

Original citation:

Brooks, V. and Thistlewaite, J. (2012) Working and learning across professional boundaries. British Journal of Educational Studies. 60(4), pp. 403-420.

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Working and learning across professional boundaries

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Abstract

This paper focuses on a context where interdisciplinarity intersects with interprofessionality: the work of children's services professionals who address the needs of children identified as vulnerable. It draws on evidence and perspectives from two disciplines – educational studies and health care – to consider the issues and challenges posed by learning and/or working across disciplinary boundaries and why these have proved so obdurate.

Introduction

This paper focuses on interdisciplinarity in the workplace, a concept involving two or more professions working and/or learning collaboratively. Although disciplinary boundaries are traversed in many settings, and for a multiplicity of purposes, a key context for education involves the needs of children who are vulnerable either because they are at significant risk of social exclusion, neglect or abuse or because they have special educational needs/disabilities (SEN/D). Across the developed world, governments have sought ways to co-ordinate the services that address the needs of vulnerable children more effectively (OECD, 1998; Riddell and Tett, 2003; Billett et al., 2007).

Recognising that problems which encompass elements as diverse as social and economic deprivation, low educational participation and attainment, poor health and unstable personal relationships cannot be adequately addressed by a single profession working in isolation, governments have sought 'joined-up' solutions (DfEE, 1999) to problems that are interconnected. In England, the complex needs of vulnerable children are met by a

tiered system of services requiring collaboration by professionals from a range of disciplines: education, health, social care and criminal justice.

The notion of interdisciplinarity as a melting pot where combined expertise results in the synergy necessary to tackle dynamic, intractable problems is attractive. However, policy and academic literatures depict it as an endeavour fraught with difficulties, notwithstanding instances of successful implementation. This paper explores the issues and challenges posed by learning and/or working across disciplinary boundaries and why these have proved so obdurate. It also considers the very notion of interdisciplinarity: the extent to which there is a shared understanding of this term and how well different conceptions are aligned with the needs outlined above. Finally, it explores the role of underlying structural factors: the configuration of systems that govern education, the professions, politics and the workplace. It draws on evidence and perspectives from two disciplines – educational studies and health care. Both involve tier 1 public services (usually universal and open to all), making them natural hubs for collaboration and important sources of empirical evidence. However, neither the separate groups which constitute the education and healthcare professions nor the academics who study them have a strong tradition of working together. The perspective offered here is, therefore, unusual but also important in understanding the extent to which exhortations to interdisciplinarity are thwarted by common underlying difficulties.

A note on terminology

This paper focuses on a context where interdisciplinarity intersects with interprofessionality. It is important, therefore, to clarify key concepts underpinning these terms. Various terms are used to denote working and learning across disciplinary boundaries, with terms sometimes used interchangeably, and without definition, in the same as well as in different texts. In the absence of definitions, what is meant is not always clear and a shared understanding of meaning cannot be assumed. Key terms are also variously pre-fixed – 'co', 'inter', 'multi', 'pluri', 'cross' and 'trans'. Harker *et al*. (2004, p.180) suggest a common sense approach to this difficulty: 'What everyone is really talking about is learning and working together'. However, this may further obscure unacknowledged differences. This paper, therefore, adheres to usages which, although not universally applied, are widely accepted in education and health.

Interdisciplinarity sits amidst a continuum from 'trans' to 'multi', with a connotation of linking, blending and integration across fields of specialised knowledge. The implied and expected interaction of 'inter' contrasts with the more passive 'multi' which denotes learning and/or working side by side without such interaction. Frodeman (2012) claims that 'at its best, interdisciplinarity represents an innovation in knowledge production' (p. xxix) and includes 'the integration of knowledge across disciplines, narrow and wide' (p. xxx). Aboelela *et al.* (2007, p.331) define interdisciplinarity as: 'based upon a conceptual model that links and integrates theoretical frameworks from those disciplines, uses study design and methodology that is not limited to any one field, and requires the use of perspectives and skills of the involved disciplines throughout multiple phases of the research process'. This contrasts with the OECD's definition of multidisciplinarity as 'an

approach that juxtaposes disciplines. Juxtaposition fosters wider knowledge, information and methods. Yet, disciplines remain separate, disciplinary elements retain their original identity and the existing structure of knowledge is not questioned' (Klein, 2012, p.17). As these definitions imply, 'interdisciplinarity' typically involves a higher education setting and the activities that take place there: research, teaching and learning.

