Chapter 5 The institutional level of regulation and analysis

In this final chapter I will discuss ways in which the broad definition of pedagogy outlined in chapter one may be brought to life within the social, cultural, historical approach. In chapters two and three I discussed a number of the possible interpretations and extensions of Vygotsky's theoretical legacy. In chapter four I provided a, necessarily constrained, overview of some of the interventions that have been pursued under the guidance of some of the theories discussed in chapter two and three. Throughout these four chapters I have suggested that the development of this body of work has yet to explore fully aspects of broadly defined socio-institutional effects and the production of specific forms of cultural artefact or psychological tool in specific contexts. Additionally there has been relatively investigation of the mediational properties of non linguistic cultural artefacts such as visual images. One way of describing the problem is that post Vygotskian theory lacks a sociology of pedagogy.

In this chapter I will discuss research, carried out in collaboration with others, which pursue these and other themes through empirical study. In one sense this is an attempt to progress the debate concerning means of mediation. In the study of cultural transmission and appropriation, how should we construct an operational definition of culture which commensurate with a broadly based definition of pedagogy?

Van der Veer (1996) argued that Humboldt with reference to linguistic mediation and Marx with reference to tool-use and social and cultural progress influenced Vygotsky's concept of culture. He suggested that the limitations in this aspect of Vygotsky's work are with respect to non-linguistically mediated aspects of culture and the difficulty in explaining innovation by individuals. Ratner (1997) makes a plea for a definition of culture which goes beyond shared semiotic or symbolic processes and emphasises the concrete societal nature of cultural artefacts.

> 'Culture includes social concepts but also concrete social institutions that are arranged in a division of labour and governed by definite principles of behaviour, forms of control and power, allocation of opportunities, and rewards and punishments.'
>
> Ratner (1997) p.116

Ratner discusses the ways in which activity may become institutionalised and in so doing structures and organises certain possibilities for the characteristics of psychological phenomena. He wishes to acknowledge the formative effects of institutional factors and at the same time account for the ways in which they themselves are shaped and developed. His approach to cultural psychology takes an explicitly broad view of the contexts in which cognition develops. Here Ratner both emphasises Vygotsky 's assertion that humans control themselves from the outside and that cognitive and affective development and functioning should not be construed in terms of dualisms.

'Acknowledging that people construct their psychology by constructing their social activity grants them the power to alter their psychology by transforming their social activity. The intellectualist view of cultural psychology lead to championing psychological change apart from socioeconomic-political change. In this view, psychological change can be accomplished by simply changing one's concepts or outlook. There is no need to alter social institutions or conditions, since these are unrelated to cultural psychological phenomena.... Social activity is in psychological phenomena and psychological phenomena are in practical social activity. Culture is institutionalized practical behaviour, but it is also concepts and values, psychological phenomena, and human purpose. Similarly, psychological phenomena comprise a distinctive realm of diverse modalities (feelings, perceptions, thoughts, recollections, needs), yet they are also conceptual and are shaped by and promote practical social activity. Activity and psychological phenomena are different forms off a common medium; they are not separate entities. Their unity is what accounts for their ability to affect each other.'

Ratner (1997) p. 117

Differences in definitions of culture raise issues which are isomorphic to those raised when definitions of pedagogy are considered. The broader or perhaps 'more sociological' the definition the greater the range of factors that must be considered as formative at the psychological level of analysis. Within the post-Vygotskian theoretical framework there is a requirement for a structural description of social settings which provides principles for distinguishing between social practices. Descriptions of this sort would be an important part of the apparatus required to carry out empirical investigation and analysis of the psychological consequences for individuals of different forms of social organisation. However, description itself would not be enough. Vygotsky's writing on the way in which psychological tools and signs act in the mediation of social factors does not engage with a theoretical account of the appropriation and/or and production of psychological tools within specific forms of activity within or across institutions. It is clear from reviews by Atkinson (1985), Moore (1984), Diaz (1984), and Tyler (1983) and the work of Bernstein himself that he directly addresses the issues of concern in this chapter.

'Essentially and briefly I have used Durkheim and Marx at the macro level and Mead at the micro level, to realize a sociolinguistic thesis which could need with a range of work in anthropology, linguistics, sociology and psychology.'

Bernstein (1972) p.160

'Bernstein's thinking was influenced profoundly by his acquaintance with the various philosophical and anthropological authors on language and symbolism - including Cassirer and Whorf. To this was added the work of the Russian psychologists Vygotsky and Luria.'

However, as Atkinson (1985) notes, Bernstein's approach epitomizes an essentially macrosociological point of view.

> 'It is undoubtedly true that in Bernstein's general approach there is little or no concern for the perspectives, strategy and actions of individual social actors in actual social settings.'
>
> Atkinson (1985) p.32

On the one hand Durkheim's notion of collective representation allowed for the social interpretation of human cognition, on the other it failed to resolve the issue as to how the collective representation is interpreted by the individual. This is the domain so appropriately filled by the later writings of Vygotsky. The fact that Bernstein has utilized Mead and Vygotsky in the formulation of his model allows for the exploration of interpersonal relations at the face to face level in the classroom. Many of the symbolic interactionist and Vygotskian insights noted above can be subsumed into his model which affords the wider social dimension a central place in a general thesis. The importance of such a theoretical move has been acknowledged for some time.

> 'The failure to make the connection between Meadian social psychology and the sociology of knowledge on the part of the symbolic interactionists is of course related to the limited diffusion of the sociology of knowledge in America, but its more important theoretical foundation is to be sought in the fact that both Mead himself and his later followers did not develop an adequate concept of social structure. Precisely for this reason, we think,is the integration of the Meadian and Durkheimian approaches so very important.'
>
> Shibutani (1962)

Hundeide (1985) has shown, in a study of the tacit background of children's judgements, how participants in an activity, in part, create the setting. These 'taken for granted background expectancies' reflect in part the sociocultural experience that the individual brings to the situation.

> 'One needs a framework that takes into account the historical and cultural basis of individual minds: the collective institutionalized knowledge and routines, categorization of reality with its typifications, world view, normative expectations as to how people, situations, and the world are and should be, and so forth. All this is tacit knowledge that has its origin beyond the individual, and it is this sociocultural basis that forms the interpretive background of our individual minds.'
>
> Hundeide (1985) p.311

In the absence of an appropriate theoretical framework wider social institutional factors will have been reduced to lower levels of explanation. In the same way psychological studies of learning which ignore contextual constraints will confound and confuse the interpretation of results. Vygotsky's approach lacks that which Bernstein explicitly has set out to provide - a theoretical framework for the description and analysis of the changing forms of cultural transmissions:

> 'I wanted to develop a different approach which placed at the centre of the analysis the principles of transmission and their embodiment in structures of social relationships.'
>
> Bernstein (1977) p.3.

Bernstein seeks to link semiotic tools with the structure of material activity. Crucially he draws attention to the processes which regulate the structure of the tool rather than just its function.

> 'Once attention is given to the regulation of the structure of pedagogic discourse, the social relations of its production and the various modes of its recontextualising as a practice , then perhaps we may be a little nearer to understanding the Vygotskian tool as a social and historical construction'.
>
> Bernstein (1993)

He also argues that much of the work that has followed in the wake of Vygotsky 'does not include in its description how the discourse itself is constituted and recontextualised'

> 'The socio-historical level of the theory is, in fact, the history of the biases of the culture with respect to its production, reproduction, modes of acquisition and their social relations.'
>
> Bernstein (1993) p. xviii

As Ratner (1997) notes, Vygotsky did not consider the ways in which concrete social systems bear on psychological functions. He discussed the general importance of language and schooling for psychological functioning, however he failed to examine the real social systems in which these activities occur and reflect. Vygotsky never indicated the social basis for this new use of words. The social analysis is thus reduced to a semiotic analysis which overlooks the real world of social praxis (Ratner, 1997).

> 'The feature that can be viewed as the proximal cause of the maturation of concepts, *is a specific way of using the word*, specifically the functional application of the sign as a means of forming concepts'.
>
> (Vygotsky, 1987, pp. 131)

Whilst it is quite possible to interpret 'a specific way of using the word' to be an exhortation to analyse the activities in which the word is used and meaning negotiated,

this was not elaborated by Vygotsky himself. The analysis of the structure and function of semiotic psychological tools in specific activity contexts is not explored. In Engeström's (1996) work within Activity Theory the production of the outcome is discussed but not the production and structure of the tool itself.

Thus the following issues may be regarded as points for development in contemporary post Vygotskian theory and research:

- Insufficient empirical study of socio-institutional effects;
- Tendency to under theorise differences between schools in terms of institutional; effects on the social formation of mind;
- Lack of theory of structure of discourse as a cultural artefact;
- Lack of theory of constitution and recontextualisation of the psychological tool / cultural artefact.

Bernstein's Sociology of Pedagogy

Bernstein's (1981) paper outlined a model for understanding the construction of pedagogic discourse. In this context pedagogic discourse is a source of psychological tools or cultural artefacts.

> 'The basic idea was to view this (pedagogic) discourse as arising out of the action of a group of specialised agents operating in specialised setting in terms of the interests, often competing interests of this setting.'
>
> Bernstein(1996) p.116

Bernstein's work on the school shows his continuous engagement with the inter-relations between changes in organizational form, changes in modes of control and changes in principles of communication. Initially he focuses upon two levels: a structural level and an interactional level. The structural level is analyzed in terms of the social division of labour it creates and the interactional level with the form of social relation it creates. The social division of labour is analyzed in terms of strength of the boundary of its divisions, that is, with respect to the degree of specialization. Thus within a school the social division of labour is complex where there is an array of specialized subjects, teachers and pupils, and it is relatively simple where there is a reduction in the specialization of teachers, pupils and subjects. Thus the key concept at the structural level is the concept of boundary, and structures are distinguished in terms of their boundary arrangements and their power supports and legitimations (Bernstein , 1996).

The interactional level emerges as the regulation of the transmission/acquisition relation between teacher and taught: that is, the interactional level comes to refer to the pedagogic context and the social relations of the classroom or its equivalent. The

interactional level then gives the principle of the learning context through which the social division of labour, in Bernstein's terms, speaks.

He distinguished three message systems in the school: curriculum, pedagogy (practice) and evaluation. Curriculum referred to what counted as legitimate knowledge and the latter was a function of the organization of subjects (fields), modules or other basic units to be acquired: pedagogy (practice) referred to the local pedagogic context of teacher and taught and regulated what counted as a legitimated transmission of the knowledge; pedagogy (practice) referred to the local pedagogic context of teacher and taught and regulated what counted as a legitimated transmission of the knowledge; evaluation referred to what counted as a valid realization of the knowledge on the part of the acquirer. Curriculum was analyzed not in terms of contents but in terms of relation <u>between</u> its categories (subjects and units). Pedagogic practice again was not to be analyzed in terms of its contents but in terms of the control over the selection, sequencing, pacing and criteria of communication in the transmitter/acquirer relation. It is apparent that the curriculum is regarded as an example of a social division of labour and pedagogic practice as its constituent social relations through which the specialization of that social division (subjects, units of the curriculum) are transmitted and expected to be acquired.

Bernstein uses the concept of classification to determine the underlying principle of a social division of labour and the concept of framing to determine the principle of its social relations and in this way to integrate structural and interactional levels of analysis in such a way that, up to a point, both levels may vary independently of each other.

