



**TLRP III:
Learning in and for interagency working**

**Interagency Collaboration:
a review of the literature**

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July 2004



Published by the Learning in and for Interagency Working Project

www.education.bham.ac.uk/liw

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Printed in the UK

ISBN 0-9550284-0-X

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The Learning in and for Interagency Working Project is part of Phase III of the Economic and Social Research Council's Teaching and Learning Research Programme.

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Acknowledgments

The *Learning in and for Interagency Working* project is directed by Professor Harry Daniels, University of Bath, and Professor Anne Edwards, University of Birmingham. It is one of twelve studies that comprise Phase III of the Teaching and Learning Research Programme (TLRP III), which is funded and managed by the Economic and Social Research Council (ESRC). The project team is located at the University of Birmingham, the University of Bath and the University of Loughborough.

The *Learning in and for Interagency Working* Project Team wishes to thank Natasha MacNab for her contribution to the initial review of the research literature.



Learning in and for Interagency Working

Executive Summary

Introduction

The *Learning in and for Interagency Working* (LIW) research project is one of twelve studies that comprise Phase III of the Economic and Social Research Council's Teaching and Learning Research Programme. The LIW project was designed in the policy climate that produced the *Every Child Matters* Green Paper (DfES, 2003) and 2004's Children Bill. Current policy initiatives such as these, which address the needs of children, young people and families identified as being at risk of social exclusion, call for 'joined up' responses from professionals. These responses need to be flexible and require practitioners to be able work together to support clients. In this context the LIW project is concerned with the learning of professionals who are engaged in the creation of new forms of practice that to meet complex and diverse client needs. The research team will study professional learning in services that aim to promote social inclusion through interagency working. The aim of LIW is to develop a model of work-based professional learning that will transform interagency collaboration among practitioners working across education, health, mental health, social services and criminal justice.

Aims of the review

This literature review comprises a review of research on interagency and cross-professional collaboration aimed at enhancing the capabilities of clients. It pays particular attention to analyses of interagency working that are informed by activity theory and which offer object-orientated analyses of complex, radically distributed work settings. The importance of activity theory to our research, therefore, is that it offers a conceptual framework for analysing forms of interagency working in which children and families work with frequently changing combinations of professionals from diverse services over extended periods of time. These professionals may be unused to learning to collaborate with workers from different services. In addition, to negotiating new professional practices with each other, professionals engaged in interagency working may also find themselves working in settings in which client participation is of key importance and children and families are expected to collaborate in the development of service patterns.

Scope of the review

In general the reviewed literature reports descriptive, single (or comparative) case studies. These include small-scale, local studies that employed generic evaluation methods but also a series of intervention studies informed by activity theory and employing developmental work research methodology. The reviewed literature covers four conceptual categories: literature drawing directly upon activity theory; literature informed by other theoretical approaches (particularly organisational/bureaucratic theory); narrative or evaluative papers which are largely atheoretical; strategic or policy documents which propose models of 'good practice' in interagency working.

Interagency working: the context

Current UK government policy has given priority to tackling social exclusion: that is, the loss of access to life chances that connect individuals to the mainstream of social participation. Social

exclusion can occur when individuals or communities suffer from combinations of linked problems such as unemployment, poor skills, low incomes, poor housing, high crime, bad health and family breakdown (Social Exclusion Unit, 2000). Government guidance since 1997 has exhorted traditionally separate agencies to work together in order to counter social exclusion and to develop public services that are organised to meet the needs of citizens, rather than the convenience of providers. 'Joined-up' welfare services have, therefore, been characterised as the driver of social inclusion.

Present policy enthusiasm for developing 'joined-up solutions to joined up problems' has generated a plethora of terminology to describe the collaborative approaches required: 'interagency', 'multiagency', 'inter-professional', 'inter-sectoral', and 'partnership' being prevalent (Lloyd *et al*, 2001). Moreover, portmanteau terms such as 'interagency' and 'multiagency' may be used to imply a range of structures, approaches and rationales. The literature reviewed herein is derived from studies of diverse models of 'interagency' or 'multiagency' working. For this reason, the review is not concerned with prescribing an exhaustive definition of the term 'interagency working'. However, Lloyd *et al* (2001) offer useful, albeit tentative, definitions that loosely encompass most of the structures and practices described in current literature. These working definitions include:

Interagency working: more than one agency working together in a planned and formal way, rather than simply through informal networking (although the latter may support and develop the former). This can be at strategic or operational level.

Multiagency working: more than one agency working with a client but not necessarily jointly. Multiagency working may be prompted by joint planning or simply be a form of replication, resulting from a lack of proper interagency co-ordination. As with interagency operation, it may be concurrent or sequential. In actuality, the terms 'interagency' and 'multiagency' (in its planned sense) are often used interchangeably.

Joined-up working, policy or thinking refers to deliberately conceptualised and co-ordinated planning, which takes account of multiple policies and varying agency practices. This has become a totem in current UK social policy.

Interagency working as co-configuration

The development of coherent models of interagency working is dependent upon systematic analysis of new forms of professional practice, framed by understanding of the historically changing character of organisational work and user engagement. The LIW project's analysis of interagency working will draw directly upon current developments in activity theory, which focus specifically upon the transitions and reorganisations within work settings that draw together multiple agencies (e.g. Engeström, 1999, 2004; Puonti, 2004). The form of work currently emerging in complex, multi-professional settings might be characterised as *co-configuration*: a form of work orientated towards the production of intelligent, adaptive services, wherein ongoing customisation of services is achieved through dynamic, reciprocal relationships between providers and clients (cf. Victor and Boynton, 1998). The definition of co-configuration is comparable with emerging forms of social provision in which a range of agencies and otherwise loosely connected professionals are required to collaborate with young people and their families to develop forms of support over extended periods of time.

Importantly, co-configuration is a participatory model, in which 'interagency' relationships include clients as well as professionals. Co-configuration is also characterised by *distributed expertise* and by shifts away from compact teams or professional networks. In short, professionals working with particular families may not share a common professional background or values, or share a common physical location and may meet quite fleetingly in a variety of configurations. This distributed form of work has encouraged a shift away from team working to *knotworking*: a rapidly changing, partially improvised collaborations of performance between otherwise loosely connected professionals. The

reviewed literature suggests that, within UK social provision, many agencies are operating on the cusp between the new co-configuration and longer established work forms. This is apparent in tensions between strategic and operational practice, in ambivalent attitudes towards distributed expertise and in anxieties over non-consensual practices.

Object-orientated analyses of interagency working

Activity theory literature emphasises the importance of focusing on the *object* of the activity system in collaborative, distributed work settings. In other words, its principal concern is with identifying what professionals are working on and their perceptions of the ends that are to be achieved. The object serves as a centring and integrating device in complex, multi-voiced settings; it becomes a way of conceptually framing diffuse professional groups, individual agents and complex practices and services. However, specific tools for collaborative, interagency practice are lacking at an operational level. Current developments in activity theory are concerned with producing conceptual tools to enable understanding of dialogue, multiple perspectives and networks of interacting activity systems. Central to activity theory's analysis of learning in practice is the notion of *expansive learning* among both professionals and service users. Expansive learning can be defined as the capacity to re-interpret and expand the definition of the object of activity. By rethinking their goals and activities and their relationships with other service providers and clients, professionals may begin to respond in enriched ways, thus producing new patterns of activity, which expand understanding and change practice.

Thus object-orientated analyses of interagency working are 'post-bureaucratic', in that they move beyond simply offering systemic prescriptions for managing collaboration and also avoid focusing exclusively on actors and their discursive interactions at the expense of focusing on object formation. This approach is pertinent to the radically distributed forms of 'joined up' working intended to counter social exclusion, wherein clients may encounter multiple agencies and individual practitioners over extended periods. In much of the reviewed literature current shifts towards radically distributed work and expertise are under-acknowledged. The increasing tendency for professionals to work in loose, constantly shifting configurations is often depicted as a 'barrier' to effective interagency working, rather than a shift to a new, expansive form of work. It is still often implied that the conflicts generated by interagency working must be denied and that the ideal work form is conventional team working, wherein professional expertise coalesces into tight, consensual communities of practice.

The emphasis placed upon consensual models of working in strategic and good practice may place constraints on expansive learning in practice and, in particular, may tend to under-acknowledge the importance of the internal tensions generated by activity systems as mechanisms for transforming practice. Consequently, Engeström *et al* (1997) stress the importance of developing tools 'for disagreement': ways of working that allow practitioners to capitalise upon inter-professional tensions and tensions between providers and clients. Existing practices, designed for single service provision may not suffice. Engeström emphasises the special importance of 'future-orientated tools': practices and instruments that do not merely address immediate working needs but which suggest means by which to expand learning and practice, so as to encourage continual innovation.

Bureaucratic analyses of interagency working

Analyses of interagency working that are rooted in activity theory define organisational learning as extending beyond the formation of organisational forms, rules, procedures, conventions and strategies). However, outside of the activity theory derived literature, organisational routines and forms remain the key research focus and there is little explicit emphasis upon tool creation or upon object-orientated analyses. In the reviewed literature, conceptions of interagency working are often truncated because 'joined up' working tends to be equated with systemic reconfiguration and

'partnership' processes. Moreover, strategic and good practice literature tends implicitly to propose interagency collaboration as a progressively linear 'solution' to social exclusion. By contrast, the position of the LIW project that interagency working is a learning process marked by tensions and contradictions, rather than an 'ideal' model of service delivery.

Knotworking and boundary-crossing

The demands of interagency working exceed current conceptualisation of work-related learning, in that standard concepts of learning in practice still often rely upon conventional notions of partnerships, teams, networks and communities of practice. In interagency/ co-configuration settings the emergent form of work is characterised by *knotworking*, which is intensely collaborative activity but relies upon constantly changing combinations of people coalescing to undertake tasks of relatively brief duration. By utilising developmental work research methods, Engeström *et al* (1999) have explored the extent to which it might be possible to facilitate knotworking at a more formal level, by introducing rules and tools explicitly designed to structure knotworking interactions. In short, his work raises the question of whether professionals can be trained to knotwork.

The notion of *boundary-crossing* offers a means of conceptualising the ways in which collaboration between workers from different professional backgrounds might generate new professional practices. Standard notions of professional expertise imply a vertical model, in which practitioners develop in competence over time as they acquire new levels of professional knowledge, graduating 'upwards' level by level in their own specialism. By contrast, boundary-crossing suggests that expertise is also developed when practitioners collaborate *horizontally* across sectors. Where practitioners from diverse professional cultures, such as education, mental health or youth offending teams, are engaged in shared activities, their professional learning is expanded as they negotiate working practices that cross traditional professional boundaries. In short, the working practices required to support 'at risk' young people and families are not the discrete province of any one profession but require planned configurations of complementary expertise drawn from across education, health and social services. Whereas standard professional role theories tend to focus on anxieties over professional barriers, Engeström's (1999, 2001a,b) notions of boundary crossing suggest that new developments in learning for interagency working should focus upon the potential spaces for renegotiation of professional practice that are opened up when workers from traditionally separate sectors begin collaborating. A related debate within the reviewed literature is whether moves towards interagency working will encourage professionals from diverse sectors to become adept at operating within the discursive practices of colleagues from other backgrounds or whether more fundamental reconfigurations of professional practice might lead to the emergence of hybrid professional types.

In activity theory 'boundary objects' are the focal points for analysing and understanding boundary-crossing practices. Boundary objects may take the form of physical objects or, alternatively, pieces of information, conversations, goals or rules. These become 'boundary' objects when they are worked upon simultaneously by diverse sets of actors. For example, a child's care plan may be negotiated by a nexus comprising teachers, social workers, health workers and educational psychologists. In such a situation the care plan assumes particular importance in the learning of these diverse professionals because it sits at the intersection between different professional practices or cultures. It can be used differently by the corresponding communities, providing a means to think and talk about an idea in multi-voiced fashion, without the necessity of any one community completely adopting the perspective of the other. A boundary object provides a mechanism for meanings to be shared and constructed across professional boundaries (and across boundaries between professionals and clients). Thus boundary objects provide key moments of meaning-creation, renewing learning through collaboration.

Conclusion

The reviewed literature suggests that conceptualisation of interagency working to counter social exclusion is under-developed, given the complex demands placed upon providers and clients in the post-Green paper context. In particular, both the learning processes that take place within interagency settings and the learning processes that might form a prerequisite to effective interagency collaboration remain under-explored. In the current policy context the prevalence of policy and strategic literature that emphasises good practice models is unsurprising but tends to perpetuate the notion of interagency working as a virtuous solution to 'joined up' social problems and to under-acknowledge interagency working as a site of tensions and contradictions, rather than an ideal model of service delivery. In addition standard analyses of interagency practice too often equate interagency developments with 'partnership' tools and with systemic analyses of collaboration.

Strategic literature and good practice models offer little in the way of conceptual tools to enable understanding of dialogue, multiple perspectives and networks of interacting activity systems. Outside of the activity theory derived literature, organisational routines and forms remain the key research focus and there is little explicit emphasis upon tool creation or upon object-orientated analyses. The development of coherent models of interagency working is dependent upon systematic analysis of new forms of professional practice, framed by understanding of the historically changing character of organisational work and user engagement. With regard to emerging practices around interagency working to counter social exclusion, there is a pressing need to identify and conceptualise the key features of learning and practice in work settings in which a range of agencies and otherwise loosely connected professionals are required to collaborate with young people and their families to innovate and develop forms of provision over extended periods of time.

1. Introduction

1.1 Aims of the review

The *Learning in and for Interagency Working* (LIW) research project is one of twelve studies that comprise Phase III of the Economic and Social Research Council's Teaching and Learning Research Programme. The LIW project was designed in the wake of the *Every Child Matters* Green Paper (DfES, 2003) and 2004's Children Bill. Current policy initiatives such as these, which address the needs of children, young people and families identified as being at risk of social exclusion, call for joined up responses from professionals. These responses need to be flexible and require practitioners to be able work together to support clients. In this context the LIW project is concerned with the learning of professionals who are engaged in the creation of new forms of practice that require joined up solutions to meet complex and diverse client needs. The research team will study professional learning in services that aim to promote social inclusion through interagency working. The aim of LIW is to develop a model of work-based professional learning that will enhance interagency collaboration among practitioners working across education, health, mental health, social services and criminal justice.

The research literature review is a Stage One activity (January-July 2004) in the LIW project. It comprises a review of research on interagency and cross-professional collaboration aimed at enhancing the capabilities of clients. In particular, it addresses the forms of *learning* developed in and required for interagency working. The reviewed literature focuses upon a diverse range of interagency initiatives which are designed to build social provision and are, in varying degrees, aimed at supporting client participation in the development of services. The primary purpose of the review is to inform the LIW team's initial conceptualisation of learning in and for interagency working and co-configuration. It therefore pays considerable attention to analyses of learning in practice that are informed by activity theory, as this is the theoretical framework that will drive the research study. However, it is hoped that the review will be of broad interest to readers who are concerned with the development of professional learning in interagency settings.

1.2 The format of the review

The review has generated three immediate outputs:

- an electronic database (in *Endnote format*) containing the results of the initial literature search (this has been completed and is currently available in the School of Education's shared 'Education' files; it will also be available on the LIW project website)
- a detailed review of key individual texts contained in the electronic database, providing commentary on the focus, methodology, findings, theoretical models and quality of each study
- a narrative summary of the review (the current document), which offers a critical overview of the review of interagency and cross professional collaboration.

The most useful way for readers to access the review will probably be through the narrative summary. Readers may then refer back to items contained in the *Endnote* database or the text-by-text commentary, as necessary. The database will be retained (and updated) for reference¹.

1.3 Methodology/ Quality

In general the reviewed literature reports descriptive, single (or comparative) case studies, employing purposive or opportunistic samples. Most were modest, local studies relying on generic

¹ Access the Learning in and for Interagency Working project website
<http://www.education.bham.ac.uk/research/proj/liw/resources/default.htm>

evaluation methods: interviews with key practitioners, clients and policy-makers, supplemented by participant observation and documentary analysis. The notable exceptions to these descriptive studies are those papers which draw upon intervention studies informed by Developmental Work Research methodology (e.g. Engeström *et al*, 1999, 2003; Engeström, 2001a; Kerosuo and Engeström, 2003; R. Engeström, 2003).

1.4.1 Theoretical models

The reviewed literature tends to fall into four categories in terms of theoretical/ conceptual approaches. Firstly, there is the body of literature which draws directly upon cultural historical activity theory (CHAT) and upon developmental work research (DWR) methods, e.g. Engeström *et al*, 1999; Engeström, 2001a, 2004; Engeström, R., 2003; Bleakley, 2004; Puonti, 2004. Studies informed by cultural historical and activity theory's conceptualisation of human learning take joint human activity as the fundamental unit of analysis through which to understand the historically changing character of organisational work and the specific types of knowledge and learning required by these shifts. In particular, current activity theory derived literature is concerned with the development of conceptual tools to understand dialogue, multiple perspectives and networks of interacting activity systems (e.g. Engeström, 2001a; Puonti, 2004); consequently, the study of working practice in interagency settings is a pervasive theme.

Secondly, there are other theoretically informed papers. These draw principally upon variations of bureaucratic/ organisational theory (e.g. Meyers, 1993; Farmakapoulou, 2002b), although there are also analyses drawing upon discourse analysis (e.g. Brown *et al*, 2000) and upon Foucaultian notions of institution-subject power relations (e.g. Allen, 2003). Lahn (2002) provides a notable example of an approach which spans activity theory and bureaucratic/ organisational theory. Thirdly, a sizeable proportion of the reviewed literature comprises papers which are largely atheoretical (or which claim a 'grounded' approach). Many of these are essentially research logs, offering narrative or 'evaluative' accounts of local interagency initiatives, e.g. Morrison, 1996; Coles *et al*, 2000; Secker and Hill, 2001; Pavis *et al*, 2003. Finally, there are strategic/ policy documents, which propose models of interagency working and which purport to identify good practice, e.g. Audit Commission, 1998, DfES, 2002, Frye and Webb, 2002, Whittington, 2003.

1.4.2 Activity theory

As indicated in Section 1.1 the analytical framework adopted by the LIW project is informed by activity theory. Of particular importance is Engeström's (1987, 1999, 2001a) analysis of transformations of work and the learning processes and outcomes achieved in the development of interagency practices. Engeström *et al* (1999) have explained the genealogy of key conceptual tools by outlining the development of three generations of activity theory. The first generation of activity theory drew heavily upon Vygotsky's (1978, 1986) concept of mediation. Vygotsky, in turn, predicated his notion of mediation upon Marx's (1976, p. 284) transhistorical concept of labour (or 'activity'), which states that:

'The simple elements of the labour processes are (i) purposeful activity, that is work itself, (ii) the object on which that work is performed, and (iii) the instruments of that work.'

