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Publisher: Routledge
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Changing English: Studies in Culture and Education
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/ccen20

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Viv Ellis [a]
[a] University of Oxford , UK
Published online: 28 Feb 2008.

To cite this article: Viv Ellis (2008) Exploring the Contradictions in Learning to Teach: The Potential of Developmental Work Research, Changing English: Studies in Culture and Education, 15:1, 53-63, DOI: 10.1080/13586840701825295

To link to this article: http://dx.doi.org/10.1080/13586840701825295

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Changing English
Vol. 15, No. 1, March 2008, 53–63

Routledge
Taylor & Francis Group

Exploring the Contradictions in Learning to Teach: The Potential of Developmental Work Research

Viv Ellis*

University of Oxford, UK

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This article discusses aspects of a programme intervention (the *DETAIL* project) in the learning processes of beginning English teachers, teacher mentors and a university-based teacher educator. The research reported here has taken place in the context of the Oxford Internship Scheme (OIS) (Benton 1990; McIntyre 1997), a highly successful pre-service teacher education programme that (along with a similar scheme at Sussex University) is often seen as influential within the 'national experiment' of school-based teacher education in England (Furlong et al. 2000). The intervention is being researched within the framework of Developmental Work Research (DWR) (Engeström 1991, 2007), particularly a version elaborated by Edwards and Fox (2005) sometimes known as 'DWR Lite'. DWR is a form of research that aims to enable participants to move from (in Vygotskyan terms [Vygotsky 1986]) 'everyday' to 'scientific' understandings of what they are trying to do through identifying, working on and expanding the object of activity with the tools offered by third generation Activity Theory (Engeström, Miettinen, and Punamaki 1999). Third generation Activity Theory is perhaps most often associated with a triangular representation of the activity system.[1] Conceptually, however, it is Engeström's elaboration of the 'bottom line' of the triangle – *rules, community* and *division of labour* – and the complex interrelationships with *subject*, *tools* and *object* that has the potential to allow participants in DWR to identify and work on contradictions within the activity systems in which they are participating.

My focus in this article is on the concepts of teacher identity and teacher agency that emerged very early on in the research as the beginning English teachers (known as 'interns' in the OIS), teacher mentors and the university-based teacher educator (myself) started to negotiate the new terrain of the intervention. Specifically, I examine the knowledge about identity and agency produced by teacher mentors as they engage in DWR-framed research and consider its implications for pre-service teacher education.

Background: The Potential of *DETAIL* as an Intervention and the DWR Framework

The Intervention

DETAIL (Developing English Teaching and Internship Learning) has aimed to re-configure the school–university partnership at a more collective level and to develop 'collaborative professional inquiry' (Street and Temperley 2005) as a systemic tool in the professional learning of participants (intern teachers, their mentors, the secondary school English department, and the university-based lecturer). Other

*Email: viv.ellis@education.ox.ac.uk

ISSN 1358-684X print/ISSN 1469-3585 online
© 2008 The editors of *Changing English*
DOI: 10.1080/13586840701825295
http://www.informaworld.com

significant changes from the existing design of the OIS were an increase in the number of interns in each of the four participating English departments from two to four and a renewed emphasis on collaborative planning and teaching between interns and experienced teachers. All four mentors and 16 interns work with me, the university-based teacher educator, to try to understand the settings and practices in which both the school pupils *and* the teachers learn. Activity Theory has been used as a means to identify and work on problems of practice in each of the settings. My role is a mediating one (as a resource for all the participants).[2]

The first year of the project (from September 2005) was used to identify and work with participants (schools, English departments and prospective interns) on the planning of the intervention and to develop a shared programme of reading. The intervention itself began in September 2006. *DETAIL* was presented as a 'pilot' within the OIS as a whole and a separate (and smaller) group of English interns followed the existing programme. The data presented in this paper were generated in the first few weeks of the intervention year.

