---- SS ---- DD ---- FFF ---- EE ---- MM ---- O ---- FF

7. Sean (15.10.89)

P ---- L ---- K ---- L ---- K ---- L ---- O ---- K ---- J ---- AA ---- PP ----

M ---- I ---- I ---- I ---- PP ---- M ---- I ---- O ---- I ---- R ---- I ---- PP

---- QQ ---- I ---- LL ---- R ---- O ---- P ---- R ---- PP ---- QQ ---- I ----

R ---- I ---- LL ---- R ---- O ---- R ---- I ---- O ---- H ---- R ---- I ---- O

---- PP ---- M ---- H ---- NN ---- R ---- DD ---- WW ---- P ---- WW ----

DD ---- WW ---- I ---- PP ---- QQ ---- EE ---- EE ---- I ---- W ---- WW

---- XX ---- EE ---- P ---- EE ---- FF

8. Jerry (25.5.89)

K ---- VV ---- R ---- VV ---- ZZ ---- K ---- J ---- S ---- VV ---- A ---- II

---- AA ---- VV ---- PP ---- QQ ---- I ---- I ---- I ---- I ---- PP ---- QQ

---- I ---- I ---- LL ---- PP ---- QQ ---- I ---- LL ---- SS ---- PP ---- M

---- I ---- MM ---- E ---- AAA ---- M ---- O ---- P ---- SS ---- I ---- M

---- N ---- PP ---- M ---- W ---- R ---- SS ---- KK ---- F ---- BB ---- BB

---- SS ---- PP ---- QQ ---- G ---- BBB ---- HH ---- P ---- LL ---- BBB

---- HH ---- N ---- BBB --- HH ---- BBB ---- P ---- CCC ---- W ---- F

---- LL ---- DDD ---- I ---- PP ---- QQ ---- EEE ---- F ---- G ---- FFF

---- PP ---- QQ ---- EE ---- FF

9. Adam (10.12.90)

R ---- L ---- O ---- K ---- K ---- R ---- L ---- K ---- K ---- P ---- K ---- K

---- P ---- K ---- R ---- L ---- K ---- L ---- K ---- K ---- X ---- J ---- S ----

PP ---- M ---- I ---- PP ---- QQ ---- LL ---- PP ---- QQ ---- LL ---- H ----

I ---- PP ---- M ---- I ---- LL ---- NN ---- PP ---- M ---- AAA ---- H ----

PP ---- M ---- SS ---- BBB ---- HH ---- KK ---- H ---- M ---- PP ---- M

---- LL ---- BBB ---- HH ---- O ---- BBB ---- HH ---- O ---- R ---- WW

---- R ---- O ---- DD ---- P ---- EE ---- P ---- O ---- WW ---- EE ---- R

---- P ---- FF ---- XX

10. Ricardo R (20.2.90)

K ---- O ---- L ---- VV ---- L ---- K ---- RR ---- O ---- P ---- Y ---- K ----

P ---- K ---- K ---- O ---- K ---- O ---- R ---- K ---- P ---- R ---- K ---- K

---- J ---- S ---- P ---- O ---- W ---- K ---- P ---- P ---- R ---- AA ---- R

---- PP ---- QQ ---- KK ---- PP ---- QQ ---- I ---- PP ---- QQ ---- I ---- M

---- M ---- PP ---- M ---- O ---- NN ---- O ---- R ---- P ---- R ---- DD ----

WW ---- EE ---- FF ---- P

11. Nakial (29.6.88)

K ---- K ---- K ---- J ---- S ---- JJ ---- PP ---- M ---- MM ---- PP ---- M

---- KK ---- C ---- HH ---- H ---- C ---- HH ---- PP ---- QQ ---- KK ----

C ---- HH ---- C ---- HH ---- PP ---- QQ ---- SS ---- LL ---- SS ---- M

---- D ---- R ---- FFF ---- W ---- F ---- SS ---- O ---- UU ---- M ---- UU

---- O ---- P ---- WW ---- DD ---- EE ---- PP ---- QQ ---- EE ---- FF

---- XX

12. Liam (22.6.91)

K ---- X ---- J ---- S ---- JJ ---- PP ---- QQ ---- LL ---- O ---- PP ----

QQ ---- LL ---- O ---- PP ---- QQ ---- I ---- SS ---- R ---- A ---- HH ----

FFF ---- AA ---- H ---- PP ---- QQ ---- H ---- PP ---- M ---- NN ---- F

---- BB ---- BB ---- BB ---- BB ---- PP ---- QQ ---- CC ---- O ---- SS

I ---- PP ---- QQ ---- O ---- DD ---- T ---- P ---- PP ---- QQ ---- U ----

DD --- EE --- W ---- EE ---- EE ---- FF ---- P ---- WW ---- XX

CODING SEQUENCES – based on revised coding scheme (coding system 2):

1. Thomas (5.6.91)

e ---- a ---- e ----a ---- a ---- e ---- e ---- e ---- q ---- q ---- t ---- q ---- f ---- u ---- q ---- d ---- a ---- c ---- a ---- b ---- a ---- x ---- n

2. Stuart (20.9.89)

e ---- e ---- e ---- f ---- h ---- k ---- n ---- j ---- m ---- n ---- o ---- j ---- o ---- m ---- o ---- j ---- q ---- n ---- j ---- d ---- aa ---- q ---- u ---- n ----k ---- m ---- a ---- m ---- c ---- q ---- m ---- q ---- q ---- a ---- s ---- aa ---- s ---- aa ---- a ---- z ---- f ---- x ---- x ---- n

3. Ricardo P (18.10.89)

p ---- a ---- a ---- e ---- e ---- a ---- a ---- e ---- a ---- t ---- f ---- i ---- m ---- o ---- j ---- g ---- n ---- m ---- o ---- q ---- a ---- aa ---- q ---- aa ---- aa ---- s ---- aa ---- z ---- aa ---- aa ---- j ---- aa ---- v ---- k ---- aa ---- y ---- n

4. Victor (26.12.88)

a ---- e ----a ---- e ---- a ---- e ---- aa ---- aa ---- -e ---- p ---- p ---- e ---- e ---- e ---- e ---- e ---- p ---- e ---- p ---- p ---- a ---- e ---- c ---- a ---- e ---- f ---- p ---- e ---- h ---- p ---- p ---- p ---- p ---- p ---- e ---- z ---- a ---- s ---- v ---- x ---- x ---- x ---- x ---- x ---- a ---- p ---- n

5. Kadeisha (7.7.90)

e ---- h ---- k ---- m ---- n ---- k ---- n ---- j ---- k ---- o ---- l ---- m ---- k ---- m ---- n ---- p ---- k ---- o ---- k ---- l ---- a ---- a ---- l ---- a ---- aa ---- s ---- aa ---- d ---- k ---- z ---- k ---- aa ---- x ---- m ---- k ---- n

6. Richard (19.1.90)

e ---- e ---- e ---- aa ---- e ---- e ---- i ----d ---- q ---- h ---- n ---- k ----

o ---- k ---- m ---- m ---- l ---- q ---- n ---- q ---- n ---- f ---- aa ---- j ----

o ---- j ---- q ---- k ---- p ---- o ---- j ---- k ---- o ---- q ---- q ---- aa ----

q ---- l ---- d ---- v ---- d ---- x ---- x ---- n

7. Sean (15.10.89)

e ---- e ---- e ---- e ---- e ---- e ---- e ---- e ---- e ---- e ---- t ---- f ---- i

---- k ---- o ---- j ---- m ---- m ---- m ---- l ---- m ---- aa ---- m ---- m

o ---- aa ---- k ---- m ---- aa ----m ---- o ---- aa ---- aa ---- m ---- j ----

aa ---- m ---- o ---- j ---- g ---- aa ---- aa ---- m ---- k ---- x ---- m ----

m ---- s ---- y ---- x ---- n

8. Jerry (25.5.89)

e ---- aa ---- e ---- e ---- e ---- r ---- e ---- f ---- a ---- t ---- i ---- k ---- m

---- m ---- m ---- m ---- k ---- m ---- k ---- m ---- o ---- k ---- m ---- o

---- q ---- m ---- d ---- q ---- m ---- p ---- w ---- q ---- j ---- q ---- n ---- s

---- d ---- n ---- q ---- p ---- k ---- v ---- a ---- n ---- a ---- a ---- a ---- a

---- s ---- n ---- z ---- m ---- k ---- v ---- d ---- x ---- k ---- x ---- n

9. Adam (10.12.90)

e ---- e ---- e ---- e ---- p ---- aa ---- e ---- r ---- e ---- e ---- e ---- e ----

e ---- e ---- aa ---- e ---- e ---- e ---- e ---- e ---- e ---- f ---- h ---- p ----

k ---- m ---- m ---- k ---- p ---- l ---- o ---- k ---- o ---- j ---- m ---- m ----

o ---- g ---- n ---- w ---- q ---- q ---- a ---- n ---- j ---- o ---- a ---- a ----

aa ---- aa ---- x ---- aa ---- x ---- aa ---- aa ---- y ---- n

10. Ricardo R (20.2.90)

e ---- e ---- e ---- e ---- e ---- r ---- e ---- e ---- e ---- e ---- e ---- e ----

aa ---- e ---- aa ---- f ---- s ---- aa ---- i ---- aa ---- k ---- n ---- m ----

o ---- m ---- k ---- g ---- aa ---- aa ---- x ---- n

11. Nakial (29.6.88)

e ---- e ---- e ---- e ---- h ---- k ---- n ---- a ---- a ---- k ---- o ---- a ---- k

a ---- k ---- o ---- q ---- l ---- a ---- aa ---- d ---- s ---- z ---- q ---- l ---- q

---- l ---- x ---- x ---- k ---- n

12. Liam (22.6.91)

e ---- f ---- f ---- k ---- o ---- k ---- m ---- q ---- aa ---- a ---- d ---- n ----

m ---- k ---- m ---- g ---- k ---- n ---- u --- q ---- m ---- m ---- k ---- o

---- a ---- k ---- a ---- s ---- x ---- x ---- n

COMBINED CODING SEQUENCES – where *'bb'* denotes the beginning of a new subject and *'ff'* denotes the end of a sequence for that subject:

bb/e/a/e/a/a/e/e/e/q/q/t/q/f/u/q/d/a/c/a/b/a/x/n/ff/bb/e/e/e/f/h/k/n/j

/m/n /o/j/o/m/o/j/q/n/j/d/aa/q/u/n/k/m/a/m/c/q/m/q/q/a/s/aa/s/aa/a

/z/f /x/x/n/ff/bb/p/a/a/e/e/a/a/e/a/t/f/i/m/o/j/g/n/m/o/q/a/aa/q/aa/

aa/s/aa/z/aa/aa/j/aa/v/k/aa/y/n/ff/bb/a/e/a/e/a/e/aa/aa/e/p/p/e/e/e/e/

e/p/e/p/p/a/e/c/a/e/f/p/e/h/p/p/p/p/p/e/z/a/s/v/x/x/x/x/x/a/p/n/ff/bb/e

/h/k/m/n/k/n/j/k/o/l/m/k/m/n/p/k/o/k/l/a/a/l/a/aa/s/aa/d/k/z/k/aa/x/m/

k/n/ff/bb/e/e/e/aa/e/e/i/d/q/h/n/k/o/k/m/m/l/q/n/q/n/f/aa/j/o/j/q/k/p/o

/j/k/o/q/q/aa/q/l/d/v/d/x/x/n/ff/bb/e/e/e/e/e/e/e/e/e/e/t/f/i/k/o/j/m/m/

m/l/m/aa/m/m/o/aa/k/m/aa/m/o/aa/aa/m/j/aa/m/o/j/g/aa/aa/m/k/x/

m/m/s/y/x/n/ff/bb/e/aa/e/e/e/r/e/f/a/t/i/k/m/m/m/m/k/m/k/m/o/k/m/q

/m/d/q/m/p/w/q/j/q/n/s/d/n/q/p/k/v/a/n/a/a/a/a/s/n/z/m/k/v/d/x/k/x/n

/ff/bb/e/e/e/e/p/aa/e/r/e/e/e/e/e/e/aa/e/e/e/e/e/e/f/h/p/k/m/m/k/p/l/o/

k/o/j/m/m/o/g/n/w/q/q/a/n/j/o/a/a/aa/aa/x/aa/x/aa/aa/y/n/ff/bb/e/e/e

/e/e/r/e/e/e/e/e/e/aa/e/aa/f/s/aa/i/aa/k/n/m/o/m/k/g/aa/aa/x/n/ff/bb/

e/e/e/e/h/k/n/a/a/k/o/a/k/a/k/o/q/l/a/aa/d/s/z/q/l/q/l/x/x/k/n/ff/bb/e/f/

f/k/o/k/m/q/aa/a/d/n/m/k/m/g/k/n/u/q/m/m/k/o/a/k/a/s/x/x/n/ff

Table 1 – Transitional Frequency Matrix

LAG 1 \ LAG 0	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	aa	Sum
a	9	1	2	1	6	1	0	0	0	0	2	3	1	2	3	2	3	0	0	0	0	1	0	1	0	1	1	40
b	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
c	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	5
d	1	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	1	0	1	0	0	2	0	0	0	0	2	11
e	9	0	1	0	45	0	0	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0	6	66
f	0	0	0	0	5	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	0	0	0	0	1	1	11
g	0	0	0	0	0	0	0	0	0	2	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5
h	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7
i	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	5
j	0	0	0	0	0	0	0	0	0	0	0	0	1	4	8	0	1	0	0	0	0	0	0	0	0	0	2	16
k	4	0	0	1	0	0	1	4	2	2	0	0	10	3	5	3	1	0	0	0	0	1	0	2	0	1	2	42
l	1	0	0	0	0	0	0	0	0	0	1	0	2	0	1	1	4	0	0	0	0	0	0	0	0	0	0	10
m	1	0	0	0	0	0	0	0	1	3	12	2	11	3	2	0	4	0	0	0	0	0	0	2	0	1	5	47
n	2	0	0	2	0	0	2	1	0	0	7	0	3	0	0	1	4	0	1	0	1	0	0	7	2	0	0	33
o	0	0	0	0	0	0	0	0	0	3	10	1	10	1	0	1	0	0	0	0	0	0	0	0	0	0	0	26
p	1	0	1	0	3	1	0	2	0	0	2	0	1	1	0	6	1	0	0	0	0	0	0	0	0	0	0	19
q	0	0	1	2	1	0	0	0	0	3	0	2	2	2	4	0	4	0	0	1	2	0	2	0	0	1	3	30
r	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
s	4	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	11
t	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
u	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
v	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	5
w	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
x	1	0	0	2	0	1	0	0	0	0	2	1	0	0	0	0	0	0	1	0	0	1	0	8	1	0	4	22
y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	3
z	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	1	6
aa	4	0	0	1	6	1	2	0	1	2	2	0	2	0	2	1	3	0	4	0	0	0	0	2	0	1	8	42
Sum	41	1	6	12	74	11	5	7	5	16	42	11	47	20	26	20	30	3	11	4	3	5	2	22	3	6	42	475

Table 2 – Probability Matrix

LAG 1 \ LAG 0	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	aa
a	**0.02**	0.00	0.00	0.00	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**	0.00	0.00	**0.01**	0.00	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
b	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
c	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
e	**0.02**	0.00	0.00	0.00	**0.09**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**
f	0.00	0.00	0.00	0.00	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
h	0.00	0.00	0.00	0.00	**0.01**	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
i	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
j	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	**0.02**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
k	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**	0.00	0.00	0.00	0.00	**0.02**	**0.01**	**0.01**	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
m	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**	**0.03**	0.00	**0.02**	**0.01**	0.00	0.00	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**
n	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**	0.00	**0.01**	0.00	0.00	0.00	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**	**0.02**	0.00	**0.02**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
p	0.00	0.00	0.00	0.00	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
q	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**	0.00	0.00	0.00	0.00	**0.01**	0.00	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**
r	0.00	0.00	0.00	0.00	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
s	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
t	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
u	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
v	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
w	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
x	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	**0.01**
y	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
z	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
aa	**0.01**	0.00	0.00	0.00	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**	0.00	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.02**