Figure 1 represents Vygotsky's initial framework, which brought together human actions with cultural artefacts in order to dispense with the individual/social dualism. In essence, Vygotsky offered an object-orientated analysis of human activity, which was concerned with the *tools* (or mediational means) developed by actors in order to work upon the *objects* of activity. During this period studies tended to focus on individuals engaged in activity systems.

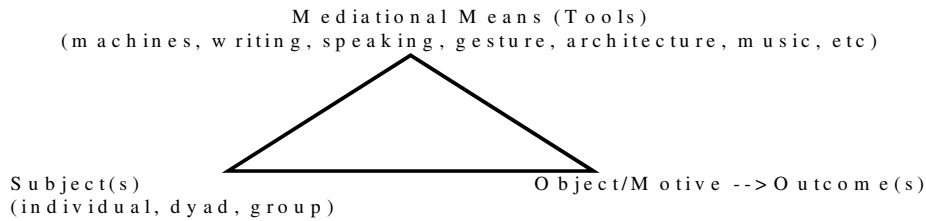


Figure 1: first generation activity theory model

Engeström's *et al's* (1999) second generation of activity theory referred to the work of Leont'ev (1978). Here Engeström *et al* (1999) advocated the study of artefacts 'as integral and inseparable components of human functioning' but argued that the focus of the study of mediation should be on its relationship with the other components of an activity system.

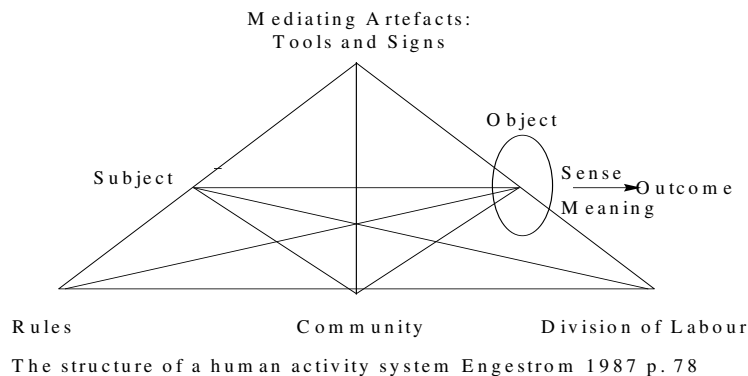


Figure 2: second generation activity theory model

In order to progress the development of activity theory Engeström expanded the original triangular representation of activity to enable an examination of systems of activity at the macro level of the collective and the community in preference to a micro level concentration on the individual actor or agent operating with tools. This expansion of the basic Vygotskian triangle aims to represent the social/collective elements in an activity system, through the addition of the elements of *community*, *rules* and *division of labour* while emphasising the importance of analysing their interactions with each other (*Figure 2*). The oval depiction of the object indicates that object-oriented actions are always, explicitly or implicitly, characterised by ambiguity, surprise, interpretation, sense making, and potential for change Engeström *et al*, 1999). At the same time Engeström drew on Il'enkov (1977, 1982) to emphasise the importance of contradictions within activity systems as the driving force of change and development.

The third generation of activity theory outlined in Engeström (1987, 1999, 2001a, b) takes joint activity or practice as the unit of analysis for activity theory, rather than individual activity (*Figure 3*). Engeström *et al's* (1999) analysis is concerned with the process of social transformation and incorporates the structure of the social world, with particular emphasis upon the *conflictual* nature of social practice. Instability and contradictions are regarded as the 'motive force of change and development' (Engeström *et al*, 1999) and the transitions and reorganisations within and between activity systems as part of evolution. Here it is not only the subject, but the environment, that is modified through mediated activity. Engeström *et al* (1999) view the 'reflective appropriation of advanced models and tools' as 'ways out of internal contradictions' that result in new activity systems (cf. Cole and Engeström, 1993).

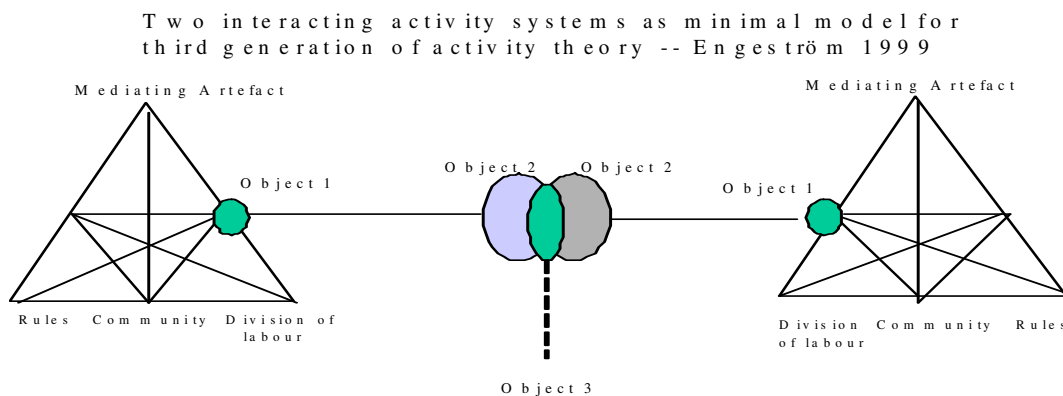


Figure 3: third generation activity theory model

The third generation of activity theory aims to develop conceptual tools to understand dialogues, multiple perspectives, and networks of interacting activity systems. Engeström *et al* (1999) pay attention to dialogue and multivoicedness within activity systems, in order to expand the framework of the second generation. The idea of networks of activity within which contradictions and struggles take place in the definition of the motives and object of the activity calls for an analysis of power and control within developing activity systems (cf. Daniels, 2004). The minimal representation which figure 3 provides shows but two of what may be myriad systems exhibiting patterns of contradiction and tension.

Engeström *et al* (1999) suggest that activity theory may be summarized with the help of five principles. The first of these is that a collective, artefact-mediated and object-oriented activity system, seen in its network relations to other activity systems, is taken as the prime unit of analysis. The second principle is the multi-voicedness of activity systems. An activity system is always a nexus of multiple points of view, traditions and interest. The division of labour in an activity creates different positions for the participants, the participants carry their own diverse histories and the activity system itself carries multiple layers and strands of history engraved in its artefacts, rules and conventions. This multi-voicedness increases exponentially in networks of interacting activity systems. It is a source of both tension and innovation, demanding actions of translation and negotiation. The third principle is historicity. Activity systems take shape and are transformed over lengthy periods of time. Their problems and potentials can only be understood against their own history. History needs to be considered in terms local history of the activity and its objects, but also as the history of the theoretical ideas and tools that have shaped the activity. Thus, service provision to counter social exclusion needs to be analysed against the history of local organisations

and also against the more global history of the social service concepts, procedures and tools employed and accumulated in the local activity.

The central role of contradictions as sources of change and development is the fourth principle. Contradictions are not the same as problems or conflicts. Contradictions are historically accumulating structural tensions within and between activity systems. Activities are open systems. When an activity system adopts a new element from the outside (for example, a new technology or a new object), it often leads to an aggravated secondary contradiction, where some old element collides with the new one. Such contradictions generate disturbances and conflicts but also drive attempts to change the activity. The fifth principle proclaims the possibility of expansive transformations in activity systems. Activity systems move through relatively long cycles of qualitative transformations. As the contradictions of an activity system are aggravated, some individual participants begin to question and to deviate from its established norms. In some cases, this escalates into collaborative envisioning and a deliberate collective change effort. An expansive transformation is accomplished when the object and motive of the activity are reconceptualised to embrace a radically wider horizon of possibilities than in the previous mode of the activity. A full cycle of expansive transformation may be understood as a collective journey through the zone of proximal development of the activity.

SUMMARY

Introduction

- LIW project is concerned with the *learning* of professionals who are engaged in the creation of new forms of practice that require 'joined up' solutions to meet the complex and diverse needs of 'at risk' young people and their families.
- This literature review comprises a review of research on interagency and cross-professional collaboration aimed at enhancing the capabilities of clients. It pays particular attention to analyses of interagency working that are informed by activity theory and which offer object-orientated analyses of complex, radically distributed work settings.
- In general the reviewed literature reports descriptive, single (or comparative) case studies. These include small-scale, local studies that employed generic evaluation methods but also a series of intervention studies informed by activity theory and employing developmental work research methodology.
- The reviewed literature covers four conceptual categories: literature drawing directly upon activity theory; literature informed by other theoretical approaches (particularly organisational/ bureaucratic theory); narrative or evaluative papers which are largely atheoretical; strategic or policy documents which propose models of 'good practice' in interagency working.

2. Methodology

2.1 Search

The initial literature search was conducted using a set of search terms (including synonyms) referring to interagency or 'joined up' working/ collaboration, interagency learning, social inclusion, education/ training, social services, health. Exclusion criteria were employed to reduce portmanteau effects of terms such as 'interagency', 'multi-agency' and 'collaboration' (e.g. to exclude papers referring to government bureaucracy, international development aid, commercial mergers).

The search employed ten different search engines, which were searched via title, abstract and keyword: *Ingenta*, *BEI/ BEIRC*, *Education-Media Online*, *Australian Education Index*, *ERIC*, *Index to Theses*, *Web of Science (WOK)*, *EDINA*, *BIDS*, *PubMed*. In addition, other website sources were used to locate potentially useful 'grey' literature (e.g. Department for Culture Media and Sport, Department for Education and Skills, Support Partnerships, Council for Awards in Children's Care and Education, National Training Organisations/ Sector Skills Councils).

This initial search produced a provisional database of 688 items. This pool of items was narrowed using the *Endnote* search engine, plus re-reading of abstracts and scanning of full texts to identify those papers which offered some degree of conceptualisation/ theorisation of inter-agency collaboration and learning. This produced a 'final' database of 107 items. The database has been presented in *Endnote* library format, which will be updated throughout the life of the LIW project. The *Endnote* database principally provides an abstract-level review, including standard bibliographic details plus keywords and abstracts.

2.2 Commentary

The purpose of this stage of the review was to produce a critical commentary beyond the level of detail provided in the abstracts. This involved reading full texts and producing notes on each individual paper, commenting upon:

- focus
- methodology
- findings
- theoretical models
- quality

This stage of the review provided:

- a detailed review of full texts according to common criteria
- a (non-prescriptive) 'weighting' of review items, according to 'quality' of methodology and findings
- a progressive refocusing of the *Endnote* database, in that some items, which appeared to fit the review criteria when assessed at abstract level, proved less relevant upon full reading (in particular, the abstracts of several articles over-claimed and, in actuality, did little more than offer interagency working as a 'recommendation').

3. Interagency working: rationale and definitions

Current UK government policy has given priority to tackling social exclusion: the loss of access to life chances that connect individuals to the mainstream of social participation. Social exclusion can occur when individuals or communities suffer from combinations of linked problems such as unemployment, poor skills, low incomes, poor housing, high crime, bad health and family

breakdown (Social Exclusion Unit, 2000). Although 'joined-up policy' has been advocated in various forms since the creation of the welfare state, government guidance since 1997 has exhorted traditionally separate agencies to work together in order to counter social exclusion and to develop public services that are organised to meet the needs of citizens, rather than the convenience of providers (Easen *et al*, 2000; Riddell and Tett, 2001). In identifying joined-up government as the driver of social inclusion, the New Labour government has characterised welfare reform as being:

'...inextricably connected with the pursuit of social justice. Joined-up policy is seen to lie at the heart of the new intelligent welfare state.' (Ridell and Tett, 2001, p.2).

Childhood and youth are periods of personal and social transition that render young people vulnerable to social exclusion (Baldwin *et al*, 1997). Overarching structural factors relating to education, health, housing and family life mean that large numbers of children and young people are at risk of social marginalisation. These structural factors generate and exacerbate inequalities of opportunity, with the effect that those young people who are most disadvantaged are prey to further social exclusion and weakening of their sense of social citizenship and community obligation (NSNR, 2000). Consequently, current welfare orthodoxies argue that 'the case for treating social problems in a holistic fashion is overwhelming. People know, in a simple everyday fashion, that crime, poverty, low achievement in school, bad housing and so on are connected' (Payne, 1998, quoted in Atkinson *et al*, 2002, p. 3). To this end, many of the recent key developments in forms of social provision which aim to enhance the capabilities of children, young people and their families by addressing their complex social needs have been predicated upon forms of interagency collaboration (Easen *et al*, 2000). These have included initiatives such as the Social Exclusion Unit, Sure Start, Education Action Zones, Health Action Zones, Connexions, the Children's Fund and Children's Trusts. However, professional boundaries between agencies (which are expressed in disparate goals, perspectives and priorities) have often impeded collaboration. 'Joined up' working is promoted as a 'self-evident good' but strategy and operation both remain problematic (Allen, 2003; Puonti, 2004).

Present policy enthusiasm for developing 'joined-up solutions to joined up problems' has generated a plethora of terminology to describe the collaborative approaches required: 'interagency', 'multiagency', 'inter-professional', 'intersectoral', and 'partnership' being prevalent (Lloyd *et al*, 2001). Moreover, portmanteau terms such as 'interagency' and 'multiagency' may be used to imply a range of structures, approaches and rationales. For instance, Atkinson *et al* (2002) posit five forms of multiagency activity: decision-making groups; consultation and training; centre-based delivery; co-ordinated delivery; and team operational delivery. This typology distinguishes between different foci of 'multi' or 'interagency' activity; some models concentrate on direct delivery to a range of target groups; others are engaged primarily in decision-making or providing training and consultation. However, Atkinson *et al* (2002) typify the failure of many studies to locate models of interagency collaboration within coherent *theories of work*.

The literature reviewed herein is derived from studies of diverse models of 'interagency' or 'multiagency' working.² For this reason, the review is not concerned with prescribing an exhaustive definition of the term 'interagency working'. However, Lloyd *et al* (2001; cf. Barrow *et al*, 2002) offer useful, albeit tentative, definitions that loosely encompass most of the structures and practices described in current literature. These working definitions include:

Interagency working: involves more than one agency working together in a planned and formal way, rather than simply through informal networking (although the latter may support and develop the former). This can be at strategic or operational level.

² Other than in quotations or where there is particular reason to adhere to an author's use of another term, this summary of the literature review will use the term 'interagency' working.

Multiagency working: implies more than one agency working with a client but not necessarily jointly. Multiagency working may be prompted by joint planning or simply be a form of replication, resulting from a lack of proper interagency co-ordination. As with interagency operation, it may be concurrent or sequential. In actuality, the terms 'interagency' and 'multiagency' (in its planned sense) are often used interchangeably.

Joined-up working, policy or thinking refers to deliberately conceptualised and co-ordinated planning, which takes account of multiple policies and varying agency practices. This has become a totem in current UK social policy.

In addition, Daniels (undated) quotes Rogers and Whetton's (1982) distinction between *co-operation* (referring to a relatively informal process involving 'deliberate relations between otherwise autonomous organizations for the joint accomplishment of individual goals') and *co-ordination* ('...the process whereby two or more organizations create and/or use existing decision rules that have been established to deal collectively with their shared task environment'). The *Every Child Matters* Green Paper (DfES, 2003, p.51) also refers to the need to begin:

'integrating professionals through *multi-disciplinary* teams responsible for identifying children at risk, and working with the child and family to ensure services are tailored to their needs.'

Outlining a flexible brief for interagency forms, the Green Paper states that 'Over time, professionals and nonprofessionals might increasingly work together in different types of teams' (DfES, 2003, p. 62). These teams may involve a range of professionals and agencies including:

- health visitors
- GPs
- social workers
- education welfare officers
- youth and community workers
- Connexions personal advisers
- education psychologists
- children's mental health professionals
- speech and language therapists and other allied health professionals
- young people's substance misuse workers
- learning mentors and school support staff
- school nurses
- home visitors, volunteers and mentors
- statutory and voluntary homelessness agencies

Literature which aims to promote interagency initiatives (e.g. Audit Commission, 1998; Barrow *et al*, 2002) often treats cross-professional collaboration as a given element, an unproblematic practice represented in idealistic fashion as resting upon 'an implicit ideology of neutral, benevolent expertise in the service of consensual, self-evident values' (Challis *et al*, 1998, p.17). This conception of interagency working rests upon 'non-conflictual' models of collaboration, in which the horizontal tensions that exist between different agencies and the vertical tensions that exist across different hierarchical levels are largely denied and consensus or 'shared' professional values or cultures are enshrined as the basis for interagency working. Moreover, many of the studies which do problematise interagency working, adopt a narrowly systemic approach, focusing upon managerial or technological 'barriers' to effective interagency collaboration (e.g. Roaf and Lloyd, 1995; Polivka *et al*, 1997, 2001; Morrison, 2000, Watson *et al*, 2002). Another prevalent strand of interagency analysis focuses upon 'barriers' created by differences of professional culture and identity (e.g. Brown *et al*, 2000; Trevillion and Bedford, 2003); yet these typologies of professional

culture are rarely integrated into broader theories of work or work-related learning. In these conceptual frameworks there is minimal emphasis upon the need for agencies to *learn* interagency working or for analysis of interagency working as 'a learning process with tensions and difficulties as well as insights and innovations' (Puonti, 2004, p.100).

There are two categories of literature on interagency working that focus upon recommending 'good practice' and which, consequently, offer very limited theoretical or conceptual framing. Firstly there is policy/ strategic literature, which exhorts professionals to engage in interagency initiatives and tends to promote 'a teleological discourse that depicts all 'joined up working' as a progressively linear solution' to social exclusion (Allen, 2003). These include: Audit Commission, 1998; Barrow, 2002, DfES, 2002; Frye and Webb, 2002; Whittington, 2003. Secondly, there is a proliferating body of papers that describe or evaluate individual interagency initiatives, tracing development at strategic and/ or operational level, e.g. Lloyd *et al*, 2001; Peck *et al*, 2002; Walker and Hext, 2002; Harker *et al*, 2004. Both of these types tend to devolve into prescriptions of good practice, recommending particular models, processes or working principles. Atkinson *et al*'s (2002, pp.3-10) review of literature on interagency working summarises the factors commonly cited as impacting upon the effectiveness of interagency operation. These issues pervade what might be termed the mainstream 'good practice' interagency literature:

- agency differences
- local authority structures and boundaries
- staffing arrangements and time investment
- individuals' and agencies' expectations and priorities
- agencies' aims and objectives
- budgets and finances
- confidentiality and information sharing protocols
- the need for development of a common language
- joint training

Tomlinson's (2003) executive summary of 'good practice' in interagency working is similarly indicative of the type of working processes which much of this level of literature advocates:

- full strategic and operational commitment to collaboration
- an awareness of agencies' differing aims and values, with a commitment to working towards a common goal
- involvement of all relevant people, often including clients and their carers
- clear roles and responsibilities for individuals and agencies involved in collaboration
- supportive and committed management of staff in partnerships
- flexible and innovative funding mechanisms
- systems for interagency collecting, sharing and analysis of data
- joint training, with accreditation where appropriate
- strategies to encourage team commitment beyond the personal interests of key individuals
- effective and appropriate communication between agencies and professionals
- a suitable, and sometimes altered, location for the delivery of services

What is apparent from these themes is that a large proportion of the current literature focuses upon systemic concerns, often equating interagency working with analysis of 'partnership' structures. The default position of the evaluation or analysis contained in this literature is a non-conflictual model of

interagency working, in which effective collaboration is dependent upon damping down conflicts and internal tensions. This level of literature is minimally concerned with the forms of professional learning that take place within interagency working and is largely atheoretical, in that its models of interagency working are not located within coherent theories of work, organisation or learning in practice.