In workplace contexts, 'discipline' is generally substituted by 'profession', as in 'interprofessionality'. Nevertheless, the underlying principles remain the same with 'inter' conveying a degree of interaction, integration and/or interdependence which is absent from 'multiprofessionality'. Writing from an education perspective, Edwards et al. (2010, p.37) depict interprofessionality as a form of 'negotiated professionality' which relies on 'distributed expertise' (ibid, p.31) and encompasses both specialist knowledge and the necessary material resources that are spread across local systems. The associated concept of 'relational agency' entails 'working with others to strengthen purposeful responses to complex problems' (ibid). In health care, and to a lesser extent social care, the adjective interprofessional is now fairly well established to mean two or more healthcare professionals being involved in the management of one patient, family or community. Interprofessional practice has been defined as: two or more professions working together as a team with a common purpose, commitment and mutual respect (from a glossary compiled by the World Health Organization Study Group on Interprofessional Education and Collaborative Practice, 2008). In 2002, the Centre for the Advancement of Interprofessional Education (CAIPE) updated its definition of interprofessional education: 'occasions when two or more professions learn from, with and about each other to improve collaboration and the quality of care' (CAIPE, 2002),

stating that in this definition 'professions' also refers to pre-qualification students and both academic and work-based environments. The prepositions 'from, with and about' stress that learning is interactive, and this interaction is therefore also seen as a requirement of interprofessional practice. Reeves *et al.* (2010, p.xiv) contrast the parallel working of multiprofessional teams with interprofessional teams 'who share a team identity and work closely together in an integrated and interdependent manner'. The transformation of practice which may result from combining and blending specialist knowledge and expertise in pursuit of mutual goals are core features of interprofessionality.

Because this paper considers working and learning across professional boundaries, these distinctions are important and are honoured as far as possible. In practice, this is not always easy. Meaning is further complicated when 'inter' and 'multi' are combined not only with 'disciplinary' and 'professional' but also with 'agency' to form adjectives that are then applied to an array of terms, most notably practice, working, education, learning and teams e.g. interprofessional practice and multiagency teams. From a linguistic perspective alone, a sense of complexity emerges and is compounded when sources use terms in a loose or inconsistent manner. Moreover, most studies focus on one or the other, thereby obviating the need to distinguish clearly between interdisciplinarity and interprofessionality. Thus, whilst the distinction between 'inter' and 'multi' is clear, on paper at least, the boundaries between innovative knowledge deployment and innovative working are often blurred.

Working and learning across professional boundaries: the political imperative

Although teamwork has been a feature of health and social care delivery for many decades, for example in child protection, the starting point for many recent initiatives, in both education and healthcare, has been high profile instances of poor working relationships between different professions and disciplines. Two major events in the UK in the 1990s were decisive in this respect, providing the policy impetus for initiatives to improve interdisciplinary training and education to enhance team-based care. Both involved children's services. The first concerned care delivery at the Bristol Royal Infirmary (1991-1995) where between 30 and 35 more children died following cardiac surgery than would be expected. Although the subsequent Kennedy report (2001) identified several factors contributing to the deaths, it found no evidence that staff did not care or behaved maliciously: 'Sadly, some lacked insight and their behaviour was flawed. Many failed to communicate with each other, and to work together effectively for the interests of their patients. There was a lack of leadership, and of teamwork' (Kennedy, 2001, synopsis 3-10). The second, the death of 7-year-old Victoria Climbié in 1999, whose well-being was supposedly being monitored by a number of agencies including social services in three locations, secondary care professionals in two hospitals, the child protection team and police (Meads and Ashcroft, 2005), was a failure of interagency and interdisciplinary practice and communication, with an emphasis on the inability to work across organizational boundaries (Laming, 2003).

In health care these events stimulated a number of initiatives. 'Creating an Interprofessional Workforce: an education and training framework for health and social care in England' (CIPW) was a three year project funded by the Department of Health (DOH). Based on the premise that 'effective leadership, teamwork and management support are the bedrock of collaboration in health and social care' (DOH, 2007, p.7), CIPW generated several reports and recommendations, focusing primarily on workforce education to enhance teamwork and interdisciplinary working. The Department for Education and Skills (DfES) (2003) meanwhile published *Every Child Matters*, advocating multi-disciplinary teams and enhanced relationships between health and social care professionals, the police and teachers. How successful these initiatives have been is debatable given that interdisciplinary training is still not widespread and there have been more high profile instances of child neglect and death. In 2010, the Munro Review was commissioned to identify ways of improving the child protection system. Yet again, multi-agency training and the development of a learning culture amongst those called upon to work in this way were identified as priorities: 'A major challenge in building a more responsive child protection system is helping a wide range of professions to work together well' (DfE, 2011a, p.9).