Table 3 – Transitional Probability Matrix

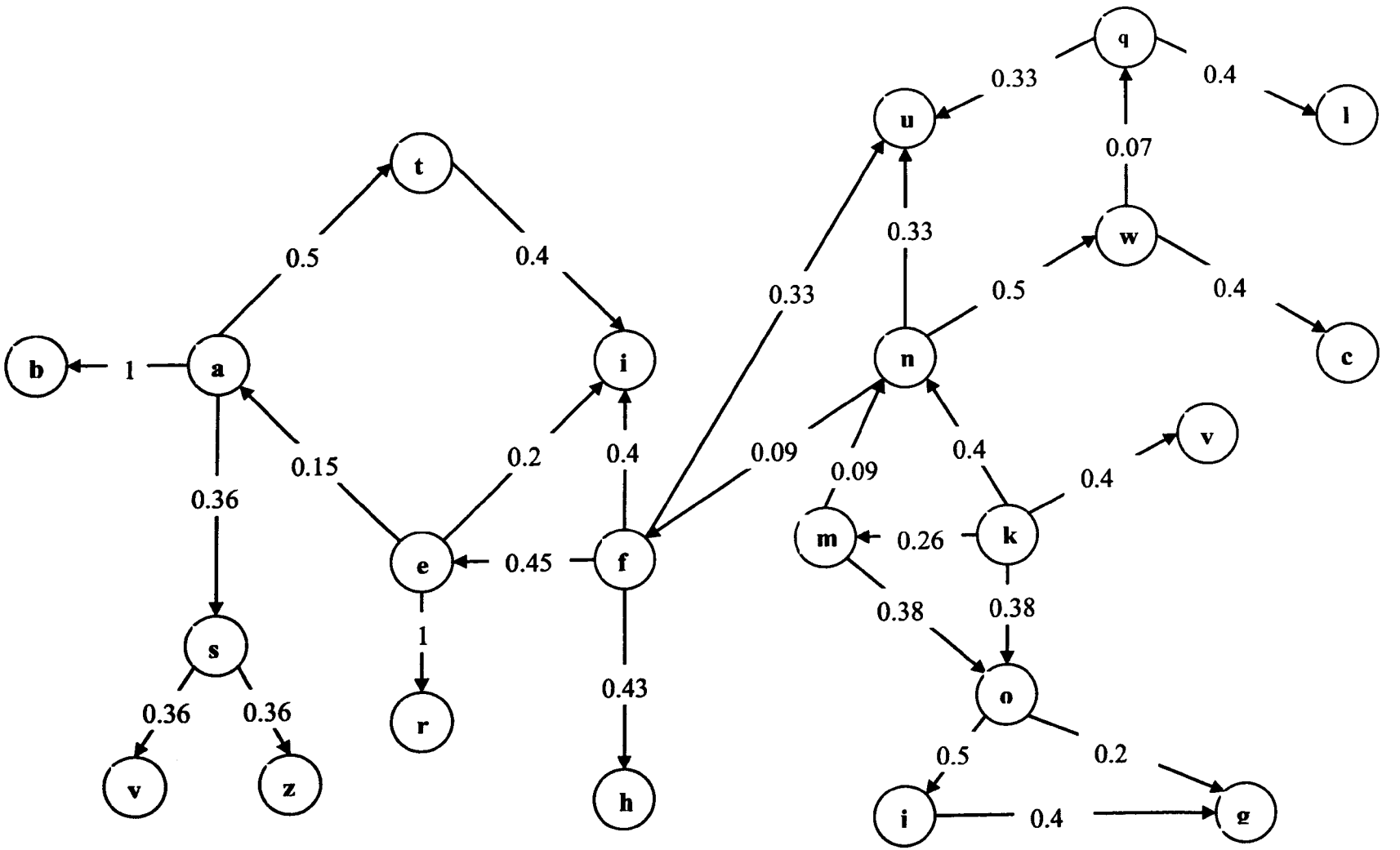
LAG 1	LAG 0																										
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	aa
a	0.23	0.03	0.05	0.03	0.15	0.03	0.00	0.00	0.00	0.00	0.05	0.08	0.03	0.05	0.08	0.05	0.08	0.00	0.00	0.00	0.00	0.03	0.00	0.03	0.00	0.03	0.03
b	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
c	0.20	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.09	0.00	0.09	0.09	0.00	0.00	0.00	0.09	0.00	0.09	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.18
e	0.14	0.00	0.02	0.00	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
f	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.09	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.09	0.09
g	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.20	0.00	0.20	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
h	0.00	0.00	0.00	0.00	0.43	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
i	0.00	0.00	0.00	0.00	0.20	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.20
j	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.25	0.50	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13
k	0.10	0.00	0.00	0.02	0.00	0.00	0.02	0.10	0.05	0.05	0.00	0.00	0.24	0.07	0.12	0.07	0.02	0.00	0.00	0.00	0.00	0.02	0.00	0.05	0.00	0.02	0.05
l	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.20	0.00	0.10	0.10	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
m	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.06	0.26	0.04	0.23	0.06	0.04	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.02	0.11
n	0.06	0.00	0.00	0.06	0.00	0.00	0.06	0.03	0.00	0.00	0.21	0.00	0.09	0.00	0.00	0.03	0.12	0.00	0.03	0.00	0.03	0.00	0.00	0.21	0.06	0.00	0.00
o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.38	0.04	0.38	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
p	0.05	0.00	0.05	0.00	0.16	0.05	0.00	0.11	0.00	0.00	0.11	0.00	0.05	0.05	0.00	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
q	0.00	0.00	0.03	0.07	0.03	0.00	0.00	0.00	0.00	0.10	0.00	0.07	0.07	0.07	0.13	0.00	0.13	0.00	0.00	0.03	0.07	0.00	0.07	0.00	0.00	0.03	0.10
r	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
s	0.36	0.00	0.00	0.09	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
t	0.50	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
u	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
v	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
w	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
x	0.05	0.00	0.00	0.09	0.00	0.05	0.00	0.00	0.00	0.00	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.36	0.05	0.00	0.18
y	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67
z	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
aa	0.10	0.00	0.00	0.02	0.14	0.02	0.05	0.00	0.02	0.05	0.05	0.00	0.05	0.00	0.05	0.02	0.07	0.00	0.10	0.00	0.00	0.00	0.00	0.05	0.00	0.02	0.19

Table 1 shows that there are particular cells where the frequency of a two sequence event occurring is quite high in relation to no occurrences or just a handful of occurrences. So for example, there are:

- 45 instances of *outside school agency involvement at school action plus (SAP)* – code e, being followed by *outside school agency involvement at school action plus (SAP)* – also code e;
- 12 instances of *no LEA officer involvement at annual review* (code k) being followed by *LEA having to chase review documentation* (code m);
- 11 instances of *LEA having to chase review documentation* (code m) being followed by *LEA having to chase review documentation* (also code m);
- 10 instances of *LEA having to chase review documentation* (code m) being followed by *no LEA officer involvement at annual review* (code k);
- 10 instances of *no LEA officer involvement at annual review* (code k) being followed by *annual review resulting in no change to statement/additional support* (code o);
- 10 instances of *LEA having to chase review documentation* (code m) being followed by *annual review resulting in no change to statement/additional support* (code o);
- 9 instances of *excluded from school* (code a) being followed by *excluded from school* (also code a);
- 9 instances of *excluded from school* (code a) being followed by outside *school agency involvement at school action plus (SAP)* – code e;
- 8 instances of *annual review resulting in no change to statement/additional support* (code o) followed by *LEA initiates review* (code j); and,
- 8 instances of *multi-agency (professionals) case conference (meeting)* – code aa followed by *multi-agency (professionals) case conference (meeting)* also code aa.

Table 2 simply shows the probability of the most common two event sequences occurring. So for example the probability of sequence e/e occurring (as it did 45 times in table 1) is 0.09 (or 9%); the probability of sequence k/m occurring (as it did 12 times in table 1) is 0.03 (or 3%) and the probability of sequence m/m occurring is 0.02 (or 2%). **Table 3** shows the probability for one event, the 'criterion' or 'given event' (Lag 0) being followed by a 'target' event (Lag 1), from which a ***'State Transitional Diagram'*** **(figure 1)** has been drawn. This diagram was constructed taking values of 0.33 and higher from table 3. The probability of 0.09 was included to join 'f' with 'n' and a probability of 0.21 was included to join 'k' with 'n' otherwise 'k/v/m/o/j/g' would have remained a separate transitional diagram. Additionally other probabilities of less than 0.33 have been included to show relationships within the overall diagram. Some high probabilities could not be included in the State Transitional Diagram as they were events of the same kind: for example, the probability of *outside school agency involvement at school action plus (SAP)* occurring twice ('e/e') was 0.68 and the probability of *student interviewed/offered 'trial' at residential EBD School* occurring twice ('x/x') was 0.36.

State Transitional Diagram



Codings for State Transitional Diagram.

a. Excluded from school
b. No outside agency involvement post exclusion
c. Parent & student meeting at school
e. Outside school agency involvement at SAP
f. Delay in statutory advice for Statement of SEN
g. Parent has to be chased for choice of secondary school
h. Statutory assessment leads to additional support in mainstream school
i. Statutory assessment leads to change of provision
j. LEA initiates review
k. No LEA Officer (including EP) involvement at Annual Review
l. EP involvement post Annual Review/exclusion
m. LEA has to chase review documentation
n. Annual review results in increase in additional support/change of provision
o. Annual review results in no change to statement/additional support
q. Parent/school requests change of placement/provision – including refusal to admit and request for home tuition
r. Parent removes student from school/nursery
s. Student placed on home tuition and/or at in-borough PRU
t. Student placed at in borough day primary EBD School
u. Student placed at out borough day EBD secondary school (via interview and/or 'trial')
v. No o/b day EBD secondary school able to offer place
w. Student placed at in borough secondary day MLD school
y. Tripartite funding agreed prior to placement at residential EBD School
z. Parent makes formal complaint regarding lack of education and/or appeals to SENDIST as a consequence

From the State Transitional Diagram – figure 1:

- Students being excluded followed by no outside agency involvement following exclusion ('a/b') and outside agency involvement at school action plus being followed by the parent/carer removing their child from school/nursery ('e/r') have the highest probability (of 1 or 100%) of occurring.
- There is a 50% probability that exclusions from school are likely to be followed by students being placed in the LEA's in borough day primary EBD School ('a/t') with a 36% chance of the students being placed on home tuition and/or at an in-borough pupil referral unit or PRU ('a/s') and, with the latter there is a 33% chance of the parent or carer making a formal complaint about the lack of education for their child and/or appealing to the special educational needs and disability tribunal (SENDIST) as a consequence.
- The delay in the statutory advice for a child's statement of special educational needs (SEN) is followed by outside agency involvement ('f/e'), although there is a 43% chance that such a delay will be followed by the statutory assessment leading to additional support for the child in mainstream school ('f/h').
- A student being placed in the in the LEA in borough day primary EBD school is a change of provision and the statutory assessment process is likely to drive this change in 40% of the time ('t/i').
- Similarly, the annual review can lead to a change of provision and this change of provision is likely to be an out borough day EBD secondary school 33% of the time ('n/u') and a LEA secondary day MLD school 50% of the time ('n/w'): placement at the latter also has a 40% chance of leading to a parent and student meeting at the MLD school ('w/c'): I would have to go back to case files to see if there are particular reasons, although in 7% of the situations the parent asked for a change of placement ('w/q').

- There is also a 40% chance that the delay in providing statutory advice will lead to EP involvement post an annual review of the statement or post exclusion ('f/l').
- Delay in statutory advice has a 33% chance of being followed by the student being placed in an out borough day EBD secondary school ('f/u'): another possible reason for this placement is a parent or school requesting a change of placement/provision and this is likely to occur 33% of the time and such a request is likely to be followed by EP involvement post annual review or post exclusion 40% of the time ('q/l').
- There is 40% chance of no LEA Officer involvement at a student's annual review being followed by no out borough day EBD secondary school offering that student a place at the school ('k/v') and a 38% chance that the annual review will result in no change to the student's statement or additional support ('k/o'): there is also a 38% chance of the LEA chasing review documentation being followed by no change to the student's statement or additional support ('m/o') with a 50% chance that the LEA will initiate an annual review following no change to the student's statement or additional support ('o/j') and that the LEA's initiation of the review has a 40% chance of being followed by the LEA having to chase the parent for their choice of secondary school ('j/g'). There is a 26% chance of no LEA Officer involvement at a student's annual review being followed by the LEA chasing review documentation ('k/m').

Applying the Test of Standard Normal Residuals (also known as *'Pearson's Residuals*) for *'hotspot'* cells in the Transitional Frequency Matrix (Table 1).

This is aimed at cells having high values and looks for non-coincidental prominence of the first value – LAG 0 (horizontal axis) driving the second value – LAG 1 (vertical axis). In terms of the expected frequencies predicted by the *best fitting model*, the standardised residual $(O - E) / \sqrt{E}$ is calculated, where O and E represent observed and expected frequencies respectively. {E is calculated by the sum of ($\sum$) row multiplied by (x) the sum of ($\sum$) column divided by the grand total or the sum of cells in the matrix}

These standardised residuals may be regarded as approximate standard normal variates and those of unusually large magnitude may be singled out for further study. For example, a single cell in the matrix may be found to be largely responsible for a particular interaction. A more refined, though still informal, method of detecting a large residual is to compare the size of the standardised residuals with the square root of the upper 5 percent point of the appropriate chi-squared distribution (degrees of freedom for the fitted model) divided by the number of cells. The Pearson Test for Standard Normal Residuals test whether or not the data fits a normal distribution - results can be positive or negative as a normal distribution is two-tailed.

Table 1 has 676 degrees of freedom (df), that is (27 rows – 1) x (27 columns – 1). My tables (Robson, 1973) go up to df 100 and so I have carried out an extrapolation by taking the difference between df 90 and df 100 and extrapolated up to df 676: Values of 113.15 and 124.34 with a value of approximately 176, obtained from the graph shown in the appendices, respectively for $p < 0.05$, where the 'y' axis represents values at different degrees of freedom as given on the 'x' axis – see below.

x	5	10	15	20	25	30	40	50	60	80	90	100
y	11.1	18.3	24.9	31.4	37.7	43.8	55.8	67.5	79.1	101.9	113.2	124

The distribution curve flattens anyway and so this extrapolation is an overestimate with less chance of picking up a false positive result. An *R-squared* test was also applied to the graphical data: by definition R-squared is the fraction of the total squared error and values approaching 1 are desirable. In this case an R-squared value of 0.88 was obtained and so it seems reasonable to work with the extrapolated figure.

Applying Pearson's Residual's means that the test value to compare with the *residuals* is the 'critical chi-squared value' (i.e. 176, estimated graphically) divided by the number of cells (i.e. 27 x 27 = 729) all squared from which the square root is calculated: in other words, $\sqrt{180/729}$ = 0.491

See Table 4 **showing calculations for significant results in cells with two or more tallies in the Transitional Frequency Matrix.**

Table 4 - Test of Standard Normal Residuals

Cell	O	∑ row	∑ column	E	√ E	$\frac{O-E}{\sqrt{E}}$	Significance
e/e	45	66	75	10.42	3.23	**10.71**	$p < 0.05$
m/m	11	47	47	4.65	2.16	2.93	$p < 0.05$
k/o	10	26	42	2.30	1.52	**5.07**	$p < 0.05$
a/a	9	40	41	3.45	1.86	2.98	$p < 0.05$
o/j	8	16	26	0.88	0.94	**7.57**	$p < 0.05$
aa/aa	8	42	42	3.71	1.93	2.22	$p < 0.05$
x/n	7	33	22	1.53	1.24	4.41	$p < 0.05$
o/k	5	42	26	2.30	1.52	2.14	$p < 0.05$
n/j	4	16	16	0.54	0.73	4.74	$p < 0.05$
q/m	4	47	30	2.97	1.72	0.60	$p < 0.05$
o/q	4	30	26	1.64	1.28	1.84	$p < 0.05$
a/s	4	40	11	0.93	0.96	3.20	$p < 0.05$
s/aa	4	42	11	0.97	0.98	3.09	$p < 0.05$
r/e	3	66	3	0.42	0.65	3.97	$p < 0.05$
f/h	3	7	11	0.16	0.40	**7.10**	$p < 0.05$
j/m	3	47	16	1.58	1.26	1.13	$p < 0.05$
e/r	3	3	74	0.47	0.68	3.72	$p < 0.05$
k/a	2	40	42	3.54	1.88	- 0.82	$p < 0.05$
p/c	2	5	20	0.21	0.46	3.89	$p < 0.05$
aa/d	2	11	42	0.97	0.99	1.04	$p < 0.05$
t/f	2	11	4	0.09	0.30	**6.37**	$p < 0.05$
f/i	2	5	11	0.12	0.34	5.53	$p < 0.05$
i/k	2	42	42	3.71	1.93	- 0.89	$p < 0.05$
m/l	2	10	47	0.99	0.99	1.02	$p < 0.05$
g/n	2	33	5	0.35	0.59	2.80	$p < 0.05$
h/p	2	19	7	0.28	0.53	3.25	$p < 0.05$
d/q	2	30	12	0.76	0.87	1.43	$p < 0.05$
m/q	2	30	47	2.97	1.72	0.56	$p < 0.05$
w/q	2	30	2	0.13	0.34	5.5	$p < 0.05$
k/v	2	5	42	0.44	0.66	2.36	$p < 0.05$
s/z	2	42	11	0.97	0.99	1.14	$p < 0.05$
m/aa	2	42	47	4.16	2.04	- 1.06	$p < 0.05$
k/aa	2	42	42	3.71	1.93	- 0.89	$p < 0.05$

Cell	0	∑ row	∑ column	E	√ E	$\frac{O-E}{\sqrt{E}}$	Significance
k/m	12	47	42	4.16	2.04	3.84	$p < 0.05$
m/k	10	42	47	4.16	2.04	2.86	$p < 0.05$
m/o	10	26	47	2.57	1.60	4.64	$p < 0.05$
a/e	9	66	41	5.70	2.39	1.38	$p < 0.05$
x/x	8	22	22	1.02	1.01	**6.91**	$p < 0.05$
k/n	7	33	42	2.92	1.71	2.39	$p < 0.05$
p/p	6	19	20	0.80	0.89	**5.84**	$p < 0.05$
e/f	5	11	75	1.74	1.32	2.47	$p < 0.05$
q/l	4	10	10	30	0.63	4.27	$p < 0.05$
q/n	4	33	30	2.08	1.44	1.33	$p < 0.05$
q/q	4	30	30	1.89	1.37	1.54	$p < 0.05$
aa/x	4	22	42	1.95	1.4	1.46	$p < 0.05$
l/a	3	40	11	0.93	0.96	2.16	$p < 0.05$
e/h	3	7	74	1.09	1.04	1.84	$p < 0.05$
n/k	3	42	20	1.77	1.33	0.92	$p < 0.05$
n/m	3	47	20	1.98	1.41	0.72	$p < 0.05$
j/o	3	26	16	0.88	0.94	2.26	$p < 0.05$
j/q	3	30	16	1.01	1.01	1.97	$p < 0.05$
aa/s	3	11	42	0.97	0.99	2.05	$p < 0.05$
c/a	2	40	6	0.51	0.71	2.10	$p < 0.05$
v/d	2	11	5	0.12	0.35	5.37	$p < 0.05$
j/g	2	5	16	0.17	0.41	4.47	$p < 0.05$
aa/k	2	42	42	3.71	1.93	- 0.89	$p < 0.05$
l/m	2	47	11	1.09	1.04	0.78	$p < 0.05$
d/n	2	33	12	0.83	0.91	1.29	$p < 0.05$
y/n	2	33	3	0.21	0.46	3.89	$p < 0.05$
l/q	2	30	5	0.32	0.56	3	$p < 0.05$
n/q	2	30	20	1.26	1.12	0.66	$p < 0.05$
u/q	2	30	3	0.19	0.44	4.11	$p < 0.05$
a/t	2	4	41	0.35	0.59	2.80	$p < 0.05$
d/x	2	22	12	0.56	0.75	1.92	$p < 0.05$
aa/y	2	3	42	0.27	0.52	3.33	$p < 0.05$
g/aa	2	42	5	0.44	0.66	2.36	$p < 0.05$