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The Framework

As a framework, DWR was chosen for its potential as a participatory methodology that enables participants to do more than simply work on improving their own performance through action research methods. Claims made for DWR are that the tools of Activity Theory can be used by participants as a means of understanding and working for *systemic change* (Engeström 1991, 2007; Engeström, Miettinen, and Punamaki 1999), invoking the Vygotskyan notion of 'dual stimulation' (1978, 1986). In his research, Vygotsky used the strategy of 'dual stimulation' to reveal the ways in which children make sense of the worlds they are acting in:

> We simultaneously offer a second series of stimuli that have a special function. In this way, we are able to study the process of accomplishing a task by the aid of specific auxiliary means: thus we are able to discover the inner structure and development of higher mental processes. (Vygotsky 1978, 74)

The 'second series of stimuli' in DWR are the conceptual tools of Activity Theory (Engeström 2007), which are provided by the workshop facilitators to enable participants to analyse and make sense of their practices, the objects of those practices and the organisations which shape them. Evidence of the practices is presented to them by the facilitators, and participants are helped to examine those practices using the tools of Activity Theory. In doing so, practitioners reveal the conceptual tools they are using as they engage in or hope to develop their work.

DWR was also attractive for its shift in analytic focus towards the social system and away from the individual and for its potential for *systemic development*. Indeed, DWR and Activity Theory claim to be good at analysing and stimulating conceptual growth within and across systems (Engeström 2007). Finally, in relation to other participatory methodologies, DWR (in its DWR-lite version [Edwards and Fox 2005]) was seen as a form of research with teachers that doesn't sentimentalise them and requires a realistic, cultural–historical understanding of both social structures and practices. In summary, the potential of Activity Theory-informed DWR is that the tools of daily work and the tools of analysis are brought together with the aim of opening up a new horizon for ideas-driven constructions of the future.

In the DWR setting (sometimes known as the 'change laboratory') participants work on understanding what is going on in the system by analysing data generated ethnographically by a research assistant (in this case: observations, interviews and transcriptions of audio recordings of mentor–intern meetings). In formal DWR settings (cf. Engeström 1991, 2007; Engeström, Miettinen, and Punamaki 1999), the change workshop is facilitated by external researchers working as consultants. In the *DETAIL* project, the workshops are facilitated by the university-based lecturer (myself) and observed by a research assistant. This design is seen as an interesting variation of DWR because of the direct involvement of the facilitator as a researcher alongside participants in trying to understand in greater depth the opportunities for mentor and intern learning in school. In this adaptation, the facilitator had important personal and institutional investments in his own learning and the development of the system.

DWR-lite sessions (or 'change laboratories') have been held approximately every two months and are transcribed. In each session, selections of 'mirror data' (the ethnographically generated representations of current practices and discourses) are used with participants to expose, explore and work on tensions and contradictions at the systemic level. These tensions and contradictions – and the dialogic exploration of them – are understood as the potential space for change and development in the system.

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The Potential

The framing of the *DETAIL* project as DWR(-lite) also allowed participants to address the fundamentally important relationships between the multiple settings of school-based teacher education in England (at least two schools and, usually, a university department of education) and the boundary-crossing of pre-service teachers (cf. Ellis 2007b). Sometimes researchers conceptualise this problem as the 'tendency of student teachers to gravitate to the norms of the school' (Smagorinsky 2007, xii). Within the DWR-informed *DETAIL* project, the potential was for differences between schools and between schools and the university to be seen, as Beach (1999, 2003) proposed, as opportunities for learning rather than as 'boundaries to transfer across'. The potential was that rather than seeing these transitions (which Beach referred to as 'consequential transitions') as requiring a conservative approach to learning on the part of the interns – protecting their fragile prospective identities as teachers from harm – the collaborative work of teacher mentors and university lecturer in opening out the problem of practice would act in a mediating capacity that could allow the interns to seek complexity by feeling safe enough, fundamentally, to learn. In part, conceptualising the boundary-crossing of interns as 'consequential transitions' means developing those interns' metacognitive awareness of the relationships between the settings in which they are learning and the practices in those settings they are learning to negotiate. In this way, framing the *DETAIL* project as DWR also created a potential 'third space' (Gutierrez et al. 1999) in the 'change laboratories', produced when the official 'script' (discourses and practices) of the OIS about teacher learning comes into contact with the 'counterscript' of the everyday, work-based discourses and practices of teacher mentors and interns. That is, the transformatory potential of DWR lies in part in the creation of a mediating communicative space or 'boundary zone' (Engeström 2007; Edwards 2007).