The recognition of 'working together well' as a 'major challenge' demanding 'deeper learning' if multi-agency systems were to become 'better at monitoring, learning and adapting their practice' (p.9) was important and contrasts with assumptions underpinning many previous initiatives. For instance, tackling social exclusion became a priority of education policy in the 1990s with partnership working becoming: 'the Government's favoured mechanism for dealing with problems of exclusion' (Clegg and McNulty, 2002, p.599). Although multiagency working was not new to education in the 1990s, New Labour's prioritisation of social exclusion provided the policy stimulus and

funding for many new short-term, funded projects to tackle particular issues, such as reducing school exclusions. These projects resulted in collaborations between organisations and individuals, with or without a history of working together, drawn from education, health and social care professions and various community and voluntary sector groupings. Although the efficacy of small-scale, short-term projects as a strategy for promoting genuinely interagency working was questioned (Dyson and Robson, 1999), in-depth studies of these projects have yielded heightened awareness of some of the challenges posed by working across disciplinary boundaries.

Studies of early partnership projects depict them as short-lived arrangements, often conceived in haste to meet an application deadline, with work starting quickly in order to demonstrate impact during the lifespan of the project (Tett *et al.*, 2003). Implicit in this approach was an assumption that moving rapidly from the enabling to the action level was a logical response to tackling social exclusion, not the source of new challenges and difficulties. Thus, the requirements of interprofessionality were sometimes given little consideration either in policy formation or at the planning and implementation stages of projects. Indeed, government policy typically presented 'an idealized model that assumes that achieving consensus ... is relatively unproblematic' (Tett *et al.*, 2003, p.46). However, a recurring theme in empirical studies is that many projects might have functioned more effectively had time been devoted to achieving greater insight into the differences between the contexts from which each partner was drawn, in developing mutual understanding and in building relationships grounded in 'high trust' which 'could set the context in which innovatory practices develop' (Avis, 2003, p.320). Indeed, absence of

trust has been defined as one of the five components of team dysfunction (Lencioni, 2002). 'Time', as a key requirement of interprofessionality, is another recurring theme (OECD, 1998; Weindling, 2005) as is interdisciplinary learning (Robinson *et al.*, 2005; Edwards *et al.*, 2009). Fundamental, but frequently unacknowledged, differences in terms of goals and values, protocols and procedures, the targets used to incentivise behaviour and ways in which success was construed for different groups frustrated attempts at interprofessionality. Similar difficulties characterise SEN/D provision (Band *et al.*, 2002). The 2011 green paper reported that: 'children with SEN tell us that they can feel frustrated by a lack of help at school or from other services ... Parents say that the system is bureaucratic, bewildering and adversarial' (DfE, 2011b, p.4). Here too, the need to make it easier for professionals and services to work together is seen as paramount.

A more detailed insight into the impediments to 'working together well' in operational settings is provided by in-depth studies of specific initiatives. The following section does not attempt a comprehensive account of the challenges; rather, it is indicative of their range and nature. Subsequent sections consider the role of education and training and underlying structural barriers which have impeded progress.

Working across disciplinary boundaries

The potential of interdisciplinarity, when addressing complex, intractable problems, has been highlighted by numerous studies. Meagher and Lyall (2005, p.33), for instance, identified the following benefits of interdisciplinary research training: the ability to tackle 'disciplinary logjams' and address questions that single disciplines are unable to tackle on

their own; exposure to new ways of doing things; a greater appreciation of how things are connected and a better understanding of the complexity of systems. Such outcomes would appear to offer a persuasive rationale for adopting this approach amongst children's services professionals. However, empirical research exposes a range of counter influences which may compromise these aspirations.

Working with professionals who are equipped with different knowledge and skills, who use a different language (Choi and Pak, 2007) and whose work culture and practices are different from one's own may be a disconcerting experience, unsettling core elements in traditional notions of professionality such as autonomy based on exclusive, specialist knowledge. Milbourne et al. (2003) recount one project where the otherness of different professional groups became the stumbling block to effective 'joined-up' working. The project, designed to tackle school exclusions, involved an educational psychologist, a clinical psychologist and a family services voluntary organisation worker. Each drew on their disciplinary background and training to conceptualise the problem and identify best practice. The clinical psychologist favoured an individual client-based approach whereas her colleague from a family services voluntary organisation preferred to work with families. The educational psychologist expected to do INSET with teachers, whole class work with pupils and group work with parents. These fundamental differences became a source of tensions which were either "managed" in meetings or pragmatically avoided through individualizing work' (ibid, p.27). The modus operandi adopted allowed project personnel to assume responsibility for a separate group of schools, each determining the approach used in schools to which they were assigned. Thus they worked side by side,

dividing responsibilities between them, an approach which accommodated underlying differences, thereby minimising tensions, but simultaneously removed the possibility that the interdisciplinary aspirations of collaboration might be attained. The diversionary tactics described here feature in other reports. Leadbetter (2006, p.56) observed 'a tendency to agree rather than disagree within meetings where there are disputes'. Clegg and McNulty (2002, p.598) described how a member of one project's management team resorted to 'creative subterfuge' to circumvent obstacles and 'make things happen on the ground'. Instead of 'going through the line management structures to get things done', she 'side stepped them and approached people directly and informally'.