4. Interagency working as co-configuration

While current UK social policy has placed interagency working at the centre of provision for preventing the social exclusion of children and young people, strategic calls for 'joined-up' working are running ahead of the conceptualisation of interagency collaboration and learning that is required to effect new forms of practice. The research proposal for the LIW study suggests that the development of coherent models of interagency working is dependent upon systematic analysis of the practices in which learning takes place and of the contradictions generated by forms of working that cross traditional vertical and horizontal role/ knowledge boundaries. The LIW study's initial conceptualisation of the forms of learning required in and for interagency working is informed by three analytical concerns:

- the location of forms of interagency working within coherent theories of work
- identification of the new forms that professional practices take within the specific context of interagency collaboration
- understanding of the historically changing character of organisational work and user engagement

With regard to the third of these, it is essential to acknowledge that the models of interagency collaboration and client-focused practice advocated in current calls for joined-up social provision constitute a historically specific form of work. Organisational changes geared towards cross-boundary collaboration and client participation require new forms of negotiated professional practice (Nixon *et al*, 1997). Engeström's (1987, 1999) development of third generation activity theory is motivated by a shift from the analysis of single activity systems to analysis of joint activity or practice; the transitions and reorganisations within and between activity systems are key evolutionary factors in the transformation of professional practice. Thus, by focusing upon dialogue and multi-voicing, current developments in activity theory aim to build conceptual tools for examining dialogues, multiple perspectives and networks of interacting activity systems. These conceptual advances have expanded the framework of second generation activity theory, which focuses upon the dynamics of practice within single activity systems. The idea of networks of activity within which contradictions and struggles take place in the definition of the motives and object of the activity necessitates analysis of power and control within developing activity systems (cf. Daniels, 2004) and also requires *historical* analysis of the emergence of activity systems. Without a substantive understanding of the historically changing character of the work done in an organisation, theories of organisational and professional learning are likely to remain too general and abstract to capture the emerging possibilities and new forms of learning.

In analysing and developing the capacity of services to learn and work with productive flexibility for social inclusion, the LIW study will draw upon Victor and Boynton's (1998) theorisation of learning and the transformation of work. Victor and Boynton (1998) identify five types of work in the history of industrial production: craft, mass production, process enhancement, mass customisation, and co-configuration (see *Figure 4*). Each type of work generates and requires a certain type of knowledge and learning. They suggest that progress occurs through learning and the leveraging of the knowledge produced into new and more effective types of work. Victor and Boynton (1998) characterise the form of work currently emerging in complex multi-professional settings as *co-configuration*. It should be emphasised that the LIW project treats co-configuration as a conjectural

model; it is an analytical tool, rather than an objective description of current patterns of interagency working or an ideal realisation of effective multiagency collaboration.

The value of theories of work, such as Victor and Boynton’s (1998), to the LIW project’s intervention study is underlined by reference to Vygotsky’s (1986) understanding of the symbiotic relationship between ‘scientific’ and ‘everyday’ concepts. Vygotsky distinguishes between the development of scientific and everyday concepts, both by content and manner of acquisition. Scientific concepts exhibit four defining features that are largely absent from everyday concepts: generality, systemic organization, conscious awareness and voluntary control. Whereas everyday concepts are related to the world of experience in a direct but relatively *ad hoc* manner, scientific concepts are more abstract and more general (Wells, 1994). Vygotsky (1978, 1986) proposes that progress in thinking involves the transformation of everyday concepts by abstract, organised and mediated processes:

‘Scientific concepts grow downward through spontaneous concepts; spontaneous concepts grow upward through scientific concepts.’ (Vygotsky, 1986, p.194)

Thus the scientific and the everyday mesh together to form a single thread of development. Everyday concepts are viewed by Vygotsky as providing necessary but not sufficient conditions for progress toward more powerful thinking tools (cf. Renshaw, 1992). Through its intervention activities the LIW project will aim to surface the informal ‘theoretical’ frameworks developed by professionals in the course of their everyday practice and to encourage interplay between everyday practice and formal theories of work practice, in order to develop tools for expanding learning in practice.

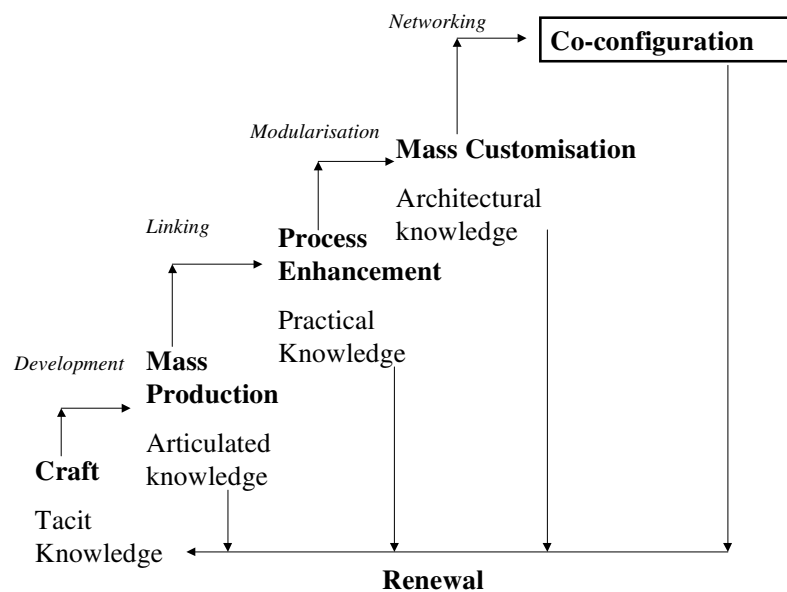


Figure 4: historical forms of work (adapted from Victor & Boynton, 1998)

Victor and Boynton (1998) argue that *craft* workers’ knowledge of products and processes rests in their personal intuition and experience about the customer, the product, the process, and the use of their tools. When they invent solutions, they create *tacit knowledge* that is tightly coupled with experience, technique and tools. This is, for instance, the kind of knowledge that teachers who regard themselves as ‘intuitive’ develop and use. Through the articulation of the tacit ‘craft’

knowledge, organisations may develop a machine-like system that appropriates the knowledge it has 'mined' from craft work and reformulated as the 'best way to work'. This *articulated knowledge* is then used for the purposes of *mass production*. This articulation process is apparent in attempts to codify 'best practice' in work forms that are open to mass training and surveillance, e.g. aspects of the Literacy Strategy. Just as in the shift from craft to mass production, progress beyond mass production is enabled by the leveraging of knowledge into new and more effective types of work. In mass production settings workers follow instructions yet also learn about work through observation, sensing and feeling the operations. They learn where instructions are effective and where they are not. This learning leads to new *practical knowledge*. The leveraging of the practical knowledge derived from mass production creates the work that Victor and Boynton call *process enhancement*. This involves setting up team systems in which members focus on process improvement, which promotes the sharing of ideas within the team and fosters collaboration across teams and functions. For example, process enhancement is a feature of the implementation of initiatives such as the Literacy Strategy in schools.

The new knowledge generated by doing process enhancement work is leveraged and put into action as the organisation transforms its work to *mass customisation*. This form of work builds upon process enhancement, as producers or service providers begin to place emphasis on identifying with a high degree of precision their clients' requirements. *Mass customisation* is based on *architectural knowledge*: the understanding of provider-service-customer relationships which enables the transformation to mass customisation. Recent moves in the development and adaptation of curriculum and pedagogy in the 14-19 sector incorporate this kind of work (DfES, 2004). It should be emphasised that these forms of practice do not supersede each other in a simple linear sequence. For instance, where the options provided by mass customisation are exhausted, there may be a need to steer working practices back to craft work in order to leverage out new information, in recognition that no universal formula can meet all client demands.

Co-configuration work is orientated towards the production of intelligent, adaptive services or products. As a form of production, it resembles but exceeds mass customisation. In the latter a product or service is designed at least once for each client (as in, for instance, the design of customised computer programmes); in co-configuration products and services undergo constant, ongoing customisation over an extended lifecycle. This necessitates a dynamic, dialogic relationship between multiple service providers, clients and the product-service; it is a relationship marked by mutual learning and by the collaborative and discursive construction of tasks (cf. Engeström and Middleton, 1996; Engeström, 2002, 2004). This interdependency is predicated upon working alliances that are qualitatively different from conventional team formations or consensus-built communities of practice (cf. Lave and Wenger, 1991; Nardi *et al*, 2000; Lathlean and LeMay, 2002). In co-configuration work participants are required to recognise and engage with the expertise distributed across rapidly shifting professional groupings. Harley *et al* (2003, p.4) remark that funding sources increasingly dictate that human service agencies:

'must centre on consumer-appropriate outcomes through collaboration and co-operation, not on sequential or parallel interventions that satisfy administrative requirements
...organizational boundaries can no longer be considered the "limit of influence" ...helping is no longer bound by the limits prescribed in job descriptions...'

Therefore, in co-configuration working there is a need to go beyond conventional team work or networking to the practice of *knotworking*, which is defined by Engeström *et al* (1999) as a rapidly changing, distributed and partially improvised orchestration of collaborative performance that takes place between otherwise loosely connected actors and their work systems to support clients. In knotworking various forms of tying and untying of otherwise separate threads of activity take place. Co-configuration in responsive, collaborating services requires flexible knotworking because, in

radically distributed work settings, no single actor has sole, fixed responsibility for or control over the development of working practice (Engeström *et al*, 1999).

Crucially, co-configuration is a *participatory* model. Service users are active in the shaping and reshaping of services, and in the development of the interdependent learning relationships via which practice is transformed. This implies a notion of 'interagency' relationships that is not confined to collaboration between professional interest groups but which includes service users as active subjects. Co-configuration affords service-users status comparable to Pugh's (1987, in Powell, 1997) definitions of 'partnership' (a working relationship predicated upon sharing of skills, information, accountability and decision-making) and 'control' (where users determine and implement decisions and are accountable to a high degree). By contrast, in *mass customisation* models, the agency of service users is highly circumscribed. While clients may have a degree of input into service design and customisation (at the point at which the producer or service provider tries to identify precisely what it is that the client requires) ultimate decision-making in relation to service design rests with professionals. The other key difference between mass customisation and co-configuration is that mass customisation tends to produce finished products or services, whereas the emphasis of co-configuration of work lies in the ongoing development of the product or service. The tensions generated by the shift in the role of service users that is associated with co-configuration are apparent in, for instance, Gallagher and Jasper's (2003) description of health visitors' relationships with client families in Family Group Conference settings.

In fact, several of the studies reviewed here suggest that, within UK social provision, agencies currently tend to operate on the cusp between mass customisation and co-configuration (e.g. Powell's, 1997, analysis of partnerships between providers and users of social welfare; Gallagher and Jasper's, 2003, evaluation of health visitors' experiences of Family Group Conferences). However, 'mainstream' analyses of emerging forms of interagency practice (e.g. Turnbull and Beese, 2000; Milbourne, 2003; Trevillion and Bedford, 2003) are frequently hampered by the lack of conceptual tools that might enable distributed, discontinuous working patterns to be depicted as a dynamic space, rather than as a 'barrier' to effective collaboration. This is indicative of the conceptual deficit that marks current theorisation of interagency working.

Organisational ambivalence towards the key features of emergent co-configuration is apparent in much of the literature on interagency working and is indicative of this historical cusp. This ambivalence can be described as taking both 'vertical' and 'horizontal' forms. For example, Milbourne *et al's* (2003) study of 'multi-agency' work aimed at reducing primary school exclusions describes the kind of 'vertical' organisational ambivalence that may impede the development of flexible, interagency working. Practitioners working at operational level regarded barriers to developing interagency approaches within small, short-term projects as irresolvable given that mainstream service remained divided 'at the most senior level'. In settings such as this senior-level commitment to interagency working remains largely rhetorical: practitioners are called upon to develop interagency collaboration at 'local' level but overarching departmental structures remain strongly insulated from one another. The consequences of this 'vertical' organisational ambivalence are that potentially expansive small-scale innovations are initiated but remain truncated because they are isolated within the macro-organisations (cf. Engeström, 2001a). Milbourne *et al* (2003) comment that, in practice, interagency working within their case study tended to be sequential, with staff from across agencies working on an individual basis with particular schools or cases. Moreover, expansion of working practice over time was constrained because short-term projects had no mechanism for offering their experience to subsequent interagency projects. Practitioners at operational level also felt that target-driven policies worked against small initiatives or organisations 'whose main goals are concerned with qualitative changes for human beings'; the focus on reducing exclusions was regarded by practitioners ultimately as 'only a proxy measure (which) may poorly reflect the value of the team's work' (Milbourne, 2003, pp.27-28). Conversely, in examining work

underway in three English local authorities to promote effective inter-agency collaboration around the education of looked after children, Harker *et al* (2004), identify instances in which commitment to joined up working was apparent at senior management level but impeded at operational level by conflicting professional priorities (cf. Farmakapoulou, 2002b). For example, social workers deprioritised what they perceived as 'educational issues' and misunderstanding of roles and responsibilities often led to interagency blame. While structures existed to support joint-working (e.g. co-operative agreements, co-ordinating bodies, reference groups), these did not always permeate agencies vertically; they were also perceived by professionals as lacking 'strategic clout' ('...there's no real responsibility taken on from that meeting to get things moving within the departments' Harker *et al*, 2004, p. 6).

Relationships between horizontal and vertical learning are integral to the analyses of organisational learning currently being developed in activity theory. Engeström emphasises the importance of horizontal movement in expansive learning processes situated in organisational fields that are moving toward co-configuration work. These horizontal processes include 'boundary crossing' (Engeström, 1995), 'multi-voiced dialogue' (R. Engeström, 1995) and 'negotiated knotworking' (Engeström, *et al* 1999). The general working hypothesis of this study is that expansive learning of the kind required and generated by co-configuration is *horizontal* and *dialogical*. It creates knowledge and transforms activity by crossing boundaries and tying knots between activity systems operating in divided multi-organisational fields (cf. Engeström, *et al* 1999). In the UK context research conducted within the National Evaluation of the Children's Fund (NECF, 2003) suggests that 'horizontal learning' is evident in many local authorities and that professional practices are being renegotiated as practitioners from across education, health and social services collaborate. What is less certain is the extent to which vertical learning is taking place in local authorities: that is the extent to which children's services maintain knowledge and learning loops between strategic and operational levels. The LIW project hopes to identify case settings in which 'boundary zones' have been created. We define these as spaces for the learning and negotiation of new professional practices. Such boundary zones may emerge in the course of everyday practice, even though they have not been systematically designed and implemented. The support and development of emergent interagency learning will necessitate critical examination of horizontal boundary zones (those existing at operational level, spanning different professional sectors, identities and cultures). However, it is likely that spaces in which practitioners are able to learn in and for interagency working are only really created where there is also *vertical learning*, developed within boundary zones between *strategic* and *operational* levels of practice.

Harris (2003), describing interagency collaboration in drug education and prevention work focuses upon the 'vertical' organisational contradictions generated where professionals are attempting to develop interagency work at operational level but acting within multiple, underlapping institutional and/ or policy frameworks. In Harris's (2003) cases there was no clear strategy to encourage collaborative working at operational level and little debate about collaboration *per se* at steering group level. This strategic deficit resulted in little sense of collective ownership and lack of clear leadership (the steering group contained no senior managers). In turn, this created anxieties among practitioners that interagency collaboration would simply generate greater workloads. Therefore, interagency working in this setting tended to be 'ad hoc, partial and temporary', and was enacted at individual case level. Participation by agencies such as the police was often seen as bolt-on expert input, rather than functioning as part of a genuine collaborative process.

Milbourne *et al* (2003) and Harris (2003) also identify 'horizontal' organisational ambivalence to the collaborative forms required in co-configuration working. In such instances practitioners from different agencies tended to accept the *rationale* behind interagency collaboration but development of practice was constrained by micro-political conflicts that were often voiced as anxieties over differences in professional 'cultures', 'identities' and working priorities. Harris (2003) suggests that

the structure and emphasis of the 'family of schools' drug project exacerbated horizontal divisions, since there were concerns that the project's focus would preclude a more holistic approach, in which drugs education was just one element. The structure of the project also meant that it was seen by social and health services as a 'project for schools', in which their own input was a bolt-on measure; conversely, some participating schools felt the project had been imposed upon them. Harris's (2003) study suggested that issues of power and resourcing were not necessarily resolved by interagency collaboration; they may, in fact, have been obscured or reinforced. Moreover, some teachers felt a risk in moving away from 'safe' specialist areas towards 'risky', less readily defined inter-professional work and felt inexperienced (and lacking in status) in comparison with social workers & police (although some police experienced similar boundary-crossing problems). Different professions were 'shrouded in mythology' and differing definitions of the object of the project reinforced tensions between, for instance, youth workers (who focused on individual client need) and police (who emphasised legal sanctions). In addition, Harris (2003, p. 312) remarks that 'New managerialism and the emphasis on external scrutiny, accountability, performativity, and cost effectiveness has reconstructed notions of professional expertise.' Practitioners experienced tensions between 'old and new forms of governance, between target-setting managerialism ...and partnerships as a means of achieving "joined up thinking" ...and policy.'

Milbourne *et al* (2003) note that, in the primary exclusions project, tensions created by frequent personnel changes exacerbated difficulties in constructing shared aims across agencies. Initial lack of co-ordination was also problematic, as were 'micro-political conflicts' over time allocated for evaluation. Practitioners felt that the loss of a shared geographical and resource base removed 'any natural context for informal exchange'. In addition, Milbourne *et al* (2003) identify a series of 'internal' team differences among practitioners from the collaborating agencies, including knowledge, professional discipline and local status but also differences of class and race. Milbourne *et al* (2003, p. 27) emphasise 'the significance of the interpersonal in partnerships ...located in terms of the networks and cultural capital brought from previous experience'. Interpersonal relationships 'can mobilize formal organizational loyalties and informal networks to promote and sustain shared values in interagency work, but can also serve to exacerbate existing tensions'. Arguably, tensions experienced by practitioners as a result of 'frequent personnel changes' and 'lack of a shared geographical and resource base' also reflect the cusp between mass customisation and co-configuration. One of the features of the latter is a move away from conventional team and/ or network structures. However, outside of e.g. Engeström *et al* (1999), Engeström, (2002, 2004), Nardi *et al* (2000), Puonti (2004) there is minimal acknowledgment in current literature of the reconfigurations engendered by radically distribution of expertise. Boundary-crossing shifts in the notion of inter-professional collaboration tend to be characterised in the literature (both by members of case groups and by commentators) as 'barriers' to collaboration, rather than 'spaces', of the kind suggested by Konkola (2001, in Tuomi-Grohn *et al*, 2003), in which working practices can be renegotiated.