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Working on Contradictions as Stimuli for Change: Identity and Agency

Important concepts to emerge from DWR sessions very early on in the first year of the intervention were those of teacher identity and teacher agency. In this section of the paper, I will refer to four episodes of dialogue from one DWR session six weeks into the intervention (October 2006), in which the four mentors participated at the same time as they – along with the 16 intern teachers – were negotiating the new terrain of an increase in the number of interns in each of their English departments; a new emphasis on collaborative planning and teaching between interns and experienced teachers; and the introduction of collaborative (interns, mentor and experienced teachers, and teacher educator) professional inquiry.

In the transcribed episodes that follow, I will show how the mentors (with myself as facilitator of the DWR sessions and co-participant) are beginning to work with some of the tools of Activity Theory in order to understand and work on changes in the social systems in which they are participating. The focus of the joint work represented here are contradictions in understandings of teacher identity (how teachers represent themselves and their work) and teacher agency (how they perceive their capacity for freedom of movement within the activity systems in which they are participating) in their own school settings.

In the first episode below, I had already introduced some 'mirror data': a segment from the transcript of an interview with one of the heads of department from the participating schools. In this segment, the head of English had commented on the value she placed on being part of the OIS, particularly in terms of the opportunities it gave her for recruiting new English teachers from the 'intern pool' (i.e. the pool of potential new recruits/applicants for vacant posts). In the initial discussion, I had commented that it shouldn't come as a surprise if school managers regard being part of the OIS as important for pragmatic reasons of teacher recruitment – schools need to recruit teachers.

Episode 1 (lines 395–428)

VE: It shouldn't be unexpected.

Mentor 3: I don't think (.) I mean I know what you're driving at, that's an extreme, and there may be elements of that in some people, but I do think that the school, the department, more people than that would suggest see the value of being involved in initial teacher training for its own sake and will articulate that.

Mentor 2: And I wouldn't want that [( )

Mentor 1: No but it's an example] of tensions =
((laughter))
= in the ways of working and different ways of thinking about what an intern is.

Mentor 4: Yeah and a lot of ( ) isn't it, that they're just an extra, not really part of us.

VE: So these things are lurking there?

Mentor 3: It's lurking there, yeah.

VE: It's lurking. But what's =

Mentor 3: = ( ) when you first mention that then ( )

Mentor 1: I remember the first summer I remember one or two divisions in the department in terms of they see them as things (that need stuff), like a postbox.

Mentor 2: Or they see them as a solution to work life, you know balance. They see them as a way of moving (.) and I think that's a very small minority, a way of shifting their excessive workload onto somebody else without seeing whether that's actually going to be a learning experience for the intern. I mean that is something that happens but it's a really small minority see it that way I think.

In responding to this segment of data, the mentors are articulating what is often asserted about schools' reasons for participating in highly-regulated, comparatively poorly-funded, school-based teacher education schemes in England (Furlong et al. 2000). Longer-standing concerns about 'using' student teachers almost as supply cover (substitutes) are combined with more recent pressures on schools (especially in the south-east of England) to recruit and retain teaching staff. Also, Mentor 1 seems to be suggesting that a view exists within her department that sees interns as a burden ('things [that need stuff], like a postbox'), a view that has sometimes led schools (especially those under pressure) to withdraw from teacher education altogether.

The laughter that follows Mentor 2's reference to 'tensions' can be explained as the group's reaction to a word that I had often used in explanations of the purpose of DWR and the usefulness of Activity Theory. Previously, the mentors had referred to my references to the Engeströmian third generation representation of the activity system as 'Viv's triangle thing' and there has been some good-humoured parody. Nevertheless, it is possible to see in the interaction that follows Mentor 1's comments that the group is beginning to work with some of the tools of Activity Theory as a way of helping them do some intellectual work on the difficulty of a shared understanding of 'what an intern is'. There is a recognition that multiple perspectives on what it means to be an intern teacher, how interns learn and, fundamentally, why participate in the OIS, exist within and between their settings and this is something that they and the interns have to negotiate. These contradictions (interns as potential recruits/interns as a burden/interns as supply cover) have been exposed in the interactions of the mentors as they begin both to work with the 'mirror data' and the tools of Activity Theory. At the same time, however, Mentor 3 and Mentor 2 are also maintaining a position (perhaps in relation to me as the university-based lecturer) in which the value of participating in teacher education partnerships and the importance of considering the learning opportunities for interns in schools are also considered.

