

PEDAGOGICAL KNOWLEDGE AND CLASSROOM PRACTICE:  
TEACHERS' MANAGEMENT OF A DISRUPTIVE CLASSROOM BEHAVIOUR :  
TALKING OUT OF TURN

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ABSTRACT

This study investigates teachers' management of a disruptive classroom behaviour known as "talking out of turn", and proposes that management practices are integral to teachers' pedagogical knowledge. The study explores the notion that pedagogical knowledge is socially constructed by staff, with influence being exerted by those high in the power hierarchy of the school.

Talking out of turn is a pervasive and disruptive pupil behaviour which violates the turn-taking rules operating in the classroom. Previously it had been concluded that it is caused by teachers' or pupils' skill deficit, however this study shows that performance cannot be equated with competence, and that teaching involves more than the performance of observable technical skills.

A total of twenty five teachers and six headteachers from eleven schools took part in the study. Data was collected in three phases, and comprises of audio recordings of teachers and their class groups at story time; structured interviews with staff and headteachers; two inservice sessions and individual feedback sessions with all the staff in one school. Micro analysis of the interaction cycles between teachers and their groups produced interesting data concerning teachers' management practices, and led to the delineation of the Non conversational and Conversational teacher talk registers. Discourse analysis showed that the pedagogic discourse of staff could be classified as "proactive" or "reactive". Results showed that talking out of turn occurred in every classroom studied and that there was a relational tendency between the frequency of talking out of turn, and the type of teacher talk register and pedagogic discourse articulated.

This study found that heads tended to express the school's official discourse as slogans or fragmented prescriptions, rather than explicating pedagogical knowledge in a professional language. Evidence shows that teachers did not construct cohesive pedagogical theories, and it is possible that the lack of a shared language diminishes abilities to critically debate or reformulate the official discourse.

It is suggested that teacher education institutions have a particular responsibility to enable teachers to articulate explicit pedagogical theories in a professional language. Then teachers may be empowered to debate the dominant ideology, and this could result in the review of normative practices such as the management of talking out of turn.

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## INTRODUCTION

This study investigates teachers' management of a disruptive classroom behaviour known as "talking out of turn", and proposes that these management practices are integral to teachers' pedagogical knowledge. Talking out of turn is pupil behaviour that violates the turn-taking rules operating in the classroom, and is shown by calling out, talking when the teacher or another pupil has the floor, and taking another's turn to speak. It is suggested that teachers select different strategies to manage turn taking routines, and the choice of strategies is linked to their knowledge of teaching and learning. This study explores the notion that such pedagogic knowledge is socially constructed by staff members, with significant influence being exerted by those high in the power hierarchy of the school.

This study has two main aims. Firstly, to investigate talking out of turn by analysing the interaction cycles between teachers and pupils. Secondly, to explore the social construction of pedagogic knowledge by analysis of teachers' pedagogic discourse and the links to the "official discourse" of the school. Here the "official discourse" is used to refer to all that is written, spoken, and known in the collective

sense by the staff of the school concerning pedagogy. It is knowledge that is articulated by those with authority in the power hierarchy, and it is received collectively through discursive practice. Discursive practice denotes the active process of discourse by participants, and comes to mean the activity through which appropriation of knowledge and genesis of knowledge structures occurs (Van Dijk, 1990). It is important to note that discursive practices do not merely enable staff to represent discourse, but also to constitute discourse, as in Mehan's (1979) view the real nature of discourse lies in the fact that it accomplishes structure.

Why investigate talking out of turn? When researchers ask teachers which behaviour causes the most trouble in classrooms, they name talking out of turn (Merrett & Wheldall, 1984; Elton Report, 1989). Research shows that it causes a great deal of annoyance to teachers, occurs in all age groups, and disrupts the flow of teaching which results in loss of learning time for pupils (Merrett & Wheldall, 1984; McNamara, 1987; Wheldall & Merrett, 1988; Houghton, Wheldall & Merrett, 1988; Elton Report, 1989).

Talking out of turn has been identified as persistent and pervasive behaviour which is hard to manage and resistant to change (Wheldall & Merrett, 1988). It has a negative impact on many learning situations, and yet has attracted comparatively little

specific research attention. The paucity of studies, together with a perceived need for more knowledge about this behaviour, has pointed to the importance of research in this area and for these reasons it has become the topic of this research study.

It must be made clear that this study is concerned with the interaction that occurs between "normal" pupils and teachers. That is, the concern is not with pupils who are developmentally delayed or language disordered. The concern is not with the minority of pupils who disrupt the classroom because of behaviour disorders or emotional disturbance. The focus of concern is talking out of turn which occurs in all classrooms on every school day, by pupils who can explain the rules of turn-taking and give reasons to support their view that turn-taking is a good idea (Corrie, 1989). Neither is the concern with failing or incompetent teachers, but it is with the majority of teachers who complain about this "nitty-gritty" behaviour, because it grinds down energy and enthusiasm, and reduces valuable teaching and learning time.

Teachers express concern regarding the cumulative effects of disruption to lessons by this behaviour, which makes teaching and learning more difficult. The cumulative effects include increasing negative feedback from teachers which takes the form of reprimands, complaints, and sanctions that have a diminishing level

of effectiveness in improving pupils' behaviour (Mercer, Costa, & Galvin, 1990). Teachers express frustration at the vast number of interactions that involve some element of control, resulting in a slow and steady erosion of their energy (Elton Report, 1989). The Elton Report concludes that teachers lack group management skills, and recommends that resources should be spent on in-service training to ameliorate these deficits.

This study adopts a different perspective. Whilst it is accepted that the notion of skill deficits may be true in specific cases, it is argued that such reasoning should not be generalised without further investigation. To conclude that talking out of turn occurs because of teachers' poor management skills acts to reduce teaching to sets of discrete technical skills and fails to acknowledge "the nature of teachers' work as a form of intellectual labour" (Smyth, 1987, p.155). It fails to consider teachers' intentions, and the pedagogical knowledge that is linked to their actions. It appears to be based on norms of autonomy and isolation (Leithwood, Begley & Cousins, 1992), and discounts staff collaboration, and the construction of shared meanings (Crispeels, 1992).

In order to examine talking out of turn, it is necessary to conduct a fine grained analysis of the interaction cycles between teacher and pupils. This will provide valuable information concerning the behaviour but

it will not define the teacher's pedagogic knowledge that is "inextricably linked" to classroom practice (Rowell, Pope & Sherman, 1992, p.161), and which is of major interest to this study.

The interest in pedagogic knowledge answers the call for researchers "to go behind the talk" (Edwards, 1987, p.178) and find ways to explore the deep levels that underlie the teachers' management of behaviour. Here the deep levels refer to the knowledge structures and processes held by teachers that are central to their actions (Sampson, 1981). A Vygotskian perspective is adopted, with the assertion that actions and knowledge are engaged in a reciprocal process (Au, 1990). It is claimed that much of this socially constructed pedagogic knowledge will be held at a tacit level, and although it will not be articulated directly it can become known through the analysis of discourse. These suggestions will be explicated in the theoretical discussion which occurs in the following chapters.

It can be seen that this study is concerned with complex interactionist patterns, and because of this researchers such as Johoda (1989) argue that the approach must be based on non-reductionist social psychology. This means that neither the social nor psychological is assumed to be more important than the other, and the aim is to arrive at a balanced cohesive theory which will support the investigation.

In summary, teachers claim that their most pressing discipline problems concern a continual stream of relatively "minor" disruptions to teaching in the form of talking out of turn. In addition it is claimed that the "cumulative effects of these individual disruptions place staff under great physical and emotional strain" (Elton Report 1989, p.259) These claims have support in research undertaken by Mercer, Costa and Galvin (1990) and Houghton, Wheldall and Merrett (1988).

It is suggested here that management practices are integral to pedagogic knowledge which is socially constructed. The theoretical framework must enable discussion and analysis of the behaviour under review in order to develop a language of description, so that the complex social phenomena can be explicated.

CHAPTER ONE

THE BEHAVIOUR - TALKING OUT OF TURN

It has been shown that talking out of turn has been identified as the behaviour that is most troublesome for teachers to manage. Although turn-taking in conversation (Sacks, Schegloff and Jefferson, 1974), and turn-taking in classrooms (Mehan, 1979a; Edwards & Furlong 1978; McHoul, 1978) have been the focus of research, little detailed research has studied talking out of turn. Much of what is known about talking out of turn is derived from research investigating classroom interaction and turn taking. It is likely that more understanding of the surface structure of the behaviour would result from an investigation which centres on talking out of turn.

This study requires a full understanding of the complex interaction patterns that result in talking out of turn, and it is a received paradigm that classroom talk should be investigated in the context of the interaction system (Adelman, 1981; Sinclair & Coulthard, 1975). Here the study of the interaction cycles between teacher and pupils is important to facilitate exploration of the links between teachers' management and pedagogic knowledge.

This chapter begins by defining the behaviour talking out of turn, and clarifying the distinction

between factors relevant to turn taking in normal conversation and classroom talk. There is consideration of two possible theoretical approaches, communicative competence and the behavioural model. In the following chapter there is discussion of the interactive system, which provides the theoretical basis for this study.

#### WHAT IS TALKING OUT OF TURN?

The Elton Report describes talking out of turn as "making remarks, calling out, distracting others by chattering" (1989, p.242). As a result of the researcher's observations in ten classrooms, the following definition is given.

Talking out of turn concerns classroom talk which violates the requirements for taking turns to speak, and includes the following acts:

- taking the floor by self selecting, (not bidding for a turn and not waiting for teacher's allocation of a turn) which
  - a) Occurs at the same time as the teacher's talk and directly interrupts it;
  - b) Occurs in a gap or pause of the teacher's talk and does not directly interrupt it;
  - c) Occurs when another pupil is talking, or has been given the turn;
  - d) Results in the floor being taken and maintained by the one who talked out of turn;
  - e) Results in the floor being taken back by the teacher;
  
- inappropriately bidding for a turn to speak by

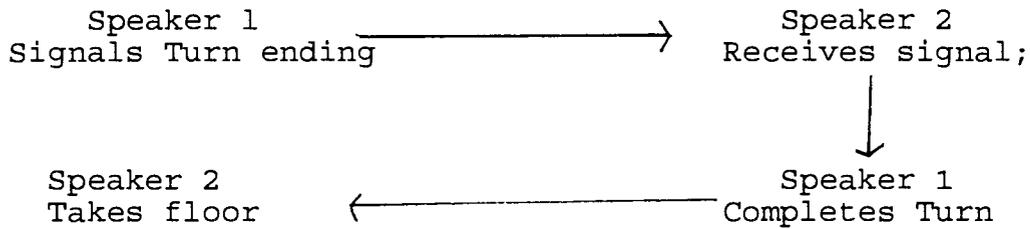
- calling out, or making noises;
- speaking to another pupil at the same time as the teacher is addressing the class;

#### THE MECHANISM OF TURN TAKING

Talking out of turn occurs when rules for turn-taking have been ignored, thus descriptions of turn-taking can provide useful information. Such descriptions will need to include identification of patterns that structure speech events and the rules which the participants follow (Cazden, 1988).

Turn taking is a language universal which enables participants to avoid talking simultaneously and so maintain mutual comprehensibility (Duncan, 1972). The rules in operation concern the allocation of the next turn and the coordination of transfer so that gap and overlap are minimised and this is known as "smooth speaker switch" (SSS). Smooth speaker switch occurs when participants correctly use, recognise and interpret pre-exit and entry devices that signal the point of completion of the current speaker's turn. Potential completion points are projected so that listeners can identify relevant transition points, and either self select or abide by the speaker's nomination of the next turn (Dore, 1985). This is shown diagrammatically in Figure 1.

Figure 1 Conversation - Smooth Speaker Switch



According to Dore (1985), turn taking exhibits recipient design, which includes two elements:

1. The speaker's orientation and sensitivity to the coparticipants;
2. The listener's ability to use certain structures as a motive for listening for a turn to speak.

It will be shown that these elements of recipient design do not necessarily apply to classroom turn-taking. In the classroom the teacher requests bids for turns to speak or nominates turns directly, which reduces the need for the listener to use the particular structures noted in Dore's (1985) work. It will be shown later that these differences occur as an expression of the difference in identity status between teacher and pupil (McHoul, 1978), as the teacher has the power to control who will talk, what topic will be discussed, and duration of each person's turn. This indicates some major differences between conversation and classroom talk, and these differences together with some relevant studies are discussed now.

## RELEVANT STUDIES

The rapid growth of research concerning classroom communication in the last two decades has shown the importance placed on language in the transmission of knowledge. As noted previously, the specific topic of talking out of turn has received comparatively little direct attention, and much of the knowledge concerning talking out of turn has been inferred or constructed from studies which have included turn taking as one aspect. When detailed studies have looked at turn taking often the focus has been the exploration of related areas, such as the system for turn-allocation in classroom communication. However certain aspects of such research can inform the current study as will be shown in the following section. A selection of some relevant studies is summarised in figure 2.

Figure 2. Relevant studies

Reference	Context	Methodology
Sacks, Schegloff & Jefferson, (1978);	American dyadic turn taking;	Conversational Analysis;
Duncan (1972)	American turn taking	Conversational Analysis;
Beattie (1983)	English turn taking	Review of observational and experimental studies;
McHoul (1978)	Turn taking in English and Australian high school classrooms;	Conversational Analysis;

## CLASSROOM TALK

Researchers have developed models of turn taking in conversation, with work focussed on dyadic interaction in America by Sacks, Schegloff and Jefferson (1974) commonly accepted as providing a reliable description of the process. Similarly, studies by Kendon (1967), Duncan (1972), Duncan and Fiske (1977) and Beattie (1983), have made important contributions to the field. Notwithstanding the importance of these studies, it is accepted that turn taking processes in conversations cannot be transposed directly to turn taking processes in classrooms (Mehan, 1985). In fact classroom talk has been described as "an unconversational speech system" (Edwards & Westgate, 1987, p.119), and a "speech exchange system with particular local characteristics" (Atkinson, 1981, p.112). These assertions lend weight to the claim that talking out of turn in classrooms must be explored.

There are major differences between the context of the classroom talk and normal conversation, and these are summarised in figure 3. Differences have been identified through the work of sociolinguists and ethnographers of communication, who have focussed on how talk is systematically patterned in ways which define relationships and situations depending on the local context (Edwards and Westgate, 1987).

Figure 3 Differences between conversation and classroom talk

CONVERSATION	CLASSROOM
NUMBER 1 speaker to 1 recipient;	1 speaker to many recipients;
PARTICIPATION RIGHTS Equal speaker rights;	Unequal power of participants, talk channelled through teacher;
TURN ALLOCATION RIGHTS Equal, turns taken up by individuals as desired;	Unequal, turns allocated by teacher;
TURN INITIATION RIGHTS Equal;	Unequal, teacher initiates: pupils respond;
TURN ENTRY RIGHTS Equal, participants can self select;	Unequal - teacher can veto self-selected turn;
TURN TRANSITION POINT Speaker can end without turn allocation, silence can occur;	Teacher allocates turn; avoids gap which may be filled by several talking at once.
EXIT CUES varied;	most likely teacher question, often with turn allocation or request for bids for turn;
REGULARITY Conversation can withstand variation, often few perceptual demands;	Regularity in turn taking mechanisms helpful in learning situation where perceptual demands are likely to be greater;
TOPIC CHANGE Can be initiated by any party;	Teacher instigates topic; may veto topic change.

As shown in figure 3, one difference between the contexts concerns turn allocation. The teacher may either allocate a turn or seek invitations to bid for a turn, and after the pupil's turn the floor is returned to the teacher. This sequence is known as the initiation-response-evaluation sequence and marks the most commonly activated speaker switch sequence in classrooms (Mehan, 1985). Most frequently the initiation is a question, and thus the system in operation is highly constrained, as questions shape the next speaker's response (Sacks, Schegloff, & Jefferson, 1978).

In normal conversation between dyads it is not important that patterns or regularity of discourse should be established, because the dyad can manage to accommodate the unexpected disruptions that may occur when turn taking routines change. However the notion of regularity of discourse is of particular relevance in the classroom context. Cazden, (1988) notes that recipient design is facilitated to the extent that regularity in discourse leads the recipients to listen for cues which mark possible entry points. Cazden conceptualises regularity in teachers' language as part of the "teacher talk register". The register is said to be the genre and conventionalised way of speaking in that particular occupational role, which is then identified as a marker of that role. Cazden does not address how the norms of a teacher talk register are established, and if they vary

from school to school, or within a school. The notion of teacher talk register has important implication for the current study, particularly concerning the exploration of stylistic variations between individual teachers' registers, such as the use of "status-mitigating devices" (Cazden, 1988, p.167). The social structure of the classroom now becomes the focus of attention.

#### TURN TAKING AND SOCIAL STRUCTURE

Muller (1989) asserts that both communication routines and social practices must be studied "to understand why they are so ineluctably reproduced in the classroom...and how communicative routines produce those social arrangements in a differentiated and subtle way" (p.314). These issues are central to McHoul's (1978) study which examined the organisation of turns in formal talk in English and Australian secondary classrooms, and is perhaps the most closely aligned to the present study. McHoul concludes that the turn-taking system was a modification of natural conversation, with the teacher's exclusive access to the "current speaker selects next speaker" rule, first identified by Sacks, Schegloff and Jefferson (1974). Furthermore McHoul found that the different identity contrast between Teacher/Pupil was expressed in the system in terms of differential participation rights and obligations. In this way the turn-taking system reflects the social structure of the classroom context.

Edwards (1980) provides detailed support for the ways that teacher talk demonstrates power and authority. The teacher is said to have ownership of the talk, being the one who not only asks the questions but also knows the answers. The teacher is the one who invites stories to be told, or decides to tell a story. Furthermore the talk is organised by the teacher to produce a single outcome, and any contribution deemed inappropriate can be ignored or reformulated.

Steinberg's (1985) study focused on turn-taking behaviour in an American infant classroom, and particularly the teacher's role in fostering turn-taking. The findings supported Mehan's (1979) model of teacher controlled turn taking strategies based on the initiation-reply-evaluation pattern. It was found that teacher-controlled turn taking behaviours may give the pupil a turn, prevent a pupil from having a turn, or instruct a pupil in the mechanisms of teacher-approved turn taking. In agreement with McHoul's (1978) study, Steinberg found that the alternating of speakers, with the current speaker selecting the next speaker, did not apply in the teacher-controlled turn taking exchanges. Mehan's (1985) findings are in agreement, showing that teacher control is extensive because the teacher allocates the turn and also takes it back, and it is concluded that the teacher behaves in this way as a demonstration of the authority role as teacher.

Whilst Steinberg's (1985) study provides relevant support for models of classroom turn-taking behaviour, there is some difficulty in accepting the validity of the concluding remarks. Having compared the turn-taking mechanisms in operation when a group of children interact with the teacher with dyads or triads in conversation, Steinberg concludes that young children are able to regulate their own turn-taking. The suggestion is made that teachers are unaware of these existing skills and they need to build on them in large group discussions. Clearly the assumption is that skills operating in dyadic conversation are similar if not the same as those necessary when a group of children interact with one teacher. It is argued here that the differences in context require different skills. Similarly Edwards and Westgate (1987) note that McHoul's (1978) call for more "real" discussions in classrooms may not be practical. However Steinberg's and McHoul's comments help to illuminate the dilemma evidenced by some teachers, when there is an obvious gap between what they actually do, what is operationally possible, what they think they do and what they believe is best for the pupils' development.

In the following section consideration is given to two different theoretical approaches that could inform this study, and discussion begins with the theory of communicative competence.

## THE THEORETICAL FRAMEWORK

It is necessary to develop a theory which will support an investigation of talking out of turn that describes the behaviour, predicts outcomes of management strategies, and provides explanations for variations in teachers' practices. In the following section there is consideration of two different approaches which are communicative competence, and the behavioural model. It is suggested that these approaches focus on the individual, and there is a discussion of the adequacy of this notion to inform the present study.

### COMMUNICATIVE COMPETENCE

The origins of the notion of communicative competence can be traced back to linguistics and Speech Act Theory (Austin, 1962). According to Edwards (1987) this led to Grice's theory of "Implicature" then to the development of pragmatics, and discourse analysis. It is important to note that in the field of language study there is overlap between approaches, and lack of clarity in definitions and usage of terms. As Brown and Yule (1983) note "doing Discourse Analysis ... primarily consists of doing pragmatics" (p.26), and that the focus is the context and language use. However discourse analysis is defined and implemented in many different ways. Difficulties in identifying theoretical underpinnings can be illustrated further by the notion of communicative competence. As Levinson (1983) notes most definitions of pragmatics will overlap with sociolinguistics, but in the notion of

communicative competence there is "exact identity" (p.25). There is no doubt that the work of pragmatics theorists such as Levinson (1983), together with sociolinguists such as Hymes (1972), has made a valuable contribution to the understanding of knowledge that underlies language use.

Researchers identify communicative competence as knowledge structures which go beyond phonology and grammatical structures (Cook-Gumperz and Gumperz, 1982). It is said to be acquired by individuals in order to become effective communicators, and is defined by Hymes (1974) as

(the) knowledge of sentences, not only as grammatical but also as appropriate. (The child) acquires the competence as to what to talk about with whom, when, where and in what manner. In short the child becomes able to accomplish a repertoire of speech acts, to take part in speech events, and to evaluate their accomplishment by others (p.277).

As this definition shows knowing when to speak and when not to, bidding for a turn by appropriate use of signals, and showing understanding of turn-taking mechanisms are important aspects of communicative competence, and the link to the concern of this study is clear.

However competence cannot be inferred always from the performance of a communication skill. Romaine (1984) contrasts performance and competence, noting that performance is the act of the behaviour, but competence embodies understanding the full meaning of the

communication routine. Tripp (1987) notes that this definition is not the same as Chomsky's (1965) definition of competence, which emphasises the ability to generate certain linguistic forms. Bernstein (1990) emphasises the important distinction between performance and competence, noting that competence is linked to social relations, as they "regulate the meanings that we create" (p.135). Performance consists of skills, whereas competence consists of skills and knowledge of application (Ammon, 1981).

Evidence to support the distinction between performance and competence comes from Greif and Berko-Gleason (1980), who show that children can learn to perform communication routines that they do not understand. Conversely, Davies (1990) asserts that children may have the competence to speak as adults, but neither the right nor the desire to do so. Davies (1990) notes that previously accepted common sense views of language are being changed by the work of linguists, sociologists and psychologists. The new view of language has facilitated understanding of "discursive practice", that process of discourse whereby knowledge of context is formed (Van Dijk, 1990). Once again in accordance with this view, it is emphasised that lack of performance should not be correlated automatically with lack of competence. It is relevant to return to Hymes' (1971) requirements for communicative competence,  
Systematic potential - whether and to what extent something is not yet realised ...

Appropriateness - whether and to what extent something is in some context suitable, effective ...  
Occurrence - whether and to what extent something is done;  
Feasibility - whether and to what extent something is possible, given the means of implementation  
(Hymes, 1971, p.157)

Corrie's (1989) study found that young children showed communicative competence concerning talking out of turn, at least on the first two points. Here particular interest is directed to the notion of feasibility, and concerns the extent to which turn taking is feasible given the means of implementation in a particular context.

As the preceding discussion has shown, there may be some conceptual confusion concerning performance and competence. The related issue of sequential development in communicative competence raises some further difficulties which will be addressed now.

#### Sequential Development

One important precept of communicative competence is that language use reflects the sequential development of knowledge which enables the child to make finer and finer distinctions concerning when to speak, when not to, and to identify the different contexts that require different turn taking rules, (Hymes, 1972). This notion of a sequential development appears to be linked to Piaget's

stage theory of maturation which has been criticised for not standing up well to subsequent research (Sylva, 1987).

One difficulty is that sequence must be validated by developmental norms which permit identification of individuals' developmental levels. However, researchers have not specified norms of communication development although it seems reasonable to assume generalised norms could be defined (Romaine, 1984). Whilst researchers have indicated that the context affects development of communicative competence, there is a lack of evidence to show clear effects (Daniels, 1988).