For instance, Lathlean and Le May's (2002) paper describing the facilitation of interagency working via multi-professional 'communities of practice' restricts itself to a somewhat paradigmatic recounting of Lave & Wenger's (1991) model. As Nardi *et al* (2000) point out, communities of practice are characterised by tight connections and compact work settings, in which participants construct 'mutually defining identities' (Lave and Wenger, 1991; Wenger, 1998). This implies a high degree of consensus among memberships, in the creation and maintenance of shared vision of practice. Consensual models of interagency collaboration permeate both policy literature (e.g. Audit Commission, 1998; DfES, 2002; Frye and Webb, 2002; Whittington, 2003) and critical analyses (e.g. Powell, 1997; Diamond, 2001; Farmakapoulou, 2002). This is in diametric opposition to the activity theory derived analyses, in which *contradictions* or internal tensions within networks of activity are depicted as the engines of change and innovation. It must also be emphasised that activity theory derived analyses of learning in practice differ sharply from Lave and Wenger (1991)

in that activity theory's central concern is with *change* in practice and with contradictions as mechanisms for the expansion of practice. Engeström (1987, 2001a), R. Engeström *et al* emphasise that the expansive learning required and generated by co-configuration work is *transformative* learning that broadens the shared objects of work by means of explicitly objectified and articulated novel tools, models, and concepts. This is the visible superstructure of new forms of expansive learning at work.

The lack of a language in which to conceptualise instability and contradictions as something other than a 'barrier' to interagency working represents a key deficit in the literature. This conceptual tension is exemplified by Diamond (2001), who begins by seeming to adhere to a tight, consensual model of stable networking ('networks are often established on the basis of key individuals working together ...this model of working is highly dependent upon the network staying together...' p. 281). However, Diamond (2001, p. 282) also proceeds to address some of the features of distributed patterns of working, which are customarily overlooked in both strategic exhortations and critical analysis of interagency working:

'...even the Social Exclusion Unit Report ignores the reality of inter and intra agency conflicts; it recognizes one facet of the problem but does not explore the world as it exists for professionals, often working in isolation from their line managers and without proper forms of support or supervision. These could, of course, be addressed through establishing new layers of managerial accountability and control ...But, service departments and agencies are, often, working to different pressures of time and of accountability and finding the appropriate 'space' to work collectively is difficult (but not impossible).'

For certain contexts Diamond (2001, p. 282) suggests systemic remedies for inter/ intra agency conflict ('If the core set of problems is a managerial and an organizational one, then reforming the structure will help to facilitate greater integration and co-operation') but also acknowledges, albeit inconclusively, that co-configuration settings demand more expansive rethinking:

'If, however, the basic problem is one in which the needs of the programme(s) are in conflict with, or not understood by, the local community(ies) then a more fundamental set of reforms is required.' (p.282)

The issue of the dynamics existing between providers, the product or service and clients is central to the analysis of co-configuration. The cusped nature of current forms of work is reflected in the ambiguous relationships existing between providers and clients in many interagency initiatives and in the categories used by commentators to analyse such relationships. For instance, Powell (1997, p. 157), drawing upon Pugh *et al's* (1987) categorisation of service user participation, distinguishes between:

- *co-operation* (where users participate in an initiative, either from the outside, by offering support, or internally, through active involvement)
- *collaboration* (users working jointly with professionals but with decision-making remaining ultimately with providers)
- *partnership* (a working relationship predicated upon sharing of skills, information, accountability and decision-making, marked by 'a shared sense of purpose, moral respect and the willingness to negotiate')
- *control* (where users determine and implement decisions and are accountable to a high degree).

Powell (1997, p. 155) also notes 'Within welfare literature ...an unfortunate propensity to use partnership and participation interchangeably (which) confuses what are already contested and uncertain terms.'

Gallagher and Jasper's (2003) study describes health visitors' experiences of Family Group Conferences (FGCs) as part of Child Protection Planning. FGCs developed as a 'participatory approach to case planning', focusing on the extended family and significant others to consider the welfare of at-risk children and decide on a course of action; the FGC model is 'based on partnership, decision-making and family involvement and presents an alternative to case conferences' (p. 377). Gallagher and Jasper (2003) conclude that while most health visitors believed FGCs could empower families, some felt that, on occasion, FGCs threatened interagency working because health visitors often felt vulnerable due to a lack of shared responsibility between providers and clients and because of the flexibility and informality of FGCs. In general, health visitors accepted 'partnership with families' as a desirable principle and recognised that radical changes in practice and power-sharing were essential to 'true partnership'. However, there was also a feeling among health visitors that 'partnership' with FGCs was 'ill-defined and rarely practiced' (p. 381). Gallagher and Jasper (2003) comment that health visitors' mixed attitudes suggested that the FGC model challenged notions of professional expertise. Some also had concerns about whether families experiencing severe internal conflict could be a basis for good decision-making. 'FGCs have often challenged, rather than complemented, existing practice, which was certainly not the original intention of the approach (p. 382). In discussing the ambivalent responses of health visitors to FGCs, Gallagher and Jasper (2003) address the need, albeit in broad terms, for *learning* to prepare participants for interagency working in co-configuration settings. Without adequate preparation health professionals often argued over the FGC process and, consequently, family issues were lost. While health and social services professionals saw the potential of FGCs to act as a family-led forum (in a way that formal case conferences did not), they argued for more education and training in order to prepare both families and professionals for attendance at FGCs, so as to reduce over-dependence of the quality, skills, experience and values of co-ordinators, and to increase families' ability to make longer term plans.

Diamond (2001) reports on another contentious instance of client participation in his study of the roles of neighbourhood managers in regeneration initiatives. Diamond (2001) suggests that, in this case, *co-ordination* of local services took priority over *collaboration* with local communities in the operationalisation of inter-agency working. This resulted in 'a policy of inclusion but on terms which have already been defined and set outside the community. The space to be innovative and inclusive remains narrow and at the margins' (p. 277). Diamond's (2003) policy analysis of 'inter-agency' approaches suggests strong reliance on empowering key professionals to act as local catalysts but minimal emphasis on strengthening local accountability or community-based organisations. Interview data suggests client participation was severely constrained with residents feeling disempowered and that they had been presented with initiatives that had 'already been decided by' professionals. In turn, the neighbourhood managers felt that their role had been reduced to 'selling policy packages'. While the SEU and other strategic bodies emphasised the importance of responsiveness to community voices, local practitioners had to be concerned with implementing effective service delivery, in order to produce 'tangible results'. Professionals were, therefore, positioned by target-orientated policy as presenting 'the external world to the community ...not the other way around' (p. 280).

SUMMARY

Interagency working as co-configuration

- The development of coherent models of interagency working is dependent upon systematic analysis of emergent forms of professional practice, framed by conceptual understanding of the historically changing character of organisational work and user engagement.
- The LIW project's analysis of interagency working will draw directly upon current developments in activity theory, which focus specifically upon the transitions and reorganisations within joint activity systems.
- The form of work currently emerging in complex, multi-professional settings can be characterised as *co-configuration*: a form of work orientated towards the production of intelligent, adaptive services, wherein ongoing customisation of services is achieved through dynamic, reciprocal relationships between providers and clients.
- Co-configuration is, therefore, a participatory model, in which 'interagency' relationships include clients as well as professionals.
- Co-configuration is also characterised by distributed expertise and by shifts away from compact, consensual communities of practice towards *knotworking*: a rapidly changing, partially improvised collaborative performance between loosely connected actors.
- Expansive learning processes in interagency settings/ co-configuration forms are predicated upon horizontal movements, wherein mutual learning takes place through the shifts and tensions that occur when professionals from different backgrounds collaborate.
- The LIW project hopes to identify case settings in which 'boundary zones' have been created. We define these as spaces for the learning and negotiation of new professional practices. The support and development of emergent interagency learning will necessitate critical examination of horizontal boundary zones (those existing at operational level, spanning different professional sectors, identities and cultures). However, it is likely that spaces in which practitioners are able to learn in and for interagency working are only really created where there is also *vertical learning*, developed within boundary zones between *strategic* and *operational* levels of practice.
- The reviewed literature suggests that, within UK social provision, many agencies are operating on the cusp between the new co-configuration and longer established work forms. This is apparent in tensions between strategic and operational practice, in ambivalent attitudes towards distributed expertise and in anxieties over non-consensual practices.

5. Object-orientated analyses of interagency working

Engeström's (2001a) third generation of activity theory emphasises multi-voiced dialogue and structural contradictions as the driving force of change and development in activity systems and, therefore, as the guiding principle of empirical research into learning in practice. In particular, current activity theory derived literature is concerned with the development of conceptual tools to understand dialogue, multiple perspectives and networks of interacting activity systems (e.g. Engeström, 2001a; Puonti, 2004); consequently, the study of working practice in interagency settings is a pervasive theme. Central to activity theory's analysis of learning in practice is the notion of 'expansive learning': the capacity to interpret and expand the definition of the object of activity and respond in increasingly enriched ways, thus producing culturally new patterns of activity that expand understanding and change practice (cf. Leont'ev, 1978; Engeström, 1987).

Engeström (2001a, p.134) defines current developments in activity theory as focusing directly upon the challenges posed by interagency collaboration in co-configuration settings:

'Cultural-historical activity theory has evolved through three generations of research. The emerging third generation of activity theory takes two interacting activity systems as its minimal unit of analysis, inviting us to focus research efforts on the challenges and possibilities of inter-organizational learning.'

Puonti (2004, p.10) remarks that the necessary starting point for analysis of interagency collaboration:

'...is not to take collaboration between authorities as a fact or an ideal model to strive for, but rather to study it as a learning process with tensions and difficulties as well as insights and innovations.'

As indicated in Section 3, this readiness to depict interagency working as a learning process and to avoid equating interagency collaboration with non-conflictual practice is not always apparent in mainstream literature on interagency working that has emanated from the UK context (cf. Puonti, 2004, p.4: 'Collaboration between authorities has been seen as a mainly beneficial and unproblematic way of working'). In her study of interagency working in economic-crime investigation, Puonti (2004) organises her research questions around instability of learning in practice in a co-configuration setting. Central are questions relating to the ways in which the object of work is constructed in the process of interagency interaction and to how practitioners manage the object of work and process of collaboration.

Since activity theory is concerned with multi-voicedness, with tensions and difficulties and with contradictions within and between the different elements of the activity system, current developments have concerned themselves with the availability of tools to cope with disagreement and disruption. Engeström *et al* (1997) describe three levels of subject-object (instrumental) and subject-subject (communicative) relations.

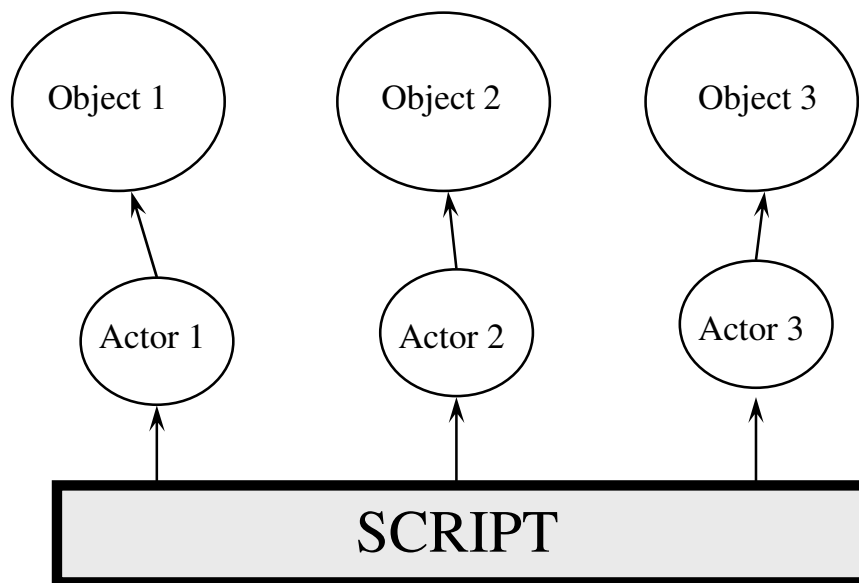


Figure 5: the general structure of coordination

Of these three levels, Engeström *et al* (1997, p.372) describe the 'normal scripted flow of interaction' as *co-ordination* (Figure 5). Here the subject-actors follow their scripted roles, concentrating on the successful performance of assigned actions. The script, which is coded in written rules and/ or tacitly assumed traditions, is not questioned or debated by the actors; as such, the script 'co-ordinates' the participants' actions, 'from behind their backs'. The second level of interaction is *cooperation*, wherein rather than focusing on performing assigned roles, the subject-actors address a shared problem, negotiating ways to conceptualise and solve it (Figure 6).

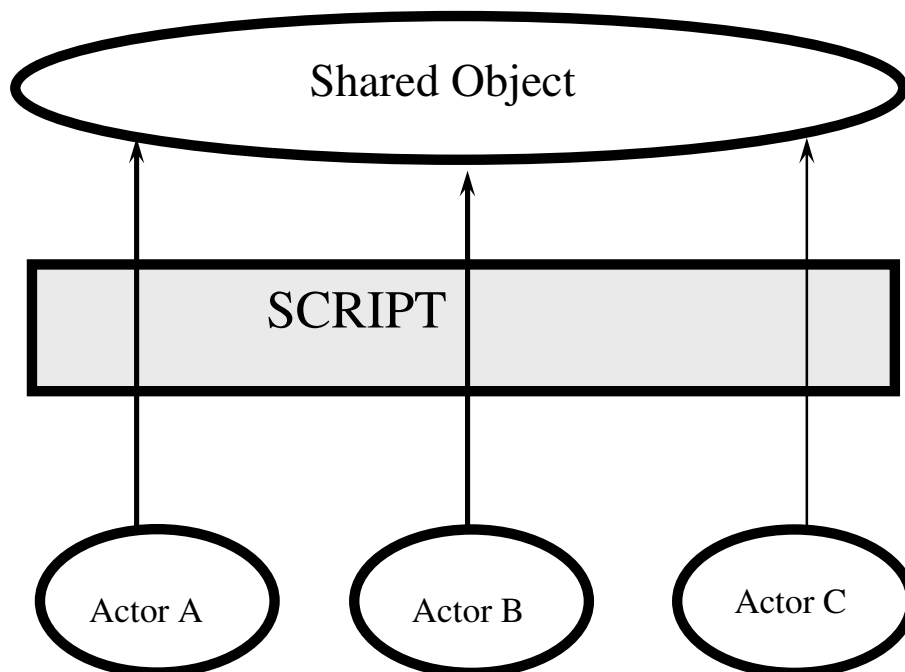


Figure 6: the general structure of cooperation

Thus cooperating participants exceed the confines of the script but without explicitly questioning or critiquing it. Transitions from coordination to cooperation may occur in interactions between professional practitioners or in interactions between professionals and clients. In contrast, *communication* is a reflective level of interaction, in which subject-actors focus upon 'reconceptualizing their own organisation and interaction in relation to their shared objects' (Engeström *et al*, 1997, p.373). Communication is an expansive mode, in which both object and script are critically re-thought (*Figure 7*).

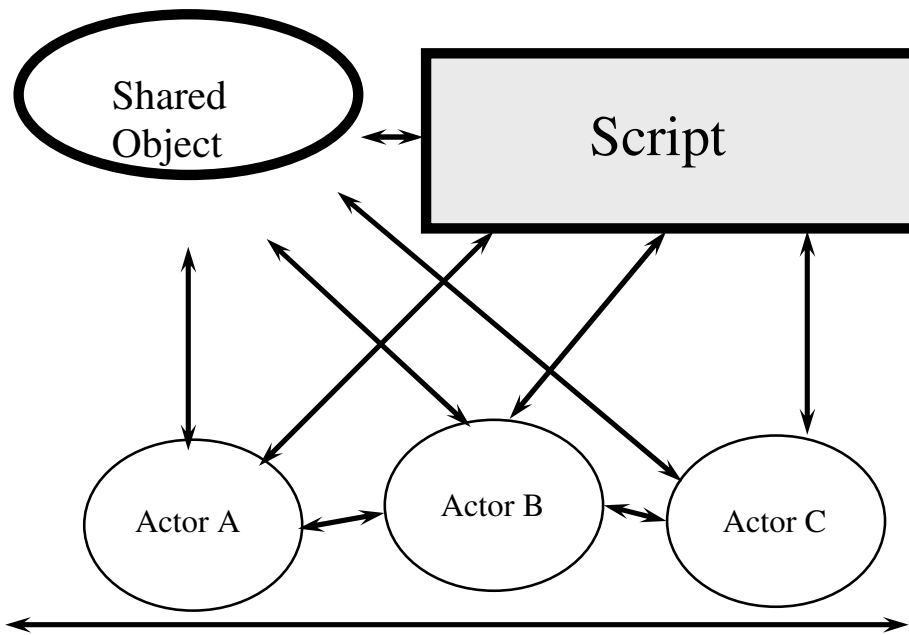


Figure 7: the general structure of communication

Engeström *et al* (1997) suggest that transitions to communication are relatively rare. The mechanisms of transition between the three levels of interaction include: *disturbances* (unintentional deviations from the script); *ruptures* (blocks, breaks or gaps in the inter-subjective understanding and flow of information between participants in the activity); expansions (collaborative reframing of the object by moving towards cooperation or communication).

In his study of emergent interagency practice in health care Engeström (2001a, 2002, 2004) emphasises the dynamic, unstable character of the forms of interagency working generated by co-configuration ('A new landscape of learning emerges as work is transformed from mass production and mass customization toward co-configuration of customer-intelligent products and services with long lifecycles.' Engeström, 2002, p.1). Drawing upon Barley and Kunda (2001), Engeström (2002) argues that the transformation of work practices brought about by shifts towards co-configuration necessitates the development of 'post bureaucratic' theories of organisational learning. Co-configuration 'offers radical strategic advantages when the objects of work demand it ...co-configuration is a strategic priority because the different caregivers and the patients need to learn to produce together well coordinated and highly adaptable long-term care trajectories' (p. 3).

Engeström's (2002) depiction of co-configuration suggests vertiginous, partially improvised, radically distributed working relationships:

'The actors are like blind players who come eagerly to the field in the middle of the game not knowing who else is there and what the game is all about. There is no referee, so rules are

made up in different parts of the field among those who happen to bump into one another. Some get tired and go home.’ (Kangasoja, quoted in Engeström, 2002, p. 3).