Table 4 shows only the significant results ($p < 0.05$) from the test of 'standard normal residuals', even so the results indicate that some 66 two sequence events are likely to have occurred. Taking a significant value of 5+ as being unusually high the following two event sequences could be singled out for further study:

- *outside school agency involvement* being followed by *outside school agency involvement (e/e);*
- *annual review results in no change to statement/additional support* being followed by *LEA initiates review (o/j);*
- *delay in statutory advice for Statement of SEN* being followed by *statutory assessment leads to additional support in mainstream school (f/h);*
- *student interviewed/offered 'trial' at residential EBD school* being followed by *student interviewed/offered 'trial' at residential EBD school (x/x);*
- *student placed at in borough day primary EBD school* being followed by *delay in statutory advice for Statement of SEN (t/f)* – this can only occur when the student is on an 'assessment placement';
- *'in-house' school arrangements/interventions made* being followed by *'in-house' school arrangements/interventions made;* and,
- *no LEA Officer (including EP) involvement at annual review* being followed by *annual review results in no change to statement/additional support.*

As there were so many significant results from the test of 'standard normal residuals the most frequent 'double coding strings' were then found from the ***combined coding strings*** and are shown below in Table 5 below. These frequencies were simply calculated by carrying out a letter search using the *find* operation on the keyboard ('Ctrl – F) on all the selected highlighted text (i.e. the combined coding string)

Table 5: The most frequent 'double coding strings'

Coding	Frequency		Coding	Frequency
a/a	X 9		e/a	X 5
a/e	X 9		k/m	X 12
e/e	X 28		m/k	X 10
m/m	X 9		m/o	X 9
k/o	X 10		k/n	X 7
o/j	X 8			

Using the same (*find*) method as above, the most frequent 'triple coding strings' from the combined coding string is **e/e/e** which occurs seventeen times and the most frequent 'quadruple coding string' is **e/e/e/e** which occurs nine times: where **e/e/e/e/e** (a 'quintuple coding string') occurs seven times.

Table 6 – Frequency Matrix from double, triple, quadruple and quintuple coding strings

	a	e	j	k	l	m	n	o	e/e	k/m	m/m	m/k	k/n	k/o	o/j	e/e/e	e/e/e/e	e/e/e/e/e	SUM
a	9	5	0	2	3	1	2	3	1	1	0	0	1	2	0	0	0	0	30
e	9	28	0	0	0	0	0	0	17	0	0	0	0	0	0	9	7	1	71
j	0	0	0	0	0	1	4	8	0	0	0	0	2	2	0	0	0	0	17
k	4	0	2	0	0	10	3	5	0	1	3	0	0	3	1	0	0	0	32
l	1	0	0	1	0	2	0	1	0	0	2	0	0	1	0	0	0	0	8
m	1	0	3	12	2	9	3	2	0	3	2	3	1	0	2	0	0	0	43
n	2	0	0	7	0	3	0	0	0	2	0	1	0	0	0	0	0	0	15
o	0	0	3	10	1	9	1	0	0	1	2	1	0	0	0	0	0	0	28
e/e	2	17	0	0	0	0	0	0	9	0	0	0	0	0	0	7	1	1	37
k/m	0	0	0	0	0	3	1	3	0	1	1	0	0	2	0	0	0	1	12
m/m	0	0	2	3	0	2	0	0	0	1	1	0	0	0	2	0	0	0	11
m/k	0	0	0	1	1	3	1	1	0	1	1	1	0	0	0	0	0	0	10
k/n	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
k/o	2	0	2	0	0	1	1	0	0	0	1	0	0	0	1	0	0	0	8
o/j	0	0	1	2	0	3	1	0	0	0	0	0	0	0	0	0	0	0	7
e/e/e	1	9	0	0	0	0	0	0	7	0	0	0	0	0	0	4	1	0	22
e/e/e/e	0	7	0	0	0	0	0	0	4	0	0	0	0	0	0	1	1	1	14
e/e/e/e/e	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	8
SUM	31	70	13	38	7	48	18	23	39	11	13	6	4	10	6	22	11	5	375

Table 7 – Test of Standard Normal Residuals for 'hotspot' cells in Table 6 (i.e. those equal to and greater than 7).

There are 289 degrees of freedom (df) in table 7, that is (18 rows – 1) x (18 columns – 1), so as the statistical tables (Robson, 1973) only go up to df 100 I have once again used the graphical extrapolation (as shown in the appendix) to obtain a value of 145 approximately for a df of 289.

Cell	O	∑ row	∑ column	E	√E	$\frac{O-E}{\sqrt{E}}$	Significance
e/e	28	71	70	13.25	3.64	4.05	$p < 0.05$
e/e/e	17	37	70	6.91	2.63	3.83	$p < 0.05$
m/k	10	32	48	4.10	2.02	2.92	$p < 0.05$
k/m	12	43	38	4.36	2.09	3.66	$p < 0.05$
k/o	10	30	38	3.04	1.74	4.00	$p < 0.05$
a/a	9	30	31	2.48	1.57	4.15	$p < 0.05$
a/e	9	71	31	5.87	2.42	1.29	$p < 0.05$
o/j	8	17	23	1.04	1.02	6.82	$p < 0.05$
m/m	9	43	48	5.50	2.35	1.49	$p < 0.05$
k/n	7	15	38	1.52	1.23	4.46	$p < 0.05$
m/o	9	28	48	3.58	1.89	2.87	$p < 0.05$
e/e/e/e	9	71	22	4.17	2.04	2.37	$p < 0.05$
e/e/e/e/e	7	71	11	2.08	1.44	3.42	$p < 0.05$

Applying *Pearson's Residual's* in Table 7 above means that the test value to compare with the *residuals* is the 'critical chi-squared value' (i.e. 145, estimated graphically) divided by the number of cells (i.e. 18 x 18 = 324) all squared from which the square root is calculated: In other words, $\sqrt{145/324} = 0.669$

I would say that all of the sequenced events in Table 7 above, other than perhaps a/e and m/m, could warrant further study given their unusually high values. I then decided to apply *Pearson's Residual's* to other cells in Table 6 as follows:

Table 8 – Test of Standard Normal Residuals for 'other' cells in Table 6.

Cell	O	∑ row	∑ column	E	√E	$\frac{O-E}{\sqrt{E}}$	Significance
e/a	5	30	70	5.6	2.37	- 0.25	n/s
o/k	5	32	23	1.96	1.40	2.17	$p < 0.05$
e/e/e/e/e/e	4	22	22	1.29	1.14	2.38	$p < 0.05$
l/a	3	30	7	0.56	0.75	3.25	$p < 0.05$
o/a	3	30	23	1.84	1.36	0.85	$p < 0.05$
n/k	3	32	18	1.54	1.24	1.18	$p < 0.05$
m/m/k	3	32	13	1.11	1.05	1.80	$p < 0.05$
k/o/k	3	32	10	0.85	0.92	2.34	$p < 0.05$
j/m	3	43	13	1.49	1.22	1.24	$p < 0.05$
n/m	3	43	18	2.06	1.44	0.65	n/s
k/m/m	3	43	11	1.26	1.12	1.55	$p < 0.05$
m/k/m	3	43	6	0.69	0.83	2.78	$p < 0.05$
m/n	3	15	48	1.92	1.39	0.78	$p < 0.05$
j/o	3	28	13	0.97	0.98	2.07	$p < 0.05$
m/o/j	3	7	48	0.90	0.95	2.21	$p < 0.05$

Once again, applying *Pearson's Residuals* test gives significant results for all but two of the 'coded' letter combinations. Given that 66 of the two sequence events were significant any way I thought that it is worth highlighting 3, 4, 5 and 6 event sequences from tables 7 and 8.

First of all, outside agency involvement at school action plus (e) can occur in up to six sequences, what of course is not known is how many of the same agency sequences occur within the six-event sequence. Annual reviews is another feature within the data and, no officer involvement (including EP involvement) occurred pre and post the annual review result of no change to the statement (i.e. '*k/o/k*'). No officer involvement was also followed by the LEA having to chase annual review documentation at least twice (*k/m/m*) and sometimes the LEA felt the need to initiate a review having after the review documentation has been received following an initial chase (*k/o/j* and *m/o/j*).

So it was decided to investigate other 'lesser value' cells for three letter combinations and beyond as in Table 9.

Table 9 – Test of Standard Normal Residuals for 'other' cells in Table 6

Cell	O	∑ row	∑ column	E	√E	$\frac{O-E}{\sqrt{E}}$	Significance
k/m/a	1	30	11	0.88	0.94	0.12	n/s
k/m/k	1	17	11	0.49	0.71	0.72	$p < 0.05$
k/m/n	2	15	11	0.44	0.66	**2.36**	$p < 0.05$
k/m/o	1	28	11	0.82	0.91	0.19	n/s
k/m/k/m	1	12	11	0.35	0.59	1.10	$p < 0.05$
k/m/m/m	1	11	11	0.32	0.57	1.19	$p < 0.05$
k/m/m/k	1	10	11	0.29	0.54	1.31	$p < 0.05$
m/m/l	2	8	13	0.27	0.53	**3.26**	$p < 0.05$
m/m/m	2	43	13	1.49	1.22	0.42	n/s
m/m/o	2	28	13	0.97	0.99	1.04	$p < 0.05$
m/m/k/m	1	12	13	0.42	0.64	0.91	$p < 0.05$
m/m/m/m	1	11	13	0.38	0.62	1.00	$p < 0.05$
m/m/m/k	1	10	13	0.35	0.59	1.10	$p < 0.05$
m/m/k/o	1	8	13	0.28	0.53	1.36	$p < 0.05$
m/k/n	1	15	6	0.24	0.49	1.55	$p < 0.05$
m/k/o	1	28	6	0.45	0.67	0.82	$p < 0.05$
m/k/m/k	1	10	6	0.16	0.40	2.1	$p < 0.05$
k/n/a	1	30	4	0.32	0.57	1.19	$p < 0.05$
k/n/j	2	17	4	0.18	0.43	**4.23**	$p < 0.05$
k/n/m	1	43	4	0.46	0.68	0.79	$p < 0.05$
k/o/a	2	30	10	0.80	0.89	1.35	$p < 0.05$
k/o/j	2	17	10	0.45	0.67	**2.31**	$p < 0.05$
k/o/l	1	8	10	0.21	0.46	1.72	$p < 0.05$
k/o/k/m	2	12	10	0.32	0.57	**2.95**	$p < 0.05$
o/j/k	1	32	6	0.51	0.72	0.68	$p < 0.05$
o/j/m	2	43	6	0.69	0.83	1.58	$p < 0.05$
o/j/m/m	2	11	6	0.18	0.42	**4.33**	$p < 0.05$
o/j/k/o	1	8	6	0.13	0.36	2.42	$p < 0.05$
e/e/e/e/e/k/m	1	12	5	0.16	0.40	2.1	$p < 0.05$

Almost all of the sequences of events in table 9 revolve around annual reviews (coded 'j' through to 'o'), that is:

j. LEA initiates review

k. No LEA Officer (including EP) involvement at Annual Review

l. EP involvement post Annual Review/exclusion

m. LEA has to chase review documentation

n. Annual review results in increase in additional support/change of provision

o. Annual review results in no change to statement/additional support

It is particularly noticeable how often the LEA has to chase annual review documentation - up to four times in sequence, although somewhat surprisingly a three sequence event was not significant. Where the annual review resulted in no change to the statement this was always followed by the LEA initiating a review. It was also unlikely that a student would be excluded from school following the LEA having to chase annual review documentation when there had been no LEA Officer (including EP) involvement at annual review (i.e. sequence, k/m/a).

In almost 50% of cases (i.e. 12 out of the 26 significant sequences) the sequence began with *no LEA Officer (including EP) involvement at annual review.* And, despite five sequences of outside agency involvement at school action plus (code 'e') there was no LEA Officer (including EP) involvement at annual review.

The following sequences in Table 9 also produced unusually high values and could therefore be singled out for further study:

- *annual review results in no change to statement/additional support* followed by *LEA initiates review* followed by two instances of *LEA has to chase review documentation (o/j/m/m);*

- *no LEA Officer involvement at annual review* being followed by *annual review results in increase in additional support/change of provision* being followed by *LEA initiates review (k/n/j);*

- two instances of *LEA has to chase review documentation* being followed by *EP involvement post annual review (m/m/l);*

- *no LEA Officer involvement at annual review* being followed by *annual review results in no change to statement/additional support* being followed by *no LEA Officer involvement at annual review* being followed by *LEA has to chase review documentation(k/o/k/m);*

- *no LEA Officer involvement at annual review* being followed by *LEA has to chase review documentation* being followed by *annual review results in increase in additional support/change of provision (k/m/n);* and,

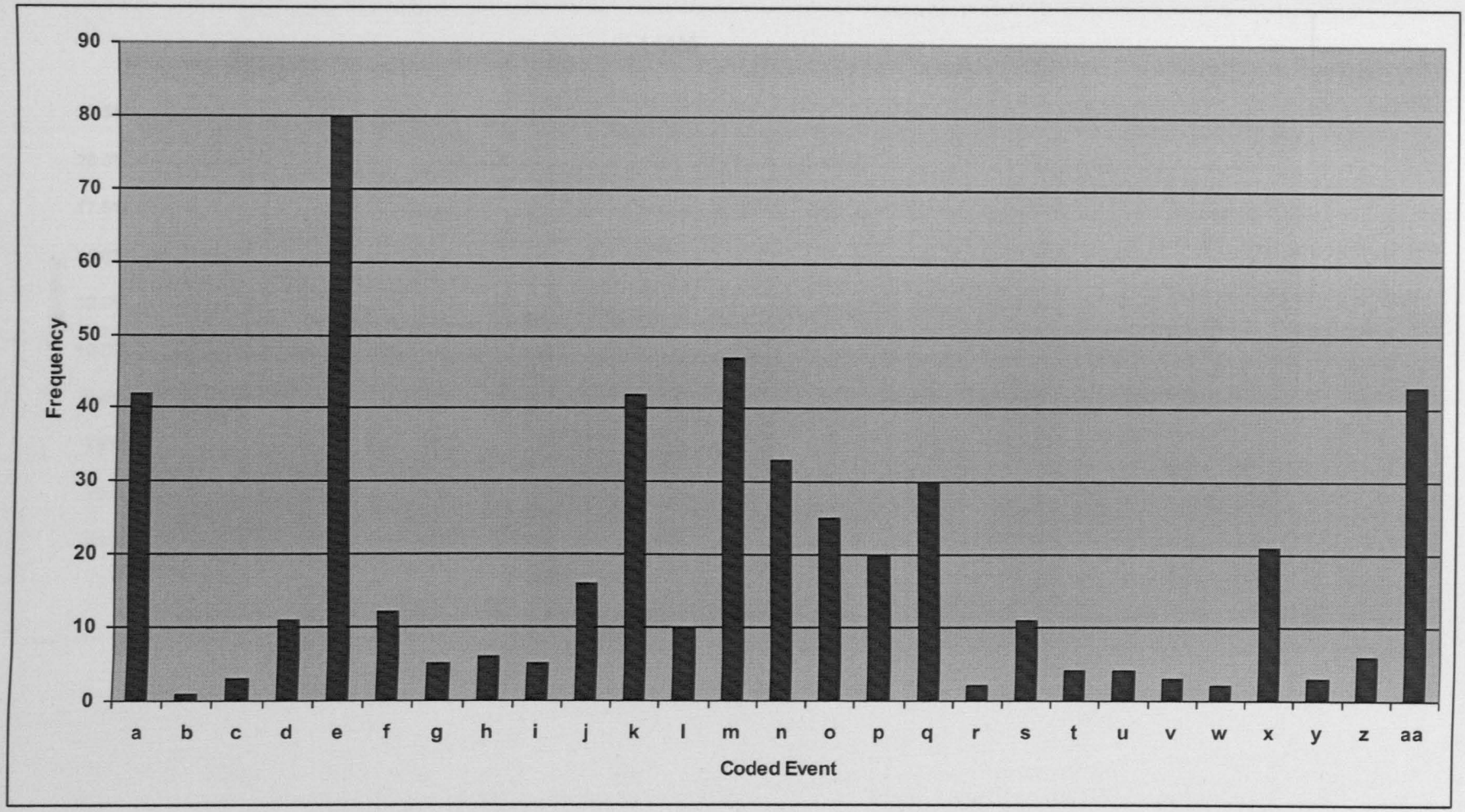
- *no LEA Officer involvement at annual review* being followed by *annual review results in no change to statement/additional support* being followed by *LEA initiates review.*