As well as highlighting differences in working practices *between* professions, the literature also captures the varying approaches adopted *within* collaborative groups. A study of collaboration to meet SEN produced a typology outlining four models of cooperation (Dyson et al., 1998). Similarly, Lloyd *et al.* (2001) found that interagency working to combat school exclusions took several forms. Thus, simple definitions of collaborative working, such as that offered in the introduction, fail to capture the underlying complexity of working across disciplinary boundaries. There is no shared understanding of the oft-used phrase 'collaborative working' (Thomson *et al.*, 2009). More importantly, insight into what is required for 'a wide range of professions to work together *well*' (italics added for emphasis; DfE, 2011a, p.9), and the systems and approaches which facilitate this, has yet to be established. Thus, although 'collaborative practice' is a term with currency in both education and healthcare, the underpinning concepts remain tricky and contested.

Consensual collaboration is orientated towards achieving agreement and rests on respect for, and acceptance of, disciplinary differences. It is widely assumed to represent best practice. Moreover, as the examples above suggest, practitioners may be instinctively drawn to consensual collaboration, using it to minimise tensions or preserve their autonomy. Used in this way, it simultaneously perpetuates the status quo, entrenching professions in their differences – thus raising questions about its efficacy. Watling (2004, p.21), for instance, challenges the belief that consensual partnerships are 'inevitably benign', questioning the tenet that multi-disciplinary teams are most efficacious "where each member is assertive of their professional expertise as well as respectful of and receptive to the expertise of other professionals" (p.18). He argues instead for 'a different form of collaboration ... rather like two flints striking together' that involves unsettling the security of fixed positions. Drawing on Foucault, he distinguishes 'practice' from 'action': "Practice signifies doing things competently according to the appropriate canons'" whereas action "is often role-breaking or custom-defying" (p.24). Warmington et al. (2004, p.7) contemporaneously reached similar conclusions claiming that emphasis on consensual models of good practice 'under-acknowledge' the importance of 'internal tensions as mechanisms for transforming practice'.

Conflictual collaboration may be better suited to delivering the transformational goals of interprofessionality but its demand should not be under-estimated. The line between professionally oriented conflict, geared towards resolving shared difficulties, and personal disputes is a thin one. Furthermore, the risks for those who work in this way are

considerable because the transformation of practice may bring with it another type of conflict: with the established values, goals and protocols of one's own profession.

Accounts of interprofessionality are, thus, characterised by a dark lexicon: risk(y), danger(ous), threat(ening), rule-bend(ing), role-break(ing), custom-defy(ing), side-step(ping), rule-break(ing), struggle(s), vulnerable and difficult(ies). The diction is emblematic, depicting interprofessionality as a troubled field of endeavour where practitioners may find themselves making decisions and taking actions that are, in some senses, the antithesis to established notions of professionalism. A willingness to defy customs (Watling, 2004) in one's own organisation and even to 'rule-break' (Leadbetter, 2006, p.55; Daniels et al, 2007, p.531; Edwards et al., 2010, p.30) may be required whenever the 'emergent ideology of the new inter-agency formation' rubs up against 'the old rules' of established systems (Daniels *et al.*, 2007, p.531) and 'what counts as "professional" ... become[s] open to negotiation' (Demos-Hay, 2004, p.24).

Daniels *et al.* (2007, p.530) provide an illustration which captures their notion of 'co-configuration work' as the 'capacity to recognise and access expertise distributed across local systems and to negotiate the boundaries of responsible professional action with other professionals and with clients' and the organisational non-compliance this may entail. It involved a school attendance officer, a psychologist and a child who was truanting because of learning difficulties and bullying at school. Protocol required the attendance officer to secure the child's return to school as well as reporting her difficulties to the school. Instead, the officer contacted an educational psychologist to ensure that the child received prompt specialised support. Whilst working with the child,

the psychologist discovered that the school did not deem her a priority in spending its psychological support allocation. The psychologist, nevertheless, maintained contact with the child. Leadbetter (2006) cites an instance where a clash of institutional performance targets caused tension in a youth offending team when a pupil was caught committing a minor offence outside of school. Social workers in the team were tasked to increase school attendance and decrease truancy but the performance of police officers was judged by increases in rates of conviction for youths found offending. The resolution of such seemingly irreconcilable differences is fraught with contradictions. Robinson *et al.* (2005, p.186) suggest that logjams are overcome by 'seeking a common basis for practice in core professional values' but, in the process, organisational priorities may need to be set aside and established notions of good practice turned upside down.