In short, Engeström (2002, 2004; cf. Engeström *et al*, 1999) depicts an interagency site in which single actors are not all powerful, in which they are required to operate across multiple settings, in environments that may be unfamiliar or unpredictable, all the while being linked to other actors in varying configurations across space and time. In such a situation:

‘A precondition of successful co-configuration work is dialogue in which the parties rely on real-time feedback information on their activity. The interpretation, negotiation and synthesizing of ...information between the parties requires new, dialogical and reflective knowledge tools as well as new collaboratively constructed functional rules and infrastructures.’ (Engeström and Ahonen, 2001).

Engeström (2001a, 2002, 2004) therefore proposes the concept of ‘expansive learning’ or ‘radical exploration’ as the key to analysing and designing learning processes within co-configuration:

‘Radical exploration is learning what is not yet there. It is creation of new knowledge and new practices for a newly emerging activity, that is, learning embedded in and constitutive of a qualitative transformation of the entire activity system.’ (Engeström, 2004, p.4)

While this definition emphasises expansive learning as a forward-orientated learning action, Engeström (2004, p.4) also stresses that expansive learning is ‘intertwined with horizontal or sideways movement across competing or complementary domains and activity systems, particularly characteristic to co-configuration’.

Mode	Description	Example
Level 1	conditioning through the acquisition of responses deemed correct within a given context	learning the correct answers and behaviours in a classroom
Level 2	acquisition of the deep-seated rules and patterns of behaviour characteristic to the context itself	learning the “hidden” curriculum of what it means to be a student
Level 3	radical questioning of the sense and meaning of the context and the construction of a wider alternative context	learning leading to change in organisational practices

Figure 8: Bateson’s levels of learning (from Down, undated)

Down (undated) relates expansive learning to Bateson’s (1972) theory of learning. Bateson (1972) distinguished between three levels of learning (Figure 8). *Level 1* learning includes the processes that are routinely referred to in everyday settings as ‘learning’: that is, generalisation from basic experiences, leading to understanding of appropriate behaviour in specific contexts. Level 1 learning is compatible even with [behavioural](#) views, as well as with [cycles of experiential learning](#). *Level 2* learning contextualises and develops strategies for maximising Level 1 learning through the extraction of implicit, deep-seated rules (including variations and exceptions to Level 1 ‘rules’). Thus if Level 1 is seen in terms of mastery of the curriculum, Level 2 learning equates with gaining a grasp of the hidden curriculum. Level 3 learning contextualises learning 2, through radical questioning of the meaning of behaviour and context. As such, it offers opportunities for

reconceptualisation, change and development. Therefore, expansive learning can be seen as developing from Level 3 learning, in that it actively and collectively develops new patterns of activity.

The aim of the LIW project is to develop conceptual tools to understand dialogue, multiple perspectives and networks of interacting activity systems. In its study of professional learning in interagency settings the LIW project will take expansive learning as a central focus. Expansive learning implies a capacity to interpret and expand the definition of the object of activity in ways that produce culturally new patterns of activity. Standard theories of learning fail to explain how new forms of practice are created and organisations transformed. A key element of the LIW study is its concern with the expansive capacity of professionals working in interagency settings to recognise and engage with distributed expertise in complex work places. Equally, the research is concerned with expansive learning among service users, as they develop their interpretations of and actions in their worlds, in the course of their interactions with services and providers.

Engeström (2002, p.9) cautions that there are pitfalls attached to pursuing post-bureaucratic analyses of professional practices. Ethnographic research investigating the ways in which professional activities are constructed by actors 'has surely been a healthy antidote to the tyranny of structures (but) there is a risk in focusing exclusively on actors ...professionals and their discursive interactions may appear as somewhat omnipotent constructors of their activities and social worlds.' This point is clearly relevant to the forms of joined up working intended to counter social exclusion. A single child or family may encounter multiple agencies spanning the education, health, social services, housing or criminal justice sectors and staff turnover, institutional reorganisation or delegation may exacerbate already vertiginous relationships.

'To an increasing degree, professional work and discourse are socio-spatially distributed among multiple organizational units and form long chains of interconnected practical and discursive actions. Actors become dispersed and replaceable, which renders the focus on actors increasingly vulnerable as a research strategy.' (Engeström, 2002, p. 9)

In much of the current mainstream research literature on interagency working, which remains aligned to organisational/ bureaucratic theory and/or concerned with issues of professional culture and identity (often expressed in debates over 'role blurring' e.g. Brown *et al*, 2000; Peck *et al*, 2001), the shift towards radically distributed work and expertise is voiced tentatively. For example, in Milbourne *et al* (2003) distribution of expertise over time and space tends to be perceived as a deviation from the formation of coherent teams and networks, a 'barrier' to effective interagency working which must be overcome, rather than as a forward shift to a new form of work. The underlying assumption is that the conflicts generated by interagency collaboration will be erased by the coalescing of expertise into recognisable communities of practice, of the kind which have characterised mass production or mass customisation work. In short, in much mainstream interagency literature, effectiveness is equated with the containment of distribution to a moderate form and the diminution of conflict. A countervailing view is offered by Nixon *et al* (1997), who argue that professional renewal depends upon the negotiation of new, qualitatively different forms of professional practice, wherein workers take a proactive stance, re-orientating themselves to work settings marked by instability, distributed expertise and boundary-crossing. These conceptual tensions are, again, perhaps indicative of analyses developed on the cusp between mass customisation and co-configuration, a transition described in Nardi *et al* (2000):

'Much of what we hear and read ...describes new forms of workplace organisation that presume robust institutional underpinnings. According to these accounts, technology and social change are working together to create wondrous new organizational configurations such as learning communities ...virtual teams, communities of practice.' (p.1)

'Engeström ...noticed that a great deal of work in today's workplace is not taking place in teams ...non-team work configurations such as airline crews, courts of law and groups of radiologists ...assemble at work in a situation-driven way.' (p. 24)

The notion of a 'situation-driven' analysis of interagency working is comparable with Engeström *et al* (1999). The complex, object-orientated approach of such analyses also gives an indication as to why much current interagency literature prefers to remain within the frameworks of organisational or professional role theory, rather than attempting to develop analyses framed by theories that address the historical development of work. Engeström *et al* (2003, p.307) identify and address the problem of analysing learning in unstable, co-configurative, interagency settings:

'What can keep radically distributed work and expertise together, coordinated and capable to act in concert when needed? We argue that the necessary glue is focus on the *objects* of professional work and discourse.'

Engeström (2002, 2003, 2004) argues analysis of interagency learning in co-configuration settings must cohere around the *object of work*. Understanding of learner-subjects, of organisations and collaborative efforts must stem from analysis of the shifting purpose of the collective activity ('Organizations ...emerge and continue to exist to produce goods, services, or less clearly definable outcomes for ...users. If you take away patients and illnesses, you do not have hospitals.'). Puonti (2004, p. 35) summarises:

'Collaboration between authorities is easily understood as the interaction, relations and mutual interdependency involved in the shared field of economic-crime investigation. But without the notion of the object, the collaboration easily remains a loose and ambiguous concept. Such a notion enables us to grasp the multiorganizational field of divergent agencies by following who takes part in the object construction. Those involved in the same activity can be recognized by following the object ...However, there is not necessarily a shared understanding of the object, even though people are collaborating. Each participant has his or her own perspective on it, but the need for and possibility of a shared object must be taken into account.'

Engeström (2004) quotes Knorr-Cetina (1997, p.9) in order to explain the importance of the object in collaborative, radically distributed work settings, such as those that are encountered in interagency work aimed at fostering social inclusion:

'...objects serve as centring and integrating devices for regimes of expertise that transcend an expert's lifetime and create the collective conventions and the moral order communitarians are concerned about.'

In turn, the object of work, the object of an *activity system*:

'...is not reducible to the raw material given or the product achieved. It is understandable as the trajectory from raw material to product in the emerging context of its eventual use by another activity system.' (Engeström, 2004, p.6).

The understanding of the object of work as a *trajectory* is explicated by Engeström's (2004, p.6) distinction between 'objects' and 'goals':

'Objects should not be confused with goals. Goals are primarily conscious, relatively short-lived and finite aims of individual actions. The object is a heterogeneous and internally contradictory, yet enduring, constantly reproduced purpose of a collective activity system that motivates and defines the horizon of possible goals and actions.' (cf. Leont'ev, 1978; Y. Engeström, 1995)

The LIW project will study the learning that takes place within professional and client trajectories of participation in activity that aims to support 'at risk' young people. The specific research focus will be on professional learning in and across organisations involved in supporting the education and

care plans (ECPs) of secondary school pupils who are disaffected, at risk of exclusion and/or have special educational needs. These young people require, but typically are not in receipt of, flexible and responsive interagency service delivery. The ECPs of these young people are the objects of the activities within which the practices and learning of the professionals will be examined. In essence, therefore, the trajectories of these 'at risk' young people from assessment through to the negotiation and evolution of ECPs constitute the objects being worked on by service professionals and by the young people themselves.

The 'object' is a central organising principle in activity theory. For Puonti (2004, p.34) the object is defined as 'a project under construction', thus:

'The distinction between goal-directed *action* and object-oriented *activity* is crucial. The object and the motive must not be confused with the goals of actions: you cannot see activity, but it is realized through observable actions to which achievable goals are attached. Actions are relatively independent but subordinate units of analysis that can be understood only when interpreted in terms of the entire activity... The actions are situated, the activity is historically oriented ...The object is not a static part of the activity system as is sometimes mistakenly assumed. It is a moving target.'

The distinction between individual *action* and collective *activity* (brought about by the historically evolving division of labour) is derived from Leont'ev (1978). This differentiation forms the basis of Leont'ev's model of activity, here exemplified in his illustration of the role of the beater in a group hunt:

'A beater, for example, taking part in a primeval collective hunt, was stimulated by a need for food or, perhaps, a need for clothing, which the skin of the dead animal would meet for him. At what, however, was his activity directly aimed? It may have been directed, for example, at frightening a herd of animals and sending them towards other hunters, hiding in ambush. That, properly speaking, is what should be the result of the activity of this man. And the activity of this individual member of the hunt ends with that. The rest is completed by the other members. This result, i.e., the frightening of the game, etc., understandably does not in itself, and may not lead to satisfaction of the beater's need for food, or the skin of the animal. What the processes of his activity were directed to did not, consequently, coincide with what stimulated them, i.e. did not coincide with the motive of his activity; the two were divided from one another in this instance. Processes, the object and motive of which do not coincide with one another, we shall call "actions." We can say, for example, that the beater's activity is the hunt, and the frightening of the game his action...

'What unites the direct result of (his) activity with the final outcome? Nothing other than his relation with the other members of the group. This relation is realised through the activity of other people ...the connection between the motive and the object of an action reflects objective social relations, rather than natural ones.' (Leont'ev, 1981, in Engeström, 1987)

Puonti (2004), in her study of Finnish interagency collaboration in solving economic crime, usefully equates the object-trajectory with practitioners' notions of a 'case'.

'I understand that "the case" in the way the practitioners talk about it includes both the crime and the actions conducted to solve it. The case is an embodiment of the object. It is what will potentially be formed as the shared object of those who participate in the investigation process. What makes the construction of shared objects complicated is that each participant, be it a police officer, a tax inspector, a prosecutor or an enforcement officer, is simultaneously taking part in several investigation processes in which some of the participants are the same people, and some are different. The interactional webs are complicated and intertwined. Naturally, the generalized object, the societal phenomenon of

economic crime, is in the background all the time when the investigators work on a "case".' (Puonti, 2004, p.36)

R. Engeström's (2003, p.3) example of object-as-trajectory, drawn from the field of collaborative health care is comparable with the object constituted via current interagency collaborations to support 'at-risk' children, young people and their families:

'In medical work, the object of activity is embodied in the patient who is living through the problems professionals are obliged to tackle. The object is not what appears to be – stable realities of human body and disease to be discovered by the professionals. Rather, medicine displays realities that are rational fabrications and collective interpretations of scientific and medical practice. Medical practitioners transform patient problems into solvable problems. Being solvable does not yet imply that the patient's problem is relieved but characterises the object of clinical work as a trajectory from symptoms to treatment outcomes constructed with historically changing resources and distributed expertise.'

Thus the radical distribution of labour and expertise of the kind that characterises interagency working across education, health, mental health, social services, housing and criminal justice sectors requires an analytical focus that moves beyond individual professional actors as the loci of power and activity, and focuses upon multiple collaboration distributed across space and time:

'History is not made by singular actors in singular situations but in the interlinking of multiple situations and actors accomplished by virtue of the durability and longevity of objects.' (Engeström, 2004, p.6).

Puonti (2004) argues that changes in interagency working over the past decade have not only been quantitative (in terms of the proliferation of interagency initiatives) but also qualitative, in that interagency collaboration has increasingly shifted from a *sequential* to a *parallel* form (see Figure 1). In the sequential model, states Puonti (2004), cases were passed from one agency to another in linear fashion, without any greater interaction between agencies than was necessary to transfer the caseload: 'the collaboration was *sequential*, the next baton carrier started when the previous one stopped running' (Puonti, 2004, p. 28). By contrast, in the parallel model, joint action is undertaken *in real time*, simultaneously with the evolution of the ongoing crime and actions are subject to negotiation between the participating agencies. This is a complex depiction of the 'case' or object as a trajectory and it bears comparison with the holistic approach to diagnosing and managing cases now favoured in interagency working for social justice in the UK (cf. Lloyd *et al*, 2001; Atkinson *et al*, 2002; Allen, 2003). Puonti (2004, p.29) stresses that the move towards parallel collaboration does not merely represent a structural-temporal shift; it also represents a change in the *contents* of the collaboration:

'In practice, collaboration between authorities seems to have developed from the mere exchange of necessary information in two directions: *project-oriented* collaboration and *operational*, investigative collaboration. The common feature in both is that they involve parallel rather than sequential collaboration.'

The challenge identified by Puonti (2004, p.27) is that while 'practitioners participating in the investigation are tackling the tensions of interorganizational collaboration everyday ... Specific rules and tools for collaborative, interorganizational investigation are virtually lacking at the operational level.'

SEQUENTIAL COLLABORATION	PARALLEL COLLABORATION
Isolated, individual efforts to collaborate	Common social ideology as a basis for collaboration
Restricted information exchange only when necessary	Legislation modified to enable functional information exchange
Interaction between authorities only when needed	Liaisons with 'other' agencies to increase personal contacts, shared projects
Separate training for each authority provided by the respective administrative sectors	Shared training courses for authorities
Executive assistance as the standard form of collaboration	Collaborative operations (raids) and multiorganizational projects as standard forms of collaboration

Figure 9: Essential differences between sequential and parallel collaboration in economic-crime investigation (from Puonti, 2004)

The 'intensification' of collaboration represented by the shift towards parallel interaction can be read as an attempt to 'resolve' or to work through what Engeström (1987) terms a tertiary contradiction (between the object/ motive of the dominant form of the central activity and the object/ motive of a culturally more advanced form of the central activity). Puonti (2004) states that the 'changing object' of economic crime has become more difficult for a single organization to manage. Again this is comparable with the UK context in which the redefinition of the object of interagency working for social inclusion (i.e. towards a holistic conception of multiple disadvantage, cf. NSNR, 2000; DfES, 2003) has generated contradictions between the transforming object and the single (or sequential) agency approach. However, moves towards parallel collaboration notwithstanding:

'...the diverse orientations of the collaborators and the diverging conceptions of the object can be seen as sources of disturbances, misunderstandings and disagreements, as well as mundane innovations in the actual investigation and in the interaction between the participants. These may be conceptualized as manifestations of underlying *contradictions*. Contradiction is another key activity-theoretical concept. In fact, it functions as an energy source of learning in the investigation process. In collaboration, the divergent perspectives may become a significant source of innovation: there is positive potential in conflicts and controversies.' (Puonti, 2004, p.37)

While the definition of 'contradictions' in Engeström's work and elsewhere in activity theory requires development, its role (deriving from Marx and Hegel) as the mechanism for change and innovation of learning in practice is a central one. In particular, while Engeström (1987) has proposed four levels of contradiction as experienced within activity systems, the term 'contradiction' is also used rather loosely in activity theory-derived literature as a synonym for tension or conflict. The term 'perturbation', which Bleakley (2004) uses to refer to a shift 'away from habitual practice' in any of the elements of an activity system functioning as the mechanism for transforming activity systems, should also be noted, particularly in the context of tertiary contradictions.

In his critique of inter-professional learning, which emphasises the importance of boundary crossing and horizontal learning, Bleakley (2004) argues that the shortcomings of standard theories of adult and professional learning lie in their privileging of the 'private ownership of knowledge' and consequent failure to address the *distributed* nature of learning. Puonti (2004, p.44) states that the shift towards parallel forms of interagency working highlights the fact that:

'the human mind is distributed among people, their representations and artifacts
...knowledge is not merely "in the head" ...it is also "in the world" and "between people"'.

Interagency collaboration involves the distribution of responsibilities and tasks; vertical and horizontal tools are required to support and facilitate this mode of working. Existing tools, designed for intra-organisational practice may not suffice. The result is the emergence of what Engeström terms secondary contradictions (i.e. between the different constituents of the activity system). Puonti's (2004) experience that practitioners readily identify the primary tools that they utilise but often encounter difficulty in identifying 'intangible, conceptual and socially distributed tools' (Puonti, 2004, p.44) throws into the relief the conceptual limitations of much of the 'systemic' analysis found in the literature on interagency working (e.g. Farmakapoulou, 2002 a, b; Meyers, 2003).

Brown and Duguid (1992) claim that the tools utilised in any field of practice embody the accumulated knowledge of generations of practitioners, reflecting that particular sector's insights and supporting (or reproducing) learning. Bakhurst (1991) draws upon Il'enkov (1977, 1982) to examine at length the ways in which artifacts within activity systems are sedimented with cultural significance:

'...in being created as an embodiment of purpose and incorporated into our life activity in a certain way - being manufactured for a *reason* and put to a certain *use* - the natural object acquires a *significance*. This significance is the "ideal form" of the object, a form that includes not a single atom of the tangible physical substance that possesses it...It is this significance that must be grasped by anyone seeking to distinguish *tables* from *pieces of wood* ...Objects owe their ideality to their incorporation into the aim-oriented life activity of a human community, to their *use*. The notion of significance is glossed in terms of the concept of representation: artifacts represent the activity to which they owe their existence as artifacts.'
(Bakhurst, 1991, p.182)

However, to generate expansive learning of the kind that changes practice *new* tools must be designed in order to support expansive, transformative learning in practice. Brown and Duiguid (1992) suggest that tools may enhance or prevent the development of communities and that the effectiveness of tools is apparent in the community of users that forms around particular tools, work systems or processes (Puonti, 2004). Engeström emphasises the special importance of 'future-orientated' tools: artifacts that do not merely address the immediate needs of an activity system but which suggest to practitioner-subjects means by which to expand learning and practice. Thus the potential of tools to enable the transformation, direction and stabilisation of objects that are being worked upon in interagency activity settings should be a key focus of analysis.