	Coded Events																											
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	aa	Total
Thomas	6	1	1	1	5	1	0	0	0	0	0	0	0	1	0	0	4	0	0	1	1	0	0	1	0	0	0	23
Stuart	3	0	1	1	3	2	0	1	0	4	2	0	5	5	3	0	5	0	2	0	1	0	0	2	0	1	3	44
Ricardo P	6	0	0	0	3	1	1	0	1	2	1	0	2	2	2	1	2	0	1	1	0	1	0	0	1	1	8	37
Victor	7	0	1	0	14	1	0	1	0	0	0	0	0	1	0	12	0	0	1	0	1	0	0	5	0	1	2	47
Kadeisha	3	0	0	1	1	0	0	1	0	1	9	3	4	4	2	1	0	0	1	0	0	0	0	1	0	1	3	36
Richard	0	0	0	3	5	1	0	1	1	3	4	2	2	4	4	1	7	0	0	0	0	0	0	2	0	0	3	43
Sean	0	0	0	0	10	1	1	0	1	3	3	1	13	1	4	0	0	0	1	1	0	0	0	1	1	0	8	50
Jerry	6	0	0	3	5	1	0	0	1	1	7	0	10	5	2	2	5	1	2	1	0	2	1	2	0	1	1	59
Adam	3	0	0	0	17	1	1	1	0	2	3	1	4	3	4	3	2	0	0	0	0	0	1	2	1	0	7	56
Ricardo R	0	0	0	0	12	1	1	0	1	0	2	0	2	2	1	0	0	1	1	0	0	0	0	1	0	0	6	31
Nakial	5	0	0	1	4	0	0	1	0	0	5	3	0	2	1	0	3	0	1	0	0	0	0	2	0	1	1	30
Liam	3	0	0	1	1	2	1	0	0	0	6	0	5	3	2	0	2	0	1	0	1	0	0	2	0	0	1	31
Total	42	1	3	11	80	12	5	6	5	16	42	10	47	33	25	20	30	2	11	4	4	3	2	21	3	6	43	487

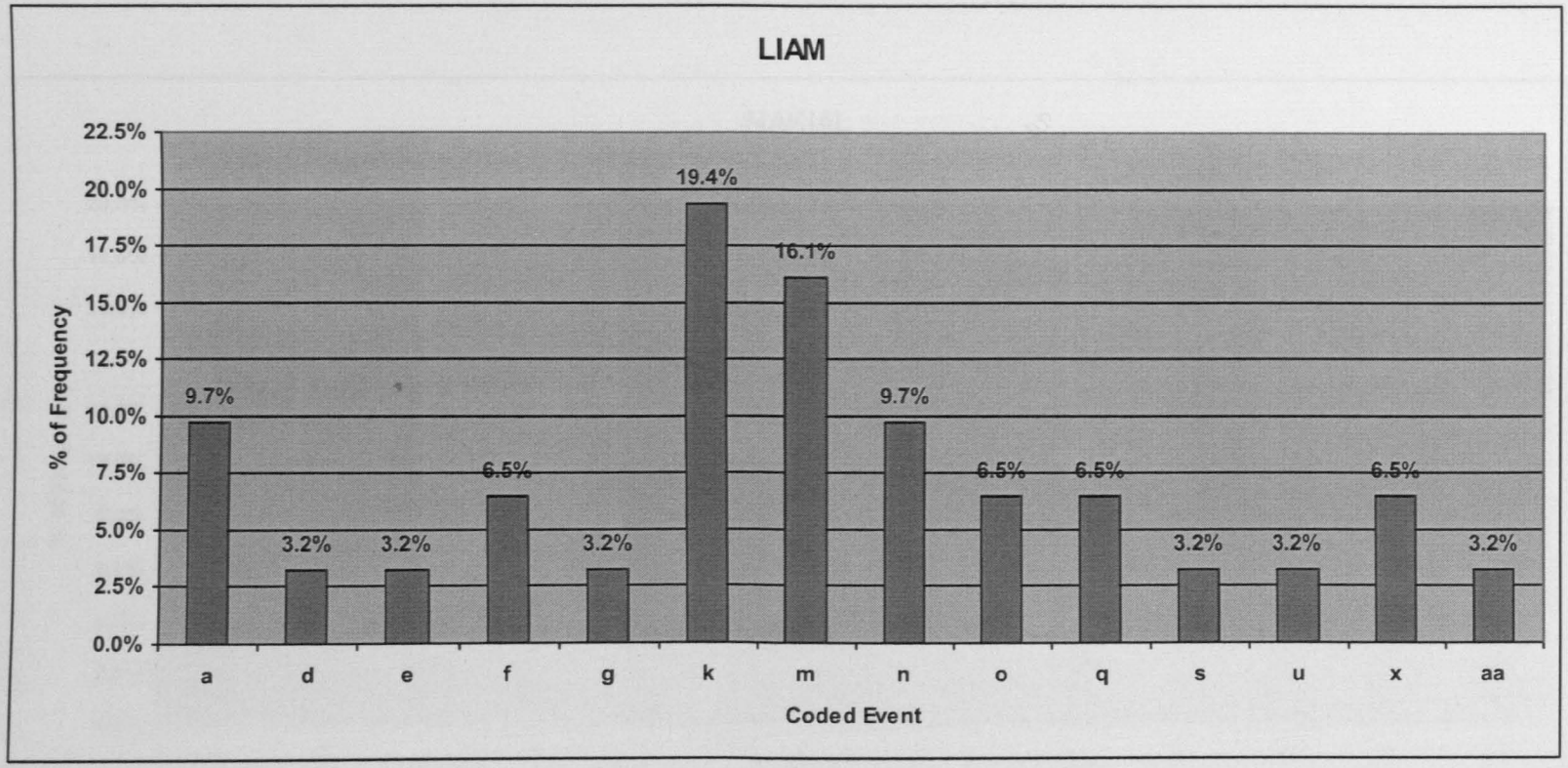
Table 10 – Frequency of Coded Events for the 12 Subjects.

The results in table 10 have been converted into graphs on the pages that follow.

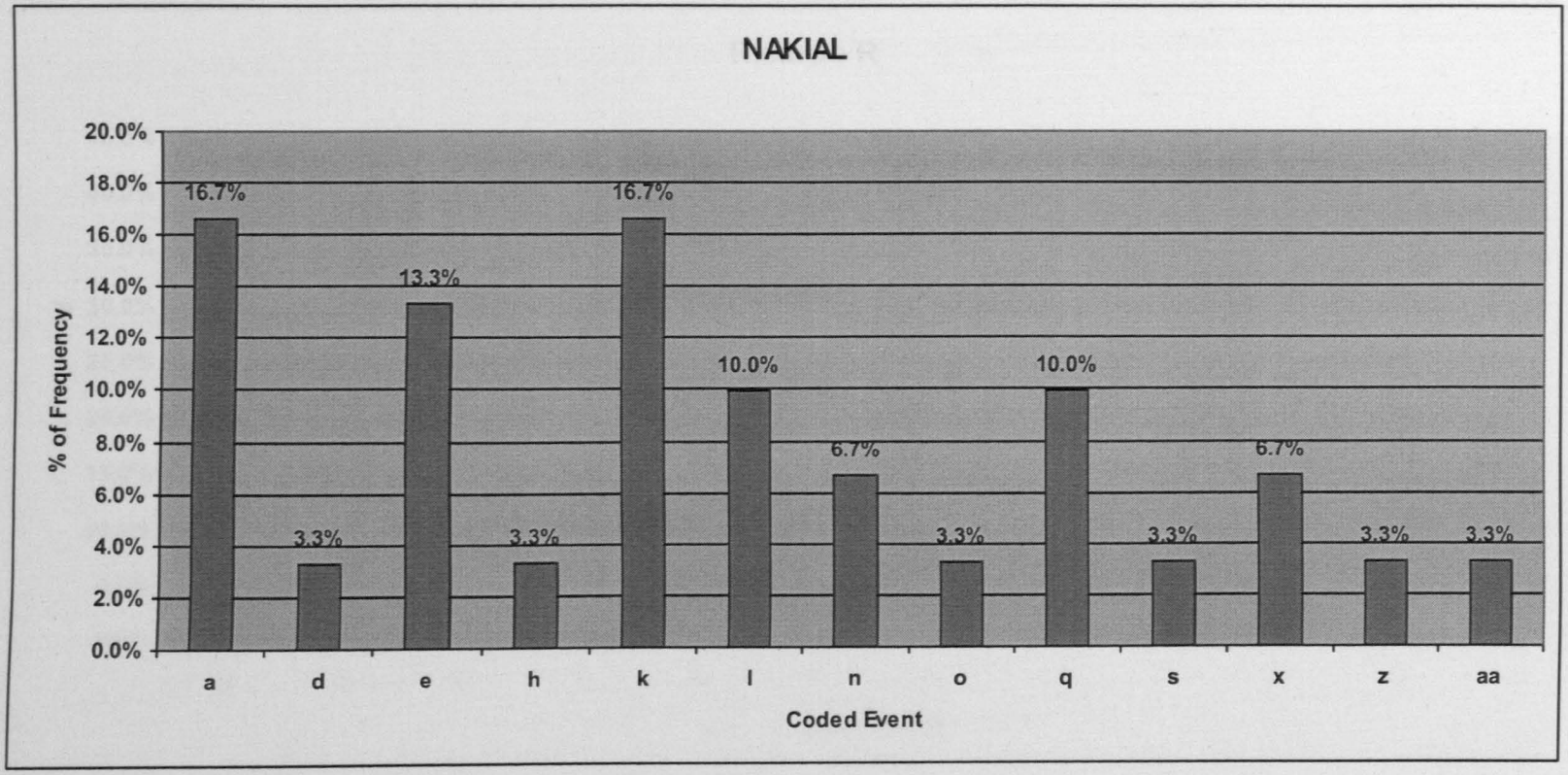
Graph 1 – Frequency of Coded Events



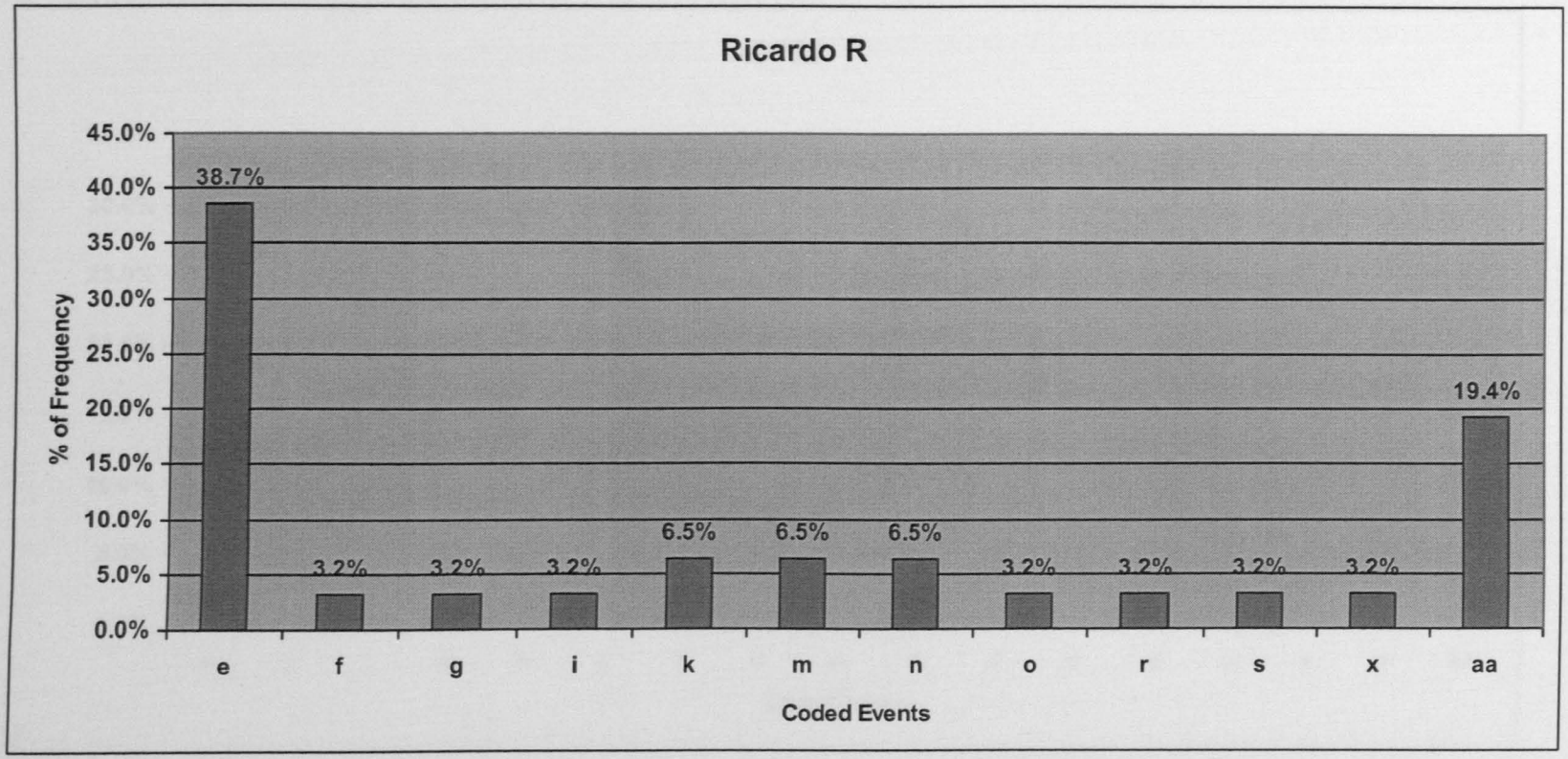
Graph 2 - Percentage Split of Coded Events for Liam



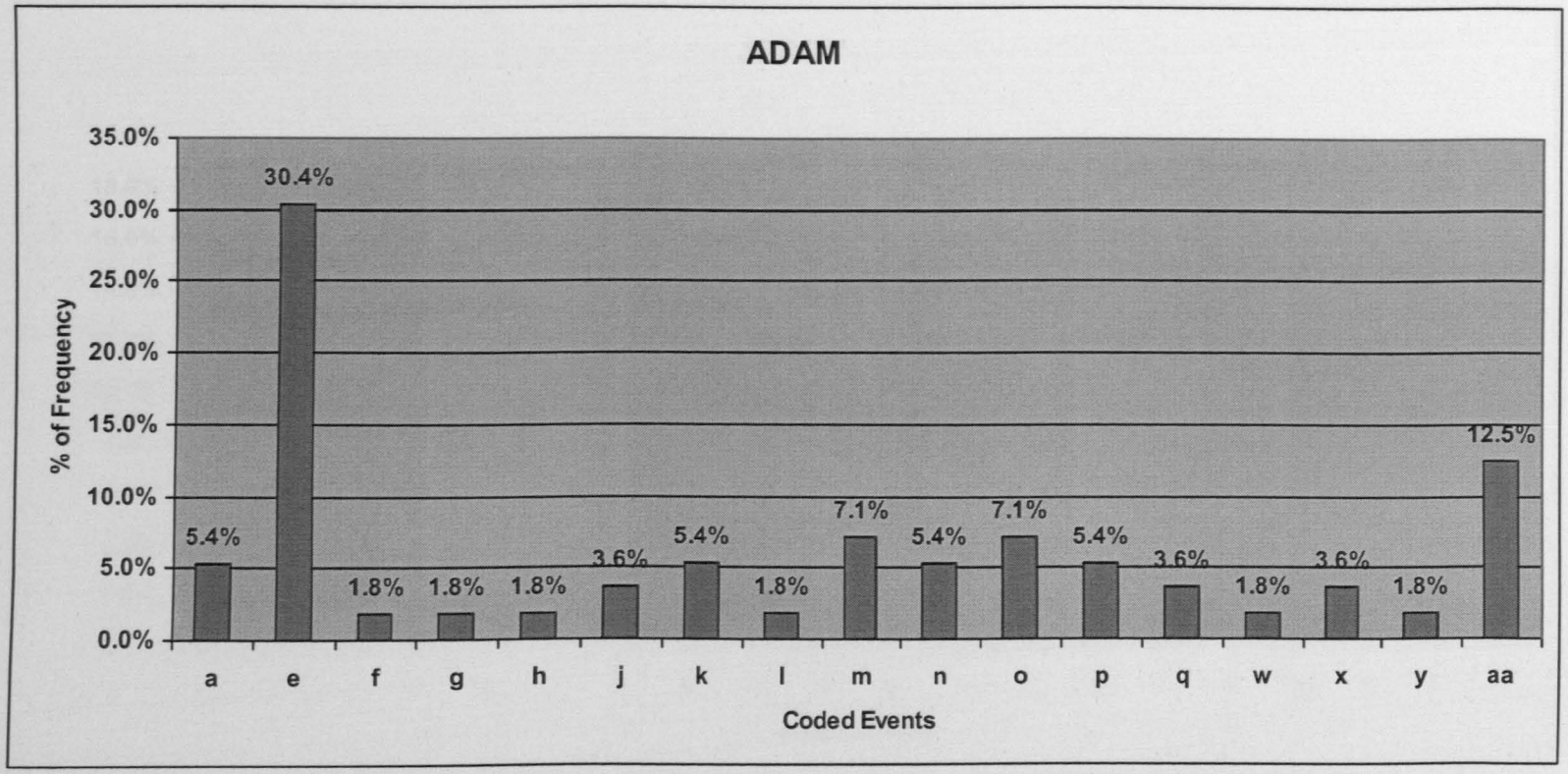
Graph 3 - Percentage Split of Coded Events for Nakial