The notion that norms govern pupils' communicative competence is applied at a more general level to teachers, and is evidenced in the Elton Report (1989). This report concludes that teachers' management of the turn-taking system indicates deficiencies within the individual teacher, and that these could be remedied by appropriate pre-service and in-service management training (Elton Report, 1989). These conclusions are based on what appears to be "common sense" assumptions and knowledge concerning individual functions and responsibility, and logical deductions concerning cause and effects. As such they reflect a nomothetic level of analysis, whereby the behaviour of an individual is assessed against role expectations and normative behaviour. This tradition of structural functionalism

holds that social structure is a normative phenomenon, and any discrepancy or conflict is seen as a result of a deficit within the individual (Sharp & Green, 1975).

This view of norms is criticised by Gergen (1985), who maintains that the "facts" in psychology often are based on rules of interpretation that are inherently ambiguous, constantly changing, and vary in accordance with the person applying them. In approaches based on the realist theory of science, explanations of behaviour are sought on the basis of descriptions of ordinary behaviour and experiences. The main aim is to achieve a better understanding of everyday acts (Manicas and Seccord 1983), and for the purposes of this study the aim is a better understanding of teachers' behaviour in the management of talking out of turn.

The point to be emphasised is the distinction between understanding the management strategies of teachers, and judging competence. Difficulties in ascertaining "competence" in teachers are clear because viewed as normative phenomenon, those attributes that are judged to indicate competence may reflect a controlling device by those in the power hierarchy, rather than attributions of causality (Gergen, 1985). It is the construction of certain meanings with their incorporation of knowledge, that reify certain "facts" and opinions, whilst disregarding others. It is possible that the

conventionalised way of speaking is constituted by this reification of knowledge, and shown in the teacher talk register. Teacher competence which is judged on normative phenomenon is appropriate when teaching is viewed as technical or manual work, which in Giroux and McLaren's (1986) opinion "disempowers both teachers and students" (p.226).

If norms delineate competency they also describe deviancy (Kenway, 1990), and this leads immutably to schemes of remediation. The aim of remediation is to achieve a standard of competency by addressing deficiencies.

#### Compensating Deficits

Failure to perform certain skills may be judged a deficit, which then may be ascribed to "developmental delay", or lack of certain environmental experiences. It could be reasoned that lack of experience in turn-taking may be the cause of talking out of turn, and it is concluded that the development of skills can be facilitated by compensatory experiences. However Romaine (1984) notes that researchers need to identify the extent to which communicative competence can be taught, given that explanations of competence are based on notions of maturational development. An alternative view is that differences in language use must be seen as variability not as deficit, and that diversity must not be equated with inferiority (Cook-Gumperz & Gumperz, 1982). The

notion that "deficits" can be compensated has received popular acceptance, particularly after being promulgated in the Plowden Report, "The proposition that good schools should make up for a poor (home) environment is far from new" (Plowden Report, 1967, ch. 2), however it should be noted that little theoretical support has been offered to support the validity of the proposition (Sylva, 1987).

#### The School Environment

Edwards (1987) notes that a common assumption has been that the pupils' lack of appropriate behaviour resides in the inability to deal adequately with the language rich environment of the school. Generally the school is considered to be a middle class environment in which certain pupils (primarily working class) are less able to function. However Edwards (1987) questions whether classrooms are necessarily complex communicative environments that present challenges beyond the communicative competence of many pupils. In line with this position it is claimed that the vast majority of pupils quickly construct a particular sense of the classroom context, regardless of previous experiences (Romaine, 1984; Willes, 1976). The language environment of school is not necessarily more complex than home, however there is a growing acceptance of differences between the language environments of home and school, specifically between turn-taking in ordinary dyadic conversation and turn-taking in the classroom.

It is suggested here that it may be premature to assume that talking out of turn is due to lack of communicative competence. Ethnographic studies have focussed on diversity, showing that there are complex sources of knowledge differentiation (Cook-Gumperz & Gumperz, 1982), and this highlights the dangers of ascribing a causal relationship to data that show a correlational tendency. As discussed previously, breaches of classroom conventions concerning turn-taking should not be ascribed to lack of communicative competence necessarily. Mitigations which account for apparently uncompliant behaviour on the basis of "individual deficit" may serve to reduce the complex contextual phenomena to an unacceptable level.

It might be argued that thinking has progressed beyond notions of individual deficit and the need for compensatory education. However, evidence of these principles can be found in the Elton Report (1989), and shown in the statement that "a lot of children don't seem to be able to discern a difference between addressing a mate in the playground and a member of staff in a classroom" (p.253). It is significant that it does not say that the pupils "do not discern", rather that the pupils don't "seem to be able" and the implication of those words is that pupils are deficient in some way. The report does not address the possibility that other reasons may account for the pupils' behaviour.

The wording of the Elton Report just quoted implies that certain pupils have not developed adequately or appropriately, according to certain norms. It is possible that a variety of "causes" for such deficiency could be offered, and remedial programmes devised. However several reasons argue against this approach. As discussed previously, the validity of assuming that lack of performance necessarily means lack of competence is questioned. The position taken here does not accord with the view that something is necessarily and inherently "wrong" or "lacking" within pupils, and this means that there is little acceptance of the notion of deficit.

Cook-Gumperz and Gumperz (1982) discuss the notion of communication competence and its application to education and argue that

Critical for any consideration of communicative competence is the need to see the sociolinguistic practices of speaking and interacting within the wider context of the educational assumptions and ideologies held by members of the society (p.17)

These researchers assert that the notion of communicative competence is best applied as an analytical construct which can deepen understanding of the complexities of transmission of knowledge and communicative understanding. Communicative competence should not be reduced to some sort of "language competence" measuring device which tests context-free skills in school settings. It is concluded that for the purposes of this study, notions of communicative competence can offer insight, however the wider issues as articulated by Cook

Gumperz and Gumperz (1982) are of central importance.

Communicative competence stresses "essentially individual social competencies" (Tripp, 1987, p.187), and in this way is linked to the second theoretical approach that is to be considered here. Attention is directed now to the behavioural model.

#### THE BEHAVIOURAL MODEL

Attempts have been made to change talking out of turn by implementing behavioural programmes. However, controlled studies have found that changes are not made easily, do not last, and tend not to be generalised (Wheldall & Merrett, 1988). Although these researchers generally adopt a strong behavioural position they suggest that there is a need to investigate talking out of turn more fully in order to identify what is supporting this entrenched behaviour. Wheldall and Merrett's (1988) call for a more complete investigation of the behaviour lends considerable weight to the aim of the current study, and it serves to divert interest away from explanations based on the individualistic notion of "behaviour" in itself, and away from explanations of individual deficit whether applied to teachers or pupils. Doyle (1978) asserts that many behavioural programmes fail, and the reason for such failure can be attributed to the fact that often there is an attempt to modify a particular behaviour without attending to the larger context. Research must take account of the classroom

effects that operate "at a molar rather than a molecular level" (Doyle, 1978, p.186), and this view is supported here.

The mechanistic model is central to the behavioural approach, being based on the notion of unidirectionality of causal application, which allows the isolation of the stimulus-response relationship (Overton & Reese, 1973). Researchers may claim that interaction effects are considered, however Overton and Reese (1973) note that this generally refers to interaction between causes, rather than the interaction between cause and effect. In Berger's (1966) terms, the argument against a one-way flow of causes of behaviour lies in the dialectic relationship that exists between individuals and environment.

Harré (1986) comments that classical behaviourism was conceived within the framework of the quasi-political doctrine of individualism. Harré asserts that this has played a potent role in acceptance of Cartesian polarity, which dichotomises reality between a subjective and an objective pole. Whilst the individual is central to the theory, major contributions have been made concerning the importance of the context wherein the behaviour is situated. Certain changes in voluntary behaviour are said to arise from consequences contingent upon the behaviour (Bohannon & Warren-Leubecker, 1985), and this notion is of direct relevance to the current study.

Central to the two theories that have been considered is the persuasive and powerful notion of individual functioning and individual deficit, and there will now be a discussion of the origins of this notion, in order to support the approach that is adopted in this study. It will be shown that conceptions of the individual have not been static, but are firmly rooted in the context of culture and history (Handy, 1987).

#### THE PSYCHOLOGICAL CONSTRUCTION OF THE INDIVIDUAL

The notions of individual functioning and deficit permeate the conclusions of the Elton Report (1989). The troublesome behaviour of talking out of turn, and the teacher's management strategies are attributed to individual deficit which can be remediated. It is suggested here that such conclusions are informed by the theory of structural functionalism, which incorporates as a received paradigm the "shared psychologicistic construction of individuals" (Knight, Smith & Sacks, 1990, p.142), and the development of this paradigm is traced here.

Henriques, Hollway, Urwin, Venn & Walkerdine (1984), claim that psychology has constitutive power, which is shown by the construction of modern individuality. Human behaviour is explained by the individual's internal characteristics, and failure is ascribed to personal

shortcomings or pathology. It has been assumed that psychology identifies and monitors reality, however these theorists claim that this is only partially accurate, and that in fact psychology is productive as it produces explanations, it regulates, classifies and administers. The focus on the molecular rather than the molar (Doyle, 1978), has enabled "sense" to be made of complex social phenomenon which becomes reified as "expert knowledge". Handy (1987) asserts that this psychological knowledge has constitutive power, and is passed into the store of "common sense" knowledge of those in power in educational institutions. Such knowledge is articulated "as if" shared meanings have been established, however they may never be articulated or debated, but used to authenticate explanations of the world as cognized (Gergen (1985)).

Theorists have traced development in thinking about individualism from medieval times to the present. It is claimed that changes in the needs of communities have resulted in changes in organisation, and in the conceptualisation of people's roles within the communities. This is illustrated in medieval communities, where, regulated by a stable hierarchy and closely linked to soil and seasons, people saw themselves as essential elements in the natural order. This world was replaced gradually by a more fluid and fragmented industrialised society, with less direct relationship to nature and therefore less interdependence. As a result the concept of self became more private and

individualised.

During the last one hundred years many factors have contributed to the changing notions of individualism in western Christian societies. These factors include the growth of scientific and medical knowledge, two world wars, changes in the conception of God, and the growth of psychology with the development of individual measurement and the establishment of developmental norms (Newson & Newson, 1974). These complex changes have affected the structure of communities, and models have been developed to conceptualise these changes.

Atkinson (1985) comments on Bernstein's adaptation of Durkheim's model, with particular reference to the notions of mechanical and organic solidarity. Atkinson (1985) notes that Bernstein ascribes mechanical solidarity to societies which show a high degree of uniformity and consensus, and where values and sentiments are shared. Solidarity rests on the association between functionally equivalent social units, and these characteristics are associated primarily with preindustrialised societies. By contrast, organic solidarity in modern industrialised societies embodies diversity and specialisation of labour. Organic solidarity allows greater scope for the development of individual differentiation among persons, and institutions where there are conditions of complex and diverse divisions of labour. These divisions occur

through classification procedures, and the knowledge that leads to such classification is inseparable from power (Kenway, 1990). It is through the dividing process that social and personal identities are given and maintained. Notions of normality are constructed and perpetuated by diagnostic and prognostic assessments about the individual, and so it can be seen that the process that establishes norms also identifies deviancy (Kenway, 1990). The norm becomes established through cultural transmission, which until recently was embedded in the modernist tradition (Tyler, 1992).

These notions have direct implications for this study. To focus attention on the individual teacher or pupil will be to reinforce the validity of the "norm", and thus leave the status quo unquestioned and undisturbed, and possibly even to add to its efficacy. Sampson (1981) notes that when conflicts and their resolutions are psychologised then structures and practices of the larger society are not tested or challenged. Situating individual phenomenon in its socio-historical context means that notions of deviancy and deficit will be open to question and even change.

However it is suggested that those with authority in the power hierarchy may not wish to change established practices. This point can be illustrated by political rhetoric, as a great deal is cast in the language of psychologisms, in which "individualism" is crucial to the

opposition of "socialism", which signifies loss of individual freedom and autonomy to the State (Knight, Smith & Sachs, 1990). Such political rhetoric highlights the importance of the examination of the whole system rather than the individual, because as Sampson (1981) argues, reified psychological processes abstract what is observed from its particular socio-historical conditions, and furthermore

"psychological reifications clothe existing social arrangements in terms of basic and inevitable characteristics of individual functioning; this inadvertently authenticates the status quo, but now in a disguised psychological costume" (Sampson 1981, p.738)

Sampson persuasively depicts the dangers of psychological reification of individuals, and this concern is echoed by educators who see psychological reification of individuals as a major barrier to the provision of equal educational opportunities.

Theorists such as Apple (1979), and Bourdieu and Passeron (1977), claim that the reason the status quo of individualism is maintained lies in the fact that the main function of schools is to reproduce the dominant ideology, keeping the powerless in that position. Critics of the reproduction theory maintain it reconstitutes "some of the fundamental positions of a discredited structural-functionalism" (Sarup 1983, p.147), and furthermore structures are emphasised to show the extent of the domination and power of the ruling ideology, and the notion of human agency is neglected.

Giroux (1983) supports the assertion that reproduction theorists have overemphasised the tenet of domination and underestimated the importance of human agency.

It must be stressed that the key to Giroux's argument is the fact that it is the agency and innovation of groups that is being promulgated. Teachers and pupils do not act in isolated contexts but in the social world of the classroom and the school. Behaviour must be considered not "only in an individualistic sense but also as part of the lattice of social interactions that develop where several actors are grouped" (Bartlett, 1991 p.23). Support for these viewpoints is found in Mancuso and Eimer's (1982) assertion that frequent failure of a behavioural approach or the "mechanistic paradigm" (p.39) has enabled acceptance of the contextualist and constructivist approaches as promulgated by Piaget and Vygotsky.

Whilst there are real differences between Piaget's and Vygotsky's theories, Bidell (1988) notes that psychologists are coming to accept that they have got points in common, and that similarities are based in the underlying dialectical logic which is shared by both theories. Underlying both theories is the complex dialectical conception of development, which embodies a refusal to accept the Cartesian reduction of complex relationships to isolated elements. Therefore complex interactions among processes and their relationship to

one another become the central concern (Bidell, 1988).

Mancuso & Eimer (1982) call for the interactive system as a whole to be conceptualised if fruitful changes are to be made in classrooms, and so dialogue becomes the focus of the current study. This discussion continues with consideration of the dynamic and reciprocal influences of individual and group.

CHAPTER TWO  
INDIVIDUAL AND SOCIAL

It is proposed that the interactive system will provide a suitable focus for an investigation of talking out of turn. It has been asserted that a description of psychological events must be made in terms of the dynamic, mutually constitutive and reflexive relations between organism and environment (Hood, McDermott and Cole 1980), and this is the position adopted in this study. Turner and Oakes (1986) maintain that research must not reduce either the social or psychological concerns, as psychology and society are irreducible emergent properties of each other, and this central point provides social psychology with "a definite metatheoretical perspective opposed to individualism" (p.23).

Handy (1987) comments that examination of the interactive system will diminish the emphasis on the isolated entity of the individual. It is claimed that often the social is taken for granted, and treated as an independent variable which remains unanalysed (Jahoda, 1989), clearly this is not the intention of this study.

THE INTERACTIVE SYSTEM

It is suggested that more understanding of talking

out of turn may be achieved if an interactive systems approach is adopted. This proposal accords with Sameroff's (1980) view that examination of a unit of behaviour must include the behavioural system that incorporates the behaviour. Understandings of social psychological concerns can be greatly enhanced by explorations of the interconnections between systems (Sameroff, 1980). All individuals are both parts and wholes at the same time, and they have a symbiotic relationship with others, constructing and reconstructing experiences on the basis of that relationship, for "to turn inwards is to turn to what we all have in common" (Harri-Augstein & Thomas 1979, p.125).

Manicas and Secord (1983) maintain that specific behaviour cannot be explained by a single law, because behaviour incorporates interacting levels of stratification, and a wide variety of systems and structures. These systems include the physical biological, psychological and sociological. Central to this view is the notion that the organism is active rather than merely reactive, and that organism and environment act in a relationship of reciprocal action between elements. These elements may be subsystems of the organism, or the organism and its subsystems and the environment. In Rogoff's (1992) view the personal and interpersonal are not separable, because it is through

individual involvement in shared activity that social structures become transformed. Daniels (1992) notes that every individual action is situated in a context which influences the structuring of the activities. However the intrapsychological processes are not fused with the interpersonal, and individuals do engage in reflection and planning as the basis of action (Rogoff, 1992). The individual is not merely acted upon by the context, and does not act in isolation but there is a two-way process, and it is the "dialectical relations between social and individual" (Daniels, 1992, p.53) that is of direct concern to the current study.

#### THE SOCIAL INDIVIDUAL

Debate concerning the relationship between individual and others is long-standing. Theorists have called for a rejection of the "Cartesian starting-point" which is found in the "I" of an individual and assumes that all "psychological problems are solely to do with the (essentially biological) individual's acquisition and utilization of knowledge in an already objective world" (Shotter, 1986 p.209). The divide between the individual and social is encapsulated in the received paradigm that the infant is "unsocialised", and must undergo a process of socialisation to be a fit member of society. An agonistic relationship between self and society is conceptualised, where reluctant individuals are acted



upon by society. At the same time the process of socialization is said to occur according to developmental norms, that is, sequentially in set stages by an essentially mental process.

Developmental stage theory reflects the ideology of individualism, where the individual stands apart from the social environment meeting environmental challenges through individual effort (Bidell, 1992). This theory does not account for the complex interactions between processes, however an alternative corpus demonstrates the importance of the social and individual when providing explanations for complex psychological phenomena. Semin (1986) cites Mead, 1934; Wittgenstein, 1958; Berger, 1966; Volosinov, 1973, Giddens, 1976; Vygotsky, 1981, to support the notion that it is through social processes that individuals perceive themselves, and relate to others and the ways in which their processes of self-consciousness are permeated, maintained and reproduced are through social processes.

These theorists maintain that there can be no separation of self and society, as society defines and creates psychological reality. Far from being independent or fragmented, the relationship is interdependent, and thus the sociocultural and historical embeddedness of psychological realities are an inevitable corollary (Semin, 1986). It is claimed that the

dialectical perspective attempts to understand the full complexity of interrelationships between organism and environment (Bidell, 1988). The interrelationships include interaction between the biological and ecological, as well as social, cultural, political and economic factors, which are situated within an historical setting (Shotter, 1986).

A considerable amount of criticism has been directed at the theory of individual development, and yet it is said that identification of individual differences are valid. Quite clearly individuals operating in the same context are not all the same, and most observers in a school staff room would concur with this viewpoint. Teachers may be part of the same context, yet they are individual human beings and the challenge concerns developing an understanding of the complex dialectic relationship without reduction of either social or individual.

Sampson (1981) makes the point that an understanding of the individual subject is important, and can only be developed in conjunction with objects viewed as social and historical products, and not as "simple derivatives of individual consciousness or individual behaviour, or occurrences that just somehow happen to be present" (p.735). It is relevant at this juncture to note the differentiation made by Piaget (1968), between the individual subject and the epistemic subject. The

epistemic subject is said to be that "cognitive nucleus which is common to all subjects at the same level" (Piaget, 1968 p.139). The individual does not "disappear", because of the necessity for the individual's activity, which in Piagetian terms is "de-centering". This process is said to allow the individual to enter the process of coordinating and setting reciprocal relations, rather than taking on an external universality. The key point is the notion of the active individual which results in the generation of structures under constant construction. The individual is not irrelevant, and does not result from imposed structures, rather the individual exists because the structures "consists in their coming to be, that is, their being 'under construction'" (Piaget, 1968, p.140).

This aspect of Piagetian theory offers an explanation to account for the variation in knowledge structures that may be held by different members of staff of the same school. The individual's knowledge structures are in a constant process of genesis, which depends on assimilation and accommodation of particular schema. This takes place through interaction between the teacher's knowledge and the official discourse, which becomes known through discursive practices of the staff.

Interest in Vygotsky's work has led to the further development of the constructivist framework, which

encompasses the notion of construction of knowledge and skills through interaction (Light, Sheldon and Woodhead, 1991; Tharp and Gallimore, 1991). It is asserted that the genesis of knowledge structures occurs in the process of interaction, because the primary function of language in Shotter's (1987) view is the formative or rhetorical function. Following Vygotskian theory, interaction does not result in a body of information being conveyed to an individual, but it is in the process of interacting that the individual forms knowledge structures (Van der Veer & Valsiner, 1988). Returning to the concern of the current study, this means that the official discourse creates possibilities for the individual to appropriate and construct knowledge, and this will occur and be evidenced in the discursive practices of the school staff.

A major focus of the current study is the possible links between teachers' management of talking out of turn, their pedagogic knowledge, and the school's official pedagogic discourse. It is suggested that individuals do not act out of particular knowledge schema which they have constructed, rather they act into the context in terms of the choices that it offers (Shotter, 1986). So it is that the individual's pedagogic knowledge and the context together create the choice of action available to the individual, and this can account for the variety of teacher behaviours found within the same school context. This finds support in Greeno's

(1989) call for researchers to focus on understanding the epistemologies that individuals and groups use to characterise and shape their thinking. This has direct relevance for the current study, and indicates that an official discourse constructs knowledge which may be appropriated by the individual. Therefore it is the individual's knowledge, and the school's official discourse that should be the centre of investigation. The notion of the official discourse will be addressed more fully later, however as previously defined it refers to all pedagogic knowledge that is known in the collective sense by the school staff, being articulated by those with authority in the power hierarchy.

Walkerdine (1984) contends that individuality is not a fixed entity but a product of historically specific practices of social regulation. Here it is suggested that the official discourse acts to regulate (to some extent) practices of the school staff. Therefore although it may be informative to compare individual teachers' management strategies, it is the underlying constructs of knowledge that must be explored in order to understand how specific pedagogic practices come into being. It is suggested that identification of variations between staff will be illuminative when positioned with the official discourse. When viewed in this way the notion of norms of effective teaching become irrelevant, and the focus of attention is switched to the importance of contextual factors.

It is not correct to say that psychology has ignored contextual factors, however often these factors are seen as peripheral to the individual. In this view the individual teacher is seen as operating as a discrete unit within an institution, not only maintaining individual freedom and autonomy, but also individual responsibility and pathology. What seems to be missing is the attempt to situate teachers in a particular context and thus issues related to the collective context have not been addressed. This key point is emphasised by Shotter (1986), who refers to Vico's notion of the "collective sense of place" (p.210) in which individuals reside. Thus if teachers' skills concerning the management of talking out of turn are to be judged on observable classroom practices alone, then it is unlikely that key features concerning management practices will be identified. Attention must be directed to exploration of the collective construction of the context if progress in understanding is to be achieved.

The position taken is that the individual cannot be divided from the socio-historical context, however this does not deny that individual differences do exist and can be analysed with validity. Neither is the claim here that individual differences result from the imposition of social conditions upon the passive individual, but that the individual is engaged in an active, interactive and constructive process with the context.

## THE CONTEXT

The focus of this study is the teacher's management of the interaction cycle that may result in talking out of turn, and this acknowledges the importance of the reciprocal and reflexive process that operates between teachers and others. Work by Cook-Gumperz, (1981), Edwards, (1987) and Edwards and Westgate (1987), has developed Hymes' (1972) notion of communicative competence, and recently Cazden (1988) has asserted that educators must consider the whole context rather than ascribing pupil difficulty to pupil failure. Current levels of interest and expertise have led researchers away from the notion of pupil deficit, with many calls for deeper understanding of the communicative context of the classroom (Edwards & Westgate, 1987).

When the communicative context of the classroom is considered then the process of acquisition of specific cultural practices and social knowledge, and the transmission of cultural capital, cannot be ignored (Bernstein, 1977). The work of researchers such as Karabel and Halsey (1977) has increased the understanding that social knowledge is not universal but specific to a particular context. Sociocognitive differences in construction of social knowledge suggests that knowledge is socially defined and socially constrained (Cook-Gumperz and Gumperz, 1982). Previous mention has been made of Cazden's (1988) teacher talk register, and

the conventionalised way of speaking that marks the teachers' role, and questions raised concerning variations between teachers. What may be "conventionalised" in one setting may not be accepted in another, and an obvious example is a school where pupils call teachers by their first names, a practice that would not be accepted in another school. Hood, McDermott and Cole (1980) make the point that "performance and disability have to be understood in terms of the social environments with which they are linked" (p.166). Here is a link to Hymes' (1971) notion of feasibility mentioned earlier.