What counts as professional in newly configured groups may undermine established mores, giving a subversive edge to interprofessionality. For individuals, the perceived threats may run deep, striking to the core of their professional identity. Across education and health professions, there are concerns that interprofessionality dilutes specialisms, threatening to transmute professionals into all-purpose generalists:

"I'm not interested in creating grey, generic children's service professionals. You can't make social workers into nurses and you can't make nurses into social workers but it is possible to develop a better understanding of other agencies. Joint training would help create mutual understanding - but we could still retain our specialisms". (Leadbetter, 2006, p.54)

This concern is echoed in strikingly similar terms in the following quotation from the British Medical Journal: The intent of interprofessional education is not to produce khaki-brown generic workers. Its goal is better described by the metaphor of a richly coloured tapestry within which many colours are interwoven to create a picture that no one colour can produce on its own. (Headrick *et al.*, 1998, p.772)

The choice of images based on colour conveys a vivid sense of discipline-based professional identities which contrast starkly with the perceived blandness of interprofessionality (khaki-brown, grey). At the heart of this issue lies uncertainty about the nature and status of 'expertise' in interprofessional settings. Edwards et al. (2010, p.31) emphasise that notwithstanding certain generic skills 'that enable people to collaborate across professional boundaries ... for us the specialist professional expertise that practitioners bring to complex problems is paramount'. Interprofessionality, it is stressed, requires an 'additional layer of expertise' (ibid) – it is not an alternative. The need to identify and safeguard each profession's unique contribution also features strongly in health literature. For instance, stakeholder responses to 'A health service of all the talents' (DOH, 2000, p.4), included concerns about 'the need to achieve a balance between unique professional skills and competencies and those that might be more generic'. However, this delicate balancing act poses considerable challenges for individuals. One confessed that: 'Some mornings I wake up and I think, "What am I today? Am I a generic multi-agency worker or am I an educational psychologist?". Another raised the issue of "How to be multi-agency when I'm not in a multi-agency meeting" (Leadbetter, 2006, p.54). Individual testimony demonstrates how, for some, interprofessionality remains a perplexing adjunct to their disciplinary identity and – since professional identity has been found to be unstable (Day et al., 2006) – a potentially destabilising force.

Faced with these challenges, a common response involves retreating to the security of professional 'shelters' (Nixon et al., 1997, p.9). Both education and health literature provide instances of attempts at interprofessionality which have been met with boundary protectionism when initiatives have been perceived as transgressions into others' territory, challenging the exclusivity of their expertise. Edwards et al. (2010, p.29) describe the 'struggles' which took place at the boundaries of a school: 'The school's attempts to ... resist demands that it should work more collaboratively with other services, were met by increasing efforts to destabilise it by representatives of other services who were eager to include the school in an emerging local network of support for children'. Although schools in a subsequent study were selected because of 'strong engagement with their communities' (ibid, p.33), they all 'set very clear boundaries between their established social practices aimed at sustaining order and the more fluid practices demanded by prevention' (ibid, p. 41). Similarly, Tett et al. (2003, pp.44-45) observed how schools differentiated their work and were more inclined to welcome collaborators in areas regarded as "peripheral" such as drugs education (p.47); community educators 'reported most difficulties' when they encroached on core activities such as running homework clubs' (p.45).

The following sections seek explanations for the difficulties outlined above. First, the role of education and training is considered. Subsequent sections explore how the inherent demands of interdisciplinarity are compounded by systemic obstacles in the form of underlying structural divisions.

Professional formation

The pre-service preparation received by different groups helps to explain some of the difficulties outlined above, such as the disjunction between interprofessionality and disciplinary identities. Day et al.'s (2006) findings suggest that professional identity is: 'a key influencing factor on teachers' sense of purpose, self-efficacy, motivation, commitment, job satisfaction and effectiveness' (p.601). The systematic inculcation of professional identity starts with formal training, a phase when 'teachers have little agency in the shaping of their identities' and when 'emotional identities may be suppressed as they are encouraged to take on a prescribed role' (ibid, p.608). Forde et al. (2006, p.36) observed that 'there is a tradition of training teachers to be isolated professionals' – a claim borne out even by recent versions of the standards for Qualified Teacher Status (QTS) which make no explicit reference to interdisciplinarity either in the earlier standards (2007-2012) or in the revised standards which take effect in September 2012. Indeed, the most recent version of the QTS standards (DfE, 2011c) focuses more strongly than ever on teaching as a classroom-based profession. The legacy of such a preservice training system is illustrated in various research findings. A survey by Weindling (2005, p.7), reflecting the traditional isolation of the profession, reported that 'teacher collaboration is not that common' and that 'Both primary and secondary teachers were most keen to work with teachers in their school, teachers in other schools and parents'. A project to build capacity in initial teacher training for teachers to take on management and leadership of multi-agency assessment of vulnerability reported that trainee teachers displayed little or no knowledge of the roles and responsibilities of other