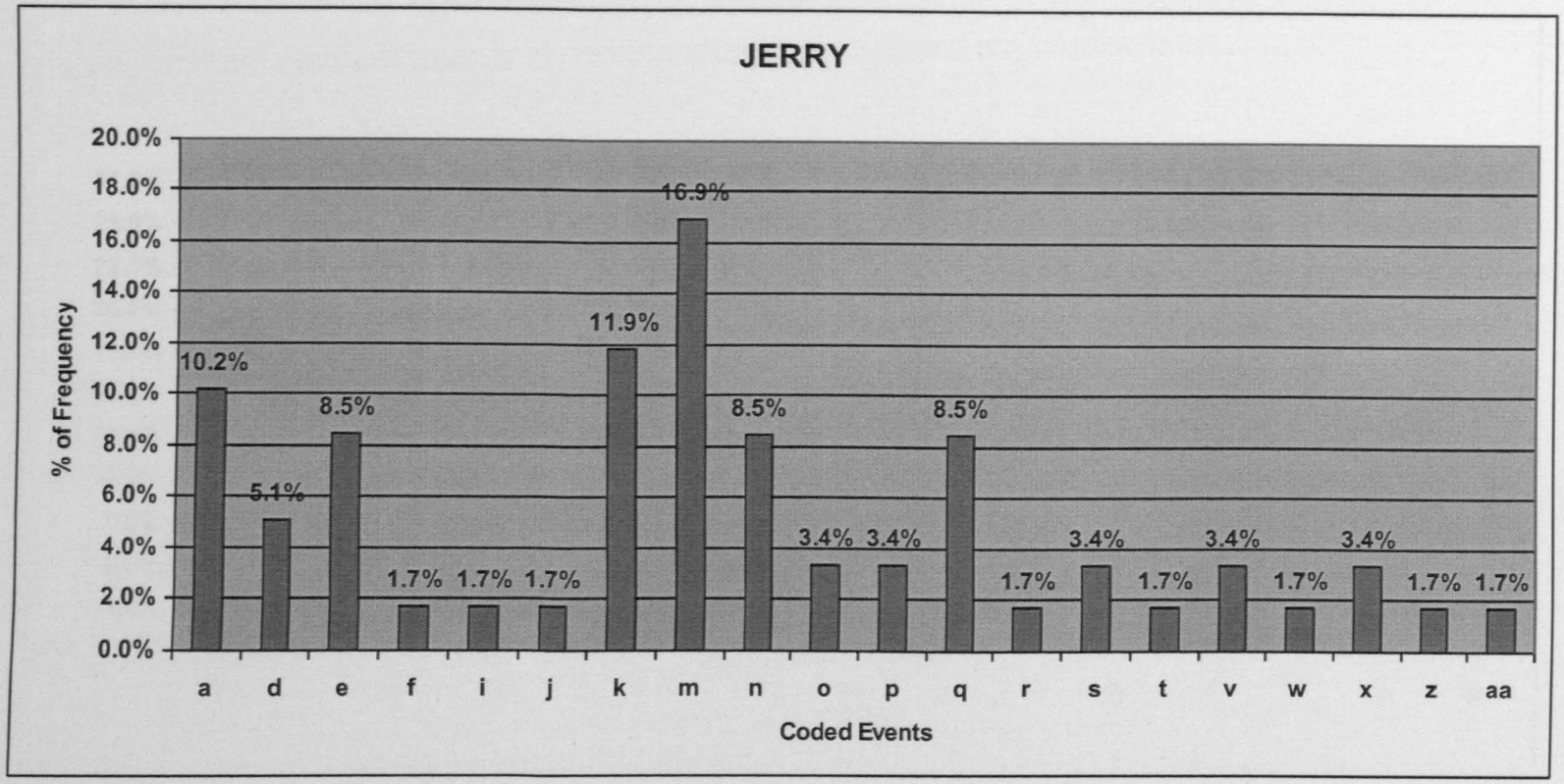
Graph 4 - Percentage Split of Coded Events for Ricardo R



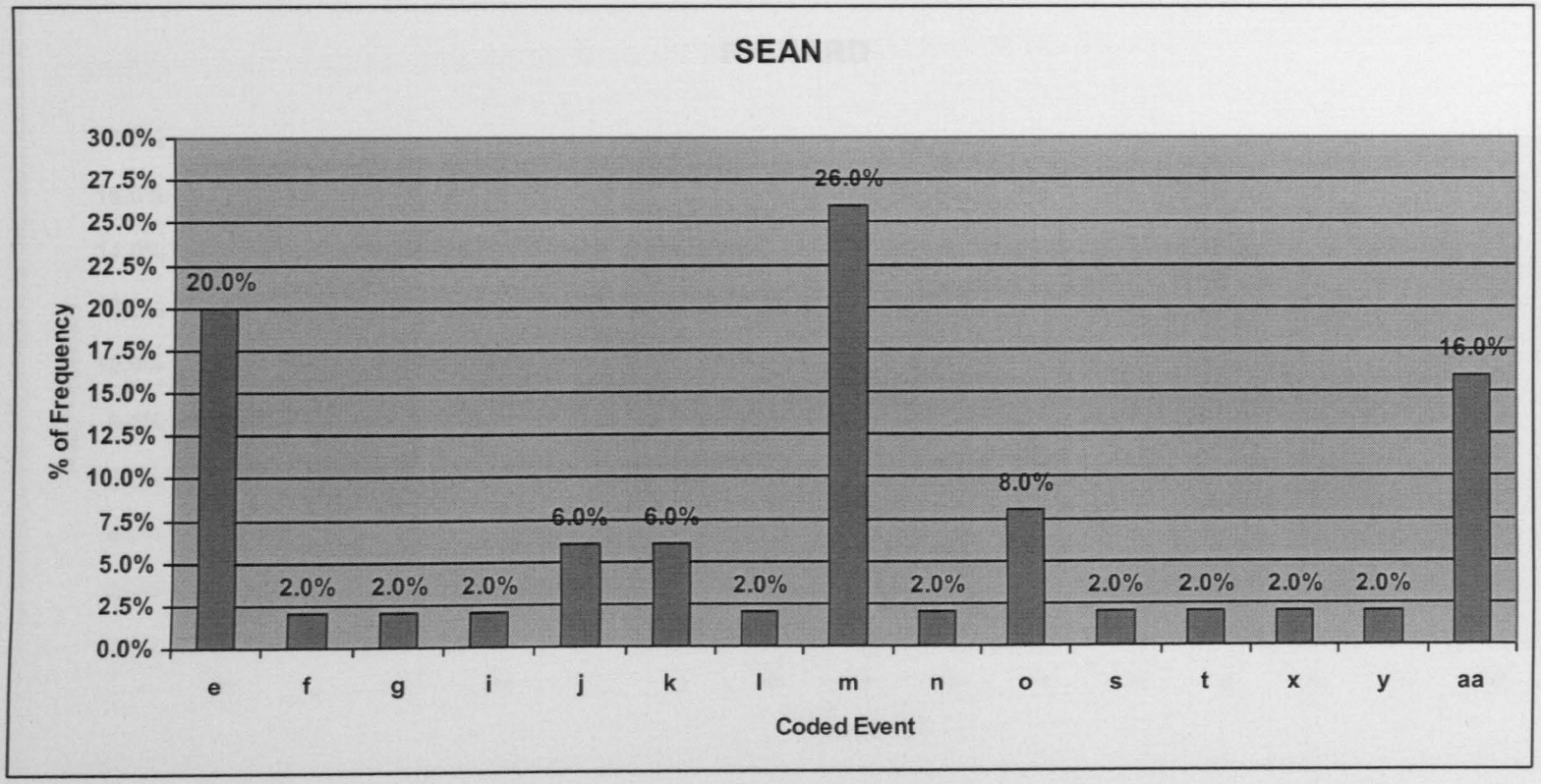
Graph 5 – Percentage Split of Coded Events for Adam



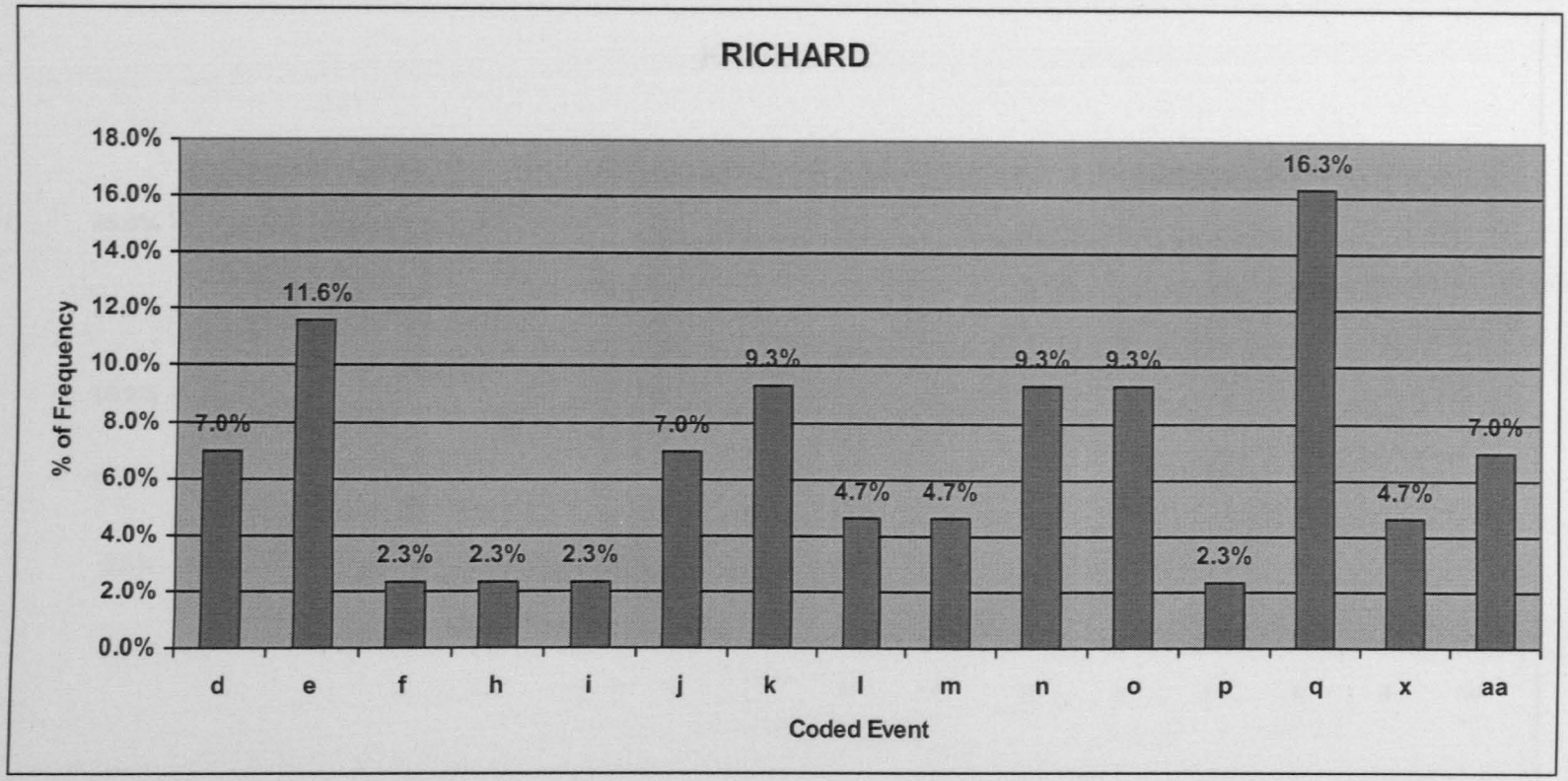
Graph 6 – Percentage Split of Coded Events for Jerry



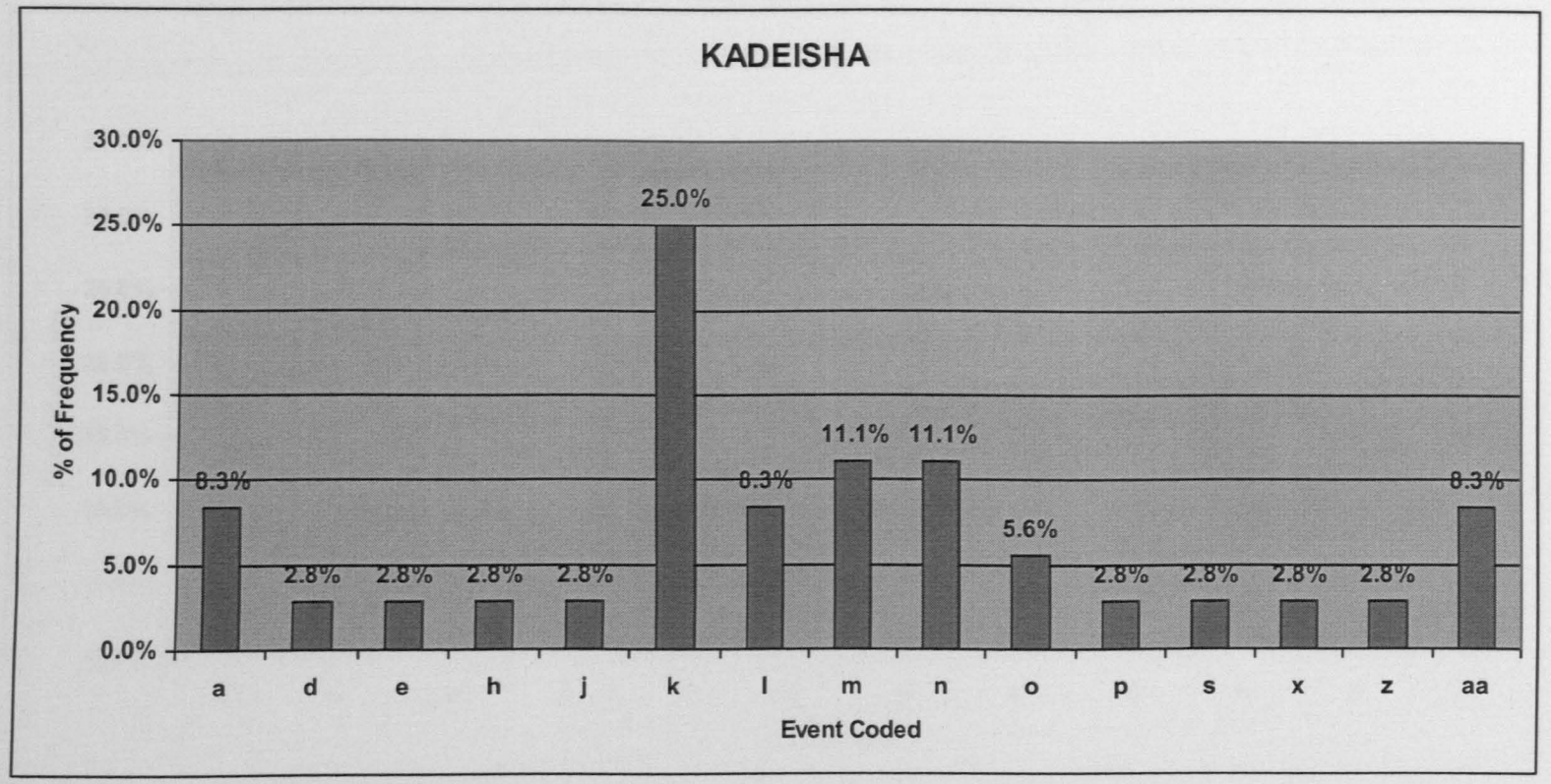
Graph 7 - Percentage Split of Coded Events for Sean