SUMMARY

Object-orientated analyses of interagency working

- Current developments in activity theory are concerned with the development of conceptual tools to understand dialogue, multiple perspectives and networks of interacting activity systems.
- Central to activity theory's analysis of learning in practice is the notion of 'expansive learning' among both professionals and service users: the capacity to interpret and expand the definition of the object of activity and respond in increasingly enriched ways, thus producing culturally new patterns of activity that expand understanding and change practice.
- Activity theory derived analyses of interagency working are 'post-bureaucratic', in that they move beyond simply offering systemic prescriptions for managing collaboration, but also avoid focusing exclusively on actors and their discursive interactions. This approach is pertinent to the radically distributed forms of 'joined up' working intended to counter social exclusion, wherein clients may encounter multiple agencies over extended periods.
- In much of the reviewed literature current shifts towards radically distributed work and expertise are under-acknowledged. Temporally and spatially distributed work patterns are often depicted as a 'barrier' to effective interagency working, rather than a shift to a new form of work. It is still often implied that the conflicts generated by interagency working must be denied and that the ideal work form involves the coalescing of expertise into compact, consensual communities of practice.
- Activity theory literature emphasises the importance of focusing on the object of the activity system in collaborative, distributed work settings. The object serves as a centring and integrating device in complex, multi-voiced settings. However, specific tools for collaborative, interagency practice are lacking at an operational level.
- The emphasis placed upon consensual models of working in strategic and good practice may place constraints on expansive learning in practice and, in particular, tend to under-acknowledge the importance of the internal contradictions generated by activity systems as mechanisms for transforming practice. Consequently, Engeström *et al* (1997) stress the importance of developing tools 'for disagreement'.
- Interagency collaboration involves the distribution of responsibilities and tasks; vertical and horizontal tools are required to support and facilitate this mode of working. Existing tools, designed for intra-organisational practice may not suffice. Engeström emphasises the special importance of 'future-orientated' tools: artifacts that do not merely address the immediate needs of an activity system but which suggest to practitioner-subjects means by which to expand learning and practice.

6. Bureaucratic analyses of interagency working

Analyses of interagency working that are rooted in cultural historical and activity theory define organisational learning as extending beyond the formation of collective routines (organisational forms, rules, procedures, conventions and strategies). Instead, Engeström (2001a), Engeström *et al* (2003), Kerosuo and Engeström (2003) emphasise the centrality of tool creation and implementation as pivotal to the development of learning in practice. This includes the evolution of tools as they are implemented and the powerful instrumentality of mediating artefacts, signs and tools. From this perspective expansive learning is conceived of as *horizontal* learning, located across networks of activity systems, and sustained (created, recreated and stabilised) via boundary-crossings between providers from different organisations (Kerosuo and Engeström, 2003). However, outside of the activity theory derived literature on interagency working, organisational routines and forms remain the key research focus and there is little explicit emphasis upon tool creation or upon object-orientated analyses. Whilst Engeström (2002) advocates 'post-bureaucratic', object-orientated analyses of emergent professional practices, conventional organisational theories continue to inform much of the current literature on interagency working. Consequently, in the reviewed literature, conceptions of learning for interagency working are often truncated because 'joined up' working tends to be equated with systemic reconfiguration and 'partnership' processes.

Allen (2003) identifies two theses underpinning current social welfare research on 'joined-up' working: the 'systemic move thesis' focuses upon interagency working as a means by which to counter deficiencies in interagency communication and co-ordination; the 'epistemological move thesis' focuses upon deficiencies in institutional division and distribution of knowledge. The reviewed literature was strongly informed by the systemic move thesis; this was apparent in the number of papers informed by variations of role theory, rather than by theories of professional learning *per se*. For instance, Coles *et al* (2000), Harris (2003) and Harker (2004) concern themselves with contradictions related to professional boundaries, professional identity and 'role strain'. There is little sense of the dynamic, partially improvised boundary-crossing implied in Engeström's (1996) notions of knotworking or of object-orientated analysis. Both Allen (2003) and Brown *et al* (2000) suggest that current exhortations directed by policy-makers at practitioners to develop interagency working are underpinned by a teleological discourse that depicts all joined up working as a progressively linear 'solution' to social exclusion. By contrast, the LIW project tends towards the critical position taken by Puonti (2004) which, rather than enshrining 'joined up' working as an 'ideal model' of service provision, is concerned with interagency working as a learning process marked by tensions and contradictions.

Meyers (1993) and Farmakapoulou (2002b) concentrate their analyses on environmental and organisational incentives to engage in interagency collaboration. Both draw upon three inter-organisational models: bureaucratic/ social exchange; resource dependency; bureaucratic bargaining/ political economy. These bureaucratic approaches emphasise contradictions relating to division of labour, rules and community. However, such critiques tend to resolve into 'non-conflictual' prescriptions for collaboration and offer minimal consideration of object-orientated thinking. An exception is Meyer's (1993, p. 568) reflection on the complex variables impacting upon interagency working:

'If ...the many variables discussed ...are indeed crucial implementation contingencies, then the "best" design and implementation strategy is likely to be very location and project-specific. The administrative structures and organizational culture of participating agencies, the specific objectives of collaboration, the distribution of power and resources in the community, and the contingencies facing professional line staff will create a unique set of barriers and incentives to action.'

Here Meyer (1993) seems to imply an object-orientated approach and a degree of acknowledgment of the shift from mass customisation to co-configuration. In reviewing the literature on the implications of interagency collaboration in supporting ageing populations with disabilities, Harley *et al* (2003) also go some way to acknowledging co-configuration practice, commenting that clients experiencing multiple disadvantage have a 'continuum of risks', which require a 'continuum of service options' organised around individual interventions, creativity in reducing obstacles, going beyond the jurisdiction of their own agency. Harley *et al* (2003) critique reliance upon 'resource dependency theory' (cf. Allen, 2003; Farmakaloupou, 2002a, b), suggesting that while resource dependency may function as a motor for interagency collaboration, it may also encourage competition for scarce resources. However, whilst shying away from crude systemic prescriptions, Harley *et al* (2003) adhere to a consensual model of interagency collaboration, arguing that 'crossing professional borders' is dependent upon: shared 'prerequisite, basic relationship values and attitudes ... (including) equality, co-operation, partnership.' The paper makes a series of references to 'professional border crossing' but fails to unpack this beyond the level of strategic rhetoric. Like Farmakaloupou (2002a, b), Meyers (2003) and Allen (2003), Harley *et al* (2003) focus on partnership structures, rather than professional learning; the paper promises to examine case management as a 'common denominator' process but provides little critical analysis of case management as a tool.

Lahn (2002) attempts to re-embed Engeström's work on care agreements as an expansive tool within Helsinki's health service provision into a neo-bureaucratic approach. In critiquing Engeström's (1994, 2000, 2001a) study of multi-professional groups constructing care agreements via Change Laboratory work, Lahn's (2002) analysis is informed by the 'epistemological move thesis' (Allen, 2003). Lahn (2003) conceptualises 'emergent' productions in a multi-voiced group as both imitation of top-down prescriptions and innovations produced from below (or from the side). He argues that legitimisation of innovative behaviour may proceed via *consequentiality* (rational decision-making/ effectiveness) or via *appropriateness* ('fashionable imitation'). However, the process of 'fashionable imitation' is not necessarily in conflict with expansive learning because it may act as 'an institutional playing field', allowing the testing out of new practices ('popular labels and platitudes represent not only a façade... They provide a symbolic realism that turns fashions into new institutional routines', Lahn, 2003, p. 2). Lahn (2003) draws upon Nonaka & Takeuchi's (1995) conceptions of 'justification' and 'diffusion' in the process by which communities adopt prescriptions. Early appropriation of fashion is 'both imitation and differentiation' but as fashion diffuses, it loses its attention-grabbing capacity, is sedimented and new recipes take over. The diffusability of institutionalised prescriptions is structured by the patterning of the institutional field, e.g. the presence of strongly connected, wide translation chains (as in the public sector, health services); the presence of homogenous cultures, structures and procedures. Institutionalised prescriptions also depend upon social authorisation and spread widely where they recruit ideologies with high prestige among senior management.

Thus Lahn (2003) attempts to decouple Engeström's work on care agreements from activity theory, interpreting boundary-crossing from a *neo-institutional* standpoint and using the notion of 'fashionable imitation' in preference to 'developmental transfer' (cf. Tuomi-Grohn *et al*, 2003; Säljö, 2003). Lahn (2003) argues that emergent models of practice can be seen as 'recombinations and local concretizations of master ideas', framed by translation chains and 'field consciousness' (the issue of who imitates whom). He defines Engeström's model of the 'care agreement' as a hybrid of both 'hard' and 'soft' ideas, partly patient-centred but also partly drawn from logistic models that mimic a contract legal relationship between professionals and public in a way that is characteristic of new public management models. Thus the development of care agreements can be construed both as an 'appropriation of master ideas' and also as a 'loose set of ideas where the critical aspects are changing in different contexts over time ...both coherent and open enough to permit customisation' (Lahn, 2003, p. 6).

SUMMARY

Bureaucratic analyses of interagency working

- Analyses of interagency working that are rooted in activity theory define organisational learning as extending beyond the formation of collective routines (organisational forms, rules, procedures, conventions and strategies). However, outside of the activity theory derived literature on interagency working, organisational routines and forms remain the key research focus and there is little explicit emphasis upon tool creation or upon object-orientated analyses.
- In the reviewed literature, conceptions of interagency working are often truncated because 'joined up' working tends to be equated with systemic reconfiguration and 'partnership' processes.
- Strategic and good practice literature tends implicitly to propose interagency collaboration as a progressively linear 'solution' to social exclusion. By contrast, the position of the LIW project that interagency working is a learning process marked by tensions and contradictions, rather than an 'ideal' model of service delivery.

7. Knots, teams and networks

The third generation of activity theory, as exemplified in Engeström *et al* (1999, 2003), Engeström (2002, 2003, 2004), takes as its focus the learning in practice that occurs in the interaction between multiple activity systems. This contrasts with earlier renderings of activity theory, which explored the dynamics of single activity systems. Activity systems are dynamic, heterogeneous and multi-voiced; they are situation-driven and object-orientated. Interagency working, by its nature, comprises interaction between multiple activity systems and is a manifestation of radically distributed patterns of labour power and expertise. Yet one of the ways in which the demands of interagency working exceed current conceptualisation of work-related learning is that standard concepts of learning in practice still often rely upon conventional notions of partnerships, teams, networks and communities of practice (e.g. Morrison, 1996; Ranade, 1998; Lathlean and LeMay, 2002). This tendency derives partly from the analytical categories of organisational theory and also from the concern of researchers to reconstruct the social perceptions of practitioners (e.g. Turnbull and Beese, 2000; Diamond, 2001; Peck *et al*, 2001).

Engeström *et al* (1999, p.345) argue that, rather than resting upon compact, stable centres of coordination, interagency collaboration 'requires active construction of constantly changing combinations of people and artefacts over lengthy trajectories of time and widely distributed in space'. In such settings Engeström *et al* (1999) suggest that the emergent form of work is

characterised by 'knotworking'. Such work, which resembles the forms described in Nardi *et al* (2000) and Puonti (2004), is intensely collaborative activity but relies upon constantly changing combinations of people coalescing to undertake tasks of relatively brief duration. This basic knotworking pattern is continuously repeated. Knots do not fit conventional definitions of a compact team ('It is hard to imagine how these complex working roles might be captured in a formal organizational chart' Nardi *et al*, 2000) nor do they resemble the kind of pre-existing networks that practitioners might exploit. Again, Engeström *et al*'s (1999) emphasis on knotworking suggests object-orientated, situation directed, radically distributed activity and pointedly avoids depicting 'omnipotent' actors:

'Knotworking is not reducible to a single knot, or a single episode. It is a temporal trajectory of successive, task-orientated combinations of people and artefacts ...fragile because they rely on fast accomplishment of intersubjective understanding, distributed control and co-ordinated action between actors who otherwise have relatively little to do with each other ...In knotworking, the combinations of people and the contents of tasks change constantly.' (Engeström *et al*, 1999, pp.352-3).

'The tying and dissolution of a knot of collaborative work is not reducible to any specific individual or fixed organisational entity as the center of control ...The unstable knot itself needs to be made the focus of analysis.' (Engeström *et al*, 1999, pp. 346-347).

In describing the case of an ad hoc interagency response to a problem situation, Engeström *et al* (1999) assert that the knot, comprising the actions of a GP, police, health centre, the patient and others, 'functioned as a self-conscious agent' (p.352) and that 'each thread in a knot may be understood as a collective activity system' (p.354). The study prompted the authors to address the issue of whether it is possible for knotworking to be 'institutionalised'. The research team employed developmental work research (DWR) methodology in the form of 'Boundary Crossing Laboratory' interventions to explore the extent to which it might be possible to facilitate knotworking by introducing rules and tools explicitly designed to structure knotworking interactions. Moreover, Engeström *et al*'s (1999) DWR techniques were designed to surface contradictions between the participants' historically accrued conceptions of professional practice and the newly emerging practices against which they were mirrored. In short, participants were encouraged to focus upon the slippery, *transitional* nature of the object upon which they were working. This DWR setting highlighted the sometimes complicated process of identifying the object of an activity system, which is particularly the case where an activity are only just coalescing, where it is on the point of transforming or where multiple objects are present (cf. Engeström and Escalante, 1996; Foot, 2002).

The Boundary Crossing Labs developed 'care agreements' between the patient and multiple agencies as an *expansive solution*, predicated upon professionals maintaining responsibility for their 'traditional' areas of practice, while also sharing responsibility with practitioners from other professions for the formation, co-ordination and monitoring of the patient's overall trajectory of care. This expansion of 'roles' indicated an object in transition. The emphasis placed upon shared responsibility reinforces the authors' definition of knotworking as having several complimentary dimensions: *social-spatial*, *temporal* and *ethical*. The emphasis upon shared responsibility within a context of negotiated knotworking as the means of managing the object-in-trajectory is expanded upon in R. Engeström (2003). Negotiated knotworking is described as promoting:

'...a horizontal move across the boundaries of knowledge and calls for dialogical potentialities and tools of communication. The notion of the knot refers to distributed and partially improvised orchestration of collaborative performance between otherwise loosely connected actors and activity systems. Collaboration involves the negotiation of roles and responsibilities where no legitimate authority sufficient to manage the situation is recognized.' (R. Engeström, 2003, p.10).

Thus the concept of knotworking implies a more radical distribution of expertise than Lave and Wenger's (1991) notion of communities of practice as loci of learning. Communities of practice are characterised by tight connections and compact work settings (Lave and Wenger, 1991; Wenger, 1998). Importantly, communities of practice imply mutually defining identities and a high degree of cultural consensus, which is born out of common discourse and experience (Nardi *et al*, 2000). Engeström *et al*'s (1999) conception of knotworking adheres to activity theory's analysis of conflict and contradiction as the engines of learning in practice. As such, consensus is not idealised and 'common' professional values are not prerequisites for effective collaboration ('Collaboration is not about getting on with people; it's about arguing' Bleakley, 2004). Meyers (1993, p. 561) is similarly critical of the over-emphasis upon consensus as a prerequisite for effective interagency work ('highly integrated interorganizational systems are characterized by high levels of both cooperation and conflict ...The superstructure of consensus may be the final, rather than initial, phase...').

Akkerman *et al* (2004) remark that it is commonplace to assume that co-ordinated action across professional boundaries is most readily achieved where individual views are unifying, where multi-professional groups achieve stability and communication is 'unhampered' by misunderstandings and disagreements. However, drawing upon activity theory, they argue that:

'...the need for agreement and stability must not be overemphasized ...disturbances in a collaborative activity can open up opportunities for novel solutions and transformation of the system.' (p.1)

Akkerman *et al* (2004) refer both to Matusov's (1996) emphasis on the potential of the *diversity* of individual actions to generate meaning and to Homan's notion of 'dissipative structures', wherein 'there is enough stability to form a collaborative group, but at the same time there is enough instability and inconsistency that forces a group to be flexible and to be able to change over time' (Akkerman *et al*, 2004, p. 1). The suggestion is that generation of new meanings via dialogue is more important to learning in and for collaboration than idealised notions of consensus as a 'prerequisite' for collaboration. Thus Akkerman *et al*'s (2004) conception of 'shared meaning' implies a complex and dynamic negotiation, as opposed to the non-conflictual definitions of 'shared' meanings, aims or values offered in much of the literature on interagency working (e.g. Audit commission, 1998; Barrow *et al*, 2002):

'With the concept of shared views we refer to a central point of reference where the diverse views of the group members are accounted for and tuned with each other. Thereby it is a more or less temporal crystallized endpoint in a normally continuous flux of negotiated meanings. It is the process of negotiation towards shared meanings (that) we propose to be the core of collaboration and of learning. It is in these negotiation processes that people are confronted with their own and others' views and sometimes need to extend, change and create views in order to achieve a shared position towards their activity.' (Akkerman *et al*, 2004, p.2)

This concurs with the rationale underpinning the DWR 'laboratory sessions' described in Engeström *et al* (1999), Engeström (2001a), Engeström, R (2003). It also bears a degree of comparison with Middleton and Brown's (2000) analysis of heterogeneous networks at work and the 'sharing' or circulation of accountability within 'teams'. Middleton and Brown (2000, p.3) address the question of how 'groups of people work up what it is to coordinate and re-coordinate multi-disciplinary team working'. Examining instabilities in practice, 'where durability and transformation are constantly at issue', Middleton and Brown (2000, p.6) describe 'networks' of professionals who, in the process of addressing the complexities of practice, form a 'durable centre of co-ordinated activity':

'However, such networks are continually the subject of decentring ...and fluidity ...The topology of network practice is subject to transformation and modification where there is a continual mixing of socio-professional relations, relations between techniques and technologies, expertise, knowledge and experience. A crucial aspect in the configuration

and reconfiguration in the dynamic topology of networks is the way accountabilities in practice are made relevant in different ways as trajectories of practice and care open up and close down.' (Middleton and Brown, 2000, p.6)

The language of boundary-crossing and knotworking enables horizontal professional relationships to be conceived in terms of the spaces that they offer for renegotiation of interagency working practices and reconfiguration of professional identities. They allow effective interagency collaboration to encompass internal tensions as well as consensus (cf. Middleton and Brown, 2000; Bleakley, 2004; Akkerman *et al*, 2004). By contrast, much of the socio-spatial analysis contained in the reviewed literature remains informed by standard professional role theory. As such, there is considerable focus on operational anxieties over 'role blurring' (e.g. Brown *et al*, 2000; Peck *et al*, 2002) and an emphasis upon *professional boundaries* as potential barriers to interagency collaboration, rather than as terrains in which expansive learning might proliferate. For example, Brown *et al*'s (2000) report on an investigation of three interdisciplinary mental health teams explores the debate over professional roles, boundaries and identities occasioned by moves towards 'generic' interdisciplinary teamwork in the community mental health field. In particular, the paper explores the potential costs in terms of role strain/ confusion among practitioners, of 'role-blurring'. The paper contests the view that professional boundaries are a historical residue that will be dissolved in emerging inter-disciplinary settings. Analysis of interview data suggests instances in which contemporary interdisciplinary and interagency practices and issues generate boundaries, rather than eroding them. Drives towards 'flexible, generic working' must take this into account. Brown *et al* (2000) conclude that some practitioners working in interagency settings may reinforce professional divisions by, for instance, appealing to the client's interests. Some may use professional boundaries to identify lines of accountability and responsibility. Paradoxically, managerial attempts to develop 'organic, generic, overlapped, non-hierarchical ways of working' may drive boundaries into the 'subjective territory of the worker's own intuitive framework of what constitutes nursing or social work – where they will be relatively immune to change'. In short, where boundaries are not codified organisationally they may be re-inscribed subjectively and intuitively. The paper is noteworthy for its emphasis upon division of labour, community and rules within the activity systems under study. Brown *et al* (2000) also examine the historical development of their case systems, countering assumptions that professional boundaries (vertical and hierarchical) 'dissolve' within interagency working.