Classification
Classification is defined at the most general level as the relation between categories. The relation between categories is given by their degree of insulation. Thus where there is strong insulation between categories, each category is sharply distinguished, explicitly bounded and having its own distinctive specialization. When there is weak insulation then the categories are less specialized and therefore their distinctiveness is reduced. In the former case, Bernstein speaks of strong classification and in the latter case Bernstein speaks of weak classification.

Framing
The social relations generally, in the analyses, are those between parents/children, teachers/pupils, doctors/patients, social workers/clients, but the analysis can be extended to include the social relations of the work contexts of industry or commerce. Bernstein considers that from his point of view all these relations can be regarded as pedagogic.

> 'Framing refers to the control on communicative practices (selection, sequencing, pacing and criteria) in pedagogical relations, be they relations of parents and

children or teacher/pupils. Where framing is strong the transmitter explicitly regulates the distinguishing features of the interactional and locational principle which constitute the communicative context ... Where framing is weak, the acquirer is accorded more control over the regulation.

> Framing regulates what counts as legitimate communication in the pedagogical relation and thus what counts as legitimate practices.'
>
> <div align="right">Bernstein (1981) p.345.</div>

In that the model is concerned with principles of regulation of educational transmission at any specified level, it is possible to investigate experimentally the relation between principles of regulation and the practices of pupils. Relations of power create and maintain boundaries between categories and are described in terms of classification. Relations of control revealed in values of framing condition communicative practices. It becomes possible to see how a given distribution of power through its classificatory principle and principles of control through its framing are made substantive in agencies of cultural reproduction, e.g. families/schools. The form of the code (its modality) contains principles for distinguishing between contexts (recognition rules) **and** for the creation and production of specialized communication within contexts (realization rules).

> 'Through defining educational codes in terms of the relationship between classification and framing, these two components are built into the analysis at **all levels**. It then becomes possible in one framework to derive a typology of educational codes, to show the inter-relationships between organizational and knowledge properties to move from macro- to micro-levels of analysis, to delate the patterns internal to educational institutions to the external social antecedents of such patterns, and to consider questions of maintenance and change.'
>
> <div align="right">Bernstein (1977) p.112.</div>

The analysis of classification and framing can be applied to different levels of school organization and various units within a level. This allows the analysis of power and control and the rules regulating what counts as legitimate pedagogic competence to proceed at a level of delicacy appropriate to a particular research question.

Bernstein (1996) refined the discussion of his distinction between instructional and regulative discourse. The former refers to the transmission of skills and their relation to each other, and the latter refers to the principles of social order, relation and identity. Whereas the principles and distinctive features of instructional discourse and its practice are relatively clear (the what and how of the specific skills/competences to be acquired and their relation to each other), the principles and distinctive features of the transmission of the regulative are less clear as this discourse is transmitted through various media and may indeed be characterised as a diffuse transmission. Regulative discourse communicates the school's (or any institution's) public moral practice,

values beliefs and attitudes, principles of conduct, character and manner. It also transmits features of the school's local history, local tradition and community relations. Pedagogic discourse is modelled as one discourse created by the embedding of instructional and regulative discourse. This model of pedagogic discourse provides a response to one of the many theoretical demands which have remained unfulfilled in the post-Vygotskian framework. The rejection of the cognitive / affective dualism which Vygotsky announced was not followed by a model within which a unitary conception of thinking and feeling could be discussed and implemented within empirical research.

The language that Bernstein has developed allows researchers to take measures of school modality. That is to describe and position the discursive, organizational and interactional practice of the institution. Research may then seek to investigate the connections between the rules the children use to make sense of their pedagogic world and the modality of that world. Bernstein provides an account of cultural transmission which is avowedly sociological in its conception. In turn the psychological account that has developed in the wake of Vygotsky's writing offers a model of aspects of the social formation of mind which is underdeveloped in Bernstein's work.

As I mentioned in Chapter two, in his last journal paper, Bernstein (1999b) moved his analysis to the internal principles of the construction and social base of pedagogic discourses. Having provided a theory of the construction of pedagogic discourse he moved to an analysis of the discourses subject to pedagogic transformation. This move will be of particular significance when this body of theory and its language of description is brought to bear on the discussion of the relationship between everyday and scientific concepts as outlined in 'Thinking and Speech'. The analysis outlined by Bernstein (1999b) allows for greater differentiation within and between the forms identified by Vygotsky. The analytical power of the distinctions made between vertical and horizontal discourses and hierarchical and horizontal knowledge structures provides research with an enhanced capacity to provide descriptions that capture the delicacy of the forms and their interrelation. This last paper sets an important agenda for work in the future.

In the next section of this chapter one will argue that an Activity Theory driven approach may be enhanced through the development of a more sophisticated account of 'tool'/cultural artefact within the general model developed by Engeström. In this case it is the model of pedagogic discourse as an embedded discourse which is of particular value.

An expansive learning approach to studying Emotional and Behavioural Difficulties (EBD) in mainstream schools

In much of our work on policy and provision for pupils described as having Emotional and Behavioural Difficulties (EBD) we have shown that patterns of staff relation and

forms of pedagogic discourse in schools have a significant effect on the possibilities for widening participation in mainstream schooling (Daniels, Cole, and Visser 2000; Cole, Visser, and Daniels, 1999). We argue that collaborative patterns of staff working and the retention of a discourse of values in education within a school are key indicators of what we define as good practice.

In chapter three I discussed the development of Yrjo Engeström's approach to activity theory and his theory of expansive learning (Engeström, 1984, Engeström, et. al., 1999). He sketches the stages of an expansive learning approach to research as follows:

- 'The first action is that of questioning, criticising, or rejecting some aspects of the accepted practice and existing wisdom. For the sake of simplicity, I call this action questioning.
- The second action is that of analysing the situation. Analysis involves mental, discursive, or practical transformation of the situation in order to find out causes or explanatory mechanism. Analysis evokes 'why?' questions and explanatory principles. One type of analysis is historical-genetic; it seeks to explain the situation by tracing its origination and evolution. Another type of analysis is actual-empirical; it seeks to explain the situation by constructing a picture of its inner systemic relations.
- The third action is that of modelling the newly found explanatory relationship in some publicly observable and transmittable medium. This means constructing an explicit, simplified model of the new idea that explains and offers a solution to the problematic situation.
- The fourth action is that of examining the model, running, operating, and experimenting on it in order to fully grasp its dynamics, potentials, and limitations.
- The fifth action is that of implementing the model, concretising it by means of practical applications, enrichments, and conceptual extensions.'

We have applied this model to the design of our own empirical work in the EBD field

1. *Questioning*
There is international concern about the extent to which pupils are excluded from school. Between and within countries there is significant variation in the numbers of pupils whose behaviour is regarded as problematic, challenging and inappropriate. The variation suggests that either definitions are inadequate or that the EBD is, to some extent, a context specific phenomena, or both. The causes of EBD are now thought of as complex and systemic involving home, school and less frequently biological factors. This complexity gives rise to questions concerning the relationship between individuals, the ways that they think, feel and act, and the institutions in which they are placed.

There are social, cultural and historical issues which are in play here. Changes in schooling over the last decade have increased demands on schoolteachers particularly with respect to standards. There have been increased pressures to raise standards of attainments through teaching and assessing the English National Curriculum in locally managed schools, under a more stringent inspection system. There has also been growing concern about the extent to which the concept of emotional and behavioural difficulty has been realised in schools as a desire to control inappropriate behaviour without reference to the affect. The cogntive / affective dualism, which so concerned Vygotsky, is 'writ large' in aspects of the social administration of schooling. Additionally interventions have tended to involve instrumental approaches to changing practice. The attempt to change practice in schools through the formulation and promulgation of specific protocols has tended to take place in the absence of discussion 'of values and type of society to which schools articulate/ adhere'. (Slee, et al, 1998).

Following Bernstein we could say that there has been a shift in the structure of pedagogic discourse which has involved the foregrounding of instructional discourse and the relative backgrounding of regulative discourse. Matters of order, identity and relation have been subjugated by concerns for curriculum content, sequence and pace assessment criteria and modes of assessment.

2. *Analysing*

In our work we sought to understand the nature of good practice in schools. In so doing we sought to understand the relationship between definitions, discourses, interventions and socio-institutional context. The relationship between instructional and regulative discourse within the pedagogic discourses of specific schools became a central concern. We focused upon the processes by which good practice had been achieved and sustained. Key players in the management and operation of behaviour and SEN policies in the LEAs and schools were interviewed, classroom observations were made and relevant documents were examined. Interviews were conducted with educational psychologists, advisers, behaviour support service personnel and educational welfare or social workers. We were concerned both with current beliefs and practices as well as the ways in which they had evolved.

The framework for the collection of qualitative data during the detailed study of the ten schools in the final phase of the project evolved from visits made to twenty-seven schools in three administrative regions within England. These visits had in turn been planned in the light of the overview of relevant issues provided through an extensive literature review and focus groups using a nominal group technique. .

3. Modelling

We were faced with a complex task. Our intention was to provide an up to date analysis of 'best' practice in mainstream schools. Our data suggested a relationship between the patterns of social relation within the school and the forms of pedagogic discourse that predominated. We were therefore concerned to model the social

relations which gave rise to specific forms of discursive tool. Here we turned again to Engeström's work.

In order to try and discuss innovation and improvement of specific forms of multiprofessional activity, Engeström, Brown, Christopher and Gregory (1997) develop a three level notion of the developmental forms of epistemological subject-object-subject relations within a Vygotskian framework. They call these three levels 'co-ordination, co-operation and communication'. Within the general structure of coordination actors follow their scripted roles pursuing different goals (see figure 1).

**Figure 1 The general structure of coordination**
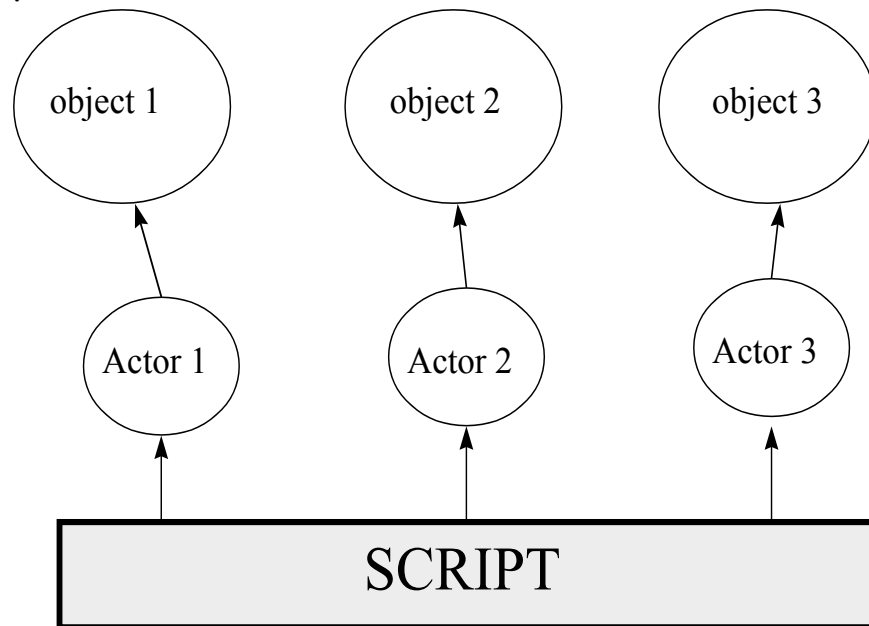
Within the general structure of co-operation actors focus on a shared problem. Within the confines of a script the actors attempt to both conceptualise and solve problems in ways which are negotiated and agreed. (see figure 2). The script itself is not questioned. That is the tacitly assumed traditions and/or the given official rules of engagement with the problem are not challenged.