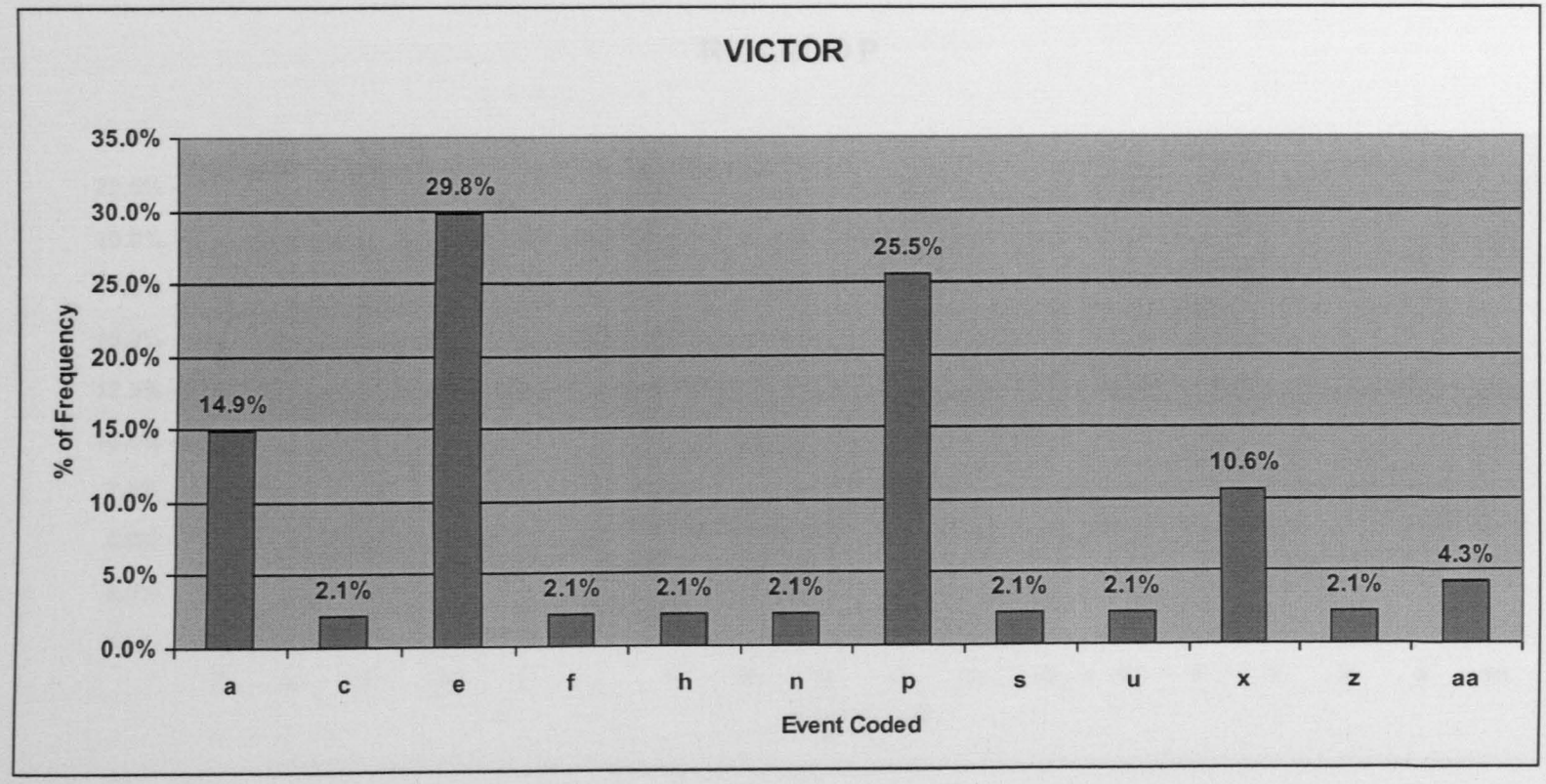
Graph 8 – Percentage Split of Coded Events for Richard



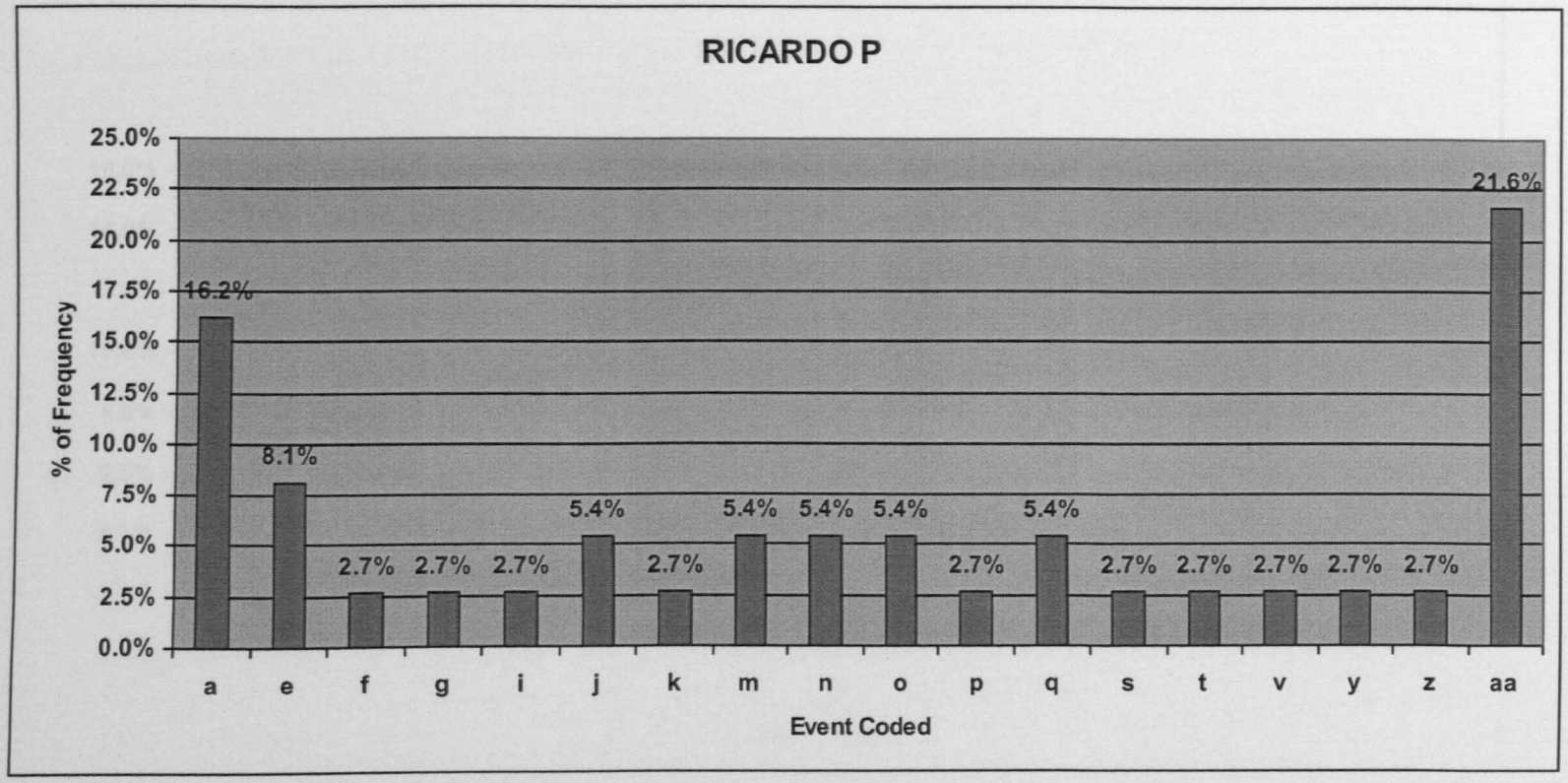
Graph 9 - Percentage Split of Coded Events for Kadeisha



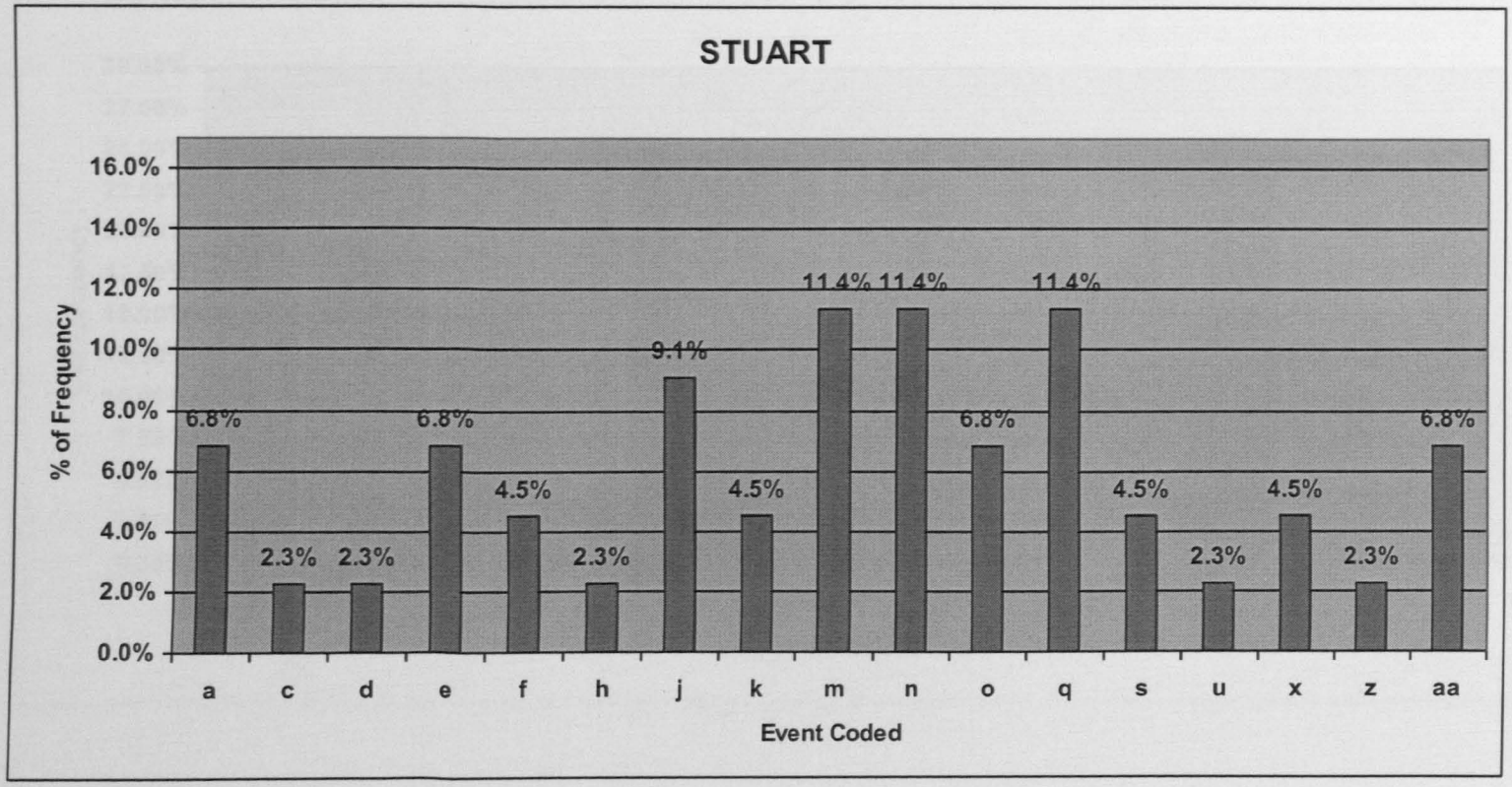
Graph 10 - Percentage Split of Coded Events for Victor



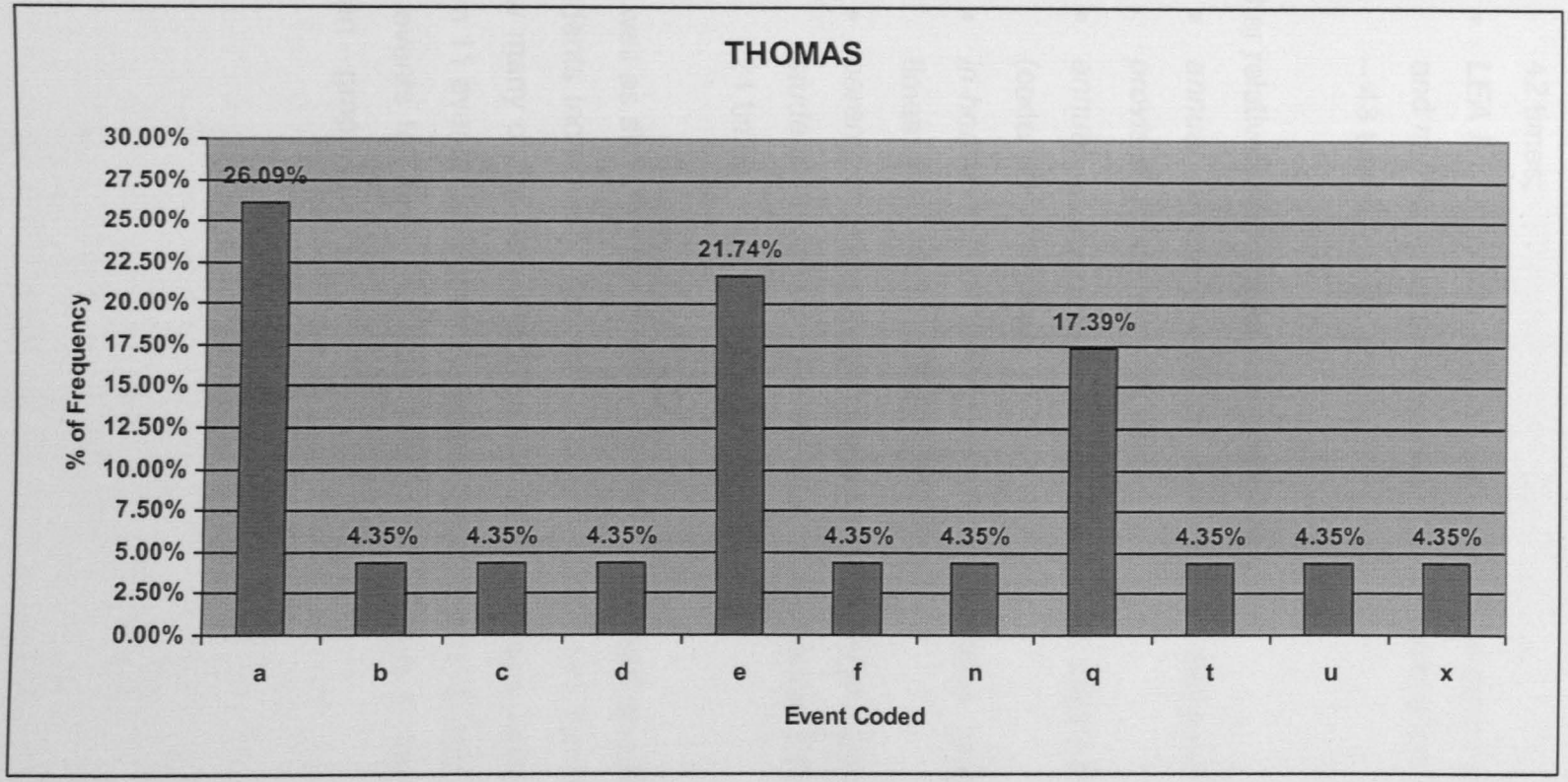
Graph 11 - Percentage Split of Coded Events for Ricardo P



Graph 12 - Percentage Split of Coded Events for Stuart



Graph 13 - Percentage Split of Coded Events for Thomas



Graph 1 shows that the most frequently occurring event (out of a possible of 487 frequency events) is *'outside agency involvement at school action plus'* (code 'e') – occurring 80 times. This event occurs almost twice as often as the next most frequently occurring events, namely:

- *exclusions from school* (code 'a') – 42 times;
- *no LEA Officer (including EP) involvement at annual review* (code 'k') – 42 times;
- *LEA has to chase annual review documentation* (code 'm') – 47 times and *multi-agency (professionals) case conference (meeting)* (code 'aa') – 43 times.

Other relatively high frequency events are:

- *annual review results in increase in additional support/change of provision* (code 'n') – 33 times;
- *annual review results in no change to statement/additional support* (code 'o') – 25 times;
- *in-house school arrangements/interventions made* (code 'p') – 20 times;
- *parent/school requests change of placement* (code 'q') – 30 times and *student interviewed/offered 'trial' at residential EBD school* (code 'x') – 21 times.

As well as showing percentage split of frequencies of coded events for the 12 students individually, graphs 2-13 also record (on the horizontal or 'x axis') how many of the possible 27 codes apply to each student, and these range from 11 events (for Thomas – graph 13) to 20 events (for Jerry – graph 6) with 15 events for three students (Kadeisha – graph 9; Richard – graph 8 and Sean – graph 7).

All but three students (Ricardo R – graph 4; Sean – graph 7 and Richard – graph 8) were excluded from school. The percentage split for exclusions ranged from 5.4% (for Adam – graph 5) to 26.09% (for Thomas – graph 13). Nakial (graph 3) and Ricardo P (graph 11) had more than 16% exclusion events. It might be that in Ricardo R's case this was due to the highest split percentage for outside school agency involvement (see below), whilst for Richard it might have been due to parental and/or school requests for a change of placement or provision (highest percentage split of 16.3%) and for Sean it was the joint highest percentage split of multi-agency (professionals) case conferences (meetings) that might have been the reason for no exclusions from school.

All students had outside school agency involvement at school action plus, although the percentage split ranged from 2.8% (for Kadeisha – graph 9) to 38.7% (for Ricardo R – graph 4): in fact 5 students (Ricardo R – graph 4; Adam – graph 5; Victor – graph 10; Thomas – graph 13 and Sean – graph 7) had 20% or more outside school agency involvement at school action plus and 5 students (Jerry – graph 6; Ricardo P – graph 11; Stuart – graph 12; Liam – graph 2 and Kadeisha – graph 9) had less than 10% outside school agency involvement at school action plus.

For Kadeisha and Liam there were also high split percentages for *no LEA Officer at annual review* (i.e. 25% and 19.4% respectively), for Stuart the same split percentage was reasonably high at 11.9% whereas for Stuart and Ricardo P the split percentage was below 5%. So it may not be the case that LEA Officers choose not to attend annual reviews where there's been little outside school agency involvement. In fact there might be a good reason to do so, however, this 'hypothesis' could not be checked as there was not a code for LEA Officers attending annual reviews.

Overall it is difficult to compare the shapes of the graphs as the coded events on the 'x axis' are not all the same for each of the students. It is noticeable that for half of the students, however, there are only one, two or maybe three high split percentages, say over 10% for particular codes, with other codes mostly below 5% (that is, Ricardo R – graph 4; Adam – graph 5; Sean – graph 7; Victor – graph 10; Ricardo P – graph 11 and Thomas – graph 13). Liam (graph 2) and Richard (graph 8) have almost the same number of codes (14 and 15 respectively) of which 10 are the same for each student and their graphs are similar shapes. Nakial (graph 3) and Kadeisha (graph 9) also have a similar number of codes (13 and 15 respectively - of which 12 are the same) and they too have similar shape graphs. Jerry (graph 6) and Stuart (graph 12) also have similar numbers of codes (20 and 17 respectively of which 14 are the same) with similar shaped graphs.