As mentioned previously, the extent to which the context of the school is instrumental in teaching communication skills is the subject of debate. In Tharp and Gallimore's (1991) view, "long before they enter school, children are learning higher-order cognitive and linguistic skills" (p.42), and that such learning takes place through ordinary everyday interactions during which there is acquisition of communicative and cognitive tools. Similarly Willes (1981) was impressed "by the rapidity with which children became pupils, fully conversant with their new role" (p.194). These assertions find support in Corrie's (1989) study of communicative competence, when young pupils were found to have an accurate conception of the rules, were able to interpret the communicative context accurately, and were

able to make sophisticated inferences concerning pupils' and teachers' behaviour. The sample in that study was drawn from inner London and included lower working class pupils, those for whom English was a second language, and pupils who had been at school for only a short period of time. Teachers tended to explain their pupils' apparently uncompliant behaviour on the grounds that they did not really understand the rules, or they were unable to control themselves, however these explanations did not find support in the constructs supplied by pupils themselves. In accordance with Harré (1986), there is little support here for the Cartesian dualism which separates knowledge from action.

The validity of the supposed dichotomy between middle class and working class environments has been investigated by MacLure and French (1981) and Steinberg (1985). MacLure and French found there is less discrepancy than claimed between language used at home and school. Young children were familiar with strategies such as the use of pseudo-questions, and similarities were found in the asymmetrical rights to initiate talk. Coming to similar conclusions, Steinberg (1985) found that children begin school with a wide range of skills and knowledge concerning communication.

The importance of context is emphasised in Muller's (1989) study, where support is given for sociolinguistic

notions that some aspects of classroom discourse preexist individuals, together with the view that discourse accomplishes structure so that "considering discourse as a social practice means seeing it as a way in which people enact social relations" (p.314).

The notion has been raised that social knowledge is not universal and possible differences in the conventionalisation of a teacher talk register has been mentioned. The discussion continues with examination of the possible links between these notions and the variations in frequency and management of talking out of turn.

#### CLASSROOM PRACTICE AND KNOWLEDGE

Previous work by Corrie (1989) found that the frequency of talking out of turn varied from school to school, and it is suggested that these variations may be associated with knowledge that is socially defined and constructed around central issues of teaching and learning. Exploration must focus on how such knowledge is constructed, and the possible links between this knowledge and the way a teacher perceives and manages talking out of turn.

Support for this interest is found in Mishler's (1972) microanalysis of the talk of two American primary

teachers, which claims that "specific cognitive strategies and social values are manifest in how a teacher talks to and responds to pupils" (p.269). This researcher conceptualised the classroom as a socializing context where children learn academic content and rules of proper behaviour. Between-teacher differences were identified in the way that these functions related to each other, and which function was considered to be most important by the teachers involved in the study. It was inferred that one teacher thought the rules of "how" to behave were less important than the exploration of academic content, whereas the second teacher placed greater emphasis on the control of behaviour and showed only peripheral interest in the content of the academic material. Mishler found that when two pupils talked at once these two teachers responded differently. The first teacher evoked a general and abstract rule, and the second focussed on idiosyncratic behavioural expectations. Analysis of language led to the conclusion that the first teacher took up a position within the group, whereas the second teacher treated the class as a separate entity maintaining the role and status of "teacher-authority". It was judged that each teacher was behaving "appropriately" yet very differently, and the differences were most apparent in their style of speech, which in Cazden's (1988) terms would be called the teacher talk register.

The results of Mishler's research are interesting, however Stubbs' (1981) critique of this study must be noted. Stubbs claims that Mischler's study must be viewed with caution because there was "unprincipled selection of data" (1981, p.50) to support the findings. A similar study by McHoul (1978), found that degrees of formality and informality of classroom talk can be assessed through the examination of the spatial arrangement of the participants to that talk.

Bearing in mind Stubbs' (1981) warning about the dangers of relating features of language to various social-psychological concepts, it is suggested that explanations of the differences between teachers in both Mishler's and McHoul's study could relate to the type of pedagogical knowledge each teacher holds. Investigations might identify how such knowledge is constructed, reconstructed, and reformulated between members of staff. Cook-Gumperz and Gumperz (1982) note there is a need to chart the process of models of educability in daily practice, and to reveal the implicit theory of learning that informs teachers' notions of educability which often underlie apparently simple communicative choices. This view clearly indicates the endeavour of the present study.

Research has pointed increasingly to the notion that the function of language is important in the

exploration of systems. It is claimed that a more complete understanding will be achieved by approaching analysis of the interactive system in a nondiscrete and nonspecific way, which enables attention to be focused on the system as a whole (Wallat & Piazza, 1988). Support for the current study is found in the conclusions of DeStefano, Pepinsky and Sanders' (1982) analysis of discourse in American classrooms, when these researchers emphasise that in order to be of benefit to education, research must be addressed to the larger organisational context of the school rather than the behaviour of a single teacher.

Au (1990) reports the result of a study of a novice teacher, noting that the teacher's development appeared to be facilitated by being able to discuss management practices and associated problems with the researcher. This conclusion accords with Vygotsky's theory that speech is crucial in development, and Au concludes that more research is needed to identify the discourse processes that facilitate teachers' development. It was noted that the process of change was dynamic, complex and intellectually demanding, and called on the reciprocal relationship between the teacher's knowledge and behaviour.

The current study is concerned also with the relationship between teachers' knowledge and behaviour. Teachers' management strategies concerning talking out of

turn will be investigated, however the analysis will not reduce the systematic complexity of the linguistic data to a string of isolated features (Stubbs, 1981). Furthermore there is no desire to identify certain features as indicators of effective teaching skills, because the focus would be back again on certain norms of performance. In Hammersley's (1986) view this is a danger of studies conducted in the discourse analysis or conversational analysis approach, and there is strong criticism of this approach used to explain classroom interaction. However Hammersley does not define what he means by discourse analysis and restricts his critique to Sinclair and Coulthard's (1975) work by equating it with the normative functionalists.

This study seeks a better understanding of the issue, and endeavours to define the links between the knowledge that is socially constructed and management of the interaction cycles. These aims echo Hammersley's (1986) call to investigate not only the communication rules, but "why these rules seem appropriate" (p.97), in other words studies must attend to teachers' motivation. The view taken here is that it is the teacher's pedagogic knowledge that is related to motivation. Hammersley asserts that the separation of discourse rules and strategies is not viable, and there are no real grounds for "accepting a distinction between discourse and

pedagogy" (1986, p.98), and this assertion is supported here. However there are questions regarding Hammersley's view that discourse or conversational analysts are not concerned with these matters. Indeed Stubbs (1981), calls for researchers to explore the abstract, underlying, sequential and hierarchical organisation of the discourse in order that the system of communication might be explored. In Stubbs' terms discourse analysis must be concerned with more than the surface structure, and must treat "teacher-pupil talk as a discourse system" (1981, p.68).

It is proposed that a systems approach will best inform this study, and that analysis of language is indicated. How can this be achieved? When considering the methodological approach there are several factors that must be taken into account, and central to the debate is the dichotomy between qualitative and quantitative data collection. In addition it is clear that the teacher's role is unique and central to the system, and this applies particularly to the management of talking out of turn.

The central influence of teachers has been shown in research studies which have identified that turn-taking in the classroom is a heavily pre-allocated system which is managed by the teacher, with pupils' rights being

widely limited to responding to the teacher's question. Furthermore it is indicated that teachers use widely divergent management strategies, and on this basis it is argued that they should be the focus of attention.

There is a considerable body of research concerning classroom interaction undertaken in the positivist and empiricist tradition, and one approach for this study would be further collection and refinement of analysis of observable data, enabling a larger range of facts to be compared. One example of this type of research is the model developed by Flanders (1970) which utilises a systematic classroom observation system (Flanders' Interaction Analysis Categories - FIAC). A great deal of criticism has been levelled at this approach, including the lack of attention paid to the temporal and spatial context of the data collection, a concern only with overt, observable behaviour, and a distortion or obscuring of qualitative features (Delamont and Hamilton, 1984).

This type of criticism has served to call into question the assumption that positivist-empiricist conceptions of knowledge simply reflect reality in a direct or decontextualised manner (Gergen, 1985). The observable data-gathering approach leaves untouched the necessity to clarify the conceptual schemes driving the

observable behaviour. In agreement with Sharp and Green (1975), it is more appropriate to look at the conceptual framework within which the facts are generated, rather than simply accumulating a body of facts.

The following chapter continues the development of theoretical framework, and addresses the issues surrounding the exploration of teachers' pedagogical knowledge.

## CHAPTER THREE

### A CONCEPTUAL MODEL

It is argued that the notion of individual deficit should not be adopted to explain the prevalence of talking out of turn, and that there are limitations to the explanatory powers of the psychological construction of the individual. Central to this thesis is the suggestion that the social construction of the individual offers a more appropriate exegesis (Semin, 1986). Specifically questions are asked concerning the construction of teachers' pedagogical knowledge, and the appropriation of the official discourse in the discursive practices of the staff.

The important implications of this study are captured by Greeno (1989), who claims that

"if knowledge is understood to be a product of social as well as individual construction, then it would be natural for groups of individuals to engage in collaborative critical thinking, based on the understanding that the result will be to increase their shared knowledge and understanding (p.139)

Collaborative critical thinking concerning the pedagogy can only take place when knowledge is articulated. It is suggested that delineation and articulation of knowledge

does not take place when it is held in the tacit store of knowledge, and this will be explicated in the following discussion.

This study seeks to avoid the unprincipled use of data that occurs in Stubbs' (1981) view when researchers take surface features of language to indicate deep level socio-psychological categories. For this reason assumptions concerning pedagogical knowledge will not be made from the communication routines evidenced in classrooms, and other ways will be found to access knowledge structures of staff. Theory development is informed by Labov's three levels of analysis, being described by Barnes & Todd (1981) as Form (what is said), Discourse (what is done) and Communication (what is meant). It is suggested that these three levels are important to the investigation of talking out of turn, however that the three levels will not be consciously known to the teacher. Ways must be found to relate the teachers' management of classroom talk to their pedagogical knowledge, which may be held as tacit knowledge. It is suggested here that the three levels may be described as the surface level of the teacher talk register, an underlying level which relates to the overt aims of the teacher concerning curriculum and pedagogic decisions, and a deep level which relates to the knowledge of the teaching/learning process. These three levels are summarised in figure 4.

Figure 4 Three levels and the management of Talking out of Turn.

Level	Shown by
Surface	Features of teacher talk register
Underlying	Teacher's expressed aims
Deep	Knowledge of the teaching/learning process

It is likely that the surface level, (teacher talk register), will be shaped by the pedagogical knowledge held at the underlying and deep levels. The type of knowledge stored at each level is different and is summarised in figure 5.

Figure 5 Three Levels and Types of Knowledge

LEVEL	TYPE OF KNOWLEDGE
Surface	UNCONSCIOUS Individual's knowledge of own Teacher Talk Register largely unconscious; teachers unaware of exactly what they say;
Underlying	CONSCIOUS Teaching aims held in conscious store of knowledge and articulated easily.
Deep	TACIT Pedagogic knowledge which includes "common sense" and intuitive knowledge; Can be accessed through micro-analysis of discourse.

Referring to Figure 5, previous studies have shown that it is unlikely teachers would be aware of the specific language they use or be able to give reasons for such usage (Gumperz, 1982; Dorr-Bremme, 1990). When a teacher

says "put your hand up to answer this question.." they are unlikely to be able to explain that this directive acts to coach pupils in correct communicative behaviour, and also acts as a question flag giving the pupil cognitive processing time to respond correctly. However some teachers do use phrases such as this, and it is suggested that the reasons for their use are held in the store of unconscious knowledge, and therefore will not be articulated.

The underlying level concerns knowledge that will be held in the conscious store of knowledge, most probably gained from a variety of sources such as initial training, curriculum materials, staff in-services. It concerns the formally articulated aims of teaching, and objectives for pupils' learning. As this knowledge is held in the conscious store and concerns the rationale of teachers' planning of learning activities, it should be relatively easy for the teacher to articulate.

Certain knowledge is held at the deep level, and Fairclough (1989) claims that people interact according to commonsense assumptions, however often consciously they are not aware of these assumptions which are rooted in knowledge and expressed through discourse. It must be stressed that expression is not to be taken as evidence that meanings have become apparent, and here there are links to the previously discussed distinction between performance and competence. Larrain (1986) upholds the

view that rhetorical meaning is characterised by imprecision and nebulosity, and may be "received but not read" (p.134). Thus some knowledge is received into the tacit sphere which holds the clue for explanations of human behaviour and activity. Such knowledge is stored as discrete information, which lacks a cohesive theoretical framework so that inconsistencies are not revealed, and not debated or reformulated (Prawat, 1992). It is claimed that the individual has reduced intellectual power to engage in critical thinking when knowledge is held in the tacit store (Smyth, 1987).

Deep level knowledge includes tacit knowledge, commonsense knowledge and intuitive knowledge, and encompasses an "amalgam of unexamined assumptions, internalized rules, moral codes, and partial insights" (Weiler, 1988, p.23). Greeno (1989) asserts that these types of knowledge include conceptual understanding and beliefs about knowledge, and learning, which are important background factors for thinking activity.

The theory being developed will give support for the conceptualisation of the three levels and their relative significance. Such a theory will inform an investigation, so valid and reliable data can be collected and used to illuminate this complex issue. Attention is directed to the store of knowledge at the deep level.

#### DEEP LEVEL OF KNOWLEDGE

Knowledge held at the deep level has been described and it must be noted that there are considerable difficulties in accessing this knowledge. However the alternative is to remain at the surface level, and to correlate teacher's actions with children's behaviour which would reinforce static empiricist social psychology. The difficulties involved in explicating the deep level of knowledge are acknowledged by Van Dijk (1990), who notes that in classical sociology the difficulties of going beyond the surface level could result in researchers not attempting the endeavour. Therefore although the present study could have proceeded in that direction, it is considered to be insufficient and indeed in Sharp and Green's (1975) terms, would merely masquerade as a theoretical advance. Rather than adopting the somewhat easier option, the more theoretically challenging notion of deep levels of knowledge is taken up.

The theoretical framework must support the claim that individuals hold knowledge at the deep level, and that it may be appropriated in discursive practice. It is accepted by many that individuals can be understood only in terms of their embeddedness in a societal context. Hermeneutic understanding of individuals is not enough, and what is required is an exploration of the deep levels, interconnections, constraints and contingencies of the sociological situation (Sharp & Green, 1975). At this

point attention turns to the approach of Structuralism.

## STRUCTURALISM

Structuralism is important to theory development because the notion of deep levels of knowledge is central to the approach, and furthermore it is directly concerned with identifying the reproduction and construction of societal knowledge. Difficulties in defining structuralism occur because the term is used in different ways by theorists who have contributed to the field, and these include Barthes, Foucault, Althusser, Lacan, Piaget, Levi-Strauss, Saussure, and Kristeva (Giddens, 1979).

Sturrock (1979) differentiates "Structuralism" as a philosophy, from structuralism which is the sociological phenomenon or movement in France. However Sturrock maintains that structuralism is a method, rather than a philosophical creed, or approach to understanding, and this view finds agreement with Piaget, (1968), and Giddens, (1979). It is defined as a method of investigation, "a particular way of approaching and, so structuralists maintain, of rationalizing the data belonging to a particular field of enquiry" (Sturrock, 1979, p.2). Structuralism began as an approach to linguistics, and the method applies "linguistic models influenced by structural linguistics to the explication of social and cultural phenomena" (Giddens, 1979, p.9). Reflection on the way the theory has influenced research

design shows a fundamental difference in emphasis. It is claimed that conventional sociolinguistic accounts tend to view discourse as pre-structured, whilst ethnomethodologically based researchers place central importance on the notion that discourse accomplishes structure (Muller, 1989).

Giddens (1979) comments on this issue, and points to the "essential recursiveness of social life" noting that structure is "both medium and outcome of the reproduction of practices" (p.5). It is asserted that structure is present in the constitution of the individual and the society, and structure is generated in this constitutive process. Giroux (1983) supports this view, and emphasises the agency of individuals to act upon their social world, whilst acknowledging the structural determinants which make such agency problematic.

Piaget (1968) has been particularly active in this field emphasising structuralism as the concern with the genesis from one structure to another. In order to understand the structure it is necessary to understand the genesis of the structure, which Piaget maintains occurs through a formative transition from weaker to stronger structures. Both the context and schemata makes available particular epistemological alternatives and choices of knowledge.

As previously stated, difficulties occur because the

term structuralism is used in many ways. Piaget (1968), criticising Foucault's creative contribution to the field, labelled it "structuralism without structures" (p.134) however it seems that Piaget is criticising Foucault for something that he has not owned. Foucault has denied consistently that his approach is "structuralist" (White, 1979). Piaget (1968) maintains that Foucault pays a high price for incomprehensibility, by insisting that reason self-transforms by "fortuitous mutations" (p.134). However Ball (1990) describes Foucault's work as attempting to analyse ideas or models of humanity "which have developed as the result of very precise historical changes, and the ways in which these ideas have become normative or universal" (p.1).

Foucault's work is mentioned here because it addresses knowledge considered to be central to the normalization of principles and institutions of society, including education. Normalization is said to be the ideas of judgment based on what is normal and abnormal in a given population. In addition discourse is central to the analytic approach of Foucault's work (Ball, 1990). These strands, normalization of principles and discourse analysis, are central to this study.

#### A STRUCTURALIST APPROACH

The construct of structuralism informs the current study in several ways. Firstly, the notion that some

forms of classroom discourse have structures that preexist the actual interaction; secondly, that structures are constituted in the process of discourse; thirdly that an understanding of the genesis of structures facilitates an understanding of the structure. The last and most important implication lies in the fact that the theory of structuralism gives validity to the exploration of deep levels of knowledge. This acts to reinforce the view that here it will not be adequate to seek to understand behaviour by simply measuring the teacher's or pupils' behaviour against some normative empirically derived categories of "effective teaching". Such an approach would be based on the positivist-empiricist tradition, and this approach has been subject to criticism in recent times. Criticism includes questions concerning issues such as the origins of the normative categories. Gergen (1985) asks how theoretical categories can be induced or derived from observation, if the process of identifying observational attributes itself relies on one's possession of certain categories?

There is a call for a reformulation of Descartes and Kant's tenet "I think" to "We think", which ascribes value to the precept that social practices and social relations constitutes the form and content of thought (Sampson, 1981). This finds support in the theories of both Piaget and Vygotsky, as Bidell (1988) notes they conceptualise a human mind that is inseparable from the social and physical world that it acts upon and transforms. In fact

Hood Holzman (1985) draws attention to the fact that in Vygotsky's view the social/cognitive split represents a fundamental defect in psychological thinking.

#### THE SOCIAL CONSTRUCTION OF KNOWLEDGE

In order to proceed with this discussion it is important to clarify what is meant by "knowledge", as this has been the topic of philosophical debate throughout the ages. Here there is no attempt to take on the mantle of philosophy, however social psychological concerns means that it is necessary not only to investigate the variety of knowledge operating in our society, but also how this knowledge becomes established as social reality (Berger & Luckmann, 1984).

Exploration of "common sense" knowledge is necessary, and this must include how it is established in schools. It is agreed commonly that such knowledge constitutes shared but vague meanings that are articulated rarely, being held in the deep store of knowledge. However it is difficult to describe common sense knowledge in other than cognitive terms, and it is most usual for the products of mental processes to be ascribed to an individual, as belonging to the individual, and thus cognitivism "leads us back inescapably to the individualism of the day" (Shotter, 1986).

Other attempts have been made to understand the

function of such knowledge. Weiler (1988) traces Gramsci's notion of common sense knowledge, linking it to hegemony and domination. Researchers such as Merton, Sherif, and Shibutani have made links between reference group theory and psychology of cognition, but in Berger's (1987) view there has been little connection with the sociology of knowledge.

#### MODES OF KNOWLEDGE

Some researchers maintain that each individual knows a great deal about the "conditions of reproduction of the society of which he or she is a member" (Giddens, 1979, p.5). It is claimed that there are various modes through which knowledge may be evidenced in behaviour, and Giddens

(1979) notes that these modes include

1. Unconscious sources of cognition
2. Knowledge which is in the consciousness, and therefore can be expressed.
3. Tacit knowledge used in the constitution of social activity

It can be seen that there is concordance here between these modes, and the three stores of knowledge discussed earlier, which are the unconscious, conscious, and tacit stores. The term "knowledge" is applied rather than "belief" because it is the logical status of knowledge that is applied by people in the production and reproduction of social systems (Giddens, 1979). This knowledge is said to be mutual knowledge which cannot be checked or corrected, because the extent of the discursive

penetration will vary.

#### KNOWLEDGE AND POWER

People will have knowledge in their consciousness in varying degrees, and there will be variations in the extent to which the dominant group is able to make sectional interests appear to be universal. In this way Shibutani (1961) maintains that knowledge is a source of power which facilitates control, although theorists have debated the extent to which power in schools relates to hegemony. In discussing this issue, Weiler (1988) contrasts Gramsci's and Apple's views of hegemony. Apple is said to emphasise the reproduction of the hegemonic ideology in schools by a hegemony that is "overpowering and static" (p.17) whilst in Gramsci's terms hegemony is never complete, and is always "in the process of being reimposed and resisted by historical subjects" (p.17). Weiler (1988) asserts that the question concerns the extent to which individuals are "shaped by history and are the shapers of history" (p.17).

Bernstein's (1977) work addresses the ways in which the knowledge of some groups is legitimated in schools, and made known to others. However at the surface level neutrality is maintained under the guise of autonomy and independence. Bernstein's work directly concerns pupils, but it is suggested that the same principles may be applied to the school staff, and that it is likely that

those with authority in the power hierarchy will articulate knowledge as a source of power.

It seems that knowledge articulated by those with authority in the power hierarchy becomes "expert knowledge", and this serves to maintain the power base. Knowledge can be used to implement societal values, but in itself it is neither good nor bad, rather it is neutral. Relating this to the concerns of the study, it means that knowledge concerning pedagogy may be neither good nor bad in itself, however when taken up by those in power it can be used to control others, and to reify certain values.

Knowledge is constructed by the formation of certain representations of the world and these link people with similar conditions of existence. School staff share a particular "existence", as they work in the same environment with the same structures and power hierarchy, although their positions within the hierarchy may well be different. However knowledge is not a static entity, but is a dynamic and variable product which helps people represent and understand their world and their relationship to it. The appropriation of "expert" knowledge allows adjustment and cohesion of people within the structure of the school staff.

It is suggested that the social construction of knowledge occurs in the discursive practice, and this serves to link staff at a particular school. It is

suggested that the strength of the links will vary within and between schools, and this can be related to the notion of the degree of mechanical and organic solidarity that is evident (Atkinson, 1985). Mechanical solidarity is likely to be evidenced in the official discourse which stresses unity, and conversely organic solidarity evidenced in an official discourse that values diversity. Therefore the staff of a school may be linked to varying degrees. At the surface level they are people with similar conditions of existence, but the official discourse and the individual knowledge is historically embedded. This indicates that this study must incorporate two types of data: data that focus on individuals, and those that focus on the structure of the context (Jahoda, 1989), and here this refers to the official discourse.

Questions need to be asked concerning the construction of pedagogic knowledge, and the discursive practices by which the official discourse shapes representations and appropriation of knowledge. It is likely that the selection, classification, transmission and evaluation of knowledge of teaching and learning is dynamically influenced by the complex patterns of structures and distribution of power. There is a need to examine how knowledge is legitimized and sanctioned within the school structure and how the approved structure of knowledge legitimizes the power relationship in the school (Goodson and Dowbiggin, 1990). It is important to explore how pedagogical knowledge is brought to bear on the

management of talking out of turn in the classroom.

Every society creates discourse which objectivates knowledge that has been constructed, and in this way knowledge becomes available to everyone in that society. Berger notes that "language is both the foundation and instrumentality of the social construction of reality" (1987 p.2). Fairclough (1989) builds a strong case for the importance of language in the knowledge/power construction, asserting that nobody who "has an interest in relationships of power in modern society, can afford to ignore language" (p.3) Clearly in order to explore these notions in primary schools the question of knowledge and language must be examined in some detail, and the following chapter deals with this concern.