Figure 2 The general structure of co-operation
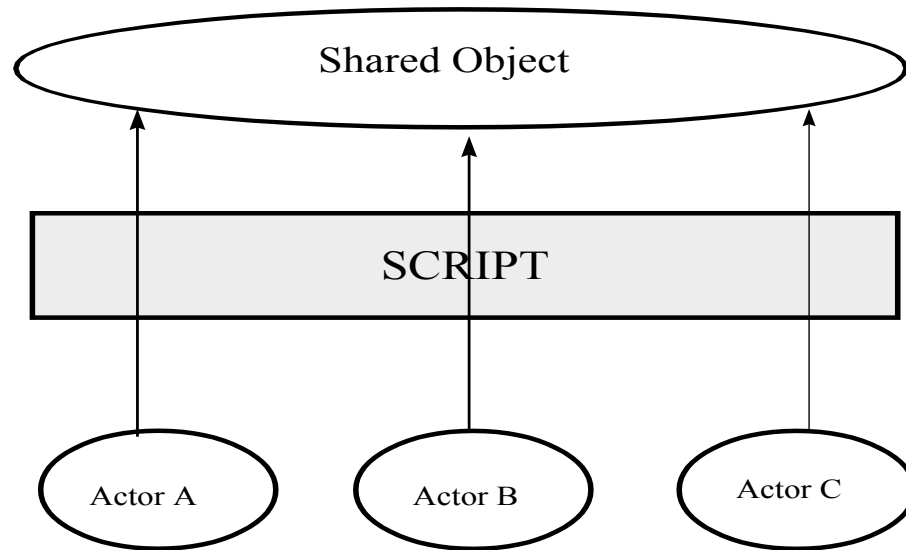
Engeström et al (1997: 373) discuss reflective communication 'in which the actors focus on reconceptualising their own organisation and interaction in relation to their shared objects and goals (see figure 3). This is reflection on action. Both the object and the script are reconceptualised, as is the interaction between the participants.'

Figure 3 The general structure of communication
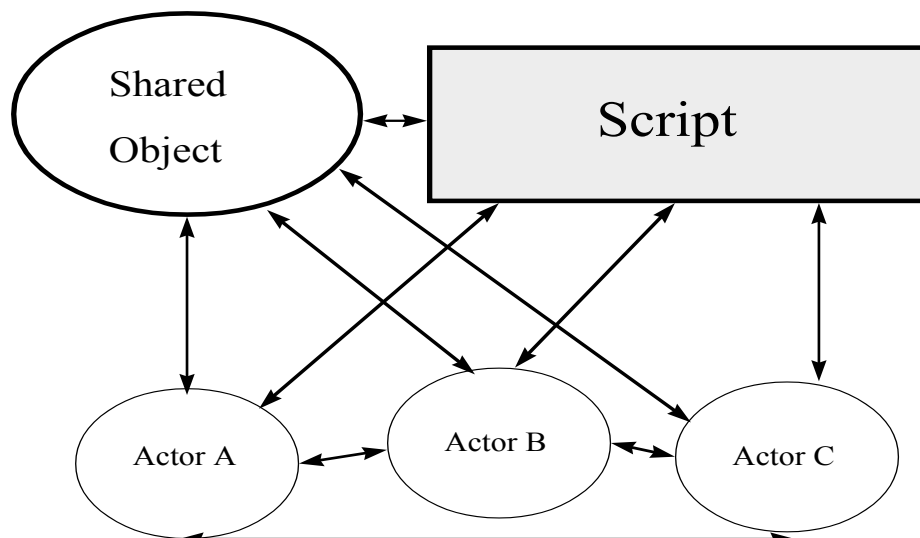
Implicit in this general structure of communication is a version of Vygotsky's (1978) concept of the Zone of Proximal Development (ZPD). That is the 'area that is beyond one's full comprehension and mastery, but that one is still able to fruitfully engage with, with the support of some tools, concepts and prompts from others' (Bazerman, 1997: 305). The description provided by Newman et al (1989) of this form of activity in the classroom can be transposed to the actions of adults

> 'The multiple points of view within a ZPD are not seen as a problem
> for analysis but rather the basis for a process of appropriation in
> which children's understandings can play a role in the functional
> system.'

<div align="right">Newman et al (1989: 136)</div>

4. Interrogating the model

The development and discussion of our data in schools and seminars gave rise to a focus on two related concerns. Firstly it seemed that a 'good' school would be a place where there was a collaborative culture. The 'community' would be regulated by collaborative 'rules' in such a school. Secondly, the institution would be one in which individuals could develop thoughts, values and aspirations together. In so doing they would revive and sustain the local regulative discourse of schooling. An explicit focus on regulative discourse was seen to be associated with sophisticated and effective approaches to pupils whose problems may be described as EBD.

5. Implementing the model

In order to implement the key aspects of our findings we sought a way of shifting the patterns of participation towards a 'communication' based model (Engeström et al

1997). We did so in the belief that this would give rise to a more explicit emphasis on the regulative discourse within the school.

The creation and development of collaborative problem solving groups in schools in England (Creese, Daniels and Norwich ,1997; Creese, Norwich and Daniels, 2000) and Spain (Parrilla and Daniels 1998, 2000) followed the argument that collaborative social environments enhance the cognitive potential of actors within institutions. In the context of the EBD work we were keen to facilitate the development of collaborative problem solving groups as a means of shifting the structure of pedagogic discourse in schools.

The role of a collaborative professional culture in schools is an important but under-researched aspect of school effectiveness and improvement literature. Our model of Teacher Support Teams (TSTs) may be seen as a form of intervention which seeks to alter the socio-cultural context of schooling through the development of a culture of collaborative peer problem solving. In this way TSTs aim to enhance the capacity of the school to respond to diverse student populations. It is thus an intervention which seeks to alter the context in order to enhance collective thinking. Teachers are, as Stringer (1998) suggests, 'seen as the target and agent of change'.

The ways in which schools are organised and constrained to organise themselves are seen to have an effect on the possibilities for teacher peer collaboration and support. However the theoretical tools of analysis of this kind of organisational effect are somewhat underdeveloped within the post-Vygotskian framework.

A TST is an organised system of peer support which consists of a small group of teachers who take referrals from individual teachers on a voluntary basis. The referring teacher brings concerns about classes, groups or individuals in order to discuss and problem solve with their peers. Follow-up meetings are held as necessary. The process is as confidential as the requesting teacher wants it to be. TSTs are novel in that they are an example of a school-based development designed to give support and assistance to individual teachers. In this way, TSTs address a significant but neglected area of school development which has the potential to enhance the working conditions of teachers. They involve a sharing of expertise between colleagues, rather than some teachers acting as experts to others.

TSTs seek to alter the communicative practices of teachers in schools. They engage with the tensions, dilemmas and even conflicts which teachers experience in the social worlds of the schools they inhabit. If the ZPD is redefined from a broader affective as well as cognitive perspective, as suggested by del Rio and Alvarez (1995), then a more robust and coherent concept emerges. It would be more robust in that it should seek to take account of both cognitive and affective domains. It would be more coherent in that it should handle these domains as highly inter-related and/or embedded matters.

From a Vygotskian perspective, these mediating communicative patterns in professional development constitute tools for action, thinking and feeling. As Bazerman notes:

> Though each participant in a discursive field need not think alike – indeed the discursive activities of disciplines largely rely on people not thinking precisely alike – each must draw on a common body of resources, cope with the same body of material and symbolic artifacts, master the same tools, and gain legitimacy for any new resources they want to bring into the field by addressing the same mechanisms of evaluation by which new concepts, tools, or phenomena gain standing in the discourse.' Bazerman (1997) p. 305.

Meadows (1998) argued that 'collaboration with others .. may make things achievable which were not and -indeed still are not- achievable by the individual acting alone. There can of course be many reasons for this social facilitation of development.' Our evaluation of TSTs reveals a range of outcomes associated with collaboration between teacher peers. As such it can be seen to provide support for some of the more recent developments in post-Vygotskian theory. Intervention in the cultural context of the institution which seeks to alter teachers communicative practices can make a difference to the pedagogic practices in classrooms. Collaborative problem solving between teachers can provide an engine for development in schools.

The limits of teacher tolerance for pupil diversity are in part constructed by external demands placed on schools. Recent emphasis on attainment may have reduced teacher tolerance for low attainment on the part of pupils. This is acceptable to the extent that this lowering of tolerance or acceptance of failure is associated with active engagement designed to promote improved performance. It is clearly unacceptable if it leads to disengagement and rejection. Similarly the emphasis on attainment and instruction may also reduce tolerance, and engagement with and concern for emotional development and mental health in schooling. These accounts may be restated in terms of the relationship between instructional and regulative discourse discussed above. Our hypothesis is that introducing collaborative problem solving into schools through TST helps to transform patterns of social relation and lend to the development of pedagogic discourses and practices which place more emphasis on matters of value and moral regulation.

We have come to this hypothesis through a consideration of the relationships between the mediational means available to schools and the nature of the communities, rules and division of labour that exists in these schools. This was made possible through the perspective of Activity Theory. We feel that we have enhanced the analytical power of Activity Theory through an explicit reference to the structure of the semiotic means of mediation - pedagogic discourse.

This example is, of course, very much at the exploratory stage. It is presented here because it provides an indication of the possibilities for enhancing the power of the

Developmental Work Research approach. At another level it indicates that if the, almost traditional, divide between socio-cultural and Activity Theory were to be resolved then the overall power of the theory would be significantly enhanced. As I outlined in chapter two, the lack of attention to the activity system setting in which dialogue occurs is as limiting as an underdeveloped analysis of processes of semiosis within activity systems. The present example is very crude. It merely invokes a simplified account of the structure of pedagogic structure in order to facilitate a fairly one-dimensional description of change and possibilities for change. It served to direct attention in the course of a fairly constrained research project. Bernstein and others provide approaches to modelling different discursive modalities. These descriptions could become analytical tools within an Activity Theory driven approach to institutional development.

Gender and resource allocation
Wells (1993, 1994a + b) has attempted to bring together theories of discourse with activity theory in the analysis of teaching and learning in the classroom. Voloshinov (1973, pp.20-2). emphasised the importance of the relationship between utterance and context in the analysis of meaning; 'the sign may not be divorced from the concrete forms of social intercourse'. The concept of genre as developed in Australia (e.g. Christie,1985; 1993) and North America, may be taken to refer to a set of formally definable text features that certain texts have in common across various contexts. Bazerman (1988,1994), extends this notion of 'genre' beyond that of textual forms, to 'forms of life, ways of being, frames for social action' in his attempt to theorise environments for learning and teaching. Both Bazerman and Wells provide extensions to the concept of genre as developed in Christie's (1985, 1993) formulation of curriculum genres. These studies contribute to the development of a theory of learning and discourse within the activity of schooling yet still do not provide a verifiable model of socio-institutional effects.

Russell argues that Activity Theory analysis of genre systems may offer a theoretical bridge between the sociology of education and Vygotskian social psychology of classroom interaction, and contribute toward resolving the knotty problem of the relation of macro- and microstructure in literacy research based on various social theories of 'context' (Russell 1997a, p.1). Alternatively, it may be possible to use the

concept of 'genre' as a means of differentiating between activities in analysis. It is this alternative which we pursued in the context of the studies which I will now outline.