professionals or of multi-agency working or, beyond that, that multi-agency working was required. More disturbing was the finding that many of the mentors responsible for training these student teachers were similarly deficient in knowledge and understanding (Davies *et al.*, 2009).

Interdisciplinary learning is somewhat better established in healthcare than in education. Notions of interprofessional education (IPE) and interprofessional learning (IPL) became established in health from the 1960s. Even so, teamwork across health and social care professions has rarely been a defined learning objective of pre-qualification training or of post-qualification development until relatively recently. The need for professional accreditation of training means that, like student teachers, health and social care students and professionals are educated predominantly in 'silos' but are then expected to work with others in clinical and community environments. Here, too, professional identity (Hall, 2005) and the stereotyping of others (Choi and Pak, 2007) have been commonly identified as impeding collaboration.

An extended period of training and opportunities for continuing professional development are cornerstones of professionality. Whilst various studies have stressed their importance in addressing the distinctive challenges posed by interprofessionality (Edwards et al., 2009; Robinson et al., 2005), conflicting evidence suggests that the true demands have neither been recognised nor met – even in health where IPE and IPL constitute salient strands of the professional literature. As recently as 2006, Leadbetter

observed how 'little reference' there is 'to professional learning within the wealth of guidance produced' for multi-agency working (p.49). Instead, learning often takes place opportunistically, as a by-product of work. Thus, the statement that was most positively rated by respondents to an attitude survey about partnership working referred to opportunities for 'additional learning' (Tett *et al.*, 2003, p.43). Provision for systematic learning, alongside informal learning, remains under-developed. Moreover, the deep learning that Munro (DfE, 2011a) regarded as essential if multiagency systems are to tackle the challenges they face is unlikely to happen if left to chance.

Groundbreaking initiatives have enabled multidisciplinary teams to confront potential sources of friction and division in operational settings and exploit their developmental potential in formal learning settings. The Learning in and for Interagency Working (LIW) project (Edwards et al., 2009) and the Multi-agency Team Work in Services for Children (MATCh) project (Robinson et al., 2005) both deployed conceptual tools evolved through activity theory to enable different working cultures to be explored in a climate conducive to expansive learning. Because it 'enables the objects of interagency activity to be understood as constantly in transformation' (Warmington et al., 2004, p.50), expansive learning is well-adapted to the needs of professionals who work with vulnerable children. The LIW project used an approach derived from developmental work research in which videotaped work situations, photographs, interviews and narrative accounts functioned as 'mirror data' during workshops where operational staff were trained to use the conceptual tools of activity theory to examine current working practices, critical incidents and dilemmas and to explore alternative ways of working: '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' (Warmington et al., 2004, p.7). Thus, formal learning provides a setting, and the tools, with which to harness the transformational potential of conflictual collaboration – something which tends to dissipate in operational settings.

If children's services professionals need a deeper understanding of each other, based in a culture of deep learning, to work together effectively, there is also a case for strengthening interdisciplinarity in the higher education institutions responsible for their pre-service preparation, continuing professional development and related academic research. Although Meagher and Lyall (2005, p.33) identified numerous benefits arising from interdisciplinary research training, they also noted that: 'Very few other interdisciplinary PhD studentship schemes appear to exist', observing that: 'The academic world runs on discipline lines but the real world does not' (p.47). Leaving aside the contentious claim that parts of the world cannot claim to be 'real', this observation captures the misalignment between a higher education system where most key functions — research, funding, publication routes and teaching — continue to operate along largely disciplinary lines and a wider world where many of the most pressing problems are multifaceted. However, this issue is not confined to higher education; systems of governance in the wider world reflect and reinforce these divisions.