Finally, from the *'profile data (file-maker pro)'*:

- 11 out of 12 students were male with 8 students of Black Caribbean ethnic origin, 1 student was of Black African origin and 1 student was of mixed race ethnicity;
- 10 of the students had between two to five siblings, some of whom were step/half siblings and 2 students were only children – one of whom, Kadeisha was placed with her parental grandmother at the age of 3 years;
- 7 out of 12 students lived in NW10 with 3 students living in NW9 and 2 in NW6;
- all students other than Richard had a normal birth and 7 out of 12 students attained age appropriate developmental milestones;
- there were reported management difficulties at home for all students other than Thomas, Ricardo P and Liam;
- Stuart and Richard experienced bereavement;
- Stuart Richard and Adam had a parent with recorded mental health difficulties;
- Jerry and Sean had medication for epilepsy and Stuart has Ritalin (for ADHD);

- only Adam, Richard and Victor had not had any Social Services involvement;
- only Thomas had not had any CAMHS involvement – 4 out of 12 students were also placed in a specialist psychiatric assessment unit via CAMHS;
- 5 out of 12 students had SALT involvement; 4 out of 12 students had been on the Child Protection Register;
- 7 out of 12 students had one or more changes of primary school – Jerry had four changes; all students other than Richard, Sean and Ricardo R received at least 1 fixed term and 1 permanent exclusion with Adam only receiving fixed term exclusions;
- 7 of the students were less than 6 years of age when first referred to the EPS;
- for 8 out 12 students applications were made to out borough day EBD high schools – for Jerry and Ricardo it was 17 and 13 applications respectively, prior to placement in residential provision;
- the length of time out of school (following permanent exclusion) for 8 of the students ranged from 1 month to 21 months;
- multiple applications were made to residential provision for 9 students and in Nakial's case 14 applications were made;
- 4 students transferred to residential provision via home tuition; 5 students transferred via various in borough provision (2 from a special MLD high school, 1 from a mainstream high school, 1 from a primary day special EBD school and 1 from a mainstream primary school) and 3 students transferred to residential provision via out borough high school provision (2 from day special EBD and 1 from mainstream);
- 8 students transferred to residential school in Years 8 and 9 (4 in each year group) and tripartite funding was only agreed for four students.

So from the above it seems that referrals to residential school were both socially and educationally driven.

5. DISCUSSION

The question posed by this study relates to key events leading to residential school placement: 'two-event' *sequential analysis* illustrated (Table 4) that there were 66 two sequence events that occurred that were not due to chance ($p < 0.05$, using Pearson's test of Standard Normal Residuals). I identified two sequence events from these 66 that could be singled out for further study given their unusually high results. I also looked for particular patterns within these 66 two sequence events and chose to investigate further the most frequent 'double coding strings' (from page 20) and then used the same (*find*) method for triple, quadruple and quintuple strings of events to help decide if particular chains might be broken in order for placement/provision decision makers could consider alternative and less expensive arrangements other than residential provision.

The State Transitional Diagram for two-sequence events shows that the two highest probability events are that students being excluded would have no outside school agency involvement. And, that when there was outside school agency involvement this was followed by the parent/carer removing their child from school. This suggests that maybe there should be outside school agency involvement both following exclusion and when a child has been removed from school by their parent/carer. When students are excluded they are most likely to get placed in the LEA's primary day EBD School (50% chance) or will be placed on home tuition (36% chance). This latter event sometimes resulted in a parental complaint about the lack of educational provision (33% chance). This suggests the need for alternative (full-time) primary provision.

Delays in providing statutory advice for statements of SEN often resulted in additional support for children in mainstream (43% chance). However, common sense suggests that this cannot be the only and/or main reason for children receiving additional support via a statement of SEN. Such delays were followed by students being placed in out borough day EBD secondary schools (33%) and EP involvement post exclusion or annual review (40% chance).

Placement in out borough day EBD secondary schools is also likely to have resulted from a parental or school request for a change of placement (33% chance). However, there was a 40% chance that out borough day EBD secondary schools would refuse to offer students places when there had been no LEA Officer involvement at students' annual reviews. This suggests the need perhaps for LEA Officers to 'target' attendance at particular annual reviews – especially those where there's likely to placement breakdown and there may be a request from school or parent for a change in placement say to an out borough day EBD secondary school.

There was no difference between change (38% chance) and no change to a statement (38% chance) if there had been no prior LEA Officer involvement at annual review. Although there is a 38% chance that the LEA will amend the statement following their chasing of annual review documentation and 50% chance that the LEA will initiate a review when they decide not to amend the statement. Once again this raises the issue of targeted attendance at annual reviews.

Annual reviews was a feature of the data collected around three, four and five event sequences in which no officer involvement pre and post annual review resulted in no change to the statement and the LEA having to chase documentation (at least twice) as well initiating further reviews.

Multiple event sequences were also frequently of the same kind, especially outside school agency involvement. Although it is not known how frequently the same agency was involved in a sequence – rechecking the case files would clarify this. Despite repeated outside school agency involvement there was still no LEA officer involvement at annual review. Once again pre-review involvement could be used to target annual review attendance especially if there are going to problems with obtaining the annual review documentation and having to initiate further (and possibly unnecessary) reviews. LEA Officer attendance at annual reviews would also aid the decision making process around amending or not amending statements.

There is particularly high frequency occurring events (graph 1) such as:

- outside school agency involvement at school action plus (code 'e'); exclusions from school (code 'a');
- no LEA Officer involvement at annual review (code 'k');
- LEA having to chase annual review documentation (code 'm');
- multi-agency (professionals) case conferences (meetings) – code 'aa';
- annual review either results in increase in additional support/change of provision (code 'n') or no change to statement/additional support (code 'o');
- in-house school arrangements/interventions made (code 'p'); parental/school request for change of placement (code 'q'); and,
- student interviewed/offered 'trial' at residential EBD school (code 'x').

All of these high frequency occurring events appear as significant sequences (table 4) – some more frequently than others. Tables 7 and 8 demonstrate the significance of particular events in two and more sequences and it is noticeable that multi-agency (professionals) case conferences (meetings), in-house school arrangements/interventions made, parental/school request for change of placement and student interviewed/offered 'trial' at a residential EBD school do not occur in three or more sequence events. This suggests that maybe they are less important in longer sequences of events.

In the case of students being offered an interview or trial at a residential EBD school this is likely to come near the end of the placement process and it is obviously a crucial event. Maybe too there is more work to be done around the role and purpose of multi-agency (professionals) case conferences (meetings) especially as there is such a high frequency of outside school agency involvement. There will soon be a move towards greater multi-agency working with the implementation of the Children Act 2004 over the coming months and years of course.

What is fairly evident from the graphs for the 12 students is that there are both similarities and differences in their profiles. This suggests that maybe some further research could be carried out using more in-depth individual case study analysis especially through interview (of both student and parent/carers) and, by maybe eliciting an alternative coding of key events leading to placement in residential provision. Looking for more similarities could be achieved in a similar way by conducting focus groups with students and parents/carers.

The 'file-maker pro' profile data could be used to generate more questions in interview and/or focus groups about key events leading to residential school placement, such as:

- the effect of early development and management of behaviour at home and in early years setting – as well as the effect of a parent/carer having mental health difficulties;
- the impact of bereavement and child protection issues on child and family and how mainstream schools deal with such issues.

This might also tease out, as suggested from the literature review, whether or not placement is socially rather than educationally driven and how much of a haphazard process placement might be.

It is noticeable that in the majority of cases there has been EP involvement at an early stage in children's lives and that outside school agency involvement features as a highly occurring event so maybe there is message here for EP Services and other outside school agencies evaluating the impact of their involvement more rigorously.

Some comments now need to be made about the methodology. To begin with there are some issues in sequential analysis according to Bakeman and Gottman (1997), namely with *independence, stationarity, individual versus pooled data, how many data points are enough* and *type I error problems.* There is a question of whether the 'summary indices' (i.e. frequencies of sequential events) are based on sufficient data, in this case only 12 students as this could mean that confidence in the 'probabilities of occurrence' could be seriously compromised. Inferential statistics was not used and so a larger data set is not necessary to support the required assumptions.

However, the major problem with using transitional probabilities is that when analysing individual or group differences similar numeric values may have quite different meanings for different subjects or for the same subject at different times, rendering the results difficult to interpret at best. So my suggestion for interviews and focus groups in a further study could prove helpful in this respect.

A secondary problem is that values of transitional probabilities are "contaminated" with the values of simple probabilities. This means that what appear to be analyses of transitional probabilities may, according to Bakeman and Gottman (*op.cit*), reflect little more than simple probability effects. I calculated both probability (Table 2) and transitional probability (Table 3) matrices. The probability matrix simply shows the probability of the most common two even sequences occurring whereas the transitional probability matrix shows the probability for one event, the *criterion* or *given event* (LAG 0) being followed by a *target* event (LAG 1) – from which the State Transitional Diagram was drawn. I suppose one could compare cells in Table 2 and Table 3 and, then attempt to explain any differences in terms of the 'nature' of the events to which they relate. For example cell a/b in Table 2 has a value of '0' whereas in Table 3 the value is '1.0'. It is not possible to do this within the confines of this research project.

In restricting the data to only one statistical test (i.e. Pearson's Test of Standard Normal Residuals) I have hopefully avoided type I error – claiming sequences are "significant" when in fact they are not. This is especially pertinent to this study as so many codes are used which have generated so many sequences, including further exploration of three, four and five sequential events.

With regard to 'individual versus pooled data', I have not assumed that successive coding of events are independent of previous codings and therefore I did not use *z scores* to test for significance. I do not believe the collected data represents several different "units" (e.g. from the different participants) and therefore have not used Yule's Q in subsequent analysis of individual differences. I could therefore not apply an ANOVA although it should be recognised that such an analysis is both powerful and widely understood. There is of course the question of whether realistic conclusions (and an answer to the research question) can be drawn as the sample size was relatively small.

Finally, common to all statistical tests is the demand for 'independence' (or exchangeability – according to Good (1994) in Bakeman and Gottman (*op.cit*)). When two-event chains are sampled in an overlapping manner from longer sequences, the demand for independence or exchangeability may be violated, but simulation studies indicate that the apparent violation in this particular case seems inconsequential. Additionally, in relation to the methodology, Bakeman and Gottman (*op.cit*)) devote a chapter in their book (*'Observing interaction: an introduction to sequential analysis: second edition'*) to developing a coding system. Whilst I am fairly confident about the coding system used in this piece of research it must be noted that its reliability was not 'tested' by asking others to trial it in order to determine *inter-rater reliability*.

Finally, permission to use the data in this project was not obtained from neither the students themselves nor their families. However, anonymity has been respected by not using their surnames or addresses and the name of the local education authority has not been recorded.

6. CONCLUSIONS

This study has identified 'significant' (two, three, four and five) sequences of events in the placement of children with emotional, social and behavioural difficulties in out-borough residential special schools. If such sequences could be broken, for example, by the relevant outside agencies becoming involved with students both following exclusion and when a child has been removed from school by their parent/carer, then such expensive school placements may not be necessary. If local authority officers (including EPs) 'targeted' their attendance at annual reviews, especially those where there is the possibility of placement breakdown and where there may be a suggestion by school or parent of change in placement, this would aid the local authority in obtaining annual review documentation. It might also prevent the unnecessary initiation of further reviews in order to make decisions as to whether or not to amend children's Statements of Special Educational Needs

There are also individual differences amongst the 'profiles' of students placed in residential provision and this warrants further research that might substantiate or refute the present findings as well as provide additional useful information for local authority placement decision makers.

REFERENCES:

Ainscow, M., Farrell, P., Tweddle, D and Malkki, G. (1999). *The role of LEAs in developing inclusive policies and practices,* British Journal of Special Education 26 (3): 136-40.

Bakeman, R. (1978). *Untangling streams of behaviour: Sequential analysis of observation data.* In G.P. Sackett (Ed.), *Observing behaviour (Vol. 2): Data collection and analysis methods* (pp. 63 – 78). Baltimore: University Park Press.

Bakeman, R., and Brown, J.V. (1977). *Behavioural dialogues: An approach to the assessment of Mother-infant interaction.* Child Development, 49, 195 – 203.

Bakeman, R., and Brownlee, J. R. (1980). *The strategic use of parallel play: A sequential analysis.* Child Development, 51, 873 – 878.

Bakeman, R and Dabbs, J.M. (1976). *Social interaction observed: some approaches to the analysis of behaviour streams.* Personality and Social Psychology Bulletin, 2, 335 – 345.

Bakeman, R., and Gottman, J. (1997). *Observing Interaction: An Introduction to Sequential Analysis: Second Edition.* Cambridge: Cambridge University Press.

Clarke, D, Ward, P., and Truman, W. (2002). *In-depth accident causation study of young drivers.* TRL – Report 542.

Cole, T. (1989). *Apart or A Part? Integration and Growth of British Special Education.* Milton Keynes: Open University Press.

Cole, T., Visser, J., and Upton, G. (1998). *Effective schooling for pupils with emotional and behavioural difficulties.* London, David Fulton Publishers.

Cole, T., Daniels, H., and Visser, J. (1999). *Patterns of educational provision maintained by Local Education Authorities for pupils with behaviour problems.* Report sponsored by Nuffield Foundation (Birmingham, University of Birmingham).

Colgan, P.W., and Smith, T.J. (1978). *Multidimensional contingency table analysis.* In Colgan, P.W. (Ed) *Quantitative Ethology.* New York: Wiley.

Cooper, P. 1993). *Effective Schools for Disaffected Students.* London: Routledge.

Dawson, R. (1980). *Special Provision for Disturbed Pupils: A Survey, Schools Council Research Studies.* London: Macmillan.

Danis, A., Bernard, J-M., and Leproux, C. (2000). *Shared picture-book reading: A sequential analysis of adult-child verbal interactions.* British Journal of Developmental Psychology(2000),18,369–388.

DES (1974). *The Health of the School Child, 1971-2.* London: HMSO.

DES (1989). *Discipline in schools: Report of the Committee of Enquiry chaired by Lord Elton (The Elton Report).* London: HMSO.

DfES (2004). *Removing Barriers to Achievement: The Government Strategy for SEN.* London: HMSO.

Farrell, P and Tsakalidu, K. (1999). *Recent trends in the re-integration of pupils with emotional and behavioural difficulties in the United Kingdom.* School Psychology International 20 (3): 75-89.

Galloway, D, Armstrong, S., and Tomlinson, S. (1994). *The assessment of special educational needs: whose problem?* London: Longman.

Galloway, D and Goodwin, C. (1987). *The Education of Disturbing Children.* London: Longman.

Gottman, J. M, and Bakeman, R. (1979). *The sequential analysis of observational data.* In M.E. Lamb, S.J. Suomi, G.R. Stephenson (Eds.), *Social interaction Analysis: methodological issues* (pp. 185 – 206). Madison: University of Wisconsin Press.

Gottman, J. M., and Roy, A.K. (1990). *Sequential analysis: A guide for behavioural researchers.* Cambridge: Cambridge University Press.

Green, J., and D'Oliveira, M. (2005). *Learning to use statistical tests in psychology. Second Edition.* Buckingham: Open University Press.

Grimshaw, R., and Berridge, D. (1994). *Educating Disruptive Children.* London: National Children's Bureau.

Harper, W.M. (1979). *Statistics. Third Edition. M & E Handbooks.* Suffolk: Chaucer Press.

Hyland, J. (1993). *Yesterday's Answers. Development and Decline of Schools for Young Offenders.* London: Whiting & Birch.

Jeong, D. 2001). *The Sequential Analysis of group Interaction and Critical Thinking.* The American Journal of Distance Education, **17** (1), 25-43.

Kounin, J. S. (1977). *Discipline and Group Management in Classrooms.* New York: Krieger.

Kranzler, J.H. (2003). *Statistics for the terrified.* London: Pearson Education.

Laslett, R. 1977). *Educating Maladjusted Children.* London: Granada.

Laslett, R. 1983). *Changing Perceptions of Maladjusted Children, 1945-1981.* London: AWMC.

Ministry of Education. (1953). *School Health Service and Handicapped Pupils' Regulations, SI 1156, Pt IIIg.* London: HMSO.

Ministry of Education. (1955). *Report of the Committee on Maladjusted Children (The Underwood Report).* London: HMSO.

Robson, C. (1973). *Experiment, Design and Statistics in Psychology.* Middlesex: Penguin Books.

Sackett, G.P. (1979). *The lag sequential analysis of contingency and cyclicity in Behavioural interaction research.* In J.D. Osofsky (Ed.), *Handbook of infant development* (pp. 623 – 649). New York: Wiley.

Smith, A., and Thomas, J. (1993). *What's in a name: same problems of description and intervention in work with emotionally disordered children.* Pastoral Care, 295, 3-7.

Stern, D.N. (1974). *Mother and infant at play: The dyadic interaction involving facial, vocal and gaze behaviours.* In M. Lewis and L.A. Rosenblum (Eds.). *The effect of the infant on its caregiver* (pp. 187 – 213). New York: Wiley.