In this section I will discuss a series of studies which, whilst not utilising a Bernsteinian framework for analysis, also seek to enhance the analytical power of the concept of 'psychological tool' or 'cultural artefact'. The major focus of this body of work was on the way in which gender is an influential factor within pedagogic practice. Initially our concern was with resource allocation for pupils with special educational needs (SEN) as a gendered and raced social process This focus subsequently shifted to a more general interest in the institutional regulation of gender

and learning (Daniels, Hey, Leonard, Smith, 1998; Daniels, Hey, Leonard, and Smith, 1999).

The study of how and why pupils get allocated SEN provision requires that we look both at national, local and institutional (school) policies and provision, and at the social processes through which children come to be identified as having special needs, understand themselves to have 'special needs', and receive (or do not receive) available provision - as well as at how all such policies and processes are gendered. However, we are a long way from being able to provide such a full account, largely because explanations in the three areas involved - the nature of special educational provision, the conceptualisation of special educational needs, and analyses of gender inequalities - each have their specific foci and are the concern of different academic disciplines (and hence use different language and concepts/discourses); and because these different sorts of explanation have, up to now, been assiduously kept apart.

In many ways it would seem as if the practices of SEN had been insulated from the gaze and voice of equal opportunity initiatives. This may be because the socially driven account of disadvantage and failure which is located in the discourse of equal opportunity is 'switched off' when we turn to the discourse of SEN within which many of the preferred explanations of causation derive from models of individual deficiency.

Here then is a case for asking whether the notion of genre as advanced by Bazerman may be used as a tool to understand the consequences of the categorisation of pupils and the grouping of professionals and academics. Are these social groupings created by and do they create dominant ways of being, - talking and acting?

> 'A genre is ordinarily best analyzed at the level of operation, a typified use of some tool(s), some mediational means, to carry out a typified, routine action, an action which in turn furthers the motive and acts upon the object of some collective (activity system).'
>
> Russell (1997) p6.

In the emprical work four schools of similar pupil population were identified on the basis of gender ratio, budget allowance for educational difficulty per head, and level of emphasis on Equal Opportunities policy and practice. It was our contention that the differences that these schools made in terms of their SEN practices could be related to the general meaning attached to SEN in management practices, and thence within teachers' practices.

All the schools recruited predominantly working class pupils despite the fact that some were in socially mixed areas. We grouped them crudely in two categories

'moving' (or 'learning enriched') and 'stuck' (or 'learning impoverished') (Rosenholz, 1989) and linked this to how both 'types' predominantly conceive of their typical pupil as either as 'learner' or as a 'social casuality'. Rosenholz argues, that 'stuck' schools are characterized by a highly individualized culture with a lack of certainty about policy and roles, low morale and, generally, poor academic standards. Teachers in these stuck schools suggest that once they have acquired the skills and techniques necessary to be an effective teacher then life as a teacher becomes relatively unproblematic. Teachers in such schools rarely take any risks and develop quite inflexible patterns of working. In contrast in 'moving' schools one is more likely to find a collaborative culture with respect to planning and the sharing of ideas and resources, and support for problem solving.

Resnick and LeGall (1996) suggest that school cultures may act to position learner and teacher beliefs. They believe that schools which are oriented to promoting pupil effort, with a continuous press for strategic learning behaviour, and which embody a belief in each child's ability are those which are more likely to be successful. They further argue that teachers in such schools are more likely to believe that they can successfully teach each child and also to view *themselves* as learners. That is that they treat teaching as a competency to be continuously increased and a child's failure to learn as a problem to be solved by teaching. These are the characteristics of the 'moving' school.

In the final sample of schools we studied in detail we found examples of both types of school. We found two schools which we felt were most appropriately categorized as 'stuck' and two schools which we felt could be described as 'moving'. The management systems appear to be associated with 'folk' psychology concepts of causality and belief about professional practice and development. It is, perhaps, in this sense that the term genre provides a more sophisticated analytical tool by virtue of the linkage with the notion of activity system.

> '..genre is an analytical category useful for understanding both individual behaviour (psychology) and collective behaviour (society or culture). By operationalizing recurring actions into genres, individuals participating over time in an activity system come recognise and perform actions in typical ways using typical tools, thus appropriating ('picking up' or learning) the tools (including discursive tools)and perhaps the object, motive, and subjectivity (identity) of the collective. Similarly, by operationalizing recurring actions into genres, collectives [re]create and temporarily stabilise their object, motive, tools (including discursive tools), and collective identity.'
>
> Russell (1997) p6.

The descriptions of the four study school provide what may be seen as a first step in the identification of the genres in place at specific sites.

Genre One -Moving Schools /Learning Pupils.:

(I) *School A*.
This was school with a gendered distribution of resources which favoured girls. The Headteacher specifically rejected the idea that a boy with behavioural problems was necessarily a pupil with SEN. The school had developed positive behaviour rules on the basis of lists constructed by each group for their classroom. These were discussed and developed by staff and parents. After a full period of consultation and adjustment these rules were displayed and monitored. Bullying, name calling, social isolation, teasing, verbal abuse were taken seriously as impeding learning. Interventions were designed to facilitate their learning. The school has detailed planning procedures, curriculum review meetings and training linked to identified targets. Consistency of values was seen as a priority by the head.

In responding to behaviour through an effective whole-school policy, this school avoided the need to divert SEN resources from supporting learning. In addition, the school used objective tests as part of the process of identifying pupils who might need additional support. This could be part of an effective approach to ensuring that girls receive the support to which they are entitled. In this school, SEN resources were targeted towards individuals, and were seen as providing learning support for pupils who were currently underperforming.

(2) *School B*
School B was attempting to develop a similar form of practice to that observed in school A. The following story told to one of the team illustrates the extent to which the school regards itself as having developed from a 'low base'.

> *School B 'Early Days'*
> 'The children running in and out of the staffroom and screaming things, going to the head's office without knocking and barging through, no respect for hardly any of the adults that were in here, and my friend came on a visit and she walked through the playground and she asked somebody really nicely 'Would you tell me where Miss X is?' and the boy replied 'How the f*** should I know'!

This new school emerged from an unhappy merger between two other schools and was now 'under new management'. Although explanations of pupils' difficulties could have rested on social disadvantage the school was attempting to address a difficult situation. It had developed a focus on systems development and raising the standards and aspirations of the children. However, in this chaotic but 'moving' situation there was some confounding of the needs of the school with the needs of the pupils. Funding which could have been used to support individual pupils was diverted into improving the classroom practice of inexperienced teachers working in difficult situations.

Genre Two -Stuck Schools :Social Casualties.
School C
This is a school which the head conceives of as being 'a very tough inner city school'. Inspection of demographic data suggested little difference between the social and cultural backgrounds in the four schools.

The allocation of SEN resources reveals a global conceptualisation of need. Problems are defined with reference to social disadvantages. The uniform distribution of resources across classes is rationalised in terms of the global social disadvantages which all the pupils encounter. This is taken as an act in favour of equality of opportunity. This action is often referenced to race.

The school's account of a 'race' effect appears in two contradictory ways. Negatively in the difficult and disruptive behaviour of black boys Positively with respect to black girls who are said to be doing well and are praised for acting as school playground and even classroom monitors:

> 'So you find you have to make a conscious effort to try to make sure the
> girls aren't swallowed up by the boys 'cause they're very dominating
> but right from the start it was a case of there are only eight
> girls...fortunately we've got ...I could say half of them very strong girls
> so they're (able to look after themselves)..they've actually been used to
> help settle some of the more unsettled boys and they've been
> wonderful..I mean its hard work getting him (Keith) to sit down and do
> anything and Naomi's brilliant we're talking about strong girls like
> Natalie and Charmian who sit on people like Keith....'.
>> (Class teacher African Caribbean woman)

The rationale of equal **lack** of opportunities leaves no space for distributing the resources to individual need. The construction of the situation as being primarily about toughness immediately conceded the ground to the boys.

School D.
This is the second of the 'stuck' schools. Nurture and understanding, is the first response to the children who present with difficult or 'challenging' behaviour. The teachers talk of getting behaviour right before learning can take place. Pupils with SENs were largely perceived as 'socially damaged', a view which inevitably led to SEN resources being substantially used to provide behaviour support, almost exclusively, to boys.

These four schools exhibit a high degree of similarity in pupil populations and yet differ markedly in the gender ratios within SEN categories. School A kept a pedagogic

focus throughout. It was organized to learn about itself. School B was starting to 'move', albeit slowly. It was starting to develop systems and practices of institutional learning and development. As a consequence the perception of pupil difficulty was also in the process of change. Schools C and D were both 'stuck'. These schools all made differences. These differences may be seen as genres within the more general activity system of schooling. These genres take up different positions on both gender and race.

If these genres are regarded as qualitatively different tools within an activity theory framework then historical and empirical analysis of activities within the institutions should reveal different subject positions and outcomes. This points to another potential direction for development which may approach the analysis of socio-institutional effects within the post Vygotskian field.

Gender and learning
Our first study gave us evidence that different forms of educational outcome in schools were associated with particular forms of social 'language' and of social practice which were informed by specific forms of pedagogic belief and practice. From this base we then moved to consider gendered differentials in the attainment of pupils in relation to particular forms of pedagogic belief (Hey, Creese, Daniels, Fielding, Leonard, and Smith, 2000; Fielding, Daniels, Creese, Hey and Leonard, 1999; Daniels, Hey, Leonard, and Smith, 2000; Hey, Leonard, Daniels, and Smith, 1998; Daniels, 1998).

There has been a shift away from public concern about girls' achievement to boys' achievement at school in exams. The concern about 'boys' underachievement' has been characterised in educational policy initiatives at national, local and school levels, most significantly in the imposition of a national literacy strategy (QCA 1998; Barrs and Pidgeon 1998). However, overall improvements in achievement are often ignored and gender differences are ascribed to the deleterious effects of 'the feminisation of teaching' (Epstein et al, 1998). The concern for boys' underachievement has been problematised by Murphy and Elwood (1998) who draw on Hildebrand (1996) to argue that improvement in female achievement is *not shared* by girls from low socio-economic backgrounds and may not be apparent in some subjects.

A preliminary hypothesis which guides our work is that boys experience a contradiction between cultural messages and practices associated with hegemonic masculinity and those teaching practices conducive to optimal learning within primary schooling. A masculine orientation to learning may be invested in autonomy (authority, aggression and technical competence) whereas the discourses and practices of learning within primary schooling is centred around group and team work. Such collaborative practices presume co-dependency. In order to shed light on these interactive practices we argued that it is essential to re-engage with girls' experience of

learning in order to cast more light on why boys appear to be adopting less effective strategies.

Specifically we suggest that males are encultured into a view that they should learn alone or under the guidance of the teacher. This is in contrast to females who we suggest are more likely to seek and offer help to each other in learning. We argue that this aspect of emergent masculinity in schools gives rise to higher level of bidding for teacher attention from males. Given the limited amount of teacher time available for individual support, males must either become self sufficient learners or seek other means of bidding for attention which are often disruptive. This is unlike girls who are more likely to engage with peers in dialogue concerned with learning. Whilst we accept that much of this dialogue may not be that between a learner and a 'more capable peer' we suggest that given the economics of classroom time, girls are more likely to be in receipt of appropriate 'scaffolds' for their learning than boys. We sought to investigate the beliefs that teachers and learners hold about classroom dialogue and about learning. We were concerned to establish whether such beliefs are gendered and raced and whether such beliefs condition classroom practice.