## CHAPTER FOUR

### KNOWLEDGE AND DISCOURSE

It is claimed that the teachers' pedagogic knowledge can be identified by the analysis of their discourse, and that appropriation of the official discourse takes place through discursive practice. Shotter (1986) maintains that the vague nature of the social construction of knowledge rests in the belief that ways of talking simply reflect or depict knowledge structures, whereas knowledge evolves in the act of using language. Structures of knowledge can be identified through discourse, however the phenomenon concerns a dynamic process, which occurs in an historical context (Larrain 1986; Berger & Luckmann, 1966).

In order to understand institutional knowledge there must be explorations of power and dominance, group relations, ideologies, cultural reproduction and institutional decision making (Van Dijk, 1990). However there are difficulties in this endeavour, which have been ascribed to problems of theory formation. There is a call for energies to be expended in order to bridge the gap between micro- and macroanalyses of social phenomena (Van Dijk, 1990), where micro-analysis refers to the interactional level, and macro-analysis refers to the structural level.

Van Dijk is not alone in the call for development of a bridge between micro- and macroanalyses of social phenomena. Daniels (1986) notes some studies of classrooms are limited in their understanding of principles of regulation, tending to stay at the interactional level by focussing on the individual-interaction link. Similarly, Fairclough (1989) notes that sociolinguistic studies have endeavoured to describe but not explain conventions as a product of social relations, however recent work by Bernstein (1990) concerns how social relations act on principles of communication, and "create rules of interpretation, relation, and identity for their speakers" (p.135).

Ethnomethodologists have been criticized for focussing on the production of meaning rather than causality (Hustler & Payne, 1982). As expressed by Apple and Weis (1983) the problem is to integrate the micro and macro in a coherent way, and Wallat and Piazza (1988) maintain that such an approach can provide a full and rich understanding of the phenomenon under consideration.

The aim of this study is to investigate the discourse related to the management of talking out of turn. However Potter and Wetherell (1987) note that the major concern must not be with the discourse alone. Understanding the deep levels of knowledge through discourse involves more than simply attaching an

understanding of pragmatics to the linguistic analysis. Discourse is always embedded in a larger context, and different sources of information are always available and must be utilised by the researcher (Cicourel, 1980).

Potter and Wetherell (1987) claim that a new style of socio-psychological research can be erected on the foundations of speech act theory, ethnomethodology, and semiotics, and it is this approach that informs the current study. Discourse is "treated as a potent, action-orientated medium", which is analysed to identify its construction and function, rather than "descriptive acuity" (p.160). The aim of this analysis is to identify what is contained within the discourse, and not to discover facts that the analyst infers lies beyond the discourse. It has been asserted that the discourse will embody knowledge structures which are appropriated through the discursive practice of the staff, and this is addressed in the following discussion.

#### DISCURSIVE PRACTICE

The task is to identify how meanings are "dissimulated, contested, reconstructed, co-opted, incorporated, in short, how they are actively created through collective human effort" (Lubeck & Garrett, 1990, p.339). It is asserted that systems of language operate at global, societal and cultural levels, and that these "systems of discourse are closely associated with

ideology, with forms of societal and cultural stratification and reproduction and with the enactment and legitimation of power" (Van Dijk, 1990). The school staff has a hierarchy that reflects stratification, as there are major differences in status, power, responsibility and reward (Gibson 1980).

The application of the industrial metaphor to education has emphasised the stratification of staff, as principles of effective management have been promulgated (Ball, 1987). Stratification demonstrates that knowledge and power are conceptualised as being two parts of a whole, as those with "expert knowledge" are those high in the power hierarchy. In schools pedagogical knowledge is legitimated and enacted in the official discourse. As mentioned previously, discursive practice is central to the mobilisation of meaning and this constitutes the genesis of knowledge structures. Discursive practice may be particularly important during times of change, such as when new staff appropriate the official discourse.

There is a need to demonstrate that contextualised discourse can express, describe, enact, legitimate and reproduce societal structures (Van Dijk, 1990). This is a difficult task, as people "do not typically possess the sort of internally consistent 'belief-system' which is assumed in many conventional social psychological

theories" (Billig, 1990 p.18). Beliefs vary as a function of the discourse, and the context in which it occurs (Billig, 1990, cites Gilbert and Mulkey, 1984; McKinlay et al., in press; Potter and Reicher, 1987; Potter and Wetherall, 1987; Wetherall and Potter, 1988). Staff are likely to show variations in their pedagogical knowledge, however the genesis of structures will occur if there is appropriation of the official discourse of the school.

#### THE OFFICIAL DISCOURSE

Variability of knowledge between members of the same school staff occurs because the official discourse is not a static body of knowledge. The discursive practice of the staff is a process that reflects changing knowledge initiated from many sources.

The school is situated in an education system that responds to directives at Government level, and this has been experienced in 1989 with the introduction of the National Curriculum. This event involves a large body of information and directives being imposed on school staff at comparatively short notice and this has proved to be a difficult time for many schools. The difficulties arise because the speed of implementation means the appropriation of knowledge by discursive practice has been curtailed, and some of the incoming directives

have been to teaching staff. The discrepancy lies between the "taken for granted" or assumed knowledge and the existing knowledge in the school, for example the official discourse concerning the acceptability of standardised testing for seven year olds. In this case, it appears that planners assumed that no debate would be required concerning the wisdom of testing seven year olds whereas many teachers hold opposing views, and it is the latter who have to implement the testing procedures.

The implementation of the National Curriculum provides a vivid but not typical example of changes in official knowledge structures. More commonly the discursive process involves a gradual process of change which enables the appropriation of knowledge and genesis of structures to occur. It is the teachers' discourse evidenced in a school that will reflect the transformation of structures, and fine grained analysis of the discursive processes will reveal certain subtle shifts in structures that support the system. Whilst some schools may appear to be polar opposites in the type of pedagogical knowledge that is constructed, others will represent points of change on a continuum of transforming structures.

In the same way that a classroom is part of the school, the school itself is part of an educational system. In turn, this is part of the structure of the

society in which it is located. This study does not propose to explore the entire system, but it is important to note that the school is located within the overall education system because knowledge that is constructed will reflect the overall system to a certain extent, and this has been illustrated in the previous discussion concerning the National Curriculum. The purpose of the larger system is discussed by Ball (1990), who notes that "every educational system is a political means of maintaining or modifying the appropriateness of discourses with the knowledge and power they bring with them" (p.3). As previously stated, in this view power and knowledge are seen as two sides of a single process. Research must attend to the issue of power and knowledge if the structural determinants of dominant institutional arrangements of education are to be investigated, and if research is to go beyond the confines of the structural functional model (Ball, 1990).

#### SUMMARY

It is argued that microanalysis of the teacher's discourse may be the only way to access deep levels of knowledge, and thus the concept of discourse is central to an investigative and analytic exploration of knowledge structures. The deep levels in the discourse concern the articulation of less accessible knowledge and this may be revealed through analysis of the discursive practice of school staff. It could be assumed that teachers would be

able to discuss who can speak, when and with what authority in the classroom, at least in the surface sense, whilst the deeper levels of reasoning behind this knowledge may not be clear. In the same way the teacher may find it difficult to articulate knowledge concerning how pedagogical knowledge is established and maintained in the school. This does not mean that such knowledge is not held, rather that it is held in the tacit store of knowledge (Giddens, 1979). Microanalysis of the discourse can reveal the embodied meaning and social relationships, and the constitution of the object about which it speaks (Ball, 1990). Thus if the object is pedagogical knowledge, with particular reference to the management of talking out of turn, then microanalysis of discourse would clarify tacit knowledge and links to the official discourse.

How can discourse reveal knowledge that is not necessarily in the consciousness of teachers? Discourse is structured by assumptions and to have meaning the speaker must operate upon these assumptions. Analysis of the discourse will clarify the assumptions, and the speaker's relation to them. In addition, the official discourse makes certain knowledge available for appropriation by the individual teacher, and in this process individuals are placed in relation to each other (Ball, 1990). Members of staff construct knowledge that becomes the collective reality, which is the preferred reading achieved by different discursive practices to a

shared frame of reference (Knight, Smith and Sachs, 1990). Individuals make a particular sense of the discourse that is made available collectively, and they act into the discourse through discursive practices.

A key point is the notion that teachers do not "accept" knowledge as given, as Wertsch (1985) notes that an essential aspect of Vygotsky's theory is that internalization is not a process of "copying" external reality, but a process wherein the internal plane of consciousness is formed. For these reasons it is said that "embedded within those discursive practices is an understanding that each person is one who has an obligation to speak for themselves, to accept responsibility for their actions and who can be said to have agency" (Davies, 1990). This is a central precept for the current study because it embodies the reflexivity of social and psychological processes.

It is through the reflexive process that members of staff will construct knowledge that becomes the reality, and this will act to support the construction of knowledge of other staff. Ball (1990) calls for researchers to investigate the historical practices and meanings of the discourse, and ask why knowledge is held in those particular ways. In particular, the question that must be asked of the official discourse is: to what problem does this knowledge provide a solution?

When this type of research task is approached, it is important that the discursive practices of the researcher are to be taken into account. As Cicourel (1980) notes, researchers can specify aspects of discourse, produce systematic descriptions, and note patterns and properties, however such properties should not be attributed unequivocally to the knowledge base of the participants. Discourse is a complex multilevel setting, and information must often be simplified in order to analyse the discourse. The call is for researchers studying discourse to include the broader organizational setting and cultural beliefs, however the work will be limited by the model of knowledge modules used to characterise the participants' knowledge, and the things assumed to be in their mind (Cicourel, 1980).

The objective of the current study is to go beyond the structural functional model, and Cartesian reductionism that separates processes into elements for study out of context (Bidell, 1988). There will be exploration of the notion that the appropriation of pedagogical knowledge occurs in the process of discursive practice. Therefore the primary function of discourse is "formative or rhetorical, and only secondarily and in a derived way, referential and representational" (Shotter, 1990 p. 148). The individual teacher's commitment to particular knowledge may be in accordance with the official discourse, or it may be at variance because aspects of the discursive practice feels alien (Davies,

1990 follows Bakhtin). This point can be clarified with reference again to both Piaget's (1968) notion of genesis of structures, and Vygotsky's notion that "behaviour is imposed on humans through participation in socio-cultural practices" (Wertsch, 1981, p.201). Both the context and the individual teacher's schemata are influential in the genesis of structures because they make available particular epistemological alternatives and choices of knowledge. The collective discourse is constructed in the joint reflexive process, however each teacher chooses to take up a position in the discourse.

These abstract notions can be investigated by analysis of the official discourse and the discursive practices of the collective and the individual. The individual teacher is seen as being actively engaged in making a sense of the official discourse and taking up a position within it. This notion is expressed by Shotter (1989) thus

I act not simply "out of" my own plans and desires, unrestricted by the social circumstances of my performances, but in some sense also "into" the opportunities offered me to act, or else my attempts to communicate will fail, or be sanctioned in some way. (p.144)

Discourse analysis is the method chosen to explore the official discourse, and the pedagogical knowledge and

the discursive practices of the staff. It is asserted that an investigation can be conducted with validity and reliability using discourse analysis and attention is directed to this concern.

#### ANALYSIS OF DISCOURSE

The current study is concerned with developing an understanding of deep levels of knowledge that inform teachers' behaviour, specifically with regard to the management of talking out of turn. It is proposed that the most suitable methodology is analysis of discourse. A principle tenet of this approach is that language is both constructed and constructive, being used to construct versions of the social world (Potter and Wetherell, 1987).

Analysis of discourse will be required to explore how discursive processes mobilise the meaning of knowledge structures that construct, and are constituted, in the official discourse (after Knight, Smith, & Sachs, 1990). It is claimed that these meanings are active rather than static, and the knowledge structures are constantly in a state of change that require confirmation and clarification, however the changes in the structures can enable identification of the structures. In view of the foregoing, the requirement is to use a valid and reliable methodology which will permit exploration of knowledge, including that held in the tacit store.

The growth of the new cross-discipline of "discourse analysis" has developed since the early seventies because of the failure of sociolinguistic analysis to overcome the theoretical difficulties involved in exploration of deep levels of knowledge. Dittmar (1983) is unequivocal in his view that sociolinguistic descriptions of communicative behaviour will fail unless they attend to the deeper interpretive and hermeneutic frameworks of descriptive procedures, and this is the task that has been accepted by those involved in developing the discourse analysis approach. During the last twenty years many studies have shown that linguistic microanalysis can be used to propose explanations of macrostructures with validity and reliability (Wallat & Piazza, 1988). More specifically interactional and social dimensions have been analysed in the study of beliefs and knowledge (Van Dijk, 1990). Of course this is of particular relevance to this study, as a central concern is the investigation of knowledge structures.

It has been stated that people use language to construct versions of the social world. The term "construction" means accounts of events are built out of a variety of preexisting linguistic resources. It implies an active selection process which results in the inclusion and omission of particular resources. It is in the notion of active selection that the integration of social and psychological is highlighted. The psychological, that which is personal to the individual,

engages with the social in a reflexive process which results in the selection. In Potter & Wetherell's (1987) view, the rules that are called into play are personal; they are ambiguous in essence, and in a constant state of change which is determined by the context. However neither the individual nor the rules are apart from the context. It is more accurate to say that they are the context, together with other elements. The potent consequential nature of construction is emphasised when it is realised that, in fact, accounts construct reality (Potter & Wetherell, 1987).

It is proposed that different types of discourse will be identified in different types of schools, and that these different discourses reflect knowledge which is constructed by those holding power in the institutional hierarchy. This knowledge becomes embedded in the context and is reified to become "common sense" knowledge. For these reasons it is argued here that it may be inadequate to assume talking out of turn necessarily results from low teacher competence which can be ameliorated by pre-service and inservice training. On the contrary, attention should be directed to knowledge of teaching and learning constructed by those in power in schools.

The work here is similar to the central concerns of Knight, Smith, and Sach's (1990) study, which sought to analyse the production, reproduction and contestation of

the relations constructed in the formation of an ideology, and the unseen controls on discourse. In addition, it is the intention to identify the participants' position in the social structure by their discursive or decoding strategies. It is expected that the discursive practices of teachers will be related to the position taken up in the discourse.

According to Van Dijk (1990) there has been a tendency for some branches of discourse analysis to pay more attention to the structure of talk rather than the conditioned structures and processes of the social contexts of their use. Furthermore there has been reluctance to take on this complex research and Van Dijk (1990) notes that societal, political and cultural dimensions have been avoided in studies of language use and discourse, with the emphasis being placed on the micro-level studies of culture or society. Here a balance is sought between micro and macro analysis, with the emphasis placed on how meanings are mobilised through discursive practice which gives rise to the teachers' classroom behaviour concerning talking out of turn.

#### SUMMARY

The conclusion of the Elton (1989) report has provided a starting place for theory building. The report suggested that teachers lack the necessary management skills to deal adequately with talking out of

turn, and required pre-service and inservice training. These conclusions appear to be based on the psychological construction of the individual, and it is suggested here further investigation is required before such conclusions can be generalised. An alternative view has been delineated: the social construction of teachers' knowledge, which focusses on reflexive and reciprocal interaction between social and psychological, and this knowledge being linked by the teacher talk register to the management of talking out of turn.

The adoption of a non-reductionist social psychological framework for this study is significant. It means that support cannot be given for either the notion of deficit of pupil or teacher competence, or the notion that the individual teacher acts in an individual context of the classroom. As an alternative, it is suggested that the teacher talk register embodies aims of management, control and pedagogy, and these are informed by structures of pedagogical knowledge.

Furthermore, it is suggested that the individual teacher's knowledge structures are not static or formed in isolation from the context. Through discursive practice the official discourse is articulated, enacted and maintained. The official discourse constitutes the knowledge structures about the teaching/learning process, and it is formed principally by those high in the power structure. The official discourse embodies knowledge

structures that have become normative and universal, and facilitates appropriation of knowledge by individuals, however that requires active selection on the individual's part. Thus it is said that the individual is neither omnipotent nor isolated. Individual teachers act to make a particular sense of the official discourse, and each teacher has responsibility for their own actions.

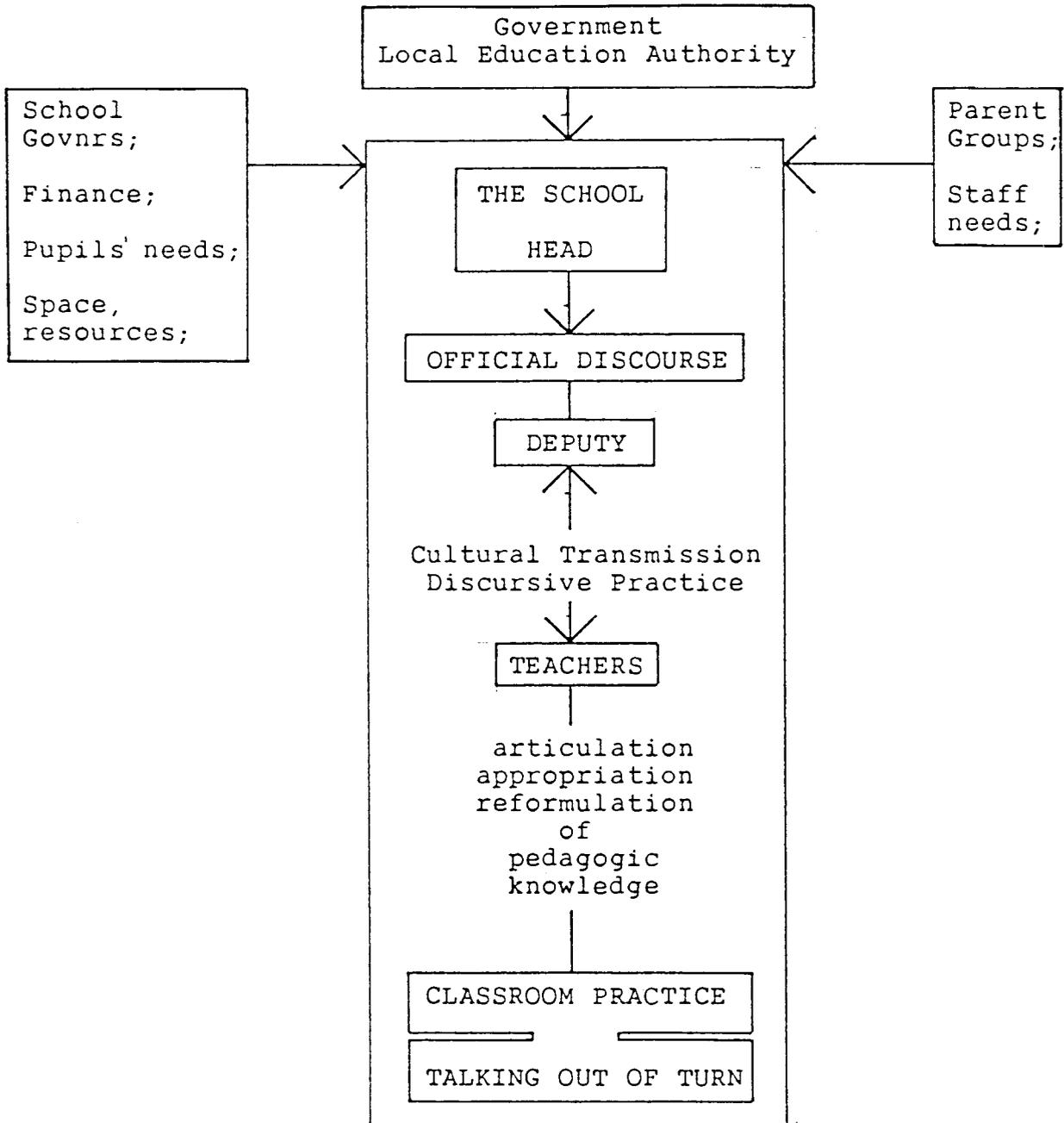
It is concluded that in order to explore these deep structures, the study must attend to two bodies of data. One corpus must focus on the individual's discourse, and the second on the official discourse. Exploration will be done by analysis of the discourse, as it has been shown that certain knowledge lies in unconscious sources of cognition. Other knowledge is said to be "common sense" which is often not articulated but taken as fact that "everyone knows". It has been claimed that analysis of discourse can be used in a valid and reliable way to explore the knowledge structures, and therefore this methodology has been adopted in the study.

It is argued that pedagogic knowledge is produced, reproduced and reformulated in a dynamic process of discursive practice between staff members. It is suggested that the school staff is a hierarchical and stratified group, and the positions of headteacher, then the Deputy, exert considerable influence on the construction and maintenance of the official discourse.

The process of discursive practice means that the official discourse is enacted and legitimised. Structures of knowledge can be identified through the analysis of the official discourse, and it suggested that differences in pedagogic knowledge can be linked to differences in teacher talk register and the management of talking out of turn. The conceptual model is represented in figure 6 and shows the influences on the construction of the official discourse at the macro level, and the links between the official discourse and management of talking out of turn.

Figure 6 marks the end of this chapter. In the following chapter attention is directed to the first phase of data collection which concerns the surface structure of the behaviour talking out of turn. The focus is on the teacher's management of the interaction cycle which occurs during story-time with the whole group.

Figure 6 The Conceptual Model - Official Discourse and Management of Talking out of Turn



CHAPTER FIVE

THE FIRST PHASE

INVESTIGATION OF TALKING OUT OF TURN

The first phase investigates the surface structure of talking out of turn, so that more can be known about this behaviour. Stubbs (1981) asserts that it is important to know where the event occurs in the structure of the talk "before we can know what kind of event it is" (p.56). Clearly the aim of the first phase is to explore the "event" of talking out of turn, and this entails a close analysis of the interaction cycles between teacher and pupils, particularly where talking out of turn results.

The structure of these interaction cycles may vary in different contexts that occur during the school day. It has been decided to explore the interaction cycles in one particular context, that is, when the teacher is interacting with the whole group at story time. This is a routine part of the school day, and as Cuff and Hustler (1981) note all parties know they are doing "story time", and this knowledge provides a resource for making sense of utterances and activities. In Cuff and Hustler's (1981) view proper consideration of the issues of talk production requires "consideration of the localised sequential organisation and structures of talk" (p.140), and this encapsulates the aim of the first phase. It is

important to note that the similar context of "story time" does not mean that a fixed frame of reference can be assumed. There is little control of variables apart from the broad parameters of the context because this is a controlled non experimental inquiry (Kerlinger, 1986).

As discussed previously, as far as can be ascertained, few studies have investigated talking out of turn in classrooms directly, or the teacher's management of the behaviour. However the current study has been informed by research investigating turn-taking in conversation (Sacks, Schegloff & Jefferson, 1974), turn taking in classroom talk (McHoul, 1978), speech act analysis in classrooms (Ramirez, 1988), question cycle sequence in classrooms (Tenenbergh, 1988) and implications for methodology (Marshall & Weinstein, 1988). The analysis of units of interaction is explored by Green, Weade and Graham (1988), and discussed by Cazden, (1988), who expands Mehan's (1979) notion of the Initiation-Response-Evaluation structure that marks teacher-child interaction during sharing time, to include the notion of Topically Related Sets. Shuy's (1988) description of the characteristics of classroom discourse was useful, particularly concerning analyses of types of questions. In addition this phase of the study has been informed and influenced widely by the work of Edwards & Westgate (1987), and Cazden (1988).

#### METHODOLOGY AND ANALYSIS

The aim of the first phase is to investigate

questions concerning talking out of turn at story-time in order to explore how often it occurs, where it occurs in the discourse, what form it takes and the teacher's response. Clearly the method adopted for any such study depends on the purpose (Hammersley, 1981), and the questions being asked (Edwards & Westgate, 1987). It seems reasonable to assume that many questions concerning the surface level of talking out of turn will be answered by collecting a corpus of naturally occurring interaction between teacher and pupils, and developing a descriptive apparatus from that corpus (Burton, 1981). This will involve data reduction which is viewed as part of the analysis that "sharpens, sorts, focusses, discards and organises data" (Miles & Huberman, 1984, p.21). Such data can be validly converted into numbers or ranks (Miles & Huberman, 1984), however Kerlinger (1986) cautions against the use of statistical analysis such as path analysis or multivariate analysis, as results are not easy to interpret because the complexity of the phenomena may be reduced to an unacceptable level.