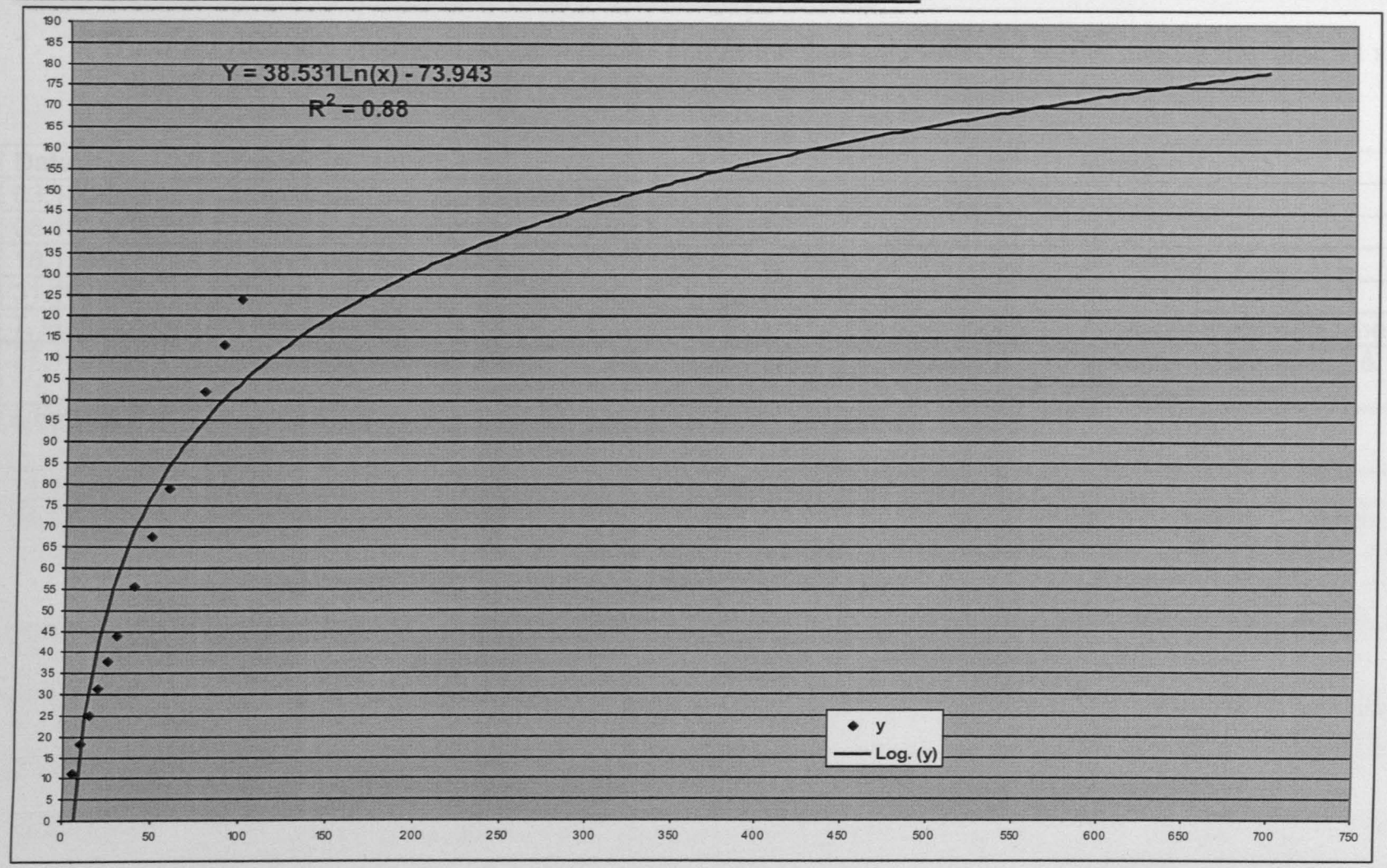
Todd, Z., Nerlich, B., McKeown, S., and Clarke, D.D. (2003). *Mixing Methods in Psychology. The Integration of Qualitative and Quantitative Methods in Theory and Practice.* East Sussex: Psychology Press.

Topping, K. (1983). *Educational systems for disruptive adolescents.* London: Croom Helm.

Wilson, M, and Evans, M. (1980). *Education of Disturbed Pupils.* Schools Council Working Paper 65. London: Methuen

APPENDICES

Graph for extrapolated values for *degrees of freedom* (df) beyond 100:



Key Events in the Placement of Children in EBD Schools:

1. **Thomas (5.6.91)** - provided as an exemplar of how the data was collected similar data for the other 11 students is not included in this assignment and is available if required.

Date	Event	Notes
03.10.2000	Mainstream school refers to EPS	
06.10.2000	Mainstream school refers Thomas to CAMHS	
18.10.2000	1 day fixed term exclusion	
31.10.2000	Mainstream school-EP consultation	
7.11.2000	3 day fixed term exclusion	Accesses mentoring scheme at school
27.11.2000	5 day fixed term exclusion	Violent, disruptive & non-compliant behaviour
4.12.2000	Mainstream school writes to link EP seeking support as a result of fixed term exclusions	
11.12.2000	EP assessment in school	
04.01.2001	EP discussion with staff: School to request statutory assessment – detailing EP involvement; requesting emergency placement at LEA day EBD school	In the interim - continuation of anger management & liaison with pre-exclusion officer + suggestions small group and counselling interventions
11.01.2001	Mainstream school writes to LEA requesting assessment place at in borough day EBD school	
17.01.2001	Mainstream school request for statutory assessment turned down by LEA	LEA suggested needs can be met at SAP via OT, SALT & referral to CAMHS
31.01.2001	Mother writes to LEA requesting assessment placement at in borough day EBD school	
08.02.2001	LEA agrees to assessment placement at in borough day EBD school	LEA makes offer of 'dual roll' with suggestion for re-integration

Date	Event	Notes
09.02.2001	Mother agrees to 'dual roll' but requests different mainstream school	
16.02.2001	Headteacher of in borough day EBD school agrees to placement	
10.05.2001	LEA writes to parent with intention to initiate statutory assessment	
08.06.2001	LEA seeks Educational Advice for statutory assessment	
08.06.2001	LEA seeks Medical Advice for statutory assessment	Mother failed three appointments
08.06.2001	LEA seeks Educational Psychologist Advice for statutory assessment	
08.06.2001	LEA seeks Parental Advice for statutory assessment	
20.07.2001	EP provides statutory psychological advice	Suggests access to: Specialised setting for children with EBD
29.08.2001	LEA writes chase letter for Educational Psychologist Advice for statutory assessment	Yet already provided!
27.09.2001	LEA writes 2nd chase letter for Educational Psychologist Advice for statutory assessment	Yet already provided!
15.10.2001	LEA writes to mother offering new date for medical appointment	For medical advice for statutory assessment
24.01.2002	LEA sends proposed Statement of SEN to mother	
04.03.2002	LEA writes to mother requesting consent for LEA to apply to specialist provision for Thomas at secondary transfer	
11.03.2002	LEA applies to out borough LEA for placement in day EBD school 1	
18.03.2002	Out borough LEA requests views of day EBD school 1 regarding placement	
20.03.2002	Out borough day EBD school 1 offers parent & child interview for 10th April 2002	
22.04.2002	Out borough day EBD school 1 invites Thomas back for assessment on 8th May 2002	

Date	Event	Notes
12.06.2002	Out borough day EBD school 1 invites Thomas back for induction classes (24th – 27th June 2002 and 1st July 2002)	
14.06.2002	LEA writes to out borough day EBD school seeking clarification over placement for Thomas in September 2002	
19.07.2002	Out borough day EBD school 1 writes to mother offering Thomas a place for September	
24.07 2002	LEA writes to mother informing her of the intention to amend Thomas' Statement naming out borough day EBD school 1	
06.12.2002	Out borough day EBD school 1 writes to LEA saying that placement will not be maintained beyond January 31st 2002	LEA changed transport arrangements from individual cabs (for 4 Brent pupils) to a Council bus – counter to school admissions policy
17.01.2003	LEA writes to out borough day EBD school 1 regarding transport	LEA sought legal advice from borough solicitor
18.01.2003	LEA invites mother to discuss Thomas' placement at out borough day EBD school 1 following last Annual Review	AR recommends new school be found due to Thomas' violent & disruptive behaviour
21.05.2003	6 day fixed term exclusion	
23.06.2003	Out borough day EBD school 1 informs mother that Thomas must attend a re-entry meeting & receive a final formal written warning	
18.07.2003	5 day fixed term exclusion from out borough day EBD school 1	Behaviour as at AR
14.08.2003	Out borough day EBD school 1 seeks urgent EP involvement	No EP involvement
23.09.2003	Mother informs LEA that Thomas has been permanently excluded from out borough day EBD school 1	
03.10.2003	Mother receives formal letter of Thomas' permanent exclusion from out borough day EBD school 1	

Date	Event	Notes
07.10.2003	LEA seeks placement for Thomas at residential EBD school 1	
07.10.2003	LEA seeks placement for Thomas at residential EBD school 2	
07.10.2003	LEA seeks placement for Thomas at residential EBD school 3	
07.10.2003	LEA seeks placement for Thomas at residential EBD school 4	
07.10.2003	LEA seeks placement for Thomas at residential EBD school 5	
20.10.2003	Residential EBD 4 school writes to LEA offering interview for Thomas & his mother on 23rd October 2003	
23.10.2003	Residential EBD 4 school writes to LEA offering placement for 5th November 2003 following successful interview	
29.10.2003	LEA writes chase letter to residential EBD school 5	
29.10.2003	LEA writes chase letter to residential EBD school 2	
29.10.2003	LEA writes chase letter to residential EBD school 4 for follow-up to interview	
30.10.2003	Mother accepts offer of place at residential EBD 4 school	
06.11.2003	LEA writes to residential EBD school 3 saying that place is no longer required	
06.11.2003	LEA writes to residential EBD school 5 saying that place is no longer required	
06.11.2003	LEA writes to residential EBD school 2 saying that place is no longer required	
06.11.2003	LEA writes to residential EBD school 1 saying that place is no longer required	
06.11.2003	LEA writes to mother proposing to amend Thomas' Statement to name residential EBD 4 school	

DISSEMINATION AND IMPACT EVALUATION:

This assignment focuses on the dissemination and impact evaluation of assignments 4, 5 and assignment 6 (the main thesis).

7.1 Assignment 4. *What are the key events leading to the placement of children with emotional, social and behavioural difficulties (ESBD) in out-borough residential special schools?*

7.1.1 Impact at an EPS level

This research indicated that despite early EP involvement with children, in the sample of 12, with ESBD in primary schools, transfer to secondary schools was often followed by permanent exclusion and placement in out-borough residential schools. This obviously cannot be solely the fault of the EP but it does question the value of earlier EP involvement and whether or not EPs can recognise the early indicators of permanent exclusions and/or possible placement at residential provision. If early recognition can be made then the options arise for signposting children and young people to other agencies and services and/or facilitating multi-agency meetings.

7.1.2 Impact at a local authority/policy level

Local authority officers are now targeting attendance at particular annual reviews of children with emotional, social and behavioural difficulties where there is the possibility of placement breakdown and/or where the parent/carer is requesting a change of placement. This research illustrated that despite repeated outside agency involvement with students at school action plus permanent exclusions and placement in out-borough residential provision resulted. Assistant Directors and Heads of (external) Support Services are now meeting to discuss what specific advice and support can be given to schools, especially for the most vulnerable young people with the most complex needs at primary secondary transition.

And, as the multiple school action plus involvement was often from more than one agency, proposals for multi-agency transition planning meetings in secondary schools are being discussed by senior managers in the local authority.

7.1.3 Impact at a personal level

After completing my thesis I was interested to read in Wetherill and Glazebrook (1986), *sequential methods in statistics,* 3rd edition, that the whole of life is sequential for our future actions are conditioned to some extent by our past experience. I reflected on how this statement resonates with the sequence of events leading up to children and young people being placed in residential provision. And on how in this context sequential analysis shares the stage with George Kelly's personal construct psychology.

7.1.4 Future plans

My future plans revolve around involvement in follow-up meetings with Assistant Directors and Head of Services in the Children and Family Department to discuss specific advice and support that can be given to schools, especially for the most vulnerable young people with the most complex needs at primary secondary transition. In contributing to such discussions I will draw on and make reference to how we might 'break the chain' in the sequence of events leading to permanent exclusion and/or placement in residential provision. I will also suggest consideration be given to potential 'risk' factors identified from the file-maker pro data

7.2 **Assignment 5.** *What needs to be put in place at an operational level to enable an integrated children's service to promote successful integrated working?*

7.2.1 Impact at an EPS level

The eight identified factors for successful multi-agency working have been disseminated at the DECP Annual Conference in January 2006 and then in *Educational & Child Psychology Volume 23 No 4* (psychological perspectives in multi-agency working), August, 2006.

The use of Q-Sort methodology for providing a coherent view on three year EP training from within the profession was disseminated with two other colleagues from cohort 4 (of the doctorate in applied psychology at Nottingham) via DECP debate (2005).

7.2.2 Impact at a local authority/policy level

The findings from assignment 5 was disseminated by way of power point presentation (September 2006) to the Director and Assistant Directors of the Children and Families Department in my local authority for their consideration when setting up integrated services teams for children with disabilities.

This research highlighted the need for further investigation into the 'people', 'processes and procedures', 'policy and strategy', 'partnership and resources' and 'customer results' elements of multi-agency working. The suggestion for more research into the *inter-professional* element of multi-agency working acted as the catalyst for assignment 6

7.2.3 Impact at a personal level

The Q-sort methodology has been used to construct questionnaires for measuring the impact of thinking maps and the SEAL curriculum in primary and secondary schools in my local authority. Q-sort has also been used to 'measure' the worries that Year 6 pupils have about transferring to secondary schools in my local authority.

7.2.4 Future plans

It is planned to use the Q-sort methodology with more Year 6 pupils' worries about transfer of schools at 11+ and to relate the identified factors with intervention programmes in secondary schools. Pre- and post intervention measures will be taken to evaluate the impact of the interventions and the findings will be disseminated within local authority schools and to the EP profession via publications in journals and/or presentations at conferences.

7.3 **Assignment 6 (Thesis).** *Deconstructing multi-agency working: An exploration of how the elicitation of 'tacit knowledge' amongst professionals working in a multi-agency team can inform future practice.*

7.3.1 Impact at an EPS level

The richness of data yielded from assignment 6 encouraged me to use the application of PCP and repertory grids with my EPS team in order to elicit constructs about effective EP working. The constructs identified were:

- *Selecting assessment tools related to a child's needs* **as contrasted with** *using the same assessment tools for all children.*
- *Writing reports quickly and succinctly* **as contrasted with** *writing unstructured reports slowly.*
- *Drawing on prior experience and psychological knowledge* **as contrasted with** *making little use of prior experience and psychological knowledge.*
- *Having good relationships with schools* **as contrasted with** *having frequent fall outs with schools.*
- *Casework mostly having positive outcomes* **as contrasted with** *casework having very few positive outcomes.*
- *Working collaboratively with others* **as contrasted with** *working in isolation.*
- *Being valued* **as contrasted with** *being over-looked.*

Then EPs were asked to compare their individual ratings with the *average* team rating (as were members of the Family Support Team). They were then asked what they thought the similarities and differences in ratings said about them as individuals and about the EPS in the context of the constructs above. The EPS team was also asked to compare 'the team now' (element 4) with the 'ideal for the team' (element 5) for each of the constructs above and to ask themselves:

(i) Whether the ratings between elements 4 and 5 were moving in the 'right' direction;
(ii) What it would take for the team to move in the direction of the ratings;
(iii) How the team could move;
(iv) What would be the first step in this movement; and
(v) Who needs to help the team move?

This process combined the PCP and repertory grids methodology of the thesis with solution focused think to inform EPs and the Senior Management Team of the EPS about aspirations for future effective service delivery. It was in the context of a Service Development Day in May 2007, entitled: Reflections, expectations, aspirations and delivery.

The use of personal construct psychology in my thesis also stimulated a renewed interest in the clinical application of this methodology and a discussion with my team about alternative means of construct elicitation with children and young people. Such alternatives included: *self-characterisation; self- description; self-evaluation;* and *who are you?* My further reading identified additional ways (to laddering and pyramiding) to further elaborate the elicited constructs which included: self-portraits and portrait galleries; drawings in context; elaboration of complaints and storytelling.

7.3.2 Impact at a local authority/policy level

After the completion of the data collection but prior to final write up of the research a presentation (June 2007) was given to most of the remaining members of the team and team members who had recently joined. The team manager was keen for the new team members to learn about that tacit knowledge that was held amongst previous as well as present team members. She thought that would have a positive impact on future discussions regarding managing changes to service delivery. This was particularly so as the formal name change of the team confirmed that there was an expectation that one aspect of service delivery must now involve crisis intervention and working with older children (12 to 16 year olds). A new referral form has been developed that will not be shared with the main CAMHS and the team will consider other referrals where the reason for the referral is that the young person is likely to be removed from their home. New timescales for referrals were introduced and referral outcomes are to be regularly reported to the Council's Invest to Save Board. Working in partnership with families to identify their levels of commitment is considered the key if family support team members want to help families achieve change. Working in partnership with social care district teams was identified as essential in ensuring that successful long-term outcomes are achieved.

7.3.3 Impact at a personal level

The individual follow-up interviews (April 2007) highlighted some helpful feedback on the impact of the use of repertory grids:

"The use of repertory grids helped me look more at myself rather than simply relying on academic theories. The use of grids helped me reflect on how I was positioning myself in relation to the constructs. It reinforced my view on the need for team members to change their way of thinking about casework."

"The use of repertory grids had demonstrated that constructs can be interpreted in different ways."

"The process of having time to reflect and think through issues had been helpful and, the use of repertory grids has been a valuable catalyst in this process."

"I found the co-construction process and team feedback on the comparative data (for individual and average team ratings) for the team constructs really helpful."

This feedback was to a large extent the motivator for applying the methodology to my EPS team.

7.3.4 Future plans

Future plans are to use PCP and repertory grids with other council teams and with staff in schools.