Our theoretical approach is concerned with the discursive construction of masculinities (Warren, 1997; Yates 1997). Warren (1997) suggests that male dentities/identifications are neither normative nor biologically or socially reproduced. He and others have argued that they are best understood as positionings, afforded, or made available and subsequently taken up within specific discourses. Forms of schooling have been found to embed patterns of talk that are associated with factors of class and achievement. In a study of schools differing on measures of effectiveness and socio-economic status (SES), Duffield (1998) found longer and more frequent writing and sustained reading in English classes in low SES schools with far less time spent on pupil collaborative/discussion tasks. All the above suggests a potentially powerful linkage between questions of difference, the quality of the pedagogic discourse and practice, the type of emergent masculinities and femininities, and impacts on achievement.

Our original suggestion was that boys *could* be encultured to read social practices, including learning, as an intrinsically individualistic. There is thus a high likelihood that because they understand / experience learning as solitary working they live it competitively. Help can only be legitimately sought from the 'non-competitor' ie. teacher. This approach almost *requires* boys to equate success with self-sufficiency. Those boys who cannot be (seen as) autonomous learners are particularly 'at risk' of being seen as disruptive given the multiple demands on teacher time. This contrasts with girls, who under this model, were more likely, because of their general collaborative orientation to the social and schooling, to be in communicative and social dialogue with each other.

Our interest in the different languages and practices of classroom learning focused critical attention upon the salience of the above in constituting and *mediating* the different constructions of masculinity and femininity in classrooms. We approached this *via* the central idea that boys are subject to two irreconcilable messages, one about being a powerful boy and one about what it means to be an effective learner. In the first, they are confronted by the cultural messages and practices of hegemonic masculinity (Connell 1995) and the second, the practices of effective learning in the school. This contradiction required us to prioritise the role of discourse and language in the production, construction and negotiation of pedagogic practices and scrutinise how such discourses provide scope for individual subjectivities and inter-personal identifications (Hey 1997).

Here we sought to *articulate* (Hall 1996) post-Vygotskian insights about the socio-cultural nature of learning with the feminist poststructuralist emphasis upon the density, variability, and multiplicity of how we come to be 'who we are, where we are, when we are'. Our theoretical foci on prevailing or hegemonic discourses and pedagogy as *de-limiters* of possible positions (re)establishes a framework for examining the ways in which children come to 'correctly position' themselves as particular sorts of learners in specific pedagogic and geographical locations.

This was a two phase, split site, multi-disciplinary (feminist theory, psychology, sociology, socio-linguistics, cultural geography) project. Our methodological approach was formulated jointly so that we could combine appropriate elements from our contrasting conceptual languages. We selected a sample of twelve schools which varied in terms of gender differences in attainment and overall attainment in the school. Data were collected at the levels of the school organisation, theories of instruction and pedagogic belief on the part of teachers and learners as well as direct ethnographic study of learning and communicative practice.

This approach was informed by principles derived from the ethnography of communication. We were interested in:

- how teachers and pupils instigate, maintain and transform various configurations of collaborative and competitive discourses through whole class and formal learning group activities.
- ways of speaking that teachers and pupils develop within the culture of their class and school. And how these discourses become shared.
- dimensions of contrast within classrooms and across schools
- how learning is bound up in the socio cultural ethos created by teacher pedagogy and whole school philosophy.

We enabled the teacher and children to familiarise themselves with the interviewers, before interviews and activities. Researchers drew classroom maps, collected school documentation, took photos of the children and recorded who worked with whom,

where and why. Observations were written up into analytic vignettes which are interpretative accounts of participant observation devised in order to understand the immediate and local meanings of actions defined from the actors' point of (Erickson, 1990).

Through pupil interviews and observations we were able to show how children's talk discursively mediated and constituted complex inter-subjective social and pedagogic identifications. Two main strands were maintained:

- what children said about learning;
- how children verbally and non-verbally engaged in, were positioned in and developed and displayed friendship and learning groups.

We became interested not only in what the different all boy and all girl friendship groups *say* about gendered learning but also how they *perform their masculinities and femininities* in answering the question. We also observed children as they engaged in particular tasks. The aims of the tasks were to: provide a reading activity which would be demanding for most pupils; provide opportunities for pupils to help one another; provide an opportunity for collaborative work and discussion; and gather pupils' views about effective learning.

The data suggested strongly that a pedagogic focus on learning (as distinct from learners) in an environment where collaboration is supported and fostered by both the school and teacher, is associated with low levels of gender difference in attainment. The data showed also that class based differences are central factors in the discussion of gendered patterns of attainment. This confirmed the observations noted by Murphy and Elwood (1998) at the level of pupils and Duffield (1998) at the level of pedagogies. In order to advance these particular boys' educational achievement there is a need to do several things at once based on a complex awareness of differences *between* genders and differences *within* genders.

We identified boys who have been persuaded to move position away from conceiving of formal education in win/'fail' dualities. In doing so they have acquired new positions in pedagogic practice and thus new ways of expressing their emergent masculinities. In short they have learnt to enjoy and benefit from collaboration. Given boys general predisposition towards competition, teachers need to offer explicit teaching on how to collaborate through active interventions (e.g. Mercer et al 1999). This cannot be done as a mere rhetorical or technical trick. Collaboration and co-operation has to be embedded at the very heart of the school's philosophy and practices. It has to be located in how difference is addressed. By taking a collaborative learning approach boys are placed in learning structures that demand they share, listen and negotiate. These practices appear to produce a masculine learning identity that appears to be more relational, less boundaried, more collegial and be able to seek and offer help. These are behaviours associated with more effective learning strategies. An

awareness of differences *within* masculinities needs to be considered at the same time as an awareness of general differences *between* genders is considered.

With these findings in mind I now wish to return to two of the definitions of pedagogy that were discussed in chapter one.

> 'Pedagogy is a practice of the social administration of the social individual. Since at least the 19th century pedagogical discourses about teaching, children, and learning in schools connected the scope and aspirations of public powers with the personal and subjective capabilities of individuals. This administration of the child embodies certain norms about their capabilities from which the child can become self-governing and self reliant.'
>
> Popkewitz (1998) pg.536.

> 'Pedagogy is a sustained process whereby somebody(s) acquires new forms or develops existing forms of conduct, knowledge, practice and criteria, from somebody(s) or something deemed to be an appropriate provider and evaluator. Appropriate either from the point of view of the acquirer or by some other body(s) or both.'
>
> Bernstein (1999a) p.259

The findings from the gender studies suggest the need for detailed study of the institutional regulation of the possibilities for development and functioning. Studies such as these hint at the subtlety and complexity of such regulation. When Michael Cole (1996) speaks of context as 'that which weaves together' he provides a metaphor for the development of research and understanding of a broadly construed notion of pedagogy. The 'warp' and 'weft' of such a process of weaving are, as yet, somewhat crude. I have used a brief description from our work on gender as an illustration of the need for detailed ethnographic study which will enable us to 'see' some of the ways in which institutional effects contribute to the 'social administration of the social individual'. I would suggest that there is much to be done in 'learning the landscape' (Greeno, 1991) of socio-institutional effects from a post-Vygotskian perspective. From an activity theory point of view this becomes the development of a more sophisticated model of discourse and discursive practice. From a sociocultural perspective this becomes a matter of locating such models within an account of activity systems that reveals how such discourses are produced and changed.

Subject specific communicative competences
In this section I return to Bernstein's work in order to illustrate how his model may be used to relate the production of specific forms of pedagogic discourse to communicative competences acquired by pupils (Daniels, 1995). In Chapter six of 'Thinking and Speech' Vygotsky claims a particular function of speech in instruction within schooling.

'The instruction of the child in systems of scientific knowledge in school involves a unique form of communication in which the word assumes a function which is quite different from that characteristic of other forms of communication ...

1) The child learns word meanings in certain forms of school instruction not as a means of communication but as part of a system of knowledge.

2) This learning occurs not through direct experience with things or phenomena but through other words'.

<div align="right">Vygotsky (1987) p27</div>

Participation in specific forms of social practice is linked with the development of word meaning. In order to understand the development of word meaning the characteristics of particular communications practices must be understood. As Minick (1990) shows Vygotsky maintained that various activities such as science, schooling, art, and reading stimulate unique kinds of thinking. Activities do not express pre-formed, natural cognitive, emotional, or personality characteristics of the individual. On the contrary, artistic, literary, scientific, and educational activities generate psychological functions. The concrete social relations and cultural technologies that are germane to the activities organize the individual's psychological processes (Minick, 1990, p. 167).

Vygotsky argues that the forms of instruction in scientific concepts of formal schooling (i.e.,mathematics, the natural sciences) involve the child in a new ways of using words in communication. Vygotsky saw the psychological characteristics of the scientific concept as inseparable from the unique use of words in the social interaction that occurs between teachers and pupils in formal school instruction. (Minick, 1985 p 107). If socio-institutional effects of schooling are to be considered within a Vygotskian framework then one approach is to compare the effects of different forms of organization of subjects of instruction. This calls for a description and analysis of structures and of effects. Bernstein provides the structural level of analysis and Vygotsky furnishes the theoretical framework which can account for the position of the individual.

The study I wish to discuss focussed on the relation between school and classroom organization and pupils' ability to realize criteria of communicative competence generated by specific discourses in schools displaying variation in organizational form. It was shown that pupils discriminations and realisations of such texts were related to the classification and framing values of the school's organisation and pedagogic practice. The specialised discourses of subjects with their own unique generating and evaluating procedures were examined. The relation between categories of specialised discourses was considered across schools. The schools studied were drawn from the special school sector which exhibits a high degree of between school variation.

The empirical focus of the study was on the extent to which boundaries between subject categories are distinguishable by children and the extent to which they produce speech which constitutes a realization of these boundaries. The focus was thus on a form of discrimination which is not formally or informally taught. Thus concern was with a form of textual production which must be tacitly inferred. There are parallels here with Mercer's (2000) work on classroom talk. He was concerned to make explicit that which was tacit.

In order to create a description of the schools which carried with it predictions for speech usage, the boundaries between subjects, distinctions between teachers, and schools as organisations were considered. A general model of description was developed under the headings:- 1. Theory of Instruction, 2. School Organization 3. Classroom Practice and 4. External School Relations. From this general model attributes relevant to the research were selected. The point of departure was the theory of instruction. As Bernstein (1985) states:-

> 'The theory of instruction is a crucial recontextualized discourse as it regulates the orderings of pedagogic practice, constructs the model of the pedagogic subject (the acquirer), the model of the transmitter, the model of the pedagogic context **and** the model of communicative pedagogic competence.'
>
> Bernstein (1985) p.14

It was argued that the organization of the staff, pupils and use of specialised discourses should be in direct relation to the theory of instruction. The school will be organized so as to allow the required theory to be put into practice. Each level of school organization will have its own division of labour (classification) and its own social relation (framing). Where the theory of instruction gives rise to a strong classification and strong framing of the pedagogic practice it is expected that there will be a separation of discourses (school subjects), an emphasis upon acquisition of specialized skills, the teacher will be dominant in the formulation of intended learning and the pupils are constrained by the teacher's practice. The relatively strong control on the pupils' learning, itself, acts as a means of maintaining order in the context in which the learning takes place. The form of the instructional discourse contains regulative functions. With strong classification and framing the social relations between teachers and pupils will be more asymmetrical, that is, more clearly hierarchical. In this instance the regulative discourse and its practice is more explicit and distinguishable from the instructional discourse. Where the theory of instruction gives rise to a weak classification and weak framing of the practice then children will be encouraged to be active in the classroom, to undertake enquiries and perhaps to work in groups at their own pace. Here the relations between teacher and pupils will have the appearance of being more symmetrical. In these circumstances it is difficult to separate instructional discourse from regulative discourse as these are mutually embedded.