Kerlinger criticizes Kounin's (1975) analysis of a nonexperimental study of teachers' management of classroom behaviour, which is similar to the current study in some ways. The type of statistical analysis used in Kounin's study is said to be inappropriate, and produces results that might lack validity. Kerlinger asserts that there are powerful analytic methods that can be used with nonexperimental data, but unequivocal answers to questions about determinants or causes of

complex behaviour are not possible. For these reasons statistical analysis will not be carried out in the current non-experimental exploratory study.

In this study, transcripts of classroom groups will be analysed and categories created to account for the data, and this distinguishes the study from those using systematic observation systems. Here the method will derive category systems from retrospective analysis of transcripts and audio-recordings of talk between teacher and pupils in five classrooms and will not apply predetermined category systems to talk as it occurs. Analysis will identify the frequency of talking out of turn, and types of teacher management strategies at key points in the interaction cycles.

Cazden's (1988) description of the teacher talk register is of particular interest. It is possible that elements of a teacher talk register can be identified from the strategies used by the teacher at story-time, and that the register may relate to frequency of talking out of turn. In agreement with Dittmar (1983), it is considered that any conclusions concerning cause and effect must be made with great care. Tentative explanations by means of practical premises may be more efficient in leading to greater insights. Here it is important to conceptualise the localised sequential organisation and structure of the talk where talking out of turn occurs, and this requires the development of a principled approach to data analysis.

OBJECTIVES OF THE FIRST PHASE:

The first phase will investigate

the frequency of talking out of turn at story-time in five different classrooms of six year olds;

the organisation and structure of talk between teacher and pupils, particularly where talking out of turn occurs;

descriptions of teachers' speech, such as the use of turn exit cues, and turn-allocation procedures;

and

will develop a reliable method of data analysis

THE SUBJECTS

After some initial observations it was decided to investigate the behaviour in classrooms of six year olds. These pupils have been at school for at least a year and are familiar with the routines and expectations of the classroom environment. Observations show that often five year olds are quiet in large groups, whereas teachers of six year olds comment that generally these pupils are extremely eager to participate. Informal discussion with teachers confirms that they find managing talk at group times difficult, particularly regarding turn-taking and talking out of turn.

Five schools were selected at random from Inner London, and a summary of the contexts is shown on Figure 7.

Figure 7 Five Schools

School	Type	Building	Teaching Experience	Pupils
1	State	Victorian	4 years	Majority immigrants, many non English speakers; mixed SES
2	RC	Modern	15 years	All English speakers, few ESL; mixed SES;
3	RC	Modern	15 years	All English speakers, few ESL; mixed SES;
4	State	Modern	16 years	All English speakers few ESL; mixed SES majority WC
5	State	Victorian	7 years	All English speakers few ESL; mixed SES majority WC

#### THE CONTEXT

Following an observation period it was decided to focus on the six year old age group as these pupils have had opportunities to become familiar with the norms, expectations and rules governing turn taking behaviour. In order to have comparable contexts it was decided to audio-tape a story time that involves pupils in a discussion. This activity is common to all classrooms observed and as audio taping is relatively unobtrusive, the interactions are likely to be natural.

## THE PROCEDURE

In each classroom permission was obtained to audio-record the teacher and all the pupils for thirty minutes during story time. All the classrooms have an area which is designated for such whole group activities, usually known as "the carpet", or "the mat" which includes a comfortable low chair for the teacher. Generally the children are encouraged to sit cross-legged on the carpet in a group in front of the teacher's chair.

One radio microphone is placed in the centre of this area, to record the pupils' contributions, the other is worn by the teacher. The teacher is asked to conduct a normal story reading session with the pupils, but one that encourages pupils to become involved through language use.

The researcher was present throughout the session to check recording equipment, and to make notes of observations in order to support the audio recording.

## RESULTS

In five classrooms the teacher and whole group of six year old pupils are recorded during story-time, and these tapes are transcribed using the conventions described in the appendices. Transcripts show that talking out of turn occurs in all classrooms, however there is considerable variation in the frequency of occurrence. In addition there is considerable variation in the teachers' behaviour.

These factors indicate that detailed analysis may yield some interesting insights concerning talking out of turn. As a result of these observations the audiotapes and transcriptions are used to detail the interaction cycle, following Mehan's (1979) model of Initiation-Response-Evaluation. The turn transition point between teacher and pupils was classified as Smooth or Disrupted Speaker Switch (talking out of turn)

Smooth Speaker Switch (SSS) when the transition occurs in accordance with the rules of the context;

or

Disrupted Speaker Switch (DSS), when the rules of the context have not been kept.

A disrupted speaker switch was coded on the basis of the TEACHER'S RESPONSE to the speech act that violated the rules operating in smooth speaker switches, therefore it does not include all the incidents of talking out of turn. There were many incidents of pupils chatting to each other either when the teacher was talking, or during pauses or gaps, and it was not possible to code these. Table 1 shows the percentage of smooth to disrupted speaker switches for each class, ranked from the highest to lowest of smooth speaker switches:

Table 1: Percentage of smooth to disrupted speaker switches.

Teacher %	C	B	E	A	D
SSS	70	61	42	25	19
DSS	30	39	58	75	81

As shown on Table 1 Teachers C and D form end points of the continuum, and this pattern is repeated in the finer analysis that follows. In fact the order of all five teachers is often the same, with some variation mostly between teachers E and A.

Observation shows that the rules governing turn taking appear to be similar in all five classrooms although application of the rules varies. Generally the rules concern pupils listening when the teacher speaks or reads the story, listening when another pupil has the floor, bidding for a turn by raising hands, waiting to be allocated a turn by the teacher before speaking, and taking up the turn when the teacher allocates one. In addition, the floor goes back to the teacher after the pupil has had the turn to speak.

Talking out of turn occurs at different points in the talk, however analysis shows that a crucial point is the turn transition point between teacher and pupils. Analysis shows that teachers differ in their strategies at this point, although as previous research has shown, the majority of turn transition points hinges on the teacher asking a question (Mehan, 1985). However data show that there are different forms of questions that can be asked, and that some teachers use signals which appear to cue the pupils to the forthcoming question. These strategies appear to have a relationship with the number of Smooth or Disrupted Speaker Switches that are evident, and for this reason are analysed in some depth.

#### THE TURN TRANSITION POINT

It has been stated that an important turn transition point occurs when the teacher asks a question, which constrains the next speaker to supply an answer. Often the point of completion is marked by the teacher inviting pupils to bid for a turn, or the turn is allocated by the teacher. Invariably after that speaker's turn the teacher regains the floor by echoing part of the answer, by giving feedback, or by continuing with the topic in hand.

#### TEACHERS' USE OF QUESTION FLAGS

Transcripts show that some teachers regularly use a sound, word or phrase which seems to flag to pupils that a question is to be asked. Do teachers use different flags before a question? If so, what acts as a flag? Is there any correlation between the use of certain flags and more or less talking out of turn? Data show that eight different types of question flags can be identified (see appendices), these include regular use of:

- a sound "MMMM what was the boy's name?"
- a word "NOW:: what was the boy's name?"
- a phrase "I WONDER WHO CAN REMEMBER the boy's name?"

Results show that teachers tend to use different flags, use flags at different rates, and that a relational tendency is evident between the use of question flags and percentage of smooth speaker switches, as shown in Table 2.

Table 2 Smooth Speaker Switches and Flags

Teacher %	C	B	E	A	D
Flags	46	67	31	15	19
Talking Out of Turn	30	39	58	75	81

A comparison of the eight types of flags used shows that different teachers use different types of flags and the results of complete analysis are given in the appendix. Results show that the regular use of a phrase is associated with more Smooth Speaker Switches (less talking out of turn), and this is shown in Table 3.

Table 3 Smooth Speaker Switch and Phrases

Teacher %	C	B	E	A	D
Phrase	39	26	14	8	0
Talking Out of Turn	30	39	58	75	81

#### QUESTION TYPE AND STRUCTURE

Analysis shows that different teachers tend to ask different types of questions. This point is illustrated by the use of Tag questions as Teacher D (most talking out of turn) asks more tag question than other teachers. Teachers' questions are analysed and each question is coded into one of eleven categories. Each question

is coded once and the decision is based on the primary type of the question. Descriptions of the categories include structure and function of the question and the results are given in the appendices. Results show that there is a relationship between

Tag questions and talking out of turn (DSS):

MORE tag questions are asked by teachers whose classes evidence MOST talking out of turn.

Open questions and Talking out of Turn (DSS):

MORE open questions are asked by teachers whose classes evidence more talking out of turn

Questions with Turn Allocation and talking out of turn

MORE turn allocations are given by teachers whose classes evidence less talking out of turn

Rule reminders and talking out of turn

MOST rule reminders are given by teachers with least talking out of turn

These results are summarised and shown in Tables 4 and 5.

Table 4 Percentage of turn allocations and rules reminders

Teacher %	C	B	A	E	D
Turn allocation	30	22	17	8	2
Rule reminder	7	1	3	1	2
Talking out of Turn	30	39	58	75	81

Table 5. Percentage of Tag and Open Questions

Teacher	C	B	A	E	D
%					
Tag question	0	1	5	10	20
Open question	5	16	17	32	50
Talking out of Turn	30	39	75	68	81

TEACHERS' STRATEGIES:

The frequency of use of praise and use of individuals' names is counted because of the high rate of questioning it is assumed that praise and name use would be high. Relatively little praise was used overall, and a relational tendency is evident, as teacher C uses the most praise and has the least talking out of turn. By contrast Teacher D uses no praise and has the class with the most talking out of turn. These results are summarised in table 6.

Table 6. Rank order of use of Teacher Praise

Teacher	C	B	A	E	D
Praise	17	9	2	0	0
TOOT %	30	39	75	58	81

Frequency of use of pupils' names shows that the pattern of results was altered slightly with Teacher A using names most frequently. However again Teacher D was at the opposite end of the continuum, these results are shown in table 7.

Table 7 Rank order of frequency of use of pupils' names

Teacher	A	C	E	B	D
Names	72	60	37	14	10
TOOT	75	30	58	39	81

This concludes the analysis of the teachers' strategies of the Turn Transition Point. Attention turns now to the ways in which pupils take up the turn to speak.

#### PUPILS' ENTRY STRATEGY

Data are examined at teachers' point of completion to ascertain how pupils get a turn to speak, and the pupil entry strategies evidenced. Results show that in Smooth Speak Switches pupils entry strategies include

- RESPONDING to teacher's turn allocation;
- RESPONDING to teacher's invitation to bid;
- RESPONDING to the "Hands Up to Speak" rule;
- RESPONDING to teacher's unison question

However in talking out of turn pupil entry strategies include

- ANTICIPATING the teacher's point of completion;
- RESPONDING to a miscue by the teacher;
- INTERRUPTING teacher or pupils' turn;
- SPEAKING inappropriately but in a gap or pause;
- SELF SELECTING by responding to the teacher and being the first and only speaker.
- SIMULTANEOUS SPEAKING by speaking with other pupils but not in unison.

Full results of the analysis of pupil entry strategies are given in the appendix.

Analysis shows that teachers may begin a question but not continue with it, and these cases are known here as Teacher Miscues. They are similar to Kounin's (1985) "flip flops". Results show a relational tendency between pupil entry devices that result from the teacher's miscues and Disrupted Speaker Switches, the greater the number of miscues the greater the number of disrupted speaker switches (talking out of turn), as shown in Table 8:

Table 8 Miscues and Talking out of Turn

Teacher	C	B	D	A	E
Teacher's Miscue	3	6	24	25	43
TOOT	% 30	39	68	75	81

The data show that some pupils talk at the same time as the teacher, and directly interrupt the teacher's turn to speak. However other pupils talk in a pause or gap in the teacher talk which occurs whilst the teacher has the floor. Although these pupils are still talking out of turn, they are not directly interrupting the teacher's talk. Results show that the classes with the most talking out of turn have the greatest number of turns that directly interrupt the teacher's talk as summarised on table 9.

Table 9 Percentage of interruptive turns and talking out of turn.

Teacher	C	B	E	A	D
Interruptive	17	25	37	41	80
TOOT	30	39	68	75	81

It appears that Pupils' Entry Devices may be related to factors of the interaction cycle. This can be illustrated by the response of pupils with a teacher who gives a question flag regularly, as results show that these pupils bid for a turn appropriately more often than others.

Data show that a large number of incidents of talking out of turn are non-interruptive, that is, the pupils talk out of turn but in gaps and pauses that occur in the flow of talk and this indicates the pupils' skill in using communicative competence.

Similarly data show that many talking out of turn incidents result from the pupil anticipating the point of completion of the teacher's turn, and this is shown by slightly overlapping the teacher's turn. Again this indicates the developing communicative competence of these pupils. This is significant because it implies that some types of talking out of turn are "better" than others, however because of problems of reliability such judgements are not included in the analysis.

In addition data show that the majority of responses is judged to be "on-topic", although many incidents of talking out of turn are not picked up by recording equipment and these are mainly pupils talking to each other. However the number of on-topic contributions, although out of turn, indicates a high level of interest shown by these pupils.

In summary many of the incidents of talking out of turn were on-topic contributions which occurred during a gap or pause in the teacher's turn. It is inferred that in some cases the pupil slightly mistimed the teacher's point of completion by anticipating the turn allocation signal. These factors are important when the teachers' responses to talking out of turn are considered.

#### TEACHERS' RESPONSES TO TALKING OUT OF TURN

Teachers' responses are examined as it may be assumed in behavioural terms that the response is likely to have a function in the maintenance of talking out of turn. Examination of data revealed three main types of responses:

1. Affirm: The teacher responds to the CONTENT of the speech act and not the METHOD of speaker switch.

2. Neutral: The teacher does not appear to respond to either the content or the method.

3. Veto: The teacher responds to the METHOD of speaker switch and not the CONTENT of the speech act.

Several sub-types of affirming and veto responses are identified, and a full description is given in the appendix. Results show that all teachers respond to talking out of turn at times, and therefore it could be said that they maintain the behaviour. Furthermore teachers appear to respond inconsistently, in some cases affirming the act, and in others apparently ignoring it. No clear differences emerged from this data, although teacher C has fewer neutral responses, and more affirming responses than the other teachers. Table 10 shows the frequency of each main type of response for each class.

Table 10 Percentage of teacher responses

	A	B	C	D	E
Affirm	40	34	45	27	28
Neutral	11	24	10	24	12
Veto	41	42	46	49	61

The teacher's response to the pupil's turn has an important controlling function, regardless of whether the pupil has talked out of turn or not. By responding to the pupil the teacher is able to regain the floor, so that control of the next turn is maintained by the teacher.

Results show that when teachers affirm a pupil's contribution they do it in several different ways. Analysis shows that seven different categories of responses can be identified, a full description is given in the appendix, and results summarised in table 11.

Table 11 Type and frequency of teachers' affirming responses.

Teacher	A	B	C	D	E
Praise	0	9	17	0	0
Echo	8	19	28	18	19
Question	15	10	4	6	13
Evaluation	5	13	20	15	10
Appositional	3	0	2	0	2
Comments	7	3	4	9	7
Total	38	54	75	48	51

No clear pattern emerged from this analysis, possibly indicating that the type of affirmation is less important than the fact it takes place. It should be noted that overall Teacher C (the least talking out of turn) gives more affirming responses than the other teachers.

SUMMARY

A detailed analysis has been made of important steps in the Speaker Switch cycle as recorded in five classrooms of 6 year old pupils interacting with their teacher at story time. Analytic procedures have enabled patterns to be identified. A typology of pattern type and function has been constructed and used as a basis for identifying consistency and frequency of the recurrence of the patterns. Contrasts have been explored and explanations for differences have been sought.

Results show that talking out of turn occurs in each classroom, however a considerable variation is evident between the percentages of Smooth and Disrupted Speaker Switches. In addition, there are considerable differences in the strategies evidenced by the teachers. However, when the teachers are rank ordered for frequencies of factors, a fairly consistent ranking is evident, with teachers C and D maintaining opposite ends of the continuum.

It should be noted that Teachers A and E are in reversed positions for some factors, however as mentioned, the two end points of each continuum are occupied invariantly by Teachers C and D, and for this reason a brief summary of differences between these teachers is given.

TEACHERS C AND D

Teachers C and D have widely different percentages of Smooth and Disrupted Speaker Switches. Teacher C has the least Disrupted Speaker Switches, and Teacher D the most.

Teacher C has the most regular pattern to the discourse, and this involves frequent use of turn exit cues in the form of question flags, often this is a phrase that signals the approaching question. Teacher D does not exhibit such regularity, showing the least number of turn exit cues, with few uses of questions flags or phrases to signal a question.

Teacher C uses the fewest open questions with no turn allocation, and Teacher D uses the most, and in addition Teacher D uses the most open questions that result in talking out of turn. By contrast Teacher C uses the most questions with turn allocations, and Teacher D the least

Teacher D asks the most tag questions, and teacher C the least. Tag questions leave the turn without allocation, and this space is filled often in Teacher D's class by many pupils speaking at once, called here simultaneous speaking. In addition Teacher D makes comments to the pupils, and these provide the second step in the interaction. Often the floor was taken by several

pupils speaking at once (simultaneous speaking) because there was no turn allocation to a specific pupil. This did not occur in Teacher C's class.

Teacher C shows more responses to the pupils' contribution, whether as a result of Disrupted Speaker Switches or not, whereas Teacher D shows far fewer responses to the pupils. Teacher C gives more reminders and coaching to the class concerning the correct way to bid for a turn to speak, and Teacher D did not.

Teacher C showed the highest use of praise, and frequently used the pupils names, whilst Teacher D did not use praise and used names far less.

#### IMPLICATIONS OF THE RESULTS

Analysis of data shows that talking out of turn occurs in all the classes. It appears that there is a relational tendency between certain factors evident in the interaction cycle and more or less talking out of turn. Results show that all teachers respond to talking out of turn at times, thus in behavioural terms, teachers could be seen as intermittently reinforcing the undesired behaviour. However variations in the frequency of talking out of turn is marked between classes and seems unrelated to the frequency of the intermittent reinforcement. Therefore these results show support for the behaviourally oriented researchers who conclude that it is necessary to go behind the behaviour to identify

what is supporting it (Wheldall & Merrett, 1987). These results indicate that it is not simply a matter of behaviour being reinforced and maintained.

The transcriptions of the audiotapes enables identification of certain factors important in the interaction cycle. These have been quantified, so that patterns and links in the interaction cycle can be scrutinised. The aim is to devise a method that permits a principled analysis of data. However it is possible that this method could be judged as yet another type of systematic observation schedule, and it may attract the sort of criticism levelled at Flanders' FIAC by Walker & Adelman (1986), who object to the lack of recognition of the cultural and historical context of the group.

This criticism is accepted but observations of classroom groups of six year olds at story-time reveal a great deal of similarity in context, and few idiosyncratic or distinctive shared meanings. The key points of classroom talk outlined earlier in figure 3 (p.23) are evident in each class, however there are certain differences in the teachers' behaviour. Support is found for McIntyre and Macleod's (1986) view that distinctive "phenomena are relatively rare, and that when they do occur, the extent to which classroom communication is dependent on them is marginal" (p.13). Furthermore there are important differences between the type of system used here for data analysis and those criticised by Walker & Adelman. Here the category system

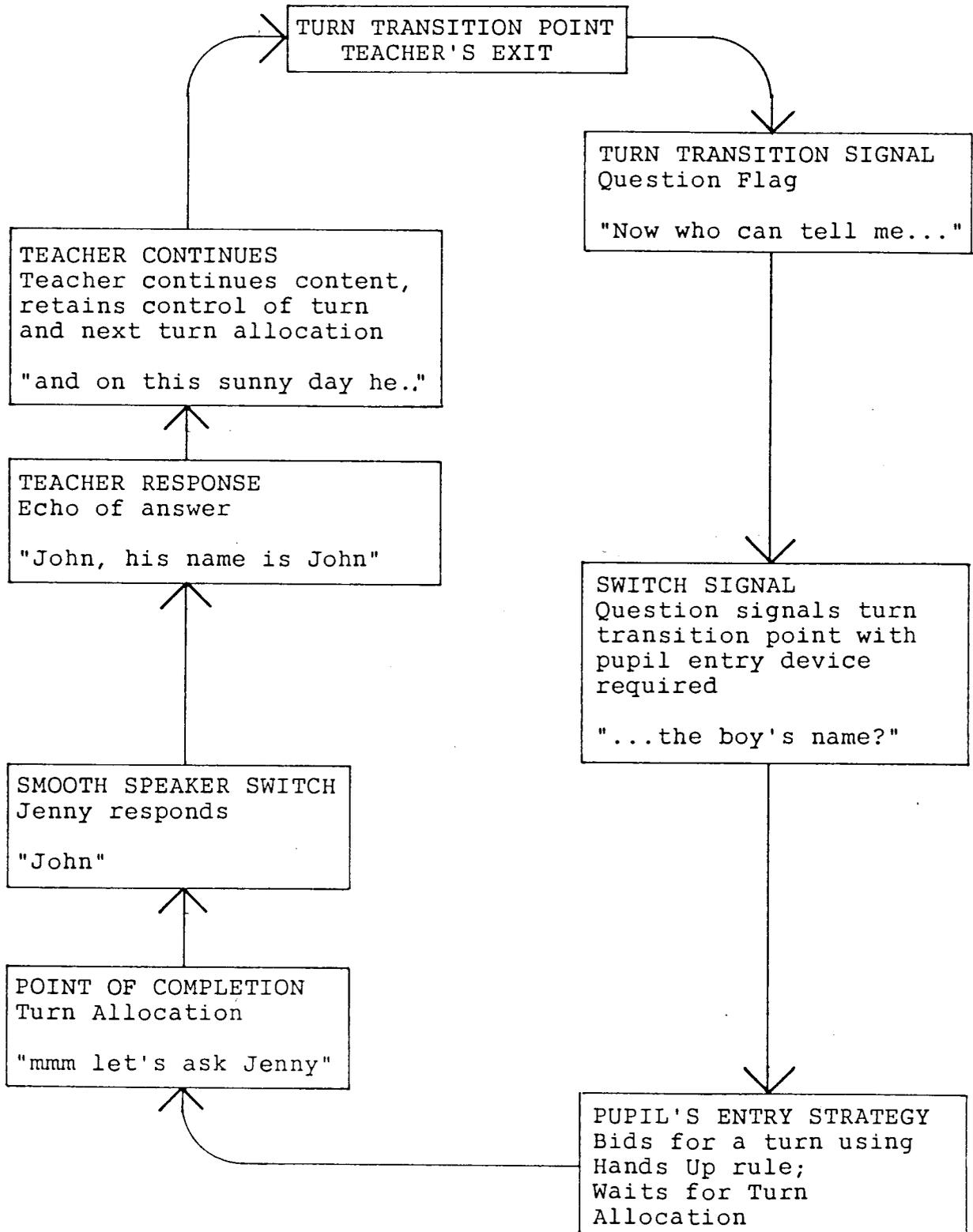
has been derived from the analysis of the transcriptions and audio tapes in five classrooms, and there has been no imposition of preselected categories onto the data. The analysis is carried out retrospectively, and it is judged to be impossible to carry out this type of analysis as the interaction occurred. Recording has been partial as not all pupil talk was recorded, but all that is recorded is transcribed and coded, not selected samples. Quantification is helpful when making comparisons between teachers in similar contexts.

No claims concerning pedagogical significance have been made because the concern focusses on the analysis of the teacher's behaviour, rather than knowledge related to the behaviour. As McIntyre and Macleod (1986) point out, this does not preclude the use of other techniques to obtain evidence about teachers' thinking or knowledge. The underlying levels of knowledge are important and will be addressed in Phase Two, however the emphasis is on the surface structure in this first phase.

Therefore the purpose of Phase One has been to analyse the surface level of the talk between teacher and pupils at story-time. There has been quantification of certain factors in the interaction cycle which has allowed clarification of the patterns of interaction. The analysis of the interaction cycle has enabled links in the behaviour to be more apparent, and differences between Smooth and Disrupted Speaker Switches to be more

evident. The steps in the interaction cycle that lead to Smooth Speaker Switches are conceptualised in figure 8.