In the second episode, the mentors are responding to an email from an intern based in Mentor 1's school in which the intern complained about having to participate in collaborative planning and teaching with experienced teachers. The mentors are beginning to analyse how the interns are negotiating the new terrain of – and making explicit their own beliefs about – the school-based teacher education programme. The intern, having previously taught English as a foreign language for a year, also complained that her 'skills [were] getting rusty':

Episode 2 (lines 443–65)

((laughter))

Mentor 1: This is October.
Mentor 4: Did you [( )? Sorry.]
Mentor 1: I wasn't in a laughing frame of mind actually.
Mentor 2: How many days had she been into school? What, six?
VE: About four. Four.
Mentor 1: I felt under real pressure that week.
Mentor 2: But that's really interesting. Cos I mean that's something she brought with her about how you learn to teach.
Mentor 1: She has a very clear idea that how she would learn to teach was she would be given classes that were the same every week and that she would go in and teach them. She's now in a position where she's asking me not to give her

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> classes that she's been involved with, because she knows she doesn't want to go near them again because she's flopped a little bit with them, found them tricky and [( )

In this episode, the opening laughter can be explained as the mentors' reaction to the implication in the intern's email that she already knew how to teach English in secondary schools and that the expectation of working alongside experienced teachers in planning and teaching was proving detrimental to her established skills. Moreover, this deterioration was taking place so soon after starting the course. In her question about the number of days the intern had been in school (four days over a two week period), Mentor 2 is drawing attention to the perceived strength of this intern's ideas about how one learns to teach. Mentor 1 confirms and emphasises this interpretation with her own encapsulation of the intern's 'very clear idea' about how she would learn best.

In her early work, Britzman (1986) referred to the powerful 'cultural myths of teaching and teacher education': *Everything depends on the teacher; the teacher as expert; teachers are self-made*. In conceptualising these 'ideal images, definitions, justifications and measures for thought and activity' as mythic (Britzman 1986, 448), Britzman argued that such cultural myths 'valorise the individual and make inconsequential the institutional constraints which frame the teacher's work'. The cultural myth most relevant here (myths also being used in preference to individual 'preconceptions') is that 'teachers are self-made'. Mentor 2 – in suggesting that the intern has brought 'something' with her to the process of learning to teach – might also be suggesting that the intern's 'very clear idea' isn't just something that she has picked up *ad hoc*, invented or is idiosyncratic but is something that has been learned from cultural representations of teaching and teacher education as well as from participation in practices in other settings. The intern's perspective is 'something *she brought with her* about how you learn to teach' rather than her preconception *per se*. Nevertheless, the mentors are moving towards an interpretation of this intern's sense of agency as autonomous: solo teaching behind a closed door, the success of which is entirely dependent on the teacher.

Later, having continued to discuss their interns' sense of identity and agency in relation to the earlier email and the concept of cultural myths, the mentors refer to one of the most familiar popular representations of the English teacher – Mr Keating in the film *Dead Poets' Society*.

Episode 3 (lines 529–45)

Mentor 2: I'm finding that one or two of mine are saying 'I don't want to be doing as much'. The penny has dropped that they imagine standing in a class and do the *Dead Poets' Society* thing, and actually it's not quite like that.
Mentor 1: And the astonishing thing to me ( ) is that teachers have asked if they could continue working collaboratively.
Mentor 4: Yes, yeah.
Mentor 1: Not just interns. I don't know if that's been anyone else's experience.
Mentor 3: Part of it is to do with identity, what they think a teacher is. You talk about the *Dead Poets' Society*, there's certain kind of stereotypes aren't there about what teachers are. And also that =
Mentor 2: = And the kind of teacher they had at school.

In her references to 'certain kinds of stereotypes', Mentor 3 is developing earlier interactions about teacher identity and what interns bring with them in terms of

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participation in cultural practices (see Mentor 2's second turn in Episode 2). In this episode, Mentor 2 also suggests what has been referred to as the 'apprenticeship of observation' (Lortie 1975) – the intern's recollection of their own teachers in school – as another factor in the ongoing process of intern identity construction and reconstruction.