Anxieties over the consequences of 'role blurring' are also examined in Coles *et al* (2000), whose reports on a study of youth work projects based in housing estates offers a qualitative analysis of the effectiveness of interagency partnerships in meeting the needs of young people. The paper offers minimal discussion on learning in interagency settings, although it includes a brief summary of patterns of interagency working, focusing on basic systemic variations. Coles *et al* (2000) note youth workers' concerns about role blurring ('Youth workers were often not prepared to be substitute policing agencies...') and remark upon the conspicuous absence of certain agencies on estate projects (particularly social service departments and education welfare officers). Among the concerns expressed by professionals who were respondents in the study were the need for clarity of roles and functions of agencies, and clear delineation of the responsibilities of individual practitioners. Practitioners felt that a balance must be struck between ensuring that a genuine partnership was taking place and ensuring that some agency (or individual) took responsibility for 'making things happen'. According to the respondents, many successful partnerships depended upon specific individuals 'getting on with' each other because of their shared commitment, rather than any 'organizational magic of multi-agency working' (p. 31).

In examining the experiences of mental health nurses involved in interagency working in criminal justice settings, Turnbull and Beese (2000, p. 290) focus upon role anxiety over the 'consequences of the move towards multidisciplinary working' and the feeling among nursing practitioners of 'fragmentation of ...identity and common purpose'. The description contained in the paper suggests

a transition between modes of collective operation akin to the community of practice model and new working practices marked by distributed expertise and knotworking patterns:

'How would the nurses cope with being placed in a role for which there was no existing model, and where they were required to establish themselves in a ritual-bound environment complicated by competing professions and protocol? For the criminal justice system is not so much a system as a complex web of interconnecting parts...' (p. 290)

The disorientation of 'role identity' described in Turnbull and Beese (2000) recalls Kangasojä's metaphor of blind players entering a field of play half way through a game (Engeström, 2002): 'The initial pervasive impression of the interview transcripts was of people who had been placed in a post without preparation or briefing on how the criminal justice operate, and without any reference point for guidance' (Turnbull and Beese, 2000, p. 293). Practitioners reported that the process of learning to collaborate was dependent upon:

'...the recognition of different professional 'languages'. In most cases it was the first experience of working with other professionals who "didn't speak the same language"...' (p. 294)

Adaptation of the language of mental health nursing was 'necessary to effect mutual, understanding with other professional groups.' Trevillion and Bedford (2003) suggest that, in interagency settings, reconfiguration of professional practice may go even further than flipping in and out of different professional 'languages':

'Learning about "holism" and "flexibility" does not just mean acquiring new knowledge and skills. It also involves the construction of a new interprofessional self.' (Trevillion and Bedford, 2003, p. 219)

Atkinson *et al* (2002, p. 225) also argue that interagency working promotes the emergence of new, *hybrid professional* types, 'who have personal experience and knowledge of other agencies, including, importantly, these services' cultures, structures, discourse and priorities'. Granville and Langton (2002, p. 24) exploring systemic and 'psychodynamic' perspectives on interagency practice among professionals working in the assessment and treatment of child abuse cases, also discuss a 'fluidity of roles' and refer to practitioners 'continually needing to negotiate a number of boundary issues, both internal and external to their agencies'. In this case the existence of a hybrid professional type is less certain:

'There has been an ongoing tension between specialism and generalism. They (practitioners of different disciplines) have needed to maintain and value the distinct skills and knowledge that particular disciplines offer ... There is, however, an overall recognition of the considerable gains to be derived from the pragmatic necessity for a more integrated way of working...' (p.24)

Granville and Langton (2002) also take issue with the Department of Health's call for those working in interagency settings to 'understand the roles and responsibilities of staff working in contexts different to their own' by developing 'an additional set of knowledge and skills to that required for working within a single agency' (DoH, 2000, quoted in Granville and Langton, 2002, p. 24):

'We propose that psychotherapeutically informed social work practice, through its capacity to recognise and address the many diverse boundary questions which inevitably arise within an organization, already provides much of the necessary skills and knowledge base to engage in effective inter-agency communication, networking and collaboration.' (Granville and Langton, 2002, p. 24)

The debate over the extent to which interagency working promotes hybrid professionalism is addressed directly in Peck *et al's* (2001) evaluation of the initiation of combined health and social care provision. Practitioners acknowledged that interagency collaboration presented the 'task of cultural change' but differed in their views as to whether this implied 'the creation of a new

composite culture' or 'enhanced mutual understanding of divergent cultures' (Peck *et al*, 2001, p. 323).

SUMMARY

Knots, teams and networks

- The demands of interagency working exceed current conceptualisation of work-related learning, in that standard concepts of learning in practice still often rely upon conventional notions of partnerships, teams, networks and communities of practice.
- In interagency/ co-configuration settings the emergent form of work is characterised by *knotworking*, which is intensely collaborative activity but relies upon constantly changing combinations of people coalescing to undertake tasks of relatively brief duration.
- By utilising developmental work research methods, Engeström *et al* (1999) have explored the extent to which it might be possible to facilitate knotworking at a more formal level, by introducing rules and tools explicitly designed to structure knotworking interactions.
- The concept of knotworking adheres to activity theory's analysis of conflict and contradiction as the engines of learning in practice. As such, consensus is not idealised and 'common' professional values are not prerequisites for effective collaboration. The notion of *boundary-crossing* also enables horizontal professional relationships to be conceived in terms of the spaces that they offer for renegotiation of interagency working practices and reconfiguration of professional identities. They allow effective interagency collaboration to encompass internal tensions as well as consensus.
- By contrast, much of the socio-spatial analysis contained in the reviewed literature remains informed by standard professional role theory. As such, there is considerable focus on operational anxieties over 'role blurring' and an emphasis upon professional boundaries as potential barriers to interagency collaboration, rather than as terrains in which expansive learning might proliferate.
- In discussions of boundary-crossing, professional identity and role-blurring the reviewed literature drew attention to debates over whether moves towards interagency learning might promote 'multi-lingual' capacity among professionals from diverse sectors or whether more fundamental reconfigurations of professional practice might lead to the emergence of *hybrid professional types*.

8. Boundary-crossing

The concept of 'boundary-crossing' is integral to analyses that focus upon the unstable, heterogeneous, multi-voiced character of interagency working (e.g. Engeström, 2001a, 2003; R. Engeström, 2003; Tuomi-Grohn *et al*, 2003; Säljö, 2003). Current literature on interagency initiatives in the UK has examined the social rationale and policy history underpinning the advocating of 'joined-up working' as the primary tool for countering multiple social disadvantage (Riddell and Tett, 2001; Atkinson *et al*, 2002; Roaf, 2002). Engeström (2001b, p.1) refers to the 'divided terrains' in which such interagency endeavours are located:

'Such terrains are occupied by multiple activity systems which commonly do not collaborate very well although there are pressing societal needs for such collaboration ... In such divided

terrains, expansive learning needs to take shape as *renegotiation and reorganization of collaborative relations and practices between and within the activity systems involved.*'

This implies a quite different notion of 'expertise' from the vertical image suggested by standard competence-orientated conceptions of learning, in which practitioners become competent or improve their competencies within established practices and along the established measures of their own activity systems. Characteristic to this vertical view is a discourse of 'stages' or 'levels' of knowledge and skill. 'Vertical' expertise assumes a uniform, singular model of what counts as 'expertise' in a given field (Engeström, 2001b).

By contrast, activity theory derived analyses of interagency working suggest that learning in practice is dependent on horizontal movements across contexts and across boundaries of professional expertise:

'...experts operate in and move between multiple parallel activity contexts. These multiple contexts demand and afford different, complementary but also conflicting cognitive tools, rules, and patterns of social interaction. Criteria of expert knowledge and skill are different in the various contexts. Experts face the challenge of negotiating and combining ingredients from different contexts to achieve hybrid solutions.' (Tuomi-Gröhn *et al*, 2003, p. 3)

Engeström's (1987) model of expansive learning is complemented in interagency settings by 'movement along the horizontal dimension - with sideways movement between the various activity systems and actors involved' (Engeström, 2001b, p.3). Within interagency working multiple competing ideas emerge and collide, competing as candidates to become new, prevalent concepts. In such contexts, concept formation typically occurs as stepwise two-dimensional negotiation and hybridization, comprising (1) a debate between a given pre-articulated (scientific) concept and situated articulations of 'everyday' experience; (2) a proposal for an alternative 'scientific' concept, which is again contested by some participants on experiential grounds. This horizontal movement can be conceptualised and modelled using Cussin's theory of cognitive trails (Engeström, 2001b). Expansive learning actions are reformulated as (two-way) boundary-crossing actions. Small-scale innovative learning cycles are potentially expansive but often remain isolated within stagnant organisations; fully fledged cycles of expansive learning require concentrated effort and deliberate interventions (Engeström, 2001b).

In systemic analyses of interagency working the efficacy with which knowledge is exchanged between agencies is a central focus. However, Puonti (2004, p.48) stresses that:

'...information exchange is not sufficient to manage the transforming object: new *knowledge* has to be acquired on the basis of the information and mutual interaction. This implies *learning*. Learning is not restricted to mastering the substance of the case. The participants also have to learn to collaborate. '

Tuomi-Gröhn *et al* (2003) and Säljö (2003) are among those who have critiqued learning theories that privilege *knowledge transfer*. Tuomi-Gröhn *et al* (2003) challenge the vertical, competence-orientated view of expertise, in which individual learners ascend through levels of knowledge and skill, instead arguing for a broader, multi-dimensional conception of expertise, in which vertical expertise is complemented by horizontal, boundary-crossing movement. The horizontal conception is especially pertinent to analyses of practice in interagency settings. Standard analyses of interagency working that focus upon 'barriers' to collaboration (e.g. Watson *et al*, 2002) arguably underplay the importance of horizontal and boundary-crossing motion. This is because of their tendency to focus upon the mutual incomprehension of professional groups, so that lack of cultural understanding and/or information exchange is depicted simply as a barrier rather than as a space in which to negotiate new forms of practice.

In contrast, Konkola (2001) conceptualises 'boundary zones' as 'no-man's lands', which are 'free from prearranged routines and patterns' (Konkola, 2001, in Tuomi-Gröhn *et al*, 2003, p.5). Elements from each of the interacting activity systems are present in the boundary zone, which is:

'a hybrid, polycontextual, multi-voiced and multi-scripted context ...where it is possible to extend the object of each activity system and to create a shared object between them. In that way, the activity itself is reorganized, resulting in new opportunities for learning.'
(Tuomi-Gröhn *et al*, 2003)

Thus horizontal, expansive learning comprises both 'transferring and creating knowledge. The creation of knowledge occurs simultaneously with learning and these processes cannot be separated from each other ...knowledge is not about putting theory into practice but about the transmission and transformation of practices' (Puonti, 2004, pp. 52-53, cf. Turnbull and Beese, 2000).

A body of literature has emerged which takes the *conversion* of knowledge as the key process in organisational learning (Puonti, 2004, p.53). This includes Nonaka and Takeuchi (1995), Tuomi-Gröhn *et al* (2003) and Beeby and Booth (2000); the last named stress the mutually constitutive nature of 'knowing what' and 'knowing how' and the importance of the *process* by which knowledge is created, 'converting it from one form to another and thereby transforming it' (Puonti, 2004, p.53). Such approaches, which include Engeström's (1987, 2001a) concept of expansive learning, address the processes of learning in new, inchoate contexts and situations. In emergent situations, such as those encountered by practitioners involved in interagency activity, it is questionable whether 'routines' exist in any meaningful sense and there may be limited organisational 'memory' upon which to draw. Puonti (2004, pp.53-54) comments:

'Historically accumulated tensions and contradictions may trigger a learning process in the current activity that grows into a new kind of activity around a new, expanded object. The concept of expansive learning is particularly apt in work settings in which people have to learn something that is not yet there, in tasks that are learned as they are being created and carried out ... Expansive learning is collaborative construction of new forms of activity, often initiated by individual deviating actions and modest innovations made in the course of work.'

Puonti (2004) also notes, however, that the debate around the potential of interagency collaboration to enhance learning and/ or create knowledge. Systemic analyses of interagency working often characterise interagency collaboration as a strategy to attract/ acquire resources (e.g. Farmakapoulou, 2002a, b; Meyer, 2003). Puonti (2004) suggests that it is possible to perceive interagency collaborations both as loci for knowledge creation and as repositories of information exchange:

'...if organizational boundaries are maintained and guarded, information exchange is all there can be. Interorganizational knowledge creation calls for *boundary crossings*. Boundary crossings involve action and interaction across organizational boundaries, in the form of negotiated knotworking ...Boundary crossing represents interaction and possibly also learning in the middle ground between activity systems.' Puonti (2004, p.54)

Puonti's (2004) argument parallels Bleakley's (2004) rejection of knowledge as a form of private property:

'Traditionally, knowledge has not been exchanged much in the work of institutional authorities, but it has been considered as a property residing within each office. Each authority represents diverse skills and diverse knowledge. The sequential model of collaboration between authorities mainly comprises the exchange of information when requested. The shift toward parallel collaboration brings with it an increased need to exchange of information, and presents a challenge for finding new ways to share knowledge and create it across organizations.'

In this context interorganisational collaboration generates a series of issues related to *learning* in and for interagency working and a series of conceptual challenges to the development of understanding of learning in practice.

In activity theory 'boundary objects' are the focal points for analysing and understanding boundary-crossing practices. Boundary objects may take the form of physical objects or, alternatively, pieces of information, conversations, goals or rules. These become 'boundary' objects when they are worked upon simultaneously by diverse sets of actors. For example, a child's care plan may be negotiated by a nexus comprising teachers, social workers, health workers and educational psychologists. In such a situation the care plan assumes particular importance in the learning of these diverse professionals because it sits at the intersection between different professional practices or cultures. It can be used differently by the corresponding communities, providing a means to think and talk about an idea in multi-voiced fashion, without the necessity of any one community completely adopting the perspective of the other. A boundary object provides a mechanism for meanings to be shared and constructed across professional boundaries (and across boundaries between professionals and clients). Thus boundary objects provide key moments of meaning-creation, renewing learning through collaboration. Hoyles and Noss (undated) state that the notion of boundary objects is a valuable conceptual tool for understanding learning, communication and transfer because at the boundaries of practice 'meaning and "transfer" can be problematic unless and until the different conceptualisations – and the language in which they are expressed – are brought into alignment.'

SUMMARY

Boundary-crossing

- The concept of 'boundary-crossing' is integral to analyses of the unstable, heterogeneous, multi-voiced character of interagency working. In the 'divided terrains' in which interagency provision is located expansive learning becomes a mechanism to enable renegotiation and reorganization of collaborative relations and practices between and within the activity systems.
- Boundary-crossing implies a different notion of 'expertise' from the vertical image suggested by standard competence-orientated conceptions of learning. Activity theory derived analyses of interagency working suggest that learning in practice is dependent on *horizontal* movements across contexts and across boundaries of professional expertise.
- Horizontal, expansive learning involves both transferring and creating knowledge ('...knowledge is not about putting theory into practice but about the transmission and transformation of practices', Puonti, 2004, pp. 52-53).

9. Conclusion

The reviewed literature suggests that conceptualisation of interagency working to counter social exclusion is under-developed, given the complex demands placed upon providers and clients in the post-Green paper context. In particular, both the learning processes that take place within interagency settings and the learning processes that might form a prerequisite to effective interagency collaboration remain under-explored. In the current policy context the prevalence of policy and strategic literature that emphasises good practice models is unsurprising but tends to

perpetuate the notion of interagency working as a virtuous solution to 'joined up' social problems and to under-acknowledge interagency working as a site of tensions and contradictions, rather than an ideal model of service delivery. In addition, in standard analyses, interagency practice is too often equated with 'partnership' tools and with systemic analyses of collaboration.

As such, specific tools for collaborative, interagency practice are lacking at an operational level. Strategic literature and good practice models offer little in the way of conceptual tools to enable understanding of dialogue, multiple perspectives and networks of interacting activity systems. Outside of the activity theory derived literature, organisational routines and forms remain the key research focus and there is little explicit emphasis upon tool creation or upon object-orientated analyses. Conceptions of interagency working are often truncated because 'joined up' working tends to be equated with systemic reconfiguration and 'partnership' processes. The development of coherent models of interagency working is dependent upon systematic analysis of new forms of professional practice, framed by understanding of the historically changing character of organisational work and user engagement. With regard to emerging practices around interagency working to counter social exclusion, there is a pressing need to identify and conceptualise the key features of learning and practice in work settings in which a range of agencies and otherwise loosely connected professionals are required to collaborate with young people and their families to innovate develop forms of provision over extended periods of time.