Structural barriers impeding interdisciplinarity

Disciplinarity is the bedrock of professionality as traditionally construed (Beck and Young, 2005). Established professions, such as medicine and law, have a long history of separate development with emerging 'semi-professions', such as teaching and social care, aspiring to the autonomy and authority professions traditionally enjoyed. Working through executive bodies, established professions have asserted and safeguarded specialist knowledge and expertise, claiming the right to determine their own curricula, qualifying standards and accreditation frameworks. Accountability systems grounded in codes of conduct, registration of membership and responsibility for adjudicating in cases of misconduct are further hallmarks of established professions. Thus, professions traditionally operated within well-bounded statutory and regulatory frameworks giving each group its own distinctive ethos and culture and providing few incentives or opportunities to traverse boundaries (Lahey and Currie, 2005).

The right of public service professions to self-determination has been challenged by recent governments intent on their reform. Yet whilst successive governments have shared a commitment to promoting more effective working across professional boundaries, government itself reflects traditional divisions with separate departments responsible for policy on education and health and joint initiatives between them a relatively infrequent occurrence. Key policy documents emanating from the DOH typically display a parochial view of interdisciplinarity in which collaboration is conceived primarily in terms of joint working between different healthcare professionals and, to a lesser extent, those drawn from social care. For instance, the DOH project 'Creating an Interprofessional Workforce' is sub-titled 'an education and training framework for

health and social care in England' and asserts that: 'effective leadership, teamwork and management support are the bedrock of collaboration in health and social care' (DOH, 2007, p.7). More recently, the coalition government's white paper, *Equity and Excellence: Liberating the NHS* (DOH, 2010, p.23), betrayed a similarly restricted vision: 'It is essential for patient outcomes that health and social care services are better integrated at all levels of the system'. While 'professional' and 'professionalism' are mentioned 31 times, there is no reference to interdisciplinarity.

Elsewhere, a different vision has been pursued – one where education is 'centre stage' (Robinson et al., 2005, p.175). The introduction by the DfES of Children's Trusts, early years Children's Centres and 'full service extended schools' as multiagency service centres (DfES 2004) sought to place education at the heart of national policy promoting effective 'joined-up' working between different children's services professionals. The move to establish education as the hub for interagency collaboration reflected a recognition that education is a universal service, giving access to almost all children on an almost daily basis. Thus, education is uniquely placed to spot early signs that something is amiss and to trigger rapid intervention. Moreover, co-located services should be better placed to share information and mount a prompt, co-ordinated response to problems. However, unintended consequences have been detected even when policy emanates from the same government department. Thus, Edwards et al. (2010, p.32) noted how the policy giving schools a central role in combating social exclusion 'sits oddly' with other initiatives, especially 'the workforce remodelling that has been occurring in English schools since 2003' and changes in criteria for teachers' salaries. They describe how they

expected to focus on changes in the role and responsibilities of heads of school, heads of year and form tutors in response to the policy heightening schools' role in preventative work and demanding increased collaboration with other service providers. In the event:

The people most frequently included ... were welfare managers, community police and children and family workers, mental health specialists and practitioners working with children in public care. In some cases education welfare officers were mentioned, along with SENCOs and representatives of within-school inclusion projects. Heads of year or school, the people we had expected to have been primarily involved in the pastoral work of the schools, were rarely included and form tutors were never identified.

(Ibid, p.35)

Senior teachers were 'worried' that this new focus on teaching, learning and achievement meant that tutors were "left out of the loop" whilst individual tutors declared a 'sense of loss' (ibid, p.38). The gap was being plugged by a group described as 'welfare managers'. Non-teaching staff who had formerly been employed as clerical or teaching assistants were now protagonists in the preventative work at tiers 2 and 3 which addresses the needs of children at risk of social exclusion, neglect or abuse (work at tier 4 is characterised by child protection). Whilst these posts were cheap to fund, dedicated to welfare and able to work flexibly, unconstrained by school timetables, Edwards et al. expressed concerns that demanding reactive pastoral casework was being undertaken by staff who lacked 'a robust professional knowledge base' and whose opportunities for training were described as 'ad hoc-ery' (ibid, p.40). Another study which investigated the operation of extended schools found that it was only senior and middle managers who 'demonstrated a secure understanding of the operation of extended schools'; 23% of other staff were 'unsure of the purpose of extended schools' and 52% identified 'no impact upon their practice' (Rose et al., 2009, pp.59 and 61). As

one project advisor reflected: 'In spite of all the exhortations for joint working and the rest of it, there are a whole set of pressures that are designed to drive people apart. It is a paradox in the government's position and it filters through all the way to little schemes like this' (Webb and Vulliamy, 2001, p.320). Thus, children's services professionals may find themselves caught in paradoxical situations — exhorted to work in a joined-up manner by policy-making which, itself, is disjointed at both inter- and intra-departmental levels.