Figure 8 The Interaction Cycle - Smooth Speaker Switches



It is possible that the activation of certain signals, such as the use of a phrase that cues a question, may fulfil several different functions for the pupil. Regularity of usage may help the pupil to correctly interpret the context and to infer that a question is to be asked. It may act to reinforce the acceptable pattern of reply, because a predictable pattern is thought to help memory storage and automatic retrieval. It is possible that turn-taking is facilitated because the establishment of the appropriate method of reply at the level of automatic recall, frees cognitive processing to attend to the content of the question being asked.

As shown in figure 8, examination of a typical Speaker Switch cycle highlights the differences between steps required in this cycle and those in normal conversation between dyads or triads, as discussed previously. Although it is true to say that all the teachers use all the factors, there are differences in the regularity of patterning of discourse. It is thought likely that one factor does not carry more importance than any other, but that the interaction of factors together with the frequency of use may well contribute to pupils' turn-taking or talking out of turn behaviour.

The results showed that a consistent pattern of

differences was evident between the teachers, with teachers C and D maintaining opposite ends of the continuum. This suggests that different types of Teacher Talk Register are being articulated.

#### THE TEACHER TALK REGISTER

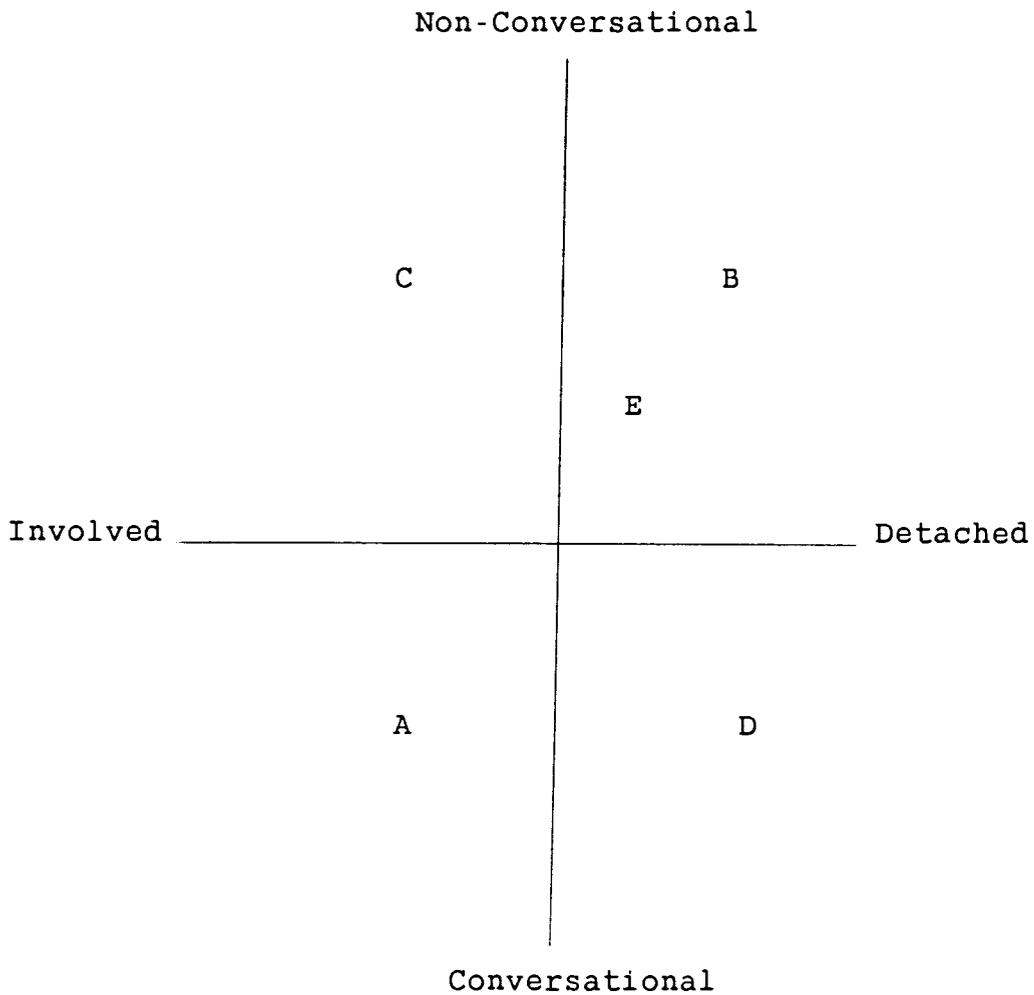
Data show considerable variation in the factors employed by different teachers at key points of the cycle, and evidence suggests a relational tendency between these factors and the frequency of talking out of turn. It seems that these factors may be indicators of the teacher's preferred teacher talk register. The use of the word "preferred" does not imply an active choice, but the observed use.

In the earlier discussion differences between conversation and classroom talk were identified. The analysis of teachers' talk in Phase 1 of this study shows that some talk is more like normal conversation than classroom talk, indeed the preferred teacher talk register can be conceptualised as "Conversational", whereas other teachers can be conceptualised as "Non-conversational".

Although each teacher can be ascribed to one of these two types, this leaves several important differences. For this reason each category has two

sub-categories, "Involved" and "Detached". Thus a matrix can be drawn and each teacher ascribed a place as shown in figure 9.

Figure 9 Matrix showing preferred register  
- non-conversational/conversational and  
involved and detached.



DESCRIPTION OF  
TEACHER TALK REGISTERS

Examination of the interaction cycles between teachers and pupils at group time has led to the identification of certain factors of the teacher talk register. These features are summarised in figure 10.

Figure 10 Features of Non Conversational and Conversational register, which may be either Detached or Involved

Non Conversational

More regularity in discourse  
More use of Turn Exit Strategies  
More Turn Allocation  
More control of Turns  
More Rule Reminders  
Less use of Tag Questions  
at end of turn

EITHER

Detached  
Fewer responses to pupil  
Little praise  
Less use of names

OR

Involved  
Individual feedback given  
Praise for behaviour/content  
Interactions personalised

Conversational

Less regularity in discourse  
Less use of Exit Strategies  
More open questions  
More 2nd step supplied  
Little emphasis on rules  
More Tag Questions at end;

EITHER

Detached  
Fewer responses to pupil  
Little praise  
Less use of names

OR

Involved  
Individual feedback given  
Praise for behaviour/cont.  
Interactions personalised

Non Conversational and Conversational registers have been conceptualised and here important features of these are outlined.

#### REGULARITY OF DISCOURSE

An indicator of Non Conversational register is that the teacher uses signals and cues on a regular basis and this facilitates accuracy in predictions made by pupils.

Regularity is not a feature of conversational style. Thus patterns in the discourse are not so easily identified, and there are more pauses and gaps. Often questions are asked without warning, so systematic use of signals and flags are not observed as frequently. Overall the pacing and timing of the discourse tends to be irregular, with sudden changes likely.

The gaps and pauses tend to be filled, as in normal conversation, however with a group of pupils this results in simultaneous speaking because of the difficulties of sole self-selection in a group.

#### USE OF TURN EXIT STRATEGIES

In the Non Conversational register turn transition points are usually signalled by a Turn Exit Cue which is often a Question Flag. A short phrase will serve as an adequate and helpful flag that pupils are likely to recognise.

In the Conversational register the turn transition point is not signalled, and so Turn Exit often occurs with no warning. Questions can be asked unexpectedly, with no clear direction concerning the recipient. In dyadic conversation confusion concerning who has the floor does not occur, however in a large group it may result in simultaneous speaking because several people may reply at the same time.

#### TURN ALLOCATION

An indicator of a Non Conversational register is that teachers ask fewer open questions without turn allocation. Turn allocations mean that the second step of the interaction cycle is directed to one pupil who then takes the floor.

An indicator of the Conversational register is that the teacher asks fewer questions with Turn Allocation and asks more open questions. Open questions direct the question to the whole group, which leaves the second step open. Pupils may bid for a turn or self-select, (take up the floor directly) as in dyadic conversation.

#### TEACHER CONTROLS TURN

An indicator of a Non Conversational register is that the teacher rarely relinquishes control of the turn. The teacher supplies the first step in the interaction cycle and the pupil the second step. After the pupil's turn, the turn transition occurs with the

teacher gaining the turn and this means the allocation of the next turn rests with the teacher. It is not something that the current speaker (the pupil) decides.

By contrast in the Conversational register the teacher is more likely to supply the second step of an interaction by making a comment in reply to a pupil, and then allowing a pause to occur. This leaves the first step of the next turn with any pupil who can gain the turn. However often at this point several pupils will assume the right to self-select and this results in simultaneous speaking.

#### TAG QUESTIONS

Tag questions are defined as those questions asked in a semi-rhetorical way which permit an answer, but do not directly seek one. They are used often to seek agreement. Few Tag Questions are asked in the Non Conversational register, and if they are used generally they occur in the middle of the turn. When Tag questions are used in this way they appear to function as a device to gather the group together and promote coherence, as the following example demonstrates

That was an exciting bit wasn't it let's see  
what happens next

An indicator of the Conversational register is that Tag questions are asked at the end of the teacher's turn, a pause follows, and this leaves pupils to self-select often resulting in simultaneous speaking. demonstrated by

That was an exciting bit wasn't it? (pause)

#### RULE REMINDERS

An indicator of the Non Conversation register is that teachers give rule reminders concerning the appropriate way to bid or receive turn allocation,

Now who can tell me with their hand up, what was....?.

By contrast the teacher evidencing the Conversation register is less likely to refer to the rules concerning turn-taking and this accords with normal conversation.

#### INVOLVED/DETACHED REGISTER

##### TEACHER'S RESPONSE

The detached register will be shown by the teacher continuing the turn after the pupil has answered a question, however an involved register is shown when the teacher evaluates, or make comments about the pupil's answer and thus give the individual feedback and recognition.

##### PRAISE

The detached register is shown by little use of praise, whereas an involved register is shown when the teacher offers praise either for the content or method of reply, thus showing recognition of an individual's achievement and making it public.

##### USE OF PUPILS' NAMES

The detached register is shown by teachers who use names less than those who use names frequently, showing recognition of individuality, and making interactions

more personal, especially in the whole group context.

#### SUMMARY

In summary, a random selection of inner London teachers and their classes of six year olds has provided evidence which suggests when teachers interact with the whole class at story time, their teacher talk register can be described as either Non Conversational or Conversational, and either Detached or Involved. Particular features of these teacher talk registers have been identified, and used to create a profile of the preferred register of each teacher. It has been shown that a relational tendency exists between certain features of the register and more or less talking out of turn.

Statistical analysis of the profiles could be undertaken, however such analysis identifies similarities of specific characteristics, and in the process there is loss of information that describes differences (Kerlinger, 1986). Differences are as important as similarities to the current study, and furthermore there are many uncontrolled variables which may result in unreliable statistics, which is Kerlinger's (1986) criticism of Kounin's (1975) results, and for these reasons it has been decided to leave the results as ranked frequencies. These show patterns and linkages clearly and are adequate for the purposes of this study.

REVIEW OF THE FIRST PHASE

THE INVESTIGATION OF THE SURFACE STRUCTURE

Talking out of turn has been the object of analysis, and this has led to the analysis of the interaction cycle that can result in the behaviour. Steps in the speaker switch cycle have been identified, and comparisons have been drawn between groups in five different classes of six year olds. This analysis has been central in the formulation of a taxonomy to identify certain features of teacher talk registers. However it should be remembered that this consists of the surface structure only, that is the presenting observable behaviour.

Evidence gathered in the initial work supports Mchoul's (1978) conclusions that in some classrooms turn-taking is a system which is managed by the teacher, with pupils' rights being widely limited to responding to the teacher's question. It would be a mistake to infer that in some classrooms talking out of turn is accepted by the teacher, or that pupils have the right to self select. During informal discussions all five teachers expressed frustration at the disruptions that occur when pupils talk out of turn, and those with more talking out of turn expressed this most strongly. It could be inferred that some teachers lack the skills that others possess, however it is asserted that this conclusion would be premature without further investigation.

As mentioned previously comparatively few studies

have specifically investigated talking out of turn in classrooms. McHoul's (1978) study in turn taking was conducted in Secondary Schools and certain aspects have been used to inform the theoretical framework however it is not completely appropriate for the purposes of this study. In particular, McHoul's notion of formality does not seem to be applicable, partly because "formality" is so often equated with "traditional" education, and "informality" with "progressive" or "child centred" education. However McHoul's description of spatial configuration is relevant, and helpful in delineating the notion of "Detached" and "Involved" aspects of teacher talk register. An additional important point is that McHoul, in accordance with Sacks (1974), explores the notion of the system operating in the classroom context. These researchers hold the view that the systematics constitute and reflect the social identity contrast between Teacher and Pupil, this being expressed by "differential participation rights and obligations" (1978, p.211), and this notion may be relevant here.

The corpus has indicated considerable quantitative variations of talking out of turn, and differences in teacher behaviour. Indeed it appears that the teacher is the single most important variable. However, unlike the Elton Report, here it is not concluded that performance and competence must be in linear alignment. As discussed in earlier chapters, an important aspect of the theory currently being developed is the assertion that

competence cannot always be judged by performance. There may be many reasons to account for the absence of performance of a certain skill.

At this point the direction of this study and the conclusions of the Elton Report diverge. Elton concluded that the difficulties evidenced in teachers' management of the turn-taking system indicated deficiency and short-comings within the individual teacher, and that these would be remedied by more efficient and appropriate pre-service and in-service management training (Elton Report, 1989). These conclusions are based on what appears to be assumptions concerning individual functioning and responsibility, and logical deductions concerning cause and effects. The discussion in Chapter Two argued against this individualistic approach, and the case for investigation of knowledge held concerning teaching and learning was presented.

However there are considerable difficulties involved, and these can be illustrated by consideration of one result of the first phase of the study. In this phase identification of factors in the interaction cycle has highlighted the use of a flag which signals a

question. Results show a phrase is used regularly by the teacher with the most Smooth Speaker Switches. This appears to fulfil the same function as the "markers of circle contexts" identified by Dorr-Bremme (1990). These markers served to signal the teacher's agenda, enable the discourse to be regulated, and the teacher's authority to be enacted. However Dorr-Bremme (1990) notes that these markers are spoken without the teacher's conscious awareness of either their use or their function and yet pupils' behaviours show at least tacit knowledge of them. Thus it seems likely that in the current study, teachers may not be aware of their use of signals such as the question flag, and yet such signals seem to have an effect on pupil behaviour, and could be known at least at a tacit level.

The notion of tacit knowledge in relation to behaviour evidenced in the classroom is central to the second phase of the study. In Chapter Three a conceptualisation of levels of knowledge was outlined, (figure 5). It is suggested that the features of a teacher talk register enact the pedagogical knowledge held at the deep level. Furthermore that pedagogical knowledge is articulated as the official discourse, and is appropriated through the discursive practice of the staff. The difficulties of exploring deep levels of knowledge have been discussed, however this is the task which is addressed in Phase 2 of the study.

## CHAPTER SIX

### The Second Phase

At this stage of the study the proposition can be stated

In the management of the interaction cycle there is a relational tendency between the teacher's preferred teacher talk register and the frequency of talking out of turn.

The teacher talk register is the realisation of the teacher's pedagogic discourse which reflects the official pedagogic discourse of the school to some extent. Links between the teacher's discourse and the official discourse relate partly to the influence of the power hierarchy in the school.

It is suggested that the headteacher is responsible for the articulation of the official pedagogic discourse of the school. Teachers articulate their pedagogic discourse through individual interpretative repertoires, and analysis of these interpretative repertoires may yield information concerning the construction of pedagogic

knowledge in the school. Interest is focussed on two factors:

1. The expression of the school's official pedagogic discourse by the headteacher.
2. The links between the official pedagogic discourse and the interpretative repertoires of teachers.

It is suggested that the similarities and differences between a teacher's discourse and the official discourse of the school will be related to four factors:

1. Pre-service training.
2. Teaching experience.
3. Length of service in the school.
4. The influence of the headteacher.

The first phase of this study investigated teacher-pupils' interaction cycles evidenced during whole class "carpet time". The interaction cycles were analysed according to categories which created a taxonomy of teacher talk register (following Cazden, 1988). Audio recordings of "natural" pupil-teacher communication allow for accurate transcription and analysis of the data. These factors ensure reliability of the data, however reliability involves repeated usage yielding similar results. Therefore the categories must be applied to new material to test replicability of findings (Dollaghan and Miller, 1986). It follows that the second phase must

apply the taxonomy to new data. If the notion of preferred teacher talk register finds support, then it can be said that some questions have been answered concerning talking out of turn, simply by inspection of the surface features of talk.

Notwithstanding the value of this information, it is suggested that the issue is more complex than simply identifying factors that can be correlated with more or less talking out of turn. This study will avoid a direct association of teacher and pupil outcome, so often part of the normative-empiricist tradition, and a primary aim is to avoid conflation of cause and outcome. In order to explore complex questions Edwards and Westgate (1987) maintain that it is necessary to go behind the talk which requires thorough analysis of the discourse. However Stubbs (1981) cautions that such analysis requires examination of the discourse as a whole rather than a string of isolated features, and this is the challenge that is taken up.

Therefore in addition to the application of the taxonomy of teacher talk register to new samples, the second phase will investigate the deep level pedagogical knowledge of school staff. This will be achieved by interviewing staff members and analysing the discourse.

It has been suggested that the teachers' pedagogic discourse is realised in practice in the teacher talk register. It is important to remember that the analysis

of the discourse can be seen as going "behind" the talk, however the discourse is primary and not merely a secondary way to access information. Inferences about phenomena outside the discourse are not made, but insights focus on those lying within the discourse.

The investigation proceeds with data being collected through group time recordings as in Phase 1, however in addition there will be audio-recorded structured interviews with staff. Such interviews allow a sample of people to be questioned on the same issues, which give comparability in responses and facilitates the initial coding. Consistency within the data allows identification of regular patterns in language use, and variations will show the different interpretative repertoires articulated by the staff. Particular attention will be paid to the data obtained from the Headteachers, and the links between staff in each school. A random sample of schools is selected, and two teachers in each school will be interviewed, one of whom will be teaching the six year olds and the second teaching an unspecified older age group. Recording and interviewing the teachers of six year olds gives uniformity to the data collection, and leaving the other age group unspecified gives the schools some flexibility, which is advisable for practical reasons.

Concerning sample size, it is said that the one point where discourse analysis "diverges most radically

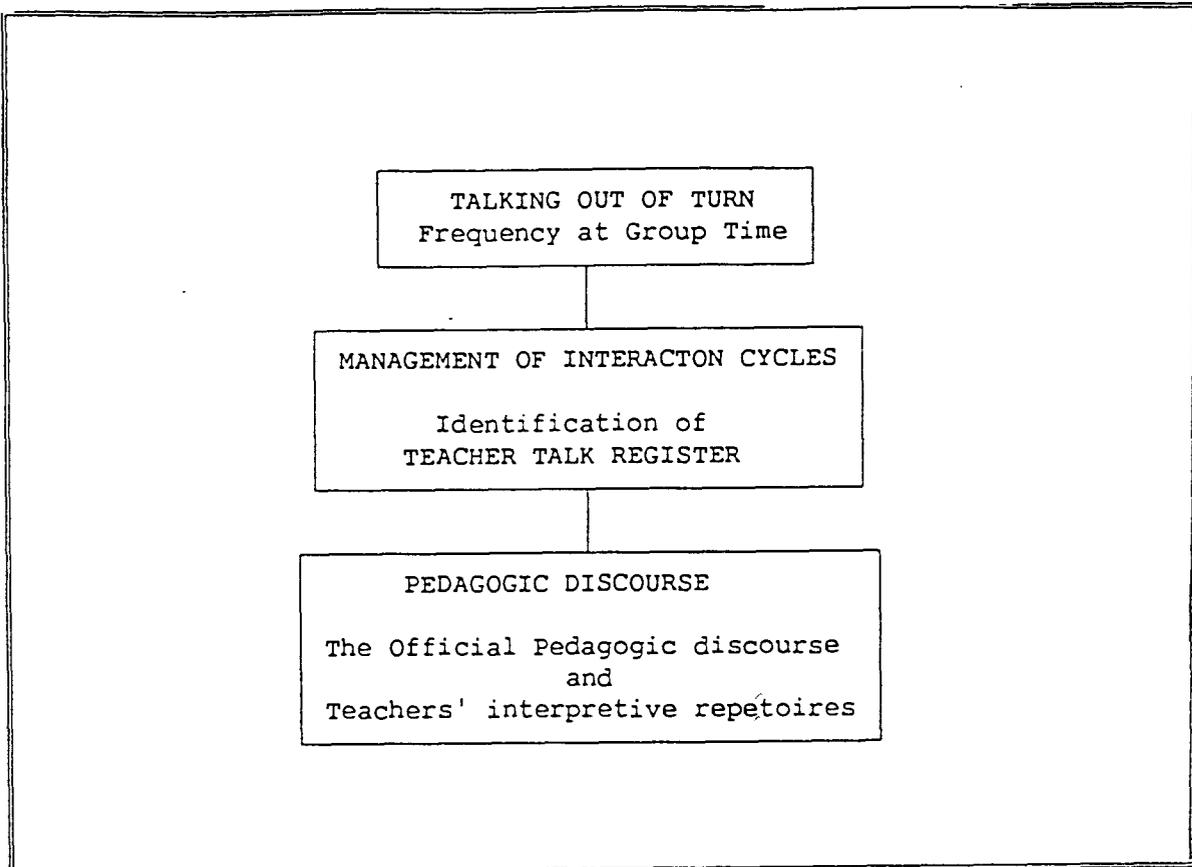
from the traditional view involves the basic question of sample size" (Potter & Wetherell, 1987 p.161). According to these researchers, when the main interest is the discursive form then the danger is collecting too MUCH data. It is asserted that information obtained from few samples will be as valid as information from a large number, and the success of discourse analysis does not depend on sample size, as few interviews are adequate to investigate an "interesting and practically important range of phenomena" (Potter & Wetherell, 1987 p.161).

The aims of the second phase are given as follows:

1. To compare frequency of talking out of turn employing the same method as Phase 1.
2. To analyse teachers' management of the interaction cycles in order to identify the preferred teacher talk register used at group time.
3. To analyse the official pedagogic discourse of the school as articulated by the headteacher.
4. To analyse the pedagogic discourse of teachers in order to identify the individual's interpretive repertoires, and links to the official pedagogic discourse and teacher talk register.