Mentor 1's astonishment at the expressed wish of experienced teachers (she emphasises this in her second turn) to continue with collaborative planning and teaching after the required period has ended is intended to contrast the strength of some of the interns' views about how they learn best with those of more experienced teachers. In advance, all of the participants (including myself) had expected there to be more resistance to undertaking collaborative planning and teaching with interns from the experienced teachers. In practice, if anything, the reverse was true. Many of the experienced teachers in the four participating English departments (the time taken to physically meet and establish relationships aside) relished the opportunity to discuss their planning in relation to their students' learning and to engage in collaborative teaching in which they could work alongside one or two other adults in their classroom.

In Episode 4, the mentors have been prompted by my importation of the concept of the teacher as 'rugged individual', arising again from the work of Deborah Britzman (Britzman 1992). Drawing on Raymond Williams's notion of 'structures of feeling' (Williams 1977), Britzman argued that the commitments, desires and dispositions that student teachers hold towards their participation in social life and the collective 'structures of feeling' of organisations and institutions are 'fundamentally experienced as antagonistic' (Britzman 1992, 252). Referring specifically to a group of graduate, pre-service English teachers, she argued that the construct of the 'rugged individual' and its associated capacity to 'single-handedly rise above not just the constraints of history and culture … but the constraints of identity, social location and power' (255) was enormously appealing to these learner teachers. The 'rugged individual', in other words, tells a personally comforting story of their learning in the hero/Romance genre: the victor's (teacher's) tale of survival in the face of the vanquished (their students). In this episode, we can see the mentors build on their previous interactions about identity and agency by beginning to imagine how expectations of progression in interns' early professional learning might be changed:

Episode 4 (lines 600–21)

VE: Is part of it this thing about learning to be a rugged individual, you've got be tough ( ) to survive?

Mentor 2: That comes across in the mentor notes that my interns are writing every week 'I survived'. And I've said to them 'I don't want you (.) I don't want to read that now actually, it's not relevant'. I didn't mind it to start with, you know fair enough, but not any more.

Mentor 3: No. Because it's not getting (.) it's getting (.) it's still at that very very superficial level of this is tough hard work and I'm going to succeed by proving that I can fight my way out of a corner on my own.

Mentor 1: I wonder what failure would look like to them. Would failure be running out of the class crying?

Mentor 4: Is that a big fear?

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> Mentor 2: But it would be (.) failure would be all about them. It would be nothing to do with the impact it had on the children. Which I'm afraid annoys me actually.

In this episode we see the beginnings of a shift from the mentors' analysis of the intern teachers' negotiations of the new terrain of school-based learning towards the mentors' own construction of new ways to think about and act on the interns' learning processes. They do so, having started to unravel how existing practices have been shaped. The mentors are building this new understanding around the emerging concepts of teacher identity and teacher agency and are doing so in response to the persistent teacher-as-rugged-individual/hero narratives they are encountering in their work with interns in the school settings. Mentor 2's frustration with the interns' focus on the self, protecting an individualistic, autonomous prospective teacher identity, is clear. Mentor 3 is echoing this understanding and describing this perspective as 'superficial' and, by implication, immature ('it's *still* at'). The mentors perceive that not only is learning absent from some interns' concerns but so are the other teachers in the school department. The interns under discussion are not recognising that their development and their agentic potential as teachers are relational – in relation both to students, to other teachers and to their environment. The mentors, cumulatively over the four episodes discussed here, have revealed an alternative conception of teacher agency as one that is distributed amongst the various participants in the social practices of classrooms and they are emphasising how important they believe this understanding is for beginning teachers' learning. One indication of the potential of the DWR methodology is that this understanding was then taken back into their settings in order to begin to re-configure their teacher education work practices. In this instance, early on in the intervention, the recognition amongst mentors of the need to 'change the story' of professional learning led to an even stronger emphasis on collaborative planning and teaching in the four English departments.