Although the universal services have been identified as logical hubs for interagency working, the configuration of the workplace is the final underlying structural factor identified as obstructing interprofessionality. Workplace boundaries, not only externalfacing boundaries but also internal divisions, sometimes present barriers to system-wide change or co-operation. Innovations at grassroots level may fail to permeate an organisation's hierarchy. Thus, even an extended school was found to provide 'minimal opportunity for multi-agency staff to inform broader school practices' with 'isolated innovations in practice' leaving 'wider systems of activity untouched' (Daniels et al., 2007, p.534). The direction of failure may also be reversed: a top-down lack of percolation. A study of three local authorities' attempts to strengthen interagency collaboration noted that 'staff in all three authorities expressed concern that such commitment did not generally permeate out to operational staff ... "There's quite a lot of joined up thinking at the top, our difficulty is in getting it delivered on the ground" (Harker et al., 2004, pp.181-182). Systemic difficulties of this kind led Dyson et al. (1998, p.74) to assert that the efficacy of inter-agency co-operation is 'inseparable' from 'intraagency co-operation' because many problems 'were as prevalent' within agencies as between them. Indeed, some respondents found it 'easier to communicate with professionals at the same level in other agencies than it was to bridge the strategic-operational divide within their own'. Thus, the need for learning is not confined to individuals but extends to the workplace: 'Individual professional learning cannot easily occur within systems that are themselves resistant to recognising contradictions and to learning from them' (Edwards *et al.*, 2009, p.30). Daniels et al. (2007, p.527) agree that the professional response 'depends on' the workplace. 'We therefore argue that individual learning cannot be separated from organisational learning'.

Conclusion

The starting point for this paper was recognition that vulnerability is multi-faceted: 'a combination of linked problems such as unemployment, poor skills, low incomes, poor housing, high crime environments, bad health and family breakdown' (Levitas, 1999) plus lack of engagement with education. Dynamic interaction between these problems compounds their complexity, heightening the challenge of mounting an adequate response. The development of a mould-breaking form of professionality, capable of drawing on the expertise of diverse, unrelated groups working in education, health, social care and criminal justice was seen as essential. We work within disciplines that have been identified as tier 1 universal services: education and health. By drawing on literature located within our respective disciplines, we have concluded that in neither discipline is the aspirational vision of interprofessionality outlined above well-developed either as a conceptual entity or as a working reality. In both settings, the orientation is

better described as intradisciplinary rather than interdisciplinary in the full sense of the word in that collaboration is typically conceived as involving professionals from the same or a cognate discipline. We have, likewise, encountered few academic studies such as that by O'Brien *et al.* (2009) involving large teams representing both the sciences and the social sciences. Furthermore, our impression is that education has a lower profile in health literature than health occupies in education texts. When health looks beyond its many constituent sub-disciplines, it almost invariably turns to social care – a perspective which is shared by, and reinforced in, national policy.

Attention has been drawn to the decisive influence of factors beyond the salient – lack of teamwork and leadership and the failures in communication which are highlighted in so many official reports. These surface features are symptomatic of deeper, structural divisions that are part of the fabric of society: the systems that govern higher education, the professions, politics and the workplace. This helps to explain why similar concerns and preoccupations have emerged in the literatures of both disciplines. It also suggests that solutions to the problems outlined above are unlikely to follow from piecemeal reforms. For instance, measures to improve education and training have had limited impact and will probably continue to do so as long as qualifying standards, accreditation systems and career progression routes pay little or no attention to interdisciplinarity. Arguably the only organisation capable of initiating wholesale reform of entrenched systems is government. Yet government shares some of the limitations it is seeking to redress raising questions about the extent to which it is fitted to this task. Milbourne et al. (2003, p.22) have argued that policy work is characterised by 'tinkering' with the

consequence that individual policies become 'part of a complex web of sometimes contradictory policies where one policy may inhibit or adversely affect enactment of another'. As has been shown, this applies at intra- as well at interdepartmental levels.

Wholesale, system-wide reform to dismantle structural barriers is the most ambitious and, therefore, least likely response to the challenges outlined above. In its absence, the best hope for amelioration lies in working to attain greater coherence within and across formal systems of learning and accreditation. Various conditions necessary for interprofessionality to thrive have been identified. They include sufficient time for mutual understanding and high trust to develop, combined with recognition that the innovations that interprofessionality is ultimately intended to engender are unlikely to arise from consensual collaboration alone. Opportunities for deeper learning, and the intellectual tools to harness the transformative potential of conflictual collaboration, are also needed. Formal learning provides the optimum setting for these conditions to coalesce. Nevertheless, its impact will remain limited unless interdisciplinarity is embraced across relevant curricula, qualifying standards, progression routes and codes of conduct.

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