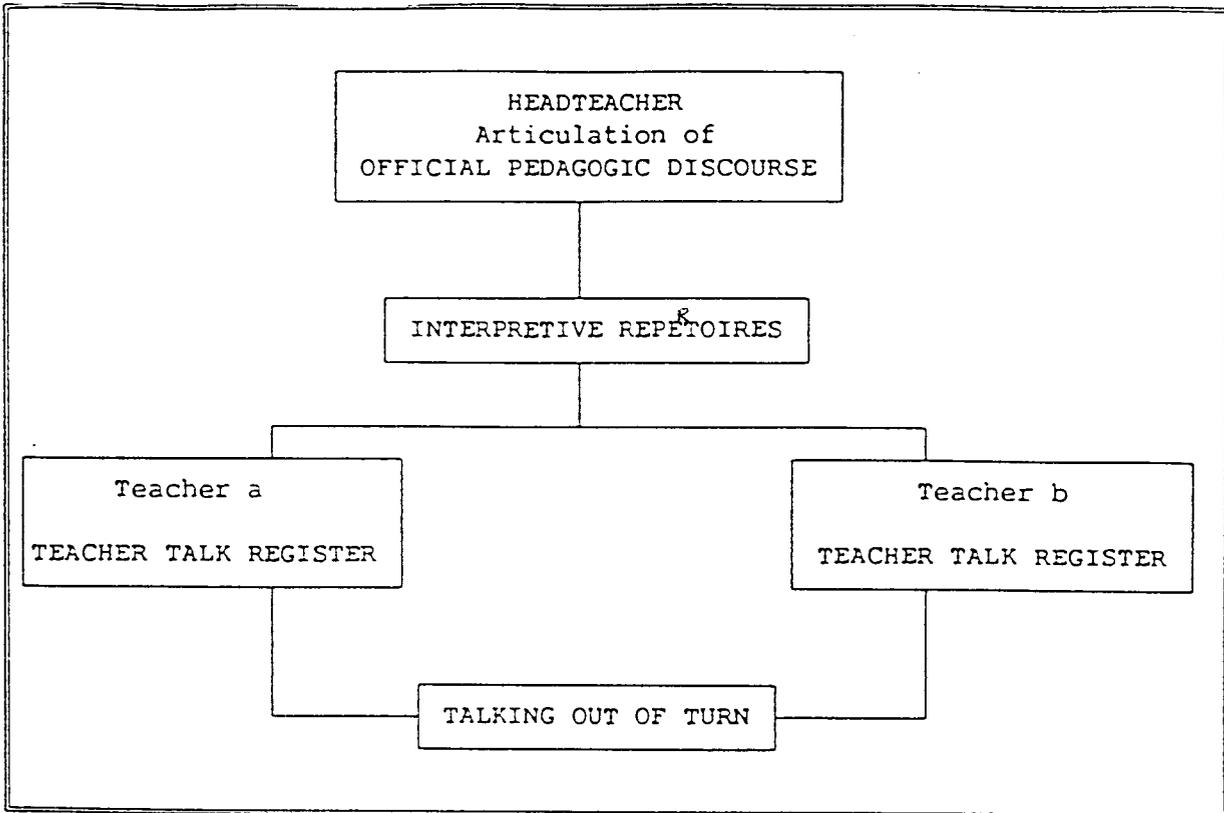
A summary of the focus of investigation of the second phase is shown in Figure 11.

Figure 11 Phase 2 - the focus of investigation



As indicated in figure 11, the second phase consists of different levels and types of analysis. The technique developed in Phase 1 to investigate the surface structure of talking out of turn and the preferred teacher talk register is applied. However investigations are extended in Phase 2 to include exploration of the pedagogic discourse. Figure 12 shows the conceptualised relationship between talking out of turn and the pedagogic discourse. The exploration concerns links between the official pedagogic discourse, the interpretive repertoires of teachers, the preferred teacher talk register, and the frequency of talking out of turn.

Figure 12 Links between pupil behaviour and pedagogy



#### METHOD

Five schools in one district of Inner London take part in the second phase. In each school two teachers are audio recorded with their whole class groups, and the same structured interview is conducted with the headteacher and the two teachers.

#### GROUP TIME

Following the procedure in Phase 1, audio recordings are made of the two teachers with their whole class group. Each teacher is asked to gather their class as a group on the carpet, read a story, and involve the pupils in discussion. It has been observed that this is an

activity familiar to pupils and teachers, and it provides continuity of context necessary for comparison of data.

#### INTERVIEWS

The aim of the interviews is to identify the pedagogic knowledge that is constructed, expressed, legitimated and enacted in the school. It is assumed that the Headteacher will articulate the official discourse, and the teachers' discourse will show links to this official discourse to some extent. The structured interviews are audio recorded to permit detailed analysis.

#### THE SAMPLE

Five schools (School 6,7,8,9,10) agreed to participate in the 2nd phase. They are Local Authority schools in the same district of Inner London. The location and type of school is important because it is necessary to reduce the possibility of irrelevant variables biasing the data. However the schools vary in terms of size and age of buildings. Size is judged by the number of form entries:

- Small - Infants only;
- Medium - Single form entry;
- Large - At least two form entry;

A summary of the schools is given in figure 13.

Figure 13 Five schools from the same district.

School	Building	Size	Population	Notes
6	Modern	Medium	Mixed middle /low SES	Reputed to be "Centre of Excellence"
7	Victorian	Medium	Middle SES	
8	Victorian	Small	Mixed middle lower SES	Infants only
9	Victorian	Large	Mixed middle & low SES	Frequent change of Head
10	Modern	Large	Mainly Low SES	Identified by ILEA on 10 worst schools list 1989.

#### Staff

It is possible that certain factors may be relevant in the construction and expression of the official discourse. These are:

1. Length of service in school, particularly the history of change concerning the Headteacher.
2. Length of teaching experience.
3. Gender of headteacher and teachers.

These variables are summarised in figure 14.

Figure 14. Staff in five schools

	Gender	Service in School /Age group taught	Teaching Experience
6HT	F	Fifth year	21 years
6a	F	Sixth year/infants	6 years
6b	F	First year/juniors	Probationer
7HT	F	Second year	14 years
7a	F	Nineteenth year/infants	19 years
7b	M	First year/juniors	Probationer
8HT	F	Second year	25 years
8a	F	First year/infants	5 years
8b	F	First year/top infants	11 years
9HT	F	Acting Head	14 years
9a	F	Third year/infants	3 years
9b	M	Second year/juniors	2 years
10HT	M	Seventh year	21 years
10a	F	Second year/infants	8 years
10b	F	Sixteenth year/top infs.	21 years

## RESULTS

Audio recordings are made of the structured interviews conducted with five headteachers and ten teachers, and nine teachers and their classes. The audio recordings are transcribed and analysed following the method used in Phase 1. However it is important to note that some categories have been collapsed in order to simplify interpretation of the data. The results of the class group time are given first, followed by the interview material.

## STORY TIME RECORDINGS

Eight out of ten teachers followed the researcher's directions precisely. The two exceptions are the only two male teachers (7b and 9b) who took part in the study, and they will be discussed first.

Teacher 7b teaches in a small classroom where there is no "carpet" area. Story time was conducted with pupils at their desks, and the teacher standing and reading from a book. Pupils appeared to be listening and there were no interruptions. In response to the teacher's occasional questions, hands were raised, turns allocated, and returned directly to the teacher. The session was judged to be atypical by the researcher and was not transcribed, because there was very little pupil talk of any type. It is interesting to note that the pupils exhibited completely different behaviour with the regular supply teacher. Observations showed that turn-taking routines broke down within a minute of teacher 7b leaving the room, resulting in complete disruption which the supply teacher seemed unable to control.

The teacher 9b has a large carpet area, but in response to his suggestion pupils remained seated at their desks. However this teacher stimulated far more interaction resulting in much more pupil talk than teacher 7b, and for this reason the results are included. It should be noted that there was less talking

out of turn in this class than others and this may reflect the seating arrangements. In the interview the teacher refers to the difficulties of managing the pupils when they were all on the carpet, and said that the pupils prefer to stay at their desks.

The remaining eight teachers, all female, conducted the session as requested. Transcripts of the tapes permit detailed examination of the interaction cycles, and reliability checks will be carried out on the results. Attention is directed now to the results of this analysis.

#### THE INTERACTION CYCLE

##### TALKING OUT OF TURN

Following the method used in phase 1, talk during the whole class story-time between teacher and pupils is classified into interaction cycles. It should be noted that reliability checks on 25% of the story time transcripts show 96% correlation between two coders.

At the turn transition point each cycle is coded as a Smooth or Disrupted Speaker Switch, (SSS or DSS). The disrupted speaker switch is talking out of turn. The results in table 12 show the rank order of the percentage of talking out of turn (TOOT). All results have been clustered into categories of high, medium and low in order to show trends clearly.

Table 12. Rank order of Frequency of Talking out of Turn at Story Time

Teacher	TOOT %	LOW 40-56	MEDIUM 57-73	HIGH 74-91
9b	40	-----		
8b	41	-----		
9a	57	-----	-----	
6a	61	-----	-----	
8a	70	-----	-----	
10a	80	-----	-----	-----
6b	84	-----	-----	-----
10b	87	-----	-----	-----
7a	91	-----	-----	-----

Results show that talking out of turn occurred in all classrooms during group time, however the rank order shows that there is considerable variation in frequency when the nine teachers are compared. Teachers 9b and 8b have a comparatively low occurrence of talking out of turn, with 40% (9b) and 41% (8b) of the interaction cycles coded as talking out of turn. Four teachers have comparatively high occurrence of talking out of turn, with 91% of Teacher 7a's cycles coded as talking out of turn.

Explanations are sought to account for the wide variation in frequency of talking out of turn. ~~can be explained~~ An initial analysis of the tapes shows

similarities between strategies adopted by different teachers when compared with the first phase of the study. Accordingly the interaction cycles of each teacher and class are analysed according to the method established in the first phase. Three stages in the interaction cycle are analysed:

1. Teacher Exit
2. Pupil Entry
3. Teacher Response

Details of these results follow.

#### TEACHER EXIT

Transcripts are analysed to ascertain how the teacher's turn ends, and precisely what behaviour can be observed at the Turn Transition Point. How many turns end with a teacher question? Results are shown on Table 13.

Table 13 Teacher Exit - Percentage of Questions

Teacher	%	LOW 31-44	MEDIUM 45-58	HIGH 59-73
9b	72	-----	-----	-----
8b	65	-----	-----	-----
9a	60	-----	-----	-----
6a	58	-----	-----	-----
8a	49	-----	-----	-----
10a	34	-----	-----	-----
6b	32	-----	-----	-----
10b	31	-----	-----	-----
7a	40	-----	-----	-----

As can be seen in Table 13, results show an inverse correlation between percentage of questions asked at the Turn Transition Point, and the frequency of talking out of turn. Teachers with LESS talking out of turn (9b, 8b) ask MORE questions at the Turn Transition Point. Teacher 9b has 72% of speaker switches occurring directly after a question is asked. By contrast only 31% of Teacher 10b speaker switches occur directly following a question. It is important to note the controlling function of questions. The teacher decides on the timing of the speaker switch, often who will be the next speaker, and what response constitutes a "good" answer because the teacher is the one who knows the answer. These attributes make teacher questions unlike questions in normal conversation, and therefore here questions are associated with a Non-Conversational teacher talk register.

It was noted in Phase 1 that the Turn Transition Point may be reached when the teacher addresses a comment directly to one child, or makes a content-related comment to the group. It is suggested that a high percentage of such comments can be related to a Conversational teacher talk register because they are the second step in the cycle, unlike questions. Frequently there is uncertainty concerning who has the right to the next turn, as either the teacher follows up with another turn, or the turn may be taken up by a pupil. Analysis of the frequency of such comments is shown in table 14 in rank order of talking out of turn.

Table 14 Teacher Exit - Percentage of Comments

Teacher		LOW 28-41	MEDIUM 42-55	HIGH 56-69
	‡			
9b	28	-----		
8b	35	-----		
9a	40	-----		
6a	42	-----	-----	
8a	51	-----	-----	
10a	66	-----	-----	-----
6b	69	-----	-----	-----
10b	69	-----	-----	-----
7a	60	-----	-----	-----

As table 14 shows, teachers with MORE talking out of turn made MORE comments at the turn transition point, either interacting with one pupil or addressing comments to the group.

Phase 1 identified other factors that are influential at the Turn Transition Point and these are examined now. The analysis includes percentage of question flags used by teachers. It is suggested that question flags give regularity to teachers' speech, and warn of the question about to be asked. They may allow cognitive monitoring by pupils and allow time for the answer to be formed, and rules for turn-taking to be recalled. At this stage it is enough to explore whether the percentage of Question Flags has a relationship to talking out of turn. The results are shown in table 15.

Table 15 Teacher Exit - Percentage of Question Flags

Teacher	%	LOW 0-6	MEDIUM 7-13	HIGH 14-20
9b	6	-----		
8b	2	-----		
9a	1	-----		
6a	13	-----	-----	
8a	20	-----	-----	-----
10a	7	-----	-----	
6b	0	-----		
10b	5	-----		
7a	3	-----		

Results of analysis of question flags do not show a clear pattern, with both the teachers with a low percentage of talking out of turn AND those with a high percentage of Talking out Turn using a low percentage of flags. This result may be interpreted in different ways. Either the significance of such flags is not supported, or possibly there is an interactive effect operating between factors. Thus the use of flags with certain other factors may be important in the interaction cycle.

Attention is directed to investigation of percentage of Teacher Exit cues that included a Turn Allocation at the point of speaker switch. Such allocations are associated with a Non-Conversational teacher talk register, as they control the right to the next turn to speak. Table 16 shows the result of this analysis.

Table 16. Teacher Exit - Percentage of Turn Allocations

Teacher %	LOW 7-27	MEDIUM 28-48	HIGH 49-69
9b 66	-----	-----	-----
8b 60	-----	-----	-----
9a 49	-----	-----	-----
6a 45	-----	-----	-----
8a 36	-----	-----	-----
10a 7	-----	-----	-----
6b 19	-----	-----	-----
10b 14	-----	-----	-----
7a 24	-----	-----	-----

As shown on table 16 an inverse relationship exists between talking out of turn and turn allocations. Teachers with LESS talking out of turn give MORE turn allocations, and teachers with MORE talking out of turn give LESS turn allocations.

Attention is directed to the question of rule reminders. Analysis shows the frequency with which teachers invoke rules concerning turn taking behaviour, and the links between rule reminders and talking out of turn. It is suggested that rule reminders indicate a Non-Conversational Register, as they would not be expected in ordinary conversation. Table 17 shows the results of this analysis.

Table 17 Teacher Exit - Percentage of Rule Reminders

Teacher	%	LOW 0-2	MEDIUM 3-4	HIGH 5-6
9b	0	-----		
8b	0	-----		
9a	6	-----	-----	-----
6a	3	-----	-----	
8a	1	-----		
10a	0	-----		
6a	2	-----		
10b	0	-----		
7a	0	-----		

Again a mixed result is evident, however it could be reasoned that Teacher 9b and 8b have little reason to give rule reminders, as they have a low percentage of talking out of turn, and it seems reasonable to assume that rules for turn taking have been established. Possibly teachers 9a and 6a are still in the process of establishing the rules, and the remaining teachers (high talking out of turn) do not use rules for turn taking. This line of reasoning leads to questions concerning why some teachers appear to stress the rules for turn-taking at group time, and other teachers do not.

In Phase 1 analysis of questions identified some as open questions, which are defined as questions the teacher asks to the group, with no turn allocations or rule reminders. The question is asked and the teacher waits for answers, or pupils' bids for turns. Generally

this type of question is associated with a Conversational teacher talk register, and results are shown on table 18.

Table 18. Teacher Exit - Percentage of Open Questions

Teacher		LOW	MEDIUM	HIGH
	%	4-7	8-11	12-14
9b	12	-----	-----	-----
8b	4	-----	-----	-----
9a	5	-----	-----	-----
6a	8	-----	-----	-----
8a	11	-----	-----	-----
10a	9	-----	-----	-----
6b	7	-----	-----	-----
10b	10	-----	-----	-----
7a	14	-----	-----	-----

Again a mixed result is evident, with the teachers with the lowest and highest talking out of turn asking a high percentage of open questions. Inferences can be made to account for this occurrence. Once a class has adopted turn taking procedures that reduce talking out of turn then a teacher may be able to ask open questions without disruption. Therefore it must not be assumed that asking open questions means that talking out of turn will result necessarily. It seems likely that several factors interact and result in the Smooth or Disrupted Speaker Switch. However a teacher who asks a high percentage of open questions, and has a high percentage of talking out of turn, together with a low percentage of rule reminders, may be evidencing a Conversational teacher talk register.

Attention turns now to two types of questions identified in Phase 1.

1. Questions that carry a unison cue - requiring the class to answer together with the same answer.

Teacher: "The boy's name was::?"

2. Tag questions - those questions that do not require an answer but may stimulate one, the main function being to seek agreement:

Teacher "That was a nice story, wasn't it?"

It was suggested in Phase 1 that a high use of unison cues may be associated with a Non-Conversational teacher talk register, and that a high use of tag questions with a Conversational teacher talk register. However results from Phase 2 are inconclusive. The only teacher to use a high percentage of unison cues was Teacher 8a, with Teacher 8b using a medium percentage. All other teachers used few or none. A similar picture emerges with regard to tag questions. Only teacher 10a asked a high percentage of tag questions, with results showing that the other teachers ask very few.

Consideration of unison cues and tag questions completes the analysis of Teacher Exit, and attention now turns to Pupil Entry.

PUPIL ENTRY

It has been suggested that the method of pupil entry is a significant aspect of the Speaker Switch cycle. Specifically, the frequency with which the pupil gets a turn to speak by Self-Selection, that is by speaking and successfully getting the floor either from another pupil or from the teacher. Table 19 shows the results of analysis of types of Pupil Entry.

Table 19 Pupil Entry - Percentage of Self Selection

Teacher %	LOW 39-56	MEDIUM 57-74	HIGH 75-92
9b 40	-----		
8b 39	-----		
9a 49	-----		
6a 61	-----	-----	
8a 69	-----	-----	
10a 80	-----	-----	-----
6b 84	-----	-----	-----
10b 88	-----	-----	-----
7a 92	-----	-----	-----

It is interesting to investigate whether such self-selection directly interrupts the teacher's talk. When pupils self-select they may talk at the SAME time as the teacher and directly interrupt the teacher's talk, or they may talk in a gap or pause that occurs during the teacher's turn. It may be inferred that pupils who

interrupt the teacher more may be responding to a Conversational teacher talk register, as such interruptions are frequent and accepted in conversation. In addition, it could be said that such pupils have fewer opportunities to practice skills of communicative competence, which involve knowing when to speak and when not to speak in classrooms. Results of this analysis are shown in Table 20.

Table 20. Pupil Entry - Percentage that Interrupts Teacher's Talk

Teacher		LOW	MEDIUM	HIGH
	%	29-47	48-67	68-88
9b	29	-----		
8b	36	-----		
9a	42	-----		
6a	42	-----		
8a	51	-----	-----	
10a	62	-----	-----	
6b	61	-----	-----	
10b	72	-----	-----	-----
7a	86	-----	-----	-----

As shown in table 20 there is a correlation between percentage of talking out of turn, and frequency of pupil turns that directly interrupt the teacher's talk. Having examined key features of Pupil Entry, attention is directed to the Teacher's Response.

TEACHER'S RESPONSE

The Teacher's Response is the third stage of the Interaction cycle. This analysis is important for two reasons. Firstly because the response allows the teacher to regain the turn to speak, and secondly the pupil's method and content of contribution receives recognition through the response. In this way the pupil's behaviour that resulted in gaining a turn may be strengthened or weakened.

Results of Phase 1 show that teachers use different strategies when responding to pupils' contributions. At times some teachers affirm a response by giving feedback or by echoing the pupil's contribution. In these cases the teacher appears to focus on the content of the pupil's contribution, not the method of getting a turn, and this happens particularly when the pupil calls out the right answer. At other times the teacher may be neutral, appearing to ignore pupils' behaviour and simply continue the turn without comment. However sometimes the teacher may issue a veto concerning how the pupil got a turn to speak. Table 21 shows the percentage of affirming responses given by teachers.

Table 21 Teacher Response - Affirming

Teacher %	LOW 28-42	MEDIUM 43-58	HIGH 59-74
9b 73	-----	-----	-----
8b 61	-----	-----	-----
9a 59	-----	-----	-----
6a 46	-----	-----	-----
8a 39	-----	-----	-----
10a 35	-----	-----	-----
6b 28	-----	-----	-----
10b 50	-----	-----	-----
7a 36	-----	-----	-----

Table 21 shows a pattern evident in the results, as generally teachers with LESS Talking out of Turn use MORE affirming responses, giving more feedback to pupils, or echoing pupils' contributions. This factor reinforces the suggested interactive nature of the cycle. It seems reasonable to assume that teachers are able to give affirmation to those pupils who adhere to turn-taking procedures. However these are the same teachers who actively adopt strategies to teach appropriate turn-taking strategies.

Investigation turns to the percentage of responses that are neutral to the pupil's contribution. A neutral response appears to ignore the pupil's contribution with the teacher taking up the turn and continuing as if the pupil had not contributed. Do teachers who ignore

talking out of turn have pupils who follow turn taking rules? Results are shown in table 22.

Table 22 Teacher Response - Neutral

Teacher	%	LOW 21-32	MEDIUM 33-44	HIGH 45-56
9b	21	-----		
8b	33	-----	-----	
9a	29	-----		
6a	40	-----	-----	
8a	23	-----		
10a	55	-----	-----	-----
6b	41	-----	-----	
10b	41	-----	-----	
7a	39	-----	-----	

Table 22 shows that teachers with LESS talking out of turn have a low to medium percentage of neutral responses, and teachers with MORE talking out of turn give medium to high neutral responses. Therefore as a general trend it seems that ignoring talking out of turn is correlated with more of the behaviour.

Analysis is directed now to the percentage of responses which are coded as veto responses. Veto responses usually occur in response to the pupils' method of entry, rather than the content of the contribution. A response is coded as a veto when the teacher directly or indirectly shows disapproval to pupils who talk out of turn. These results are shown on table 23.

Table 23 Teacher Response - Veto

Teacher	%	LOW 6-15	MEDIUM 16-26	HIGH 27-38
9b	6	-----		
8b	6	-----		
9a	12	-----		
6a	15	-----		
8a	38	-----	-----	
10a	9	-----		
6b	31	-----	-----	
10b	9	-----		
7a	25	-----	-----	

As shown in table 23 a mixed result is evident. It is logical that Teachers 9b and 8b use a low percentage of Veto responses, as they have lower talking out of turn. However it is interesting to note the low percentage of Veto responses used by teachers with high talking out of turn. The fact that teachers 10a and 10b both have high talking out of turn and low Veto responses may be significant when notions of pedagogic discourse are being considered. At this point it is suggested that low Veto response with high talking out of turn indicates a Conversational teacher talk register.

SUMMARY

Analysis of the interaction cycles is complete, and results show support for the Phase One results. These data provide the basis of the teacher profiles which lead to the classification of teacher talk register. The collated results of the interaction cycles are shown in table 24.

Table 24 Data for analysis of teacher talk register

Teachers	9b	8b	9a	6a	8a	10a	6b	10b	7a
%									
SSS	60	59	43	39	30	20	16	13	9
DSS	40	41	57	61	70	80	84	87	91
TEACHER EXIT									
Questions	72	65	60	58	49	34	32	31	40
Comment	28	35	40	42	51	66	69	69	60
Turn Allocation	66	60	49	45	36	7	19	14	24
Rule reminder	0	0	6	3	1	0	2	0	0
Open questions	12	4	5	8	11	9	7	10	14
Flags	6	2	1	13	20	7	0	5	3
Tag question	0	0	1	1	0	5	2	6	0
Unison cue	0	1	5	1	0	13	2	0	1
PUPIL ENTRY									
Self Select	40	39	49	61	69	80	84	88	92
Interrupt	29	30	42	42	51	62	61	72	86
TCHRS RESPONSE									
Affirm	73	61	59	46	39	35	28	50	36
Neutral	21	33	29	40	23	55	41	41	39
Veto	6	6	12	15	38	9	31	9	25

As stated these results form the basis of the profiles for each teacher. Results are categorised as high, medium or low for each factor, and a profile is developed from the trend in the results. Full details will be found in the appendix. A summary of the results for each school is shown in figure 15.

Figure 15 The teacher talk register for 9 Teachers in schools 6, 7, 8, 9, 10.