DWR as a methodology for researching the intervention (the programme development aspect of *DETAIL*) supported participants in exposing and exploring tensions and contradictions in understandings of teacher identity and teacher agency held within the multiple activity systems of teacher education. Vitally, DWR had also provided the conceptual tools for developing an understanding of how existing practices have been culturally and historically shaped. The development of this understanding is stimulated, in particular, by the 'bottom line' of the triangular representation of the activity system (rules, community, division of labour) in relation to the tool-mediated work of subjects in the problem-space (that is to say, the object of the activity system; e.g. the preparation of secondary English teachers). So, for example, understandings of the teacher's identity as an autonomous 'rugged individual' (Britzman 1992) were held in tension with understandings of the teacher's identity as complex and inter-dependent, arising out of a collaborative, interactional perspective on teachers' work and teachers' learning. Similarly, understandings of teacher agency as individual and autonomous were held in tension with more distributed conceptions of agency, where agency is defined as a capacity for joint work in relation to others, what Edwards and D'Arcy (2004) have referred to as 'relational agency'. These tensions and contradictions were also present in how the beginning teachers talked about their work, suggesting the continued relevance of Britzman's (1986) 'cultural myths of teaching and teacher education'.

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The potential of DWR in the teacher education context is beginning to be realised in the episodes of dialogue I have been discussing. This DWR session has become what Engeström called a 'boundary zone' (1991, 2007) between the multiple activity systems of the OIS teacher education partnership where participants discuss and analyse practices in their own settings *and* reveal the understandings in use in those practices. Contradictions between understandings become stimuli for change, and the new understandings that emerge dialogically in the DWR session are taken back into their own settings for further work. In the highly-regulated context of pre-service teacher education in England, the episodes discussed here also represent a striking example of the transformatory potential of DWR in enabling a new communicative or 'third space' (Gutierriez et al. 1999; see also Beach 2003).

Conclusion: The Transformative Potential of DWR for Teacher Education

The work with mentor English teachers discussed in this paper was an opening move in the development of the *DETAIL* project and can only suggest the potential of DWR as an interventionist and participatory methodology. Further papers will report on the elaboration of 'DWR-lite', and the realisation of its potential in the learning of mentors, interns and the teacher educator; the ways in which collaborative professional inquiry opened up questions of practice in each of the settings (including the university); and will address more explicitly the question of the 'dual stimulation' strategy of the DWR framework. The analysis I have presented in this paper nevertheless enhances our understanding of – and demonstrates the complexity of – the interactions between the multiple social systems of school-based teacher education in England. Rather than solely foregrounding the 'properties' of schools as learning environments or the 'preconceptions' of beginning teachers, this paper has shown how teacher educators (mentors and a university-based lecturer) have constructed the DWR session as a boundary zone in which to come to a new understanding of the complexity of school subject departments as learning environments *in relation to* the complexity of prospective teachers' personal, dispositionally-informed trajectories of participation (Dreier 1999). Working in this way with participants enables researchers to work on the joint construction of the future of social systems and, in doing so, claim 'socially robust knowledge' (Gibbons 1999) that extends both the grounds for the development and the warrant for the social science knowledge that is produced. In part, the potential of DWR is in this extension of the warrant and the joint work of multiple participants in creating 'scientific' knowledge in the process of application. Activity Theory is not used, after the fact, as a descriptive heuristic in work *on* teachers but as a set of conceptual tools shared – and developed – between participants in a complex, knowledge-producing game (Gibbons et al. 1994).

DWR sessions, as boundary zones, enabled participants to come to know contradictions in understandings as systemic and culturally and historically nested rather than as idiosyncratic and an outcome of individual performance. In addition to making sense of change through the analytic tools of Activity Theory, DWR sessions also supported participants in the production of knowledge that not only arose out of but had the potential to feed back into the material conditions of their work.

This article has demonstrated the need to undertake contextual analyses of initial teacher education partnerships between schools and universities and to understand

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the complex and dynamic nature of even apparently stable and successful school–university partnerships. In my examination of the use of an adaptation of DWR, I have shown how both revealing and working on the contradictions inherent in a system in the process of change can lead to a joint construction of the future of that system. The potential of this methodology for transforming work in pre-service teacher education settings, I have argued, is profound.

Notes

1. Within Cultural Historical Activity Theory (CHAT), *activity* is defined as tool-mediated work that is object- (or problem) oriented and collective, within a community that has developed historically in terms of its division of labour and rules for participation (Engeström, Miettinen, and Punamaki 1999; Engeström 1999). The concept of *object* represents the material goals of activity as a problem that can be worked on (Leont'ev 1978) with a shared intentionality.
2. Further information about the *DETAIL* project is available at: http://www.education.ox.ac.uk/research/osat/DETAIL.php; see also Ellis (2007a).

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