Allowance was made for the existence of a distinction between the official theory of instruction of a school and the theory of instruction of a particular classroom. Local variation is more likely to develop when there is a low degree of central control over pedagogic practice in the school. Whilst there was variation between teachers' practice in the schools with weaker values of framing regulating teacher practice, the actual classes studied were taught by teachers who did adhere to the overall official school practice.

Four special schools catering for pupils, designated as having moderate learning difficulties, with adjoining catchment areas in one Local Education Authority were studied. Each school was situated in a residential area of a town and drew 120 pupils in the age range (4-16) from a mixed urban and rural catchment area.

The schools were referred to as TC, A, WH, and CH. The coding of each school in terms of specific classification (strength of category relation) and framing (social relation) values was based upon observation and interview data, together with the agreed statements from which each schools's theory of instruction could be reliably inferred. It cannot be over-emphasized that the assigning a value to a function was in the nature of a hypothesis. Codings and descriptions were discussed and ratified with members of staff in the schools.

In comparison with school TC, in school A there was a strengthening of values of classification of teachers and subjects at junior level with stronger framing governing the socialization of the pupils within the practice of the classroom. In school WH there was evidence of very strong classification and strong framing of teachers and subjects. The ideology of the school appears, when viewed from the perspective of the external values of framing, to be more integrationist that TC or A apart from with respect to mainstream school. In School CH there was evidence of very strong framing and strong classification over subjects

In terms of values of classification and framing of teachers and subjects there was a cline of schools from TC (weaker) to WH (stronger). It was theoretically expected that the move from the values of classification and framing of the school and classroom to the pupils' practice is mediated through recognition and realization rules of the instructional practice. These rules are hypothesized functions of the values of classification and framing. Concretely, it was expected that children would produce different texts under different conditions of classification and framing.

The curriculum subject contexts chosen for study were those of art and mathematical/scientific studies. The selection was made because these contexts allow the maximum observable differences in language use. Ten boys from the 10-11 age group in the four schools were identified. No significant between school differences were found for WISC(R) full scores, social class with reference to the Registrar General's scale or expressive language ability.

The following procedure was used in carrying out this study. Ten picture stimuli were presented to the children in each of two instructional contexts. The order of presentation and instructional context of presentation were randomized for each task and each child. Each stimulus was presented to each child in each curriculum context with the following question form:

'We are in a (Maths/Art) lesson. Your teacher is teaching you about (Maths/Art). What would your teacher like to hear you say about this picture in this lesson?'

The children's responses were recorded and subsequently transcribed. Two observers transcribed a selected sample of taped material in order to check the reliability of the transcription. For each child the pairs of statements (one from an artistic and one from a mathematical context) were pasted onto a single sheet of card. The relative order of the members of pairs for each of the ten pairs for each child was randomized. Two teacher observers were asked independently to compare the statements in each pair. One teacher was from CH, the other from TC. As there were eight hundred paired statements to be evaluated, the process was staged over a period of two months; the order of presentation was randomized across children and schools for each teacher. For each statement pair each teacher was asked:

1. Can you tell the difference between these two statements?
2. If you can, which one do you think was made in which context?

There were significant differences between (1) TC and CH and (2) TC and WH. The position of schools relative to one another with respect to children's ability to produce distinguishable text reflects the relative positions with respect to classification and framing.

Where the values of classification and framing of the culture of subjects were strong, the children realized the criteria of communicative competence held by their teachers with respect to discrimination between subjects to a greater extent than when , in a school such as TC, values of classification and framing were weak.The individual measures of expressive language ability would suggest that the school differences revealed in the study are not attributable to individual differences. A high level of agreement of teacher evaluation is suggestive of a common basis of understanding as to the language of school subjects. The implication being that it is neither the ability of the pupils nor teacher capacity/understanding that conditions the variations in school responses, rather the responses are modulated by the schools themselves.

The study confirmed a relation between organizational form and the possession of realization rules. This conclusion is given added strength by the observation of a school transfer. Here a child appeared to have acquired realization rules on transfer.

This boy who transferred from a regime of weak values of classification and framing to a regime of strong values showed a marked and rapid increase in ability to discriminate between discourses. The stronger the value of classification and framing in the school the greater the likelihood that any one child will be able to realize the communicative competence held for specific subjects.

The study then moved to a focus on recognition rules. Rather than using teachers as the sources of competent distinguishing ability between texts, children were also asked to distinguish between utterances of other children. If children are judged as being able to realize appropriate texts, do these children recognize the appropriate texts of others? These competences have been learned and thus their nature must have been sensed in some way. A research question closely allied to this is whether children who do not produce many statements that are judged to be distinctive to specific discourses can on the other hand correctly distinguish between other children's statements. If this were found to be the case an implicit developmental sequence would be revealed.

On the basis of the data generated by this investigation, it would appear to be reasonable to assume that almost all the children in these schools are able to recognize different discourses produced by other children, but not all children produce speech in particular contexts that may be seen to be belonging to specialised discourses. This is seen to be a school effect. The basic hypothesis related boundary features of the school to pupils' ability to recognize differences between subjects and realize these differences in subject specific talk acceptable to teachers was supported by the data.

It is important to reflect on the fact that the rules of speech in pedagogic contexts are rarely explicitly taught and that it was some of these that were the rules of interest in this study. For example, pupils are rarely formally taught how to **recognize** and **realize** (produce) subject specific speech, e.g. to recognize and/or to make a statement which counts as an artistic statement or a scientific statement. It is even rarer for them to be given explicit lessons in their difference. Children have to realize different communicative competences in the different schools, although they may enter school with shared competences and recognition rules of subject specific discourses. This finding echoes that of Foley (1991).

> 'What clearly showed up was that the restriction in teaching of a limited number of writing type activities (genres) was denying the child the opportunity of educational success. Whereas the introduction of a genre-based approach to the development of writing which gives exposure to a wide range of genres gives access to writing as a tool for entry into the culture.'
>
> Foley (1991)

The major strength of the investigation was that it provided a body of evidence that strongly suggests a relation between the macro structure of school organization and the

micro practices of individual pupils. In terms of the original Vygotskian thesis there is also the more general question as to whether specialised speech within a curriculum subject constitutes a specialised psychological tool? Foley (1991) is clear in his answer to this question:

> . 'is to see technicality and abstraction as tools (in the Vygotskian sense) with which to explore the subject areas of the curriculum. The student, therefore has to learn to marshal the language of technicality and abstraction in ways appropriate to each discipline. The special registers of the subject areas of the school curriculum should reflect how those registers are used in real life as these have evolved as ways of getting on with different kinds of work in the world. Knowledge of specialised registers is a powerful means of access into society and therefore needs to be taught as this gives the student conscious control, at least to some degree, of these technologies.'
>
> Foley (1991) p. 32

The suggestion that differents types of schooling gives rise to different types of effect carries with it questions of structural fitness for purpose. The analytic tools of some forms of social and educational psychology are blunted by their inability to investigate socio-institutional effects. Similarly the gaze of sociologically inspired policy studies is averted from effects on individuals. The development of a socially extended post-Vygotskian model offers the possibilty of understanding the consequences of specific policy developments at the level of individual effects. The use of units of analysis which are conceptualised in terms of the use of psychological tools in contexts raises questions of differences between contexts. Differences in the structure of pedagogic practices constitute differences in contexts which are of semiotic significance. Bernstein both theorises the semiotics of the transmission and provides a language with which differences in structure can be brought to the focus of empirical studies of individual acquistion. A development of Bernstein's thesis offers the potential of an appropriate form of sociological theory to the post-Vygotskian enterprise.

Beyond speech?
In this section I will discuss a study which considered the role of non-linguistic artefacts as means of mediation in two of the schools from the previous study (Daniels, 1989). As I have argued in chapters one and two, the emphasis on speech has predominated in sociocultural studies of learning.

In different schools (or cultures) actions and objects signify different meanings. Indeed at a very general level it is possible to conceive of cultures or schools as worlds of signs and signs about signs (Hawkes, 1977). In a sense adapting to cultural change is a process of adapting to changing systems of signification. For a child, particularly a child who finds learning difficult, moving from home to school is itself an act of cultural change and, for some, entails culture shock. That which is taken to signify competence in one culture may signify incompetence in another or irrelevance in a third. How then does a school

transmit to children the criteria that are taken to signify appropriate learning? What are the cues offered to children in their attempts to read the signs of schooling? It is argued here that art displays are part of the system of signs that constitute the culture of schools, that through these acts of publicity the principles which regulate the curriculum are realised. Cole (1987) draws attention to the importance that was placed on the 'shaping' effects of visual images by Vygotsky's immediate colleagues and peers.

> 'Luria's project was his hope that by uncovering the specific dynamics of thought in pre-literate societies, he could collaborate in a program of film-mediated education that would bring Soviet peasants a richer understanding of their historical circumstances, the better to guide their own destinies. Sergei Eisenstein, had been experimenting with the way in which visual images could be artfully combined to evoke emergent generalizations in the viewers of his films, even though they could not read and the films were silent. Luria hoped that his work would aid his effort by revealing the cognitive dynamics of pre-industrial peoples as a basis for arranging the sequence of film images.'
>
> Cole (1987) p. xii

In many schools to have a 'nice bright classroom with lots of good display work' is one of the commonly held indicators of good teaching practice. Not only is display work important to parents but also to children. Children like having their work displayed on the wall. This very public way in which a teacher shows approval of a child's activity is highly valued. By putting works of art on the wall the teacher is telling the child that he/she approves of it and at the same time is offering a model of good practice to the rest of the class. This, of course, is one of the reasons why children feel so proud when their work is displayed, their friends are being offered their work as a model. The way in which work is selected for display and indeed the way in which the display is arranged is effectively an act of publicity of the teacher's desired model of good practice. Such publishing activities have focussed the attention of theorists in the fields of Art and Education.

> 'Publicity is the culture of the consumer society. It propagates through images that society's belief in itself.'
>
> John Berger (1972) p.139

Two of the schools from the previous study (of subject specific speech) were used in this investigation: CH and TC. The procedure used was that each headteacher and classroom teacher was interviewed, in an informal setting. Every classroom was observed on three occasions, each lasting half a day. These observations were conducted on a Monday, Wednesday, and a Friday morning. The information gathered in this way was collated and draft descriptions were written. These were then shown to the classroom teachers and Headteachers. The descriptions were amended if any party considered them to be inaccurate. There were no conflicting views.

These two schools were structured in very different ways: one in which there are a variety of highly structured subjects where the child has little choice over what it will learn, the other where a broad, integrated thematic approach is taken within which children and teachers are relatively autonomous in their actions. These two approaches approximate to the 'collection' and 'integrated' types identified by Bernstein (1977): one in which things must be put together and the other where things are kept apart.

When illustrating the differing nature of the criteria that the child is supposed to acquire in different teaching situation, reference is made to the teaching of art. In what is termed the visible pedagogy that is associated with the collection type of curriculum with its strong classification and framing the following example is given:

> 'What are the children doing? they are making facsimiles of the outside. They are learing a reproductive aesthetic code. They may be drawing or painting figures, houses, etc. The teacher looks at the product of one child and says, 'That's a very good house, but where is the chimney?', or 'There are no window in your house,' or 'That man has got only three fingers', etc. Here the child is made aware of what is missing in the production and what is missing is made explicit and specific, and subject to finely graded assessment.'
>
> (Bernstein, 1977, p.119)

Whereas with the invisible pedagogy in the integrated type curriculum realised through weak classification and framing

> '…the children have a large sheet of paper, and not a small box of paints but an assembly of media whereby their unique visual imagination may be momentarily revealed. This is allegedly not a reproductive aesthetic code, but a productive aesthetic code. The teacher here is less likely to say, 'What's that?', is less likely explicitly to create in the child a consciousness of what is missing in the product: the teacher is more likely to do this indirectly, in a context of general, diffuse support. Where the transmission realises implicit criteria, it is as if the acquirer is the source of the criteria.'
>
> (Bernstein, 1977, p.119)

These statements come very close to describing the practices of the two schools used in this study. Clearly these schools should not be taken as examples of pure types rather as complex systems which embody significant differences. These differences are revealed in the notes taken in Art lessons in the schools.

In an art lesson observed in C.H. the teacher read a story called 'where the Wild Things Live.' She then told the children that they were going to 'make pictures of the wild things.' The teacher had prepared a number of different pieces of sugar paper and proceeded to assign children to these pieces of paper. Each piece of sugar paper had an outline of a 'Wild Thing' on it and most of them had sections/areas of the paper marked

off. Each section contained a code number and thus could be translated by a key at the bottom of the piece of paper. The children followed the key which dictated the material to be used to 'fill in' the sections/areas marked on the paper. the 'Wild Things' were thus constructed. The Department head said of art lessons, 'We are interested in the results of art, of good productions rather than 'experiencing' the materials.'

In an art lesson observed in T.C. the children were given different grades of paper, powder paint and a piece of foam rubber or sponge. The teacher then told the children to wet the paper and flick paint at it with the sponge. The children were encouraged to use different kinds of paper with different degrees of dampness. They were told to experiment with ways of applying the powder paint. Similiar differences in pedagogic practice were noted on every observation day.

Gearhart and Newman argued that, for the nursery school children they studied, learning the social organization of a classroom and learning its curriculum could not be distinguished.

> ' What children know about drawing is intimately tied to what they…understand of drawing activities undertaken in a particular social…context.'
>
> <div align="right">(Gearhart and Newman, 1980, p.183)</div>

They discussed the importance of the way the teacher spoke to the children about their drawings and also drew attention to the particular form of pedagogy in the classroom.

> 'Drawing was also being learned from the teacher's efforts to teach the organizational independence of individual production tasks. Reflexively, this individual task organization was being learned from the teacher's efforts to teach independently planful drawing.'
>
> <div align="right">(Gearhart and Newman, 1980, p.183)</div>

Whilst Gearhart and Newman's study is of interest, it failed to undertake the comparative work needed to show how ways of learning to draw differs under different forms of classroom social organization. Also, following as it does an explicitly Vygotskian experimental approach, it lacks the potential for describing and analyzing the social organization of classroom in structural terms (Wertsch, 1985). In its failure to do this it confines interpretation to a very local domain. Through focussing on wall display rather than pupil-teacher and teacher-pupil verbal communications, a wider perspective on semiotic mediation was being drawn.

It is important to note that the photographs that are to be discussed here were representative of each school's display work. All the work displayed at one time in both schools was recorded and selected examples are presented. The selection was made by the teachers of the classes of 9-12 year old children in each school. That is the (two) teachers in each school were shown the entire sample of photographs for their school and

asked to select the three that best represented the school's display work. Emphasis was laid on the display rather than the individual pictures. Equally important is the fact that all the teachers responsible for this display work viewed their efforts as the result of a 'common sense' approach to the task. They did not regard themselves as having been instructed or coerced to work in this way nor did they regard their work as potentially different in form from display work in any other school. These photographs are those displayed in Figures 5.4 – 5.9

Insert Figures 5.4 – 5.9 about here

What then is revealed by an inspection of a sample of the display work in these schools? The control over what is expected is clearly high in displays A, B and C. In A the faces all have the same structure - they are all the same shape! In C the faces of the flowers are structurally similar. The faces were all yellow, all on the same plates, all with red lips and all had eyebrows. The levels of similarity in B are so marked that they require no comment.

On the other hand the control over what is taught/expected is of a very different nature in D, E and F. In D there is an integrating theme of transport and yet children have produced different illustrations relating to the central theme. These are drawn, crayoned or painted using a variety of techniques. In E and F there are no underlying themes and the work is very varied in terms of the techniques used and the content portrayed. It seems there are at least two principles at this level of control which distinguish the schools. In one school there is a high degree of control over what is to be portrayed and also over the techniques and materials to be used. In the other school, the level of control over these factors is much lower.

It is perhaps worth considering the relation of the conceptual foci of two of these displays. The concept underlying display B is that of letter recognition and this is explicitly noted in the labelling. The implicit concept underlying D is of a different order - transport. It may be that this reveals different theories of curriculum sequencing. On the one hand a 'top down' strategy is revealed in the integrated approach of the theme transport and on the other hand a 'bottom up' strategy, that of a phonic approach to the teaching of reading, is implied. This is reminiscent of a familiar debate. Displays A, B and C appear to be in accord with the strategic principle advocated by Gagne' (1985) who argued that children cannot understand complex ideas before they have mastered the notions which are more conceptually primitive. Whereas displays D, E and F appear to reveal the strategy accorded to Bruner (1986) who argued that children will not understand and remember 'simple' ideas until they recognise the framework into which they fit.

Each school appears to some extent to have a characteristic style of structuring the displays. Whereas in A and B the pictures are arranged in straight lines with regular spacings between pictures, in D, E and F the pictures are closely grouped in irregular patterns. It is perhaps not entirely coincidental that in picture D the work displayed was produced by children in the age range 5-14 where each display in the other school was produced by one age group only. These two factors perhaps reveal underlying levels of classification. On the one hand, ages and individuals are grouped and on the other separated by clearly marked boundaries. It is in this way possible to argue that the principles on which the curriculum is organised are realised in the way work is displayed. Yet this analysis is from the point of view of a detached adult; the question remains as to what the children perceive in these situations.

The children in the two schools were interviewed using a technique derived from personal construct analysis (Bannister and Fransella, 1984). The original theoretical background of the development of this technique is couched in terms of the **individual** making sense of the world.

> 'Kelly emphasises the way people interact with their world and actively process rather than passively store their experiences. He describes people as developing sets of hypotheses or construct systems in which their present abstractions are tentatively placed on past experiences and then are later projected upon future events in order to cope with those events'.
>
> Diamond (1985) p15

There are links here with Woods' (1983) notion of 'perspective' - 'the frameworks through which people make sense of the world'. The model of the individual as personal scientist, constructing and testing hypotheses about the world lacks any reference to the social structure. What Kelly does provide is a non directive approach to interviewing which may be subsumed within a model which articulates a process of social/cultural transmission.

Constructs may be seen as the bipolar dimensions with which the individual interprets the social world. Within the model adopted here their origins are the mediated effects of the social and cultural context. Three groups of three children ranging in age from 9-12 years in each of the two schools were interviewed. Each group was told that the photographs were from two schools and then asked to group them. This they all did correctly, that is they grouped the photographs on the basis of the school of origin. The groups were then shown photographs in groups of three and asked to say what was the same about the two photographs from one school and different about the photograph from the other school. It should be emphasised that this corruption of the personal construct technique will only provide general indicators of group perceptions. The constructs were grouped together on the basis of their similarity irrespective of the actual combination of eliciting elements (photographs).

The analysis revealed a school effect in terms of attributes perceived by the children. Children from both schools noted differences in variation in content, technique and medium. Children from school CH seemed to be more sensitive to variation in degree of attention paid to labelling work produced by individual children and entitling of group themes. Children from school TC seemed to be aware of the spatial arrangement of the display and the pedagogy employed in the classroom.

In school CH subjects are clearly marked, the criteria of evaluation are explicit and these are transmitted within a highly structured scheme. All the children recognise these points. However children in school CH do appeared to pay particular attention to the labelling of their work, the purpose of that work. That is, they were concerned with their identity in relation to pre-ordained goals and see the products of schooling as being of paramount importance. The displays relay to these children the general principles of strong classification and framing of their school and reveal a focus on individual identity through performance. Whereas in school TC with its integrated day approach and the pedagogy designed to facilitate the acquisition of understanding the children also recognise the same general points. However they pay particular attention to the pedagogy employed and relationships between children's work..

When asked which school they would chose to attend they were more concerned with the underlying social principles of the school, i.e. children from TC referred to the ability of children to think for themselves and of the danger of being spoilt and/or naughty. Thus emphasis here was on self and/or moral regulation. On the other hand the children from CH chose their school on the basis of the performances produced in the schools, i.e. 'lovely pictures', 'do more older things' and 'more interesting 'cos all about travelling places'. One school concentrates on the outcomes of schooling in terms of required performances and the other on the contexts in which children will develop. It appears that the children schooled to perform attend to performances, and children schooled through immersion in contexts attend to the social and moral nature of those contexts and their consequences.

It appeared that the wall displays examined here acted as relays of the fundamental regulatory principles that govern the schools at least as viewed by adults. More surprising is the implication that children are sensitive to the messages relayed by these displays. The fact that these children were described as having moderate learning difficulties further implies that either this transmission process is very strong or operates through an unimpaired channel.

In summary, all the children appear to be able to read many of the signs from these displays. Children in a structured school were concerned individual identity in relation to performance whereas in the other school the children emphasised principles of social relation. The school environments were specified in terms of what is ultimately their social nature. It has been demonstrated that the principles that regulate these environments are relayed through the wall displays in these schools. The different

aesthetic principles of the schools in question are contained within very different institutions. The arrangements through the production, selection and combination of children's painting was shown to act as a relay of the deep structure of the pedagogic practice of particular schools. As far as the teachers were concerned, they were simply mounting wall displays rather than using wall displays explicitly as relays of the focus of their practice. Whilst they were keen to create a good impression through their wall display work they were not aware of their expression of the underlying principles of school practice.

Following the directions given by Vygotskian psychology it would seem profitable to investigate the meaning of wall displays for children as a step in the process of understanding what counts as important in a particular school (Wertsch, 1985a + b). In the investigation of wall display it is important to remember that the children also produced the pictures and thus were socialized by that activity. The products of these socializing activities are then selected, combined and organized by the teacher in a way which celebrates and announces the expected competences required of a particular school and/or classroom. Rather than reading backwards from statistics describing the outputs of schooling it would seem worthwhile to consider what is relayed to children by particular activities. From this perspective schools may be considered as generators of a specialized semiotic. The meaning of these signs for the participants in the practice of schooling then becomes the object of study. The study of wall displays indicated that children from different schools 'saw' different meanings in the same displays. They were oriented towards different sets of recognition and realization rules.

When the children were asked to differentiate between selected children's paintings, the children in CH referred to the importance of the individual producer of the painting in constructs 1 and 2. Children in TC did not echo these remarks about the labelling of individual children's work, and of the overall class task. Further when preferences in terms of class placement, the children in CH talked about the school where the best pictures were produced. On the other hand in TC the children talked about whether the children in the class could choose what they wanted to do, and paint in the way they wanted to paint rather than the way the teacher wanted. 'This school teaches you how to choose.' These children distinguished between classrooms on the basis of pedagogic relations within classrooms. Contrasts were drawn between classrooms where 'you paint what you see' and 'you paint what the teacher sees'. That is, between classrooms with strong and weak values of framing. Whereas children in CH talked about the individual producer of the painting, children in TC talked about the social relations of production of the pictures. The children were presented with the same stimuli but they realized different meanings. It would appear to be inadequate to talk about quality of wall display independent of a type of pedagogic practice. A complete analysis would also refer to the information that a display relays to children about the practice of the schooling of which they are the subjects.

This study used measures of school modality as described in the study of subject specific speech. Although somewhat crude these were measures of the discursive, organizational and interactional practice. Measures were then taken of the pupils' recognition and realization rules with respect to visual relay of aspects of their pedagogic practice. A relationship was revealed. The relationship was tentative but exciting A connection was made between the rules the children used to make sense of their pedagogic world and the modality of that world. This suggests that the study of non-linguistic means of mediation may form an important part of the more general move to understand institutional regulation within a post Vygotskian framework.

On entering schools children have very quickly to learn 'what goes here'. If they fail to do this, for whatever reason, they can become marginalised in a variety of ways. We need to understand the infinitely subtle mechanisms by which schools send messages to children. The issues explored here may be of particular relevance to children in special schools but the underlying principles are of importance in all forms of pedagogic practice.

Difference and acceptability in institutions
In this section I wish to discuss a study which was concerned with the formative effects of specific pedagogic modalities set within different national cultures (Daniels, Holst, Lunt, Johansen,1996). The research used the same approach to the descriptions of schools as in the studies of speech and wall display in an analysis of personal perceptions of pupil behaviour. The international comparison between Denmark and the UK extends the power of this analysis. Denmark provides an ideal site for this comparison with the UK because it retains certain similarities in terms of the structure of its system of schooling yet reveals profound differences in its orientation to social policy and welfare. Thus general ideological and cultural differences form a background to comparisons between schools.

Interviews of teachers and pupils to elicit perceptions of deviance were again conducted using a version of personal construct interview technique. Categories of constructs induced through these procedures were then analyzed in terms of pedagogic context of elicitation and also gender of subject. Features of the coding of the institution were then related to features of the categories of the interview data.

Two schools were identified in each of the two countries: England and Denmark. One of each of the two schools in each country was selected as a model which clustered around descriptions of strong classification and framing and one of each of the two schools in each country was selected to cluster around weak values of classification and framing.

Classes of thirteen to fourteen year olds were identified within each school. The identification of pupils as elements for the personal construct interviews involved selecting two or three different teachers of the same class in each school. Teachers were asked to identify the four pupils (two females and two males) in the class whose

behaviour was the most acceptable to them; they were then asked to identify the four pupils (two females and two males) in the class whose behaviour was least acceptable to them. There was a high level of agreement between the teachers in their identification of the eight pupils in each class. The eight pupils were then asked to carry out the same exercise, identifying pupils who were most acceptable and least acceptable, and also how they thought their teachers would judge these pupils. The eight pupils identified the greatest number of times by teachers and pupils were selected to act as elements for the personal construct interviews. This exercise showed a high level of agreement between teachers and pupils.

Triads of elements (children) that revealed contrasts between 'acceptable' and 'unacceptable' pupils were constructed for each class. The standard question used to elicit data from the triad presentation was 'What do you think is the same about these two and different about this one'. The personal construct interviews were conducted using 2 prompts for each subject with each triad. One was referenced to the subjects' own perceptions of similarities and differences between elements in the triad, the other was referenced to pupils' views in the case of teacher subjects and teachers' views in the case of pupil subjects. (cf 'what do you think that your teacher would think was the same about these two and different about this one' and 'what do you think that your pupils would think was the same about these two and different about this one'). In this way the perceptions of actors of the processes of transmission were open to scrutiny.

Equal numbers of male and female pupils were interviewed. Those selected represented a stratified sample from each class in terms of stated acceptability. Additional interviews were conducted with any pupils whose acceptability ranking was seen to differ markedly between pupils and teachers. One member of the research team who is bilingual in English and Danish translated interview data. The emergent system of constructs for each school was juxtaposed with the descriptions of the school derived from the general model derived from the classification and framing measures taken of the schools. The patterns of categorisation were analyzed by type of school within and between countries as well as within countries.

In order to ground the classification and framing data in observations of each school each member of the team visited each of the four schools and coded the data within their national groups for subsequent cross national discussion and verification. The two English schools will be referred to as School EA and School EB whilst the two Danish schools will be referred to as School DA and School DB.

Schools DA and EA appeared to adopt a position in which instructional matters are deeply embedded in regulative practice; the priorities of these schools seem to be highly associated with goals of social and personal development. In contrast schools DB and EB appear to regard instructional matters as the overriding concern of schooling; for them regulation is a consequence of instruction. Thus we had identified

two pairs of schools which appear to conform to broadly defined types, one type in which instruction predominates and one type in which matters of social order and identity are paramount.

There was a strong trend in the data which was suggestive of a school organizational effect. This was revealed in the distribution across the schools of the constructs generally referring to the categories of school work, social behaviour and personality. Schools which appear to be structured through strong classification and framing are those in which teachers and pupils make more reference to school work in their constructs of deviance than teachers and pupils in schools structured through weak classification and framing. Constructs relating to social behaviour appear to be used more in conditions where weak values of classification and framing obtain. Similarly constructs referring to matters of personality seem to be associated more with weak rather strong values of classification and framing.

These data are suggestive of a relay of the structure of the pedagogic practices in the schools. Following the distinction between instructional and regulative discourse these data may be read as the effects of differing degrees of embedding on one discourse in the other. In the sites regulated through weak values of classification and framing (EA and DA) the regulative discourse would predominate . The relative emphasis (seventy per cent) placed on personality and social behaviour in the constructs in schools EA and EB would appear to be a relay of this relation. Conversely the relative emphasis (again seventy per cent) on school work in the constructs from sites of strong classification and framing, where instructional discourse predominates, was also suggestive of a transmission effect. The institutional effect was more evident than the national effect of the constructs. There was a strong association between the pedagogic modalities operating within the schools and the ways in which teachers and pupils construed pupil acceptability. There was no such association with national location. The institutional level of regulation appeared to exert a more powerful effect than the national level.

Although tentative, the data provide some grounds for increased acceptance of an extended Vygotskian model of analysis. Following the summary of the post-Vygotskian research agenda developed by Minick, Stone and Forman (1993), this study may be seen to support suggestions that:

> * Bernstein's model provides a way of understanding school structure in such a way that the 'culturally specific nature of schools' may be given close attention.

> * perceptions of social behaviour may be linked to schools viewed as structured agencies of cultural transmission and that these may 'mediate specific forms of social and psychological life in distinct ways'.

* '--modes of thinking evolve as integral systems of motives, goals, values, and beliefs that are closely tied to concrete forms of social practice'

Thus the data along with further development and research may yield an important framework for developing a greater understanding of school `cultures' and some of the factors in the way in which a school is organised which affect pupil construction of reality.

Conclusion

In this chapter I have discussed examples from some of the research which my colleagues and I have undertaken. I did this solely to illustrate directions that research might take. In chapters one to four I attempted to outline the strengths of the various accounts of mediated social, cultural, historical formation of mind which have been developed on the basis of Vygotsky's early twentieth century contribution to social theory. Throughout this discussion I have also sought to indicate possible areas for future development within this field. My central claim being that there is a need to incorporate the institutional level of regulation and analysis into the post-Vygotskian account of mediation. I have argued that the advances that have been made within recent developments in activity theory may be supplemented through a more detailed discussion of the modalities and structure of, one of the central means of mediation within schooling, pedagogic discourse. Following the suggestion that specific forms of discourse may be associated with specific forms of activity I have argued that there is a need to develop an analysis of the production of pedagogic discourse within specific social institutions. Bernstein's work allows a connection to be made between the rules that children use to make sense of their pedagogic world and the modality of that world. This is done through taking measures of school modality. Depending on the research question relevant aspects of discursive, organizational and interactional practice are measured. The connection between these measures and measures of pupils recognition and realization rules may then be analyzed.

I have also suggested that the analysis of pedagogic relays involved in the processes of social, cultural, historical formation within schools should not be constrained to the study of speech. The study of wall display suggests that a more broadly based form of semiotic analysis may be beneficial as we seek to understand processes of mediation in schooling.

Vygotsky's rejection of dualisms, is not revealed in a research tradition within which cognitive development has tended to predominate. In the study of schooling for pupils described as having EBD the use of Bernstein's formulation of pedagogic discourse as an embedded discourse comprised of instructional and regulative components suggests one way in which the cognitive / affective dualism may be handled as an entwined duality (Valsiner, 1998).The importance of this suggestion concerning the structure of pedagogic discourse is that the model also allows for the analysis of the production of such embedded discourses in activities structured through specifiable relations of power and control within institutions. The utility of this model within sociocultural

and activity theory research awaits a full consideration. The study of the institutional regulation of subject specific speech hints at its potential. The international comparative study of the institutional shaping constructs of deviance adds to this suggestion. The studies of the institutional regulation of emergent masculinities[1] and femininities suggest that the complexities of the processes of identity formation require very delicate models of the discourses of pedagogic practice if they are to be made available to scrutiny and thus change. These studies suggest that such processes are of relevance in the study of learning. The study of resource allocation also suggests that the tacit assumptions of pedagogic practice both exert significant influence and are beyond the gaze of many approaches to pedagogic research and development. Bernstein's approach to the sociology of pedagogy provides one way of extending the power of sociocultural and activity theory research.

I opened this book with a discussion of the ways in which we might define pedagogy and an outline of the place of the concept of mediation within Vygotskian theory. Throughout the book I have attempted both illustrate the power and potential of sociocultural and activity theory for the development of pedagogic theory and research. I would wish to stress at the close that I regard both traditions as necessary components of future developments. I have also sought to hint at ways in which these traditions may be enhanced through the incorporation of a sociology of pedagogy which would enhance the analytical power of the overall approach.

I have shown how important the analysis of curriculum content is within some branches of the theory. Vygotsky's discussion of concept formation in terms of the interplay between scientific and everyday concepts directs attention to the need to select content and structure activity with developmental priorities in mind. My suggestion is that Bernstein's extension of the scientific / everyday distinction to include models of vertical and horizontal discourse may provide an important way forward in developing a more sophisticated analysis. Bernstein's contribution to the sociology of pedagogy allows us to explore the implications of a generative model of pedagogic possibilities which connects a macro level of institutional analysis with the micro level of interpersonal analysis.

A model of pedagogy which reduces analysis to pupil teacher interaction alone results in a very partial view of processes of social formation in schooling. Schools are organised institutions within which specific forms of pedagogic practice arise. They are institutions which give rise to the production of specific cultural artefacts such as curriculum formations and their associated modalities of pedagogic practice and discourse which mediate the teaching and learning process.

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[1] It was with some amusement that I discovered that my spell check does not have a check for masculinity whilst it does for femininity. It would appear that masculinity remains a singularity in some circles!

Schooling may be understood as an elaborate form of sociocultural activity. This understanding invokes a broadly based conception of pedagogy. Vygotsky's work provides a framework within which support for pupil learning and the positioning of pupils within specific discourse structures may be explored. It may also be used to consider the developmental implications of different aspects of knowledge and knowledge producing activities. Social relations which serve to mediate processes of individual transformation and change are pedagogic relations. As yet we know too little about the nature and extent of those social, cultural and historical factors which shape human development.

The implications of Vygotsky's contribution have yet to be fully explored and exploited within education. His work constitutes a cultural resource which itself must be developed and enhanced through theoretical speculation and empirical enquiry.