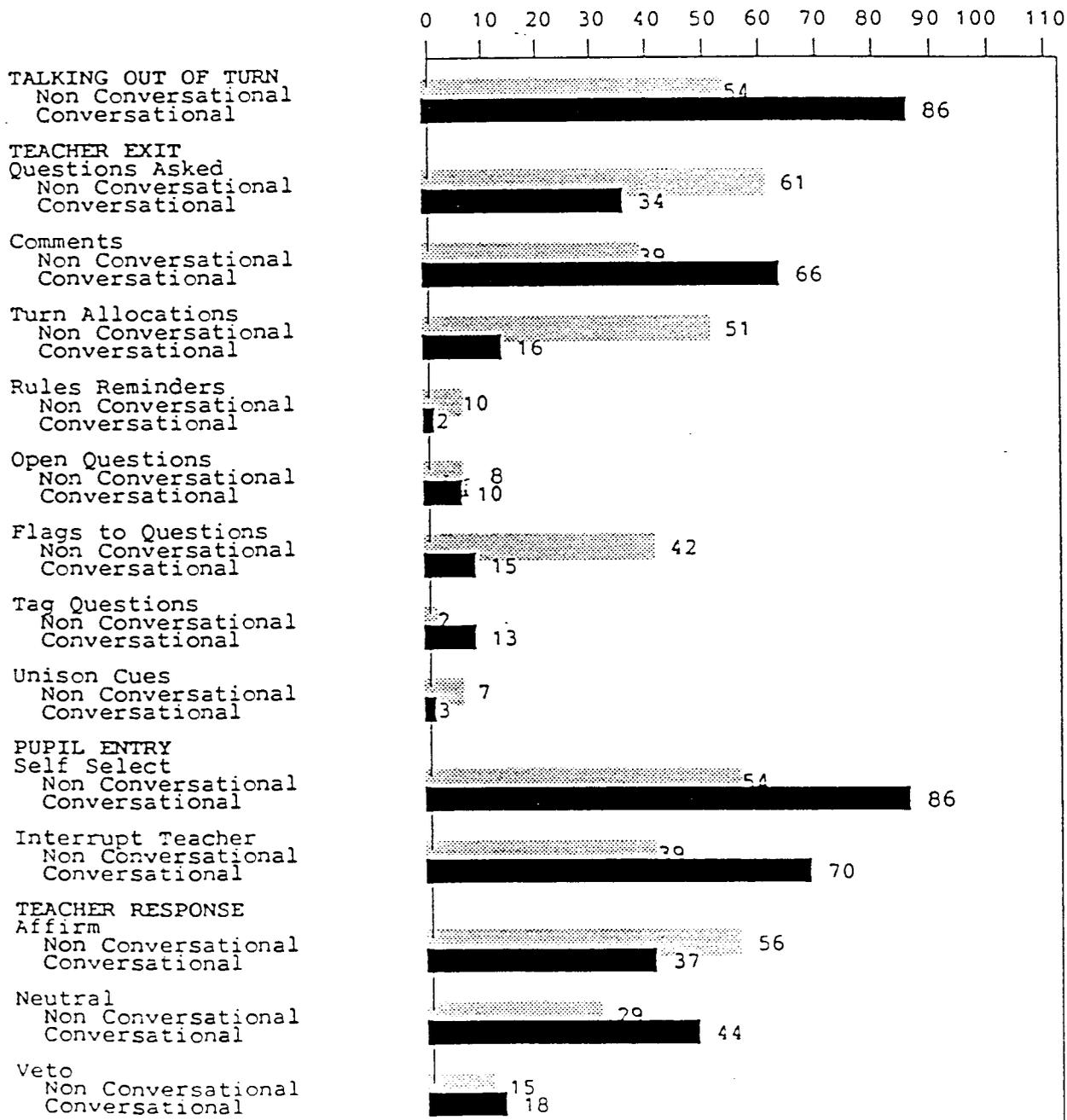
	Non-Conversational teacher talk register	Conversational teacher talk register
6a	X	
6b		X
7a		X
7b	n/a	
8a	X	
8b	X	
9a	X	
9b	X	
10a		X
10b		X

As shown in figure 15 in three schools (school 8, 9, 10) both teachers were classified as the same teacher talk register. In one school (School 6) teachers were classified differently and in school 7 only one teacher was classified. The small numbers do not permit reasonable conclusions to be drawn, however it is interesting to note the similar results in three schools.

THE TEACHER TALK REGISTERS

Attention is directed to the differences between the Non-Conversational and Conversational teacher talk registers, and these are shown in summary in table 25.

Table 25 Mean of Factors of the teacher talk registers



As shown in table 25 consistent differences are found between the factors as identified for each register. It must be emphasised that these registers are considered to apply to the context of group time, and no generalisation is claimed. Furthermore the profile for each teacher is based on trends in results.

At this stage data have led to the identification of the frequency of talking out of turn for each group, and the classification of teacher talk register. These results are collated in figure 16, and show a relational tendency between type of teacher talk register and frequency of talking out of turn.

Figure 16 9 Teachers in rank order of Talking out of Turn showing teacher talk register

	Teacher Talk Register	Talking out of Turn
9b	Non conversational	Low
8b	Non conversational	Low
9a	Non conversational	Medium
6a	Non conversational	Medium
8a	Non conversational	Medium
10a	Conversational	High
6b	Conversational	High
10b	Conversational	High
7a	Conversational	High

As shown in figure 16, teachers with a low to medium percentage of talking out of turn were classified as Non-Conversational, and those with a high percentage of Talking out of Turn as Conversational teacher talk register. In schools 8 and 9 both teachers were classified as Non-conversational and both had low to medium talking out of turn. In school 10 both teachers are classified as Conversational teacher talk register and both had high talking out of turn. It must be emphasised that these classifications represent broad categories only. The analysis of Phase One identified more detailed factors and categories, however in order to simplify data analysis some categories have been collapsed, and trends in data were sought so that patterns could be revealed.

So far attention has been directed to the analysis of teachers and groups in order to identify the frequency of talking out of turn, and the teacher talk register of each teacher. Now the notion of pedagogic discourse will be explored. Is it possible that the similarities found in teacher behaviour can be shown in their pedagogic discourse? Will there be links to the official pedagogic discourse articulated by the Headteacher in these schools? In order to investigate these notions structured interviews were conducted with the two teachers and the Headteacher from each school. A report of these findings is given in the following section.

PEDAGOGIC DISCOURSE

Attention will be directed to the construction of the pedagogic discourse in each school. As discussed previously, the focus of interest will be the different meanings, explanations, accounts and causal attributions that are made concerning pedagogy. It is postulated that the data might show links between individuals' discourse and the official pedagogic discourse of the school as articulated by the headteacher, and patterns in classroom management strategies identified through the teacher talk register. The source of data is the structured interviews and in summary the aims of the interviews are:

- a) To identify discourse elements relevant to pedagogical knowledge as articulated by the headteacher and two teachers.
- b) To identify links between the teachers' discourse and the official school discourse articulated by the headteacher.
- c) To identify links between the teacher talk register and the pedagogic discourse.

## CONTENT OF THE INTERVIEWS

The content of the interviews covered several topics which probed the teacher's pedagogical knowledge. The topics (and abbreviations used in results) are outlined here:

Child Centred Education (CCED) - What do staff understand by the term "Child Centred Education"? Is the practice in this school child centred? How do staff account for positive and negative aspects of realising the principles of child centred education in the classroom?

Behaviour (BEH) - What do staff think of the view that some pupils have difficulty in learning how to behave in the classroom? How do staff account for such difficulties?

Teacher's Response (RSPS) - At times teachers may ask pupils to put up their hands to speak and then respond to the pupils who call out. How do staff account for the teachers' behaviour?

Rules (RULE) - How do staff view the need for rules in the classroom?

Talking out of Turn (TOOT) - How do staff account for the fact that talking out of turn occurs, even when rules govern this behaviour?

Rule Reminders (RR) - If staff have rules, what are their views on how pupils learn the rules?

Gap (GAP) - Do staff agree that a gap may exist between the way the teacher would like a class to run and what actually happens? If so, what reasons are given to account for this gap?

Praise (PRSE) - Do staff think praise is important? If so, what reasons are given to support the use of praise? What do staff think of the view that it is used infrequently in classrooms?

#### ANALYSIS OF INTERVIEWS

In five schools structured interviews were conducted with the headteacher and two teachers. A total of fifteen interviews was conducted, audio recorded and analysed. Transcripts of the interviews have been verified and signed as a true record by the interviewees, and these are available for scrutiny if required.

The first level of analysis of these data follows Miles and Huberman's (1984) method of focussing, simplifying, abstracting and transforming data. In order to do this the discourse elements, that is the key words or descriptors, must be identified. For this level of

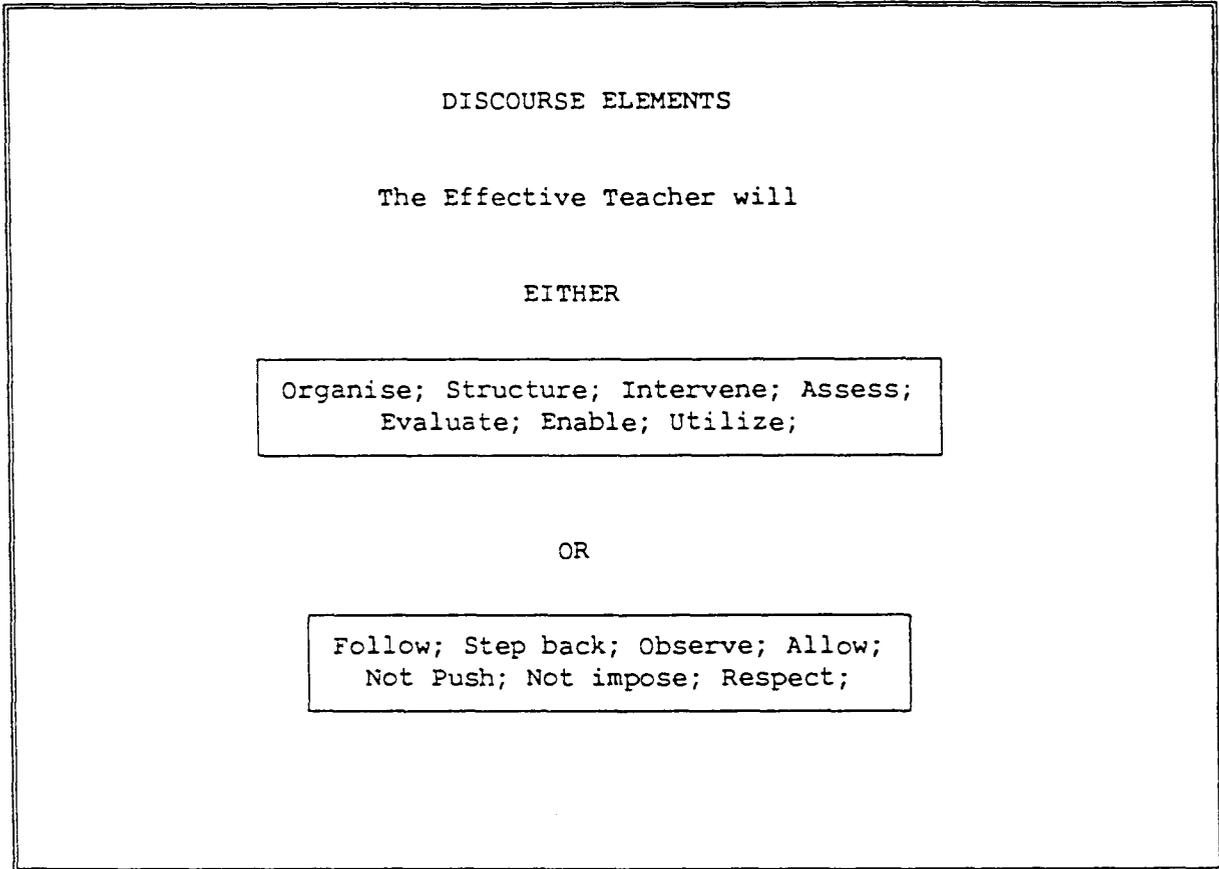
analysis certain interview questions have particular relevance and these are questions 3, 4, 5, 10 and 11.

Questions 3 and 11 focus on academic learning and questions 4, 5 and 10 on classroom behaviour. How does the teacher perceive the process of learning takes place, and what is the teacher's role? Why do pupils have difficulty learning classroom behaviour? Does appropriate behaviour need to be "taught" or does learning occur through modelling?

The results of the analysis of interview data showed that the teachers' responses could be classified into two types. However it is important to note that two teachers (8a and 10a) did not fit the criteria, and so they are not included in the following analysis but are discussed as separate cases.

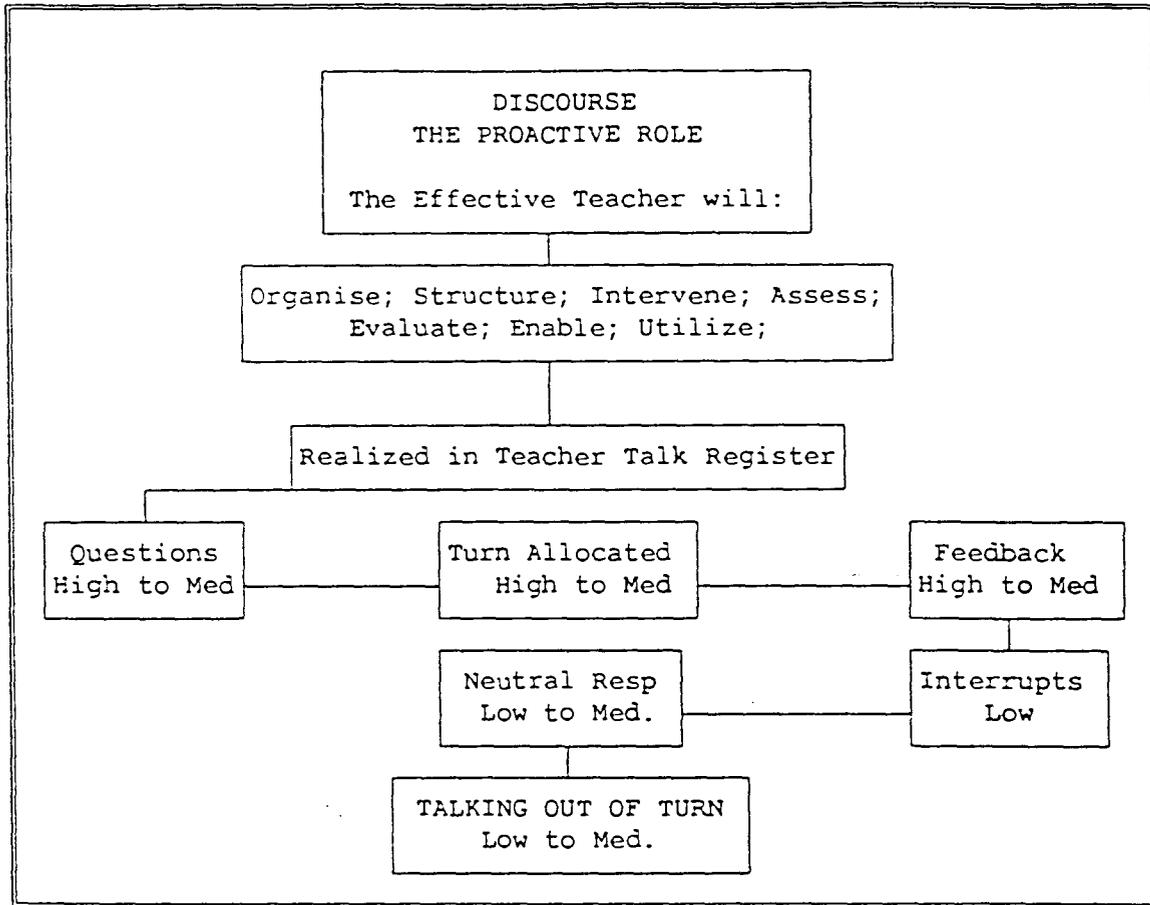
Examination of interview material for the remainder of the teachers shows evidence of patterns in discourse elements. Certain discourse elements are taken to signify that the effective teacher should take a PROACTIVE role in the learning process, and therefore it is the teacher's responsibility to initiate and structure teaching and learning. Other discourse elements are taken to signify that the teacher should take a REACTIVE role where the teacher follows and responds to pupil's initiatives in learning. These two groups of discourse elements are shown diagrammatically in figure 17.

Figure 17 Discourse Elements signifying the Teacher's role in the teaching and learning process.



It is claimed that the first group of discourse elements indicates pedagogical knowledge that states the effective teacher will adopt a PROACTIVE role in the teaching and learning process. The relationship between discourse elements and teacher talk register is conceptualised in figure 18, and it can be seen that five teachers articulated the elements of the proactive role.

Figure 18 Pedagogical Knowledge - The PROACTIVE role Teachers 6a, 7b, 8b, 9a, 9b;

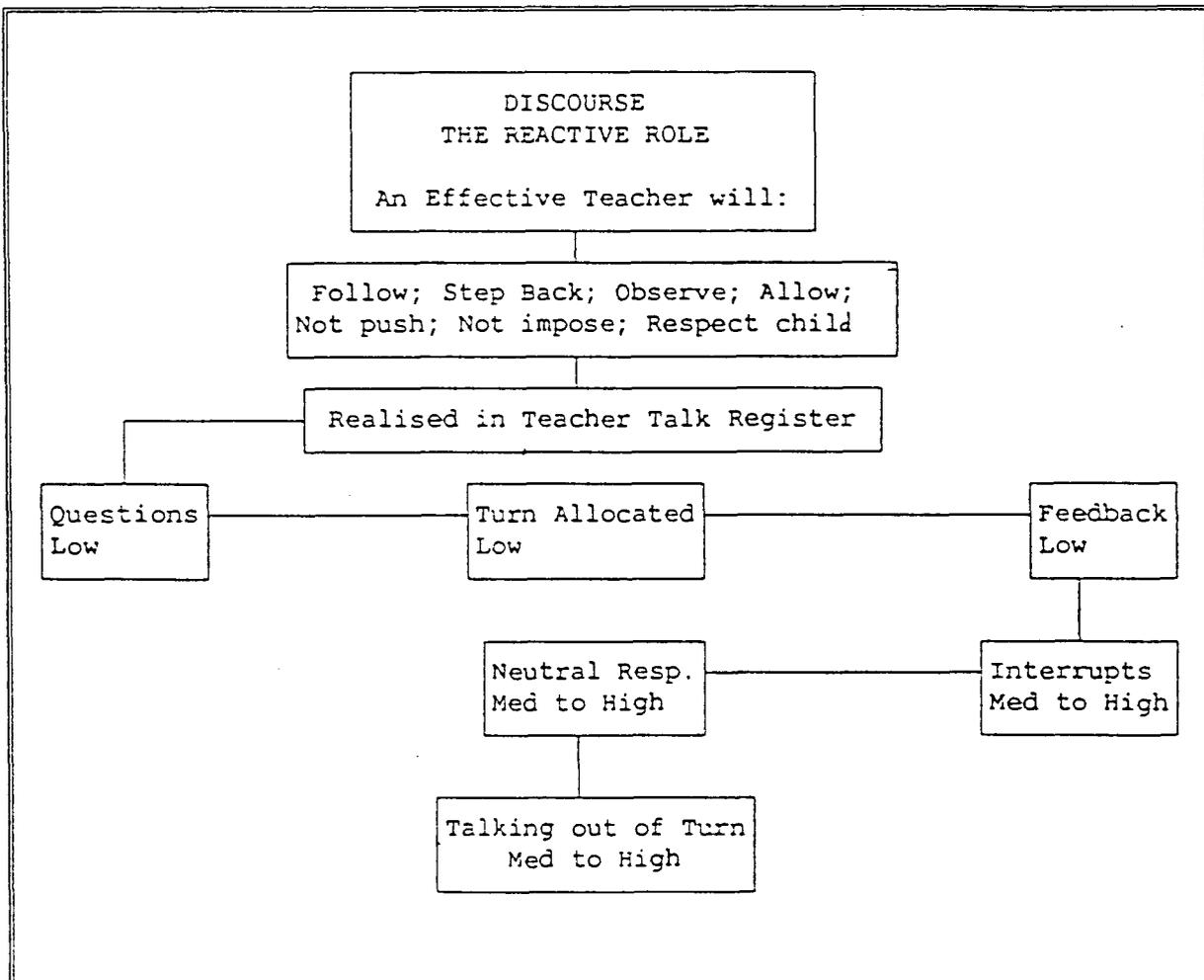


As shown in figure 18 five teachers articulated discourse elements associated with a proactive role for the teacher. The teacher talk register shows that these teachers ask more questions, give more turn allocations, more feedback, have pupils who interrupt less, and have less talking out of turn than the other group of teachers. It is concluded that this practice accords with the pedagogic discourse that articulates a PROACTIVE role.

By contrast figure 19 shows that Teachers 6b, 7a,

and 10b articulate discourse elements that signify that an effective teacher has a REACTIVE role. Figure 19 links this knowledge to the teachers' management of the interaction cycle shown by the teacher talk register .

Figure 19 Pedagogical Knowledge - The REACTIVE role Teachers 6b, 7a, and 10b.



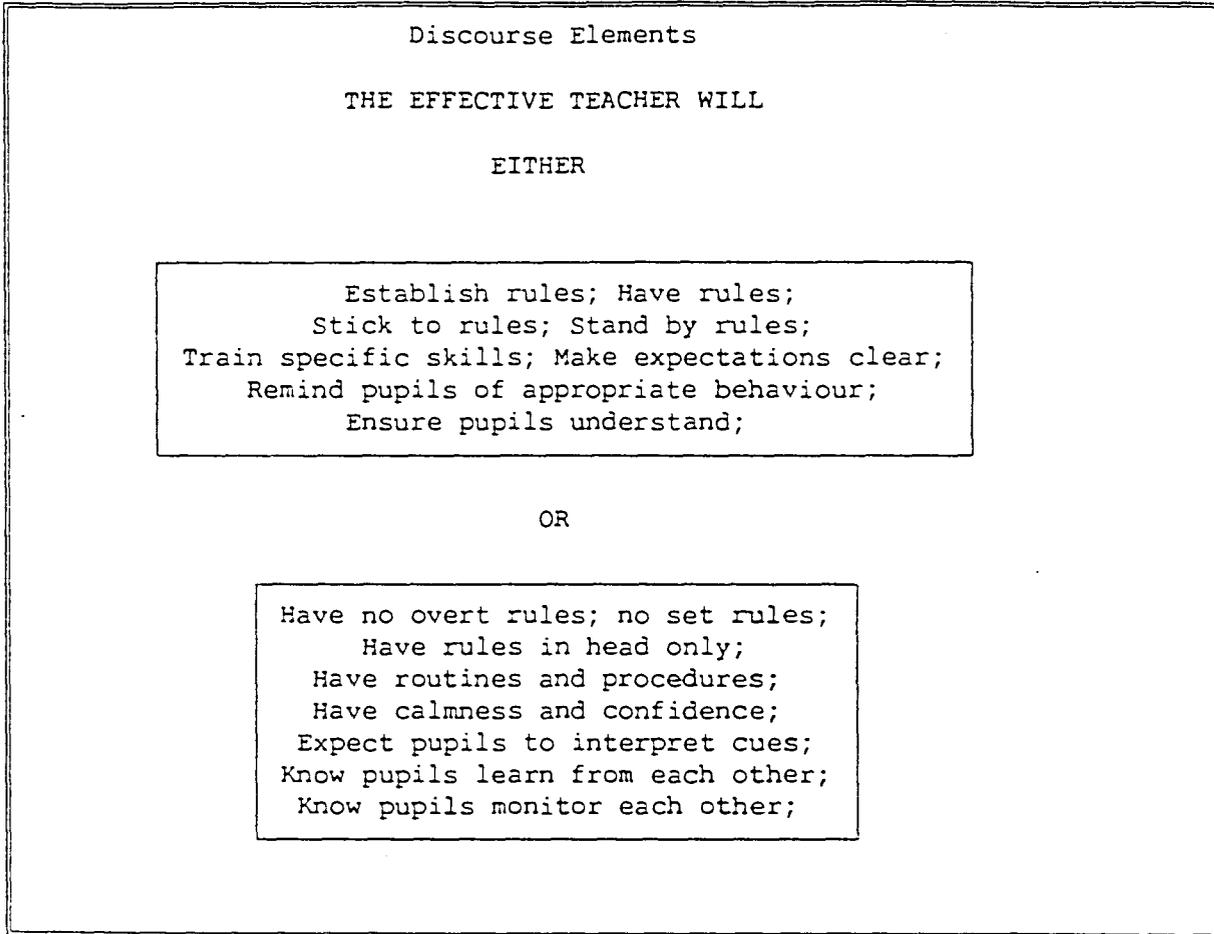
It can be seen that the discourse elements are realised in the teacher talk register by fewer questions being asked, fewer turns being allocated, less feedback given to pupils and more neutral responses to the pupils'

contributions. Pupils in these classrooms interrupted the teacher more, and there was more talking out of turn. It is concluded that this practice accords with the pedagogic discourse that articulates a Reactive Role.

It can be seen in figures 18 and 19 that alignment can be shown between particular discourse elements and teacher talk register. Attention is directed to pedagogical knowledge concerning management of pupil behaviour.