It is for this reason that current developments in activity theory, which offer object-orientated analyses of complex, radically distributed work settings, suggest to the LIW project a framework for developing models of work-based professional learning that will enhance interagency collaboration among practitioners working across education, health, mental health, social services and criminal justice. There is a series of salient areas in which activity theory offers conceptual tools with which to analyse emergent forms of interagency working and its associated learning in practice. Firstly, the concept of co-configuration offers a framework in which to understand the radical spatial and temporal distribution of expertise that characterises contemporary interagency work. In particular, co-configuration depicts interagency processes as participatory in nature (considering clients, as well as professionals, as actors) and thus offers space to analyse the dynamic relationship between service providers, the service-product and service users. In addition, knotworking, a key co-configuration feature, offers possibilities to move beyond consensual team models and to analyse tensions and contradictions as mechanisms for the evolution of practice. Secondly, activity theory's object orientated analysis offers conceptual possibilities that transcend both crude systemic analyses and 'omnipotent' actor models of practice. Focusing on the objects of activity systems offers a means by which to conceptually integrate the radically distributed elements of activity systems in interagency settings. Thirdly, a central element of activity theory's analysis of learning in practice is the notion of expansive learning, defined as the capacity to re-interpret and expand the definition of the object of activity. Expansive learning enables the objects of interagency activity to be understood as constantly in transformation. Lastly, the concept of 'boundary-crossing' is integral to analyses of the unstable, heterogeneous, multi-voiced character of interagency working. In the 'divided terrains' in which interagency provision is located expansive learning becomes a mechanism to enable renegotiation and reorganization of collaborative relations and practices between and within the activity systems. The notion of *boundary-crossing* also enables collaboration between agencies to be conceived of in terms of the spaces created for renegotiation of professional practices and reconfiguration of professional identities. Boundary-crossing implies a creative movement between traditionally separate professional cultures, perceptions and practices. It allows effective interagency collaboration to encompass internal tensions as well as consensus.

As this multi-layered description implies, activity theory is perhaps best seen as a conceptual framework, rather than as a monolithic theory. As a framework, it offers conceptual tools with which to develop an analysis of learning in and for interagency working within the context of a coherent theory of work. The LIW project will address the current deficit in the conceptualisation of

professional learning in practice, using activity theory's conceptual base to build a systematic analysis of new forms of interagency practice, framed by understanding of the historically changing character of organisational work and service user engagement.

REFERENCES

- Akkerman, S. et al (2004) *Multi-voiced discussions in an international academic project: cacophonous and univocal outcomes*. Paper presented to AERA Conference, 2004.
- Allen, C. (2003) Desperately seeking fusion: on 'joined up thinking', 'holistic practice' and the new economy of welfare professional power, *British Journal of Sociology* 54(2), pp. 287-306.
- Atkinson, M. et al (2002) *Multi-Agency Working: a detailed study*. (Slough: National Foundation for Education Research).
- Audit Commission (1998) *A Fruitful Partnership: effective partnership working* (London: Audit Commission).
- Bakhurst, D. (1991) *Consciousness and Revolution in Soviet Philosophy: from the Bolsheviks to Evald Ilyenkov* (Cambridge: Cambridge University Press).
- Baldwin, D., Coles, B. and Mitchell, W. (1997) The formation of an underclass or disparate processes of social exclusion? Evidence from two groupings of 'vulnerable' youth, in R. MacDonald (Ed.) *Youth, the Underclass and Social Exclusion*. London: Routledge.
- Barley, S. R. & Kunda, G. (2001) Bringing work back in, *Organization Science*, 12(1), pp.76-95.
- Barrow, G. et al (2002) *Multi-Agency Practice: resources for developing provision in schools and other organisations* (Morden: Dreyfus Training and Development).
- Bateson, G. (1972). *Steps to an Ecology of Mind: A revolutionary approach to man's understanding of himself* (New York: Ballantine).
- Beeby, M. and Booth, C. (2000) Networks and Inter-organizational Learning: a critical review. *The Learning Organization* 7(2), pp. 75-88.
- Bleakley, A. (2004) *Better Dead than Red? What Soviet psychology taught us about learning that saved our skins - a case study of multi-professional teamwork in operating theatres*. Paper presented to Discourse, Power, Resistance Conference, University of Plymouth, April 2004.
- Brown, J. and Duguid, P. (1992) Enacting design for the workplace, in P. Adler and T. Winograd (eds.) *Usability: turning technologies into tools* (New York: Oxford University Press).
- Brown, B. et al (2000) Blurred roles and permeable boundaries: the experience of multidisciplinary working in community mental health, *Health and Social Care in the Community* 8(6), pp. 425-435.
- Challis L. et al (1988) *Joint Approaches to Social Policy: rationality and practice* (Cambridge: Cambridge University Press).
- Cole, M. and Engeström, Y. (1993) A cultural-historical approach to distributed cognition, in G. Salomon (ed.) *Distributed cognitions: psychological and educational considerations* (New York: Cambridge University Press).
- Coles, B. et al (2000) Spaced Out? Young people on social housing estates: social exclusion and multi-agency work, *Journal of Youth Studies*, 3(1), pp. 21-33.
- Daniels, H. (2004) *Activity, discourse and pedagogic change* (working paper, unpublished).
- Daniels, H. (undated) *Interservice Collaboration: report on decision-making and resource provision for children with special needs and those at risk*.

- DfES (2002) *Safer School Partnerships: Guidance* (London: Department for Education and Skills).
- DfES (2003) *Every Child Matters* (London: Department for Education and Skills).
- DfES (2004) *14-19 Curriculum and Qualifications Reform: interim report of the Working Group on 14-19 Reform* (London: Department for Education and Skills).
- Diamond, J. (2001) Managing Change or Coping with Conflict? Mapping the Experience of a Local Regeneration Partnership, *Local Economy* 16(4), pp. 272 -285.
- DoH (2000) Working in Partnership: joint working between health and social services in primary care groups (London, Department of Health).
- Down, C. (undated) *Situated Learning: Researching the convergence of formal with informal learning* <http://www.cade-aced.ca/icdepapers/down.htm> , accessed 1/8/04.
- Easen, P. *et al* (2000) Inter-professional collaboration and conceptualisations of practice, *Children & Society* 14(5), pp. 355-367.
- Engeström, R. (1995) Voice as communicative action, *Mind, Culture, and Activity*, 2, pp.192-214.
- Engeström, R. (2003) *Hybridity and responsibility: opening to new practices of health communication and health care*. Paper delivered to the COMET Conference, June 2003, University of Cardiff.
- Engeström, Y. (1987) *Learning by Expanding: an activity-theoretical approach to developmental research* (Helsinki: Orienta-Konsultit).
- Engeström, Y. (1995) Objects, contradictions and collaboration in medical cognition: an activity-theoretical perspective, *Artificial Intelligence in Medicine*, 7, pp. 395-412.
- Engeström, Y. (2001a) Expansive learning at work: toward an activity theoretical reconceptualization, *Journal of Education and Work*, vol. 14 (1), pp.133-156.
- Engeström, Y. (2001b) *The horizontal dimension of expansive learning: weaving a texture of cognitive trails in the terrain of health care in Helsinki. Finland*. Paper presented at the international symposium 'New Challenges to Research on Learning', March, 2001, University of Helsinki, Finland.
- Engeström, Y. (2002) *New forms of learning in co-configuration work* (unpublished).
- Engeström, Y. (2004) *New forms of learning in co-configuration work*. Paper presented to the Department of Information Systems 'ICTs in the contemporary world' seminar, LSE, January 2004.
- Engeström, Y. & Ahonen, H. (2001) On the materiality of social capital: an activity-theoretical exploration, in H. Hasan *et al* (eds.) *Information systems and activity theory. Vol. 2: Theory and practice* (Wollongong: University of Wollongong Press).
- Engeström, Y. and Escalante, V. (1996) Mundane tool or object of affection? The rise and fall of the postal buddy, in B. A. Nardi (Ed.) *Context and consciousness: activity theory and human-computer interaction*, pp. 325-374 (Cambridge, MA: MIT Press).
- Engeström, Y. & Middleton, D. (eds.) (1996) *Cognition and Communication at work* (Cambridge: Cambridge University Press).
- Engeström, Y. *et al* (1997) Coordination, cooperation and communication in the courts: expansive transitions in legal work, in Coles, M. *et al* (1997) *Mind, Culture and Activity: seminal papers from the laboratory of comparative human condition* (Cambridge: Cambridge University Press), pp. 369-388.
- Engeström, Y. *et al* (1999) When the center does not hold: the importance of knotworking, in S. Chaiklin *et al* (eds.) *Activity Theory and Social Practice.*, M. Hedegaard and U. Jensen, Aarhus University Press.

- Engeström, Y. *et al* (2003) The discursive construction of collaborative care, *Applied Linguistics*, 24(3), pp. 286-315.
- Farmakopoulou, N. (2002a) Using an integrated theoretical framework for understanding inter-agency collaboration in the special educational needs field, *European Journal of Special Needs Education* 17(1), pp. 49-60.
- Farmakopoulou, N. (2002b) What Lies Underneath? An Inter-organizational Analysis of Collaboration between Education and Social Work, *British Journal of Social Work* 32(8), pp. 1051-1066.
- Foot, K. (2002) Pursuing an Evolving Object: a case study in object formation and identification, *Mind, Culture and Activity*, 9 (2), pp. 132-149.
- Frye, M. and Webb, A. (2002) *Effective Partnership Working* (London: HM Treasury).
- Gallagher, F. and Jasper, M. (2003) Health Visitors' experiences of Family Group Conferences in relation to child protection planning: a phenomenological study, *Journal of Nursing Management*, 11(6), pp. 377-86.
- Granville, J. and Langton P. (2002) Working across boundaries: systemic and psychodynamic perspectives on multi-disciplinary and inter-agency practice, *Journal of Social Work Practice* 16 (1), pp. 23-27.
- Hammill, P. and Boyd, B. (2001) Rhetoric or Reality? Interagency provision for young people with challenging behaviour, *Emotional and Behavioural Difficulties*, 6(3), pp.135-149.
- Harker, R. *et al* (2004) More than the sum of its parts? Inter-professional working in the education of looked after children, *Children and Society* 18 (3) pp. 179-193.
- Harley, D. *et al* (2003) Interagency collaboration: reinforcing professional bridges to serve aging populations with multiple service needs, *Journal of Rehabilitation* 69(2), pp. 32-37.
- Harris, S. (2003) Inter-agency practice and professional collaboration: the case of drug education and prevention, *Journal of Education Policy* 18(3), pp.303-314.
- Hoyles, R. and Noss, C. (undated) *Situated abstraction: mathematical understandings at the boundary*, <http://www.icme-organisers.dk/tsg22/hoyles%20and%20noss.doc> , accessed 30/09/04.
- Il'enkov, E.V. (1977) *Dialectical Logic: Essays in its History and Theory* (Moscow: Progress).
- Il'enkov, E.V. (1982) *The Dialectics of the Abstract and the Concrete in Marx's 'Capital'* (Moscow: Progress).
- Kangasoja, J. (2002) Complex Design Problems - An Impetus for Learning and Knotworking, in P. Bell, R. Stevens, & T. Satwicz (Eds.) *Keeping Learning Complex: The Proceedings of the Fifth International Conference on the Learning Sciences (ICLS)*, (Mahwah, NJ: Erlbaum), pp.199-205.
- Kerosuo, H. and Engeström, Y. (2003) Boundary crossing and learning in creation of new work practice, *Journal of Workplace Learning* 15(7-8), pp.345-351.
- Knorr-Cetina, K. (1997) Sociality with objects: social relations in postsocial knowledge societies, *Theory, Culture and Society* 14(4), pp.1-30.
- Lahn, L. (2002) Boundary crossing zones in working life: between developmental transfer and fashionable imitation. Paper presented to the ISCRAT Conference, Amsterdam, June 2002.
- Lathlean, J. and le May, A. (2002) Communities of practice: an opportunity for interagency working, *Journal of Clinical Nursing*, 11(3), pp. 394-398.

- Lave J. & Wenger, E. (1991) *Situated learning: legitimate peripheral participation* (Cambridge: Cambridge University Press).
- Leont'ev (1978) A. N. (1978) *Activity, consciousness, and personality* (Englewood Cliffs: Prentice Hall).
- Lloyd, G. *et al* (2001) *Hanging on in there: a study of interagency work to prevent school exclusion* (London: National Children's Bureau/ Joseph Rowntree Foundation).
- Marx, K. (1976/ 1883) *Capital Volume 1* (London: Penguin).
- Matusov, E. (1996) Intersubjectivity without Agreement, *Mind, Culture and activity*, 3(1), pp.25-45.
- Meyers, M. K. (1993) Organizational factors in the integration of services for children, *Social Service Review*, 67(4), pp. 547-575.
- Middleton, D. and Brown, S. (2000) *Topologies of durability and transformation in networks at work: exploring the organisation of accountability and agency in neonatal intensive care*, III Conference for Sociocultural Research, Sao Paulo, Brazil, July 2000.
- Milbourne, L. *et al* (2003) Collaborative solutions or new policy problems: exploring multi-agency partnerships in education and health work, *Journal of Education Policy*, 18(1), pp.19-35.
- Morrison, T. (1996) Partnership and collaboration: rhetoric and reality, *Child Abuse and Neglect*, 20 (2), pp.127-140.
- Morrison, T. (2000) Working together to safeguard children: challenges and changes for inter-agency co-ordination in child protection, *Journal of Interprofessional Care* 14(4), pp.363-373.
- Nardi, B. *et al* (2000) It's not what you know, it's who you know: work in the information age, *First Monday* 5(5) http://firstmonday.org/issues/issue5_5/nardi/index.html , accessed 17/5/04.
- NECF (2003) *Developing Collaboration in Preventative Services for Children and Young People: the National Evaluation of the Children's Fund First Annual Report* (Birmingham: University of Birmingham/ DfES).
- Nixon, J. *et al* (1997) Towards a learning profession: changing codes of occupational practice within the new management of education, *British Journal of Sociology of Education* 18(1), pp.5-28.
- Nonaka, I. and Takeuchi, H. (1995) *The Knowledge Creating Company* (New York: Oxford University Press).
- Pavis, S. *et al* (2003) Multi-agency, multi- professional work: experiences from a drug prevention project, *Health Education Research Theory & Practice*, 18(6), pp. 717- 728.
- Payne, J. (1998) The attractions of joined up thinking, *Adults Learning* 10 (4), pp.12-14.
- Peck, E. *et al* (2001) The meanings of 'culture' in health and social care: a case study of the combined Trust in Somerset, *Journal of Interprofessional Care* 15(4), pp.321-327.
- Peck, E. and Crawford, A. (2002) 'You say tomato': culture as a signifier of difference between health and social care, *Mental Health Review* 7(3), pp.23-26.
- Polivka, B. *et al* (1997) Collaboration between local public health and community mental health agencies, *Research in Nursing and Health* 20(2), pp.153-160.
- Polivka, B. *et al* (2001) Interagency relationships among rural early intervention collaboratives, *Public Health Nursing* 18(5), pp.340-349.
- Powell, R. (1997) Understanding partnership: agency collaboration and the service user, in A. Pithouse and H. Williamson (eds.) *Engaging the user in welfare services* (Birmingham: Venture Press).

Pugh, G. *et al* (1987) *Partnership in Action: working with parents in pre-school centres* (London: NCB).

Puonti, A. (2004) *Learning to work together: collaboration between authorities in economic-crime investigation*. PhD thesis: University of Helsinki, Department of Education, Center for Activity Theory and Developmental Work Research (Helsinki: University of Helsinki).

Ranade, W. (1998) *Making Sense of Multi-Agency Groups* (Newcastle: University of Northumbria at Newcastle) http://www.sustainable-cities.org.uk/Database_files/ranademultiA.doc, accessed 01/04/04.

Renshaw, P. (1992) *The Sociocultural theory of teaching and learning: implications for the curriculum in the Australian context*. Paper presented at 22nd Annual Conference of the [Australian Association for Research in Education](#), Deakin University, Geelong, Victoria, November 1992.

Riddell, S. and Tett, L. (2001) Education, social justice and inter-agency working: joined up or fractured policy, in S. Riddell and L. Tett (eds.) *Education, social justice and inter-agency working: joined up or fractured policy* (London: Routledge), pp. 1-13.

Roaf, C. and Lloyd, C. (1995) *Multi-Agency Work with Young People in Difficulty* (Oxford: Oxford Brookes University).

Rogers, D. and Whetton, D. (Eds.), *Interorganisational Co-ordination: Theory, Research and Implementation* (Ames, IA: Iowa State University Press).

Säljö, R. (2003) Epilogue: from transfer to boundary-crossing, in T. Tuomi-Grohn and Y. Engestrom (eds.) *Between school and work: new perspectives on transfer and boundary-crossing* (Oxford, European Association for Learning and Instruction/ Pergammon).

Secker, J. and Hill, K. (2001) Broadening the partnerships: experiences of working across community agencies, *Journal of Interprofessional Care* 15(4), pp. 341-350.

Social Exclusion Unit (2000) *National Strategy for Neighbourhood Renewal. PAT 12: Young People*. Retrieved 01/07/02, from the World Wide Web: <http://www.cabinet-office.gov.uk/seu/publications/reports/html/compendium/12.htm> , accessed 01/04/04.

Tett, L. *et al* (2001) Collaboration between schools and community education agencies in tackling social exclusion, *Research Papers in Education* 16(1), pp. 3-21.

Tomlinson, K. (2003) *Effective Interagency Working: a review of the literature and examples from practice*. Local Government Association Research Report 40. (Slough: NFER).

Trevillion, S. and Bedford, L. (2003) Utopianism and pragmatism in interprofessional education, *Social Work Education* 22(2), pp. 215-228.

Tuomi-Grohn *et al* (2003) From transfer to boundary-crossing between school and work as a tool for developing vocational education: an introduction, in T. Tuomi-Grohn and Y. Engestrom (eds.) *Between School and Work: new perspectives on transfer and boundary-crossing* (Oxford, European Association for Learning and Instruction/ Pergammon).

Tuomi-Grohn, T. and Engestrom, Y. (eds.) (2003) *Between school and work: new perspectives on transfer and boundary-crossing* (Oxford, European Association for Learning and Instruction/ Pergammon).

Turnbull, J. and Beese, J. (2000) Negotiating the boundaries: the experience of the mental health nurse at the interface with the criminal justice system, *Journal of Psychiatric & Mental Health Nursing*, 7(4), pp. 289-296.

Victor, B. & Boynton, A. (1998) *Invented here: Maximizing your organization's internal growth and profitability* (Boston: Harvard Business School Press).

Vygotsky, L. (1978) *Mind in Society* (Cambridge, Mass: Harvard University Press).

Vygotsky, L. (1986) *Thought and Language* (Cambridge, MA: Massachusetts Institute of Technology Press).

Walker, D. and Hext, J. (2002) A therapeutic social work team in practice, *Journal of Social Work Practice* 16(1), pp.29-35.

Watson, D. *et al* (2002) Exploring multi-agency working in services to disabled children with complex healthcare needs and their families, *Journal of Clinical Nursing* 11, pp.367-375.

Webb, R. and G. Vulliamy (2001) Joining up the solutions: the rhetoric and practice of inter-agency cooperation, *Children and Society* 15 (5), pp.315-332.

Wells, G. (1994) *Learning and teaching 'scientific concepts': Vygotsky's ideas revisited*. Paper presented at the Vygotsky and the Human Sciences Conference, Moscow, September 1994.

Wenger, E. (1998) *Communities of Practice: learning, meaning, and identity* (New York: Cambridge University Press).

Whittington, C. (2003) *Learning for Collaborative Practice with other professions and agencies: a study to inform development of the Degree in Social Work* (London: Department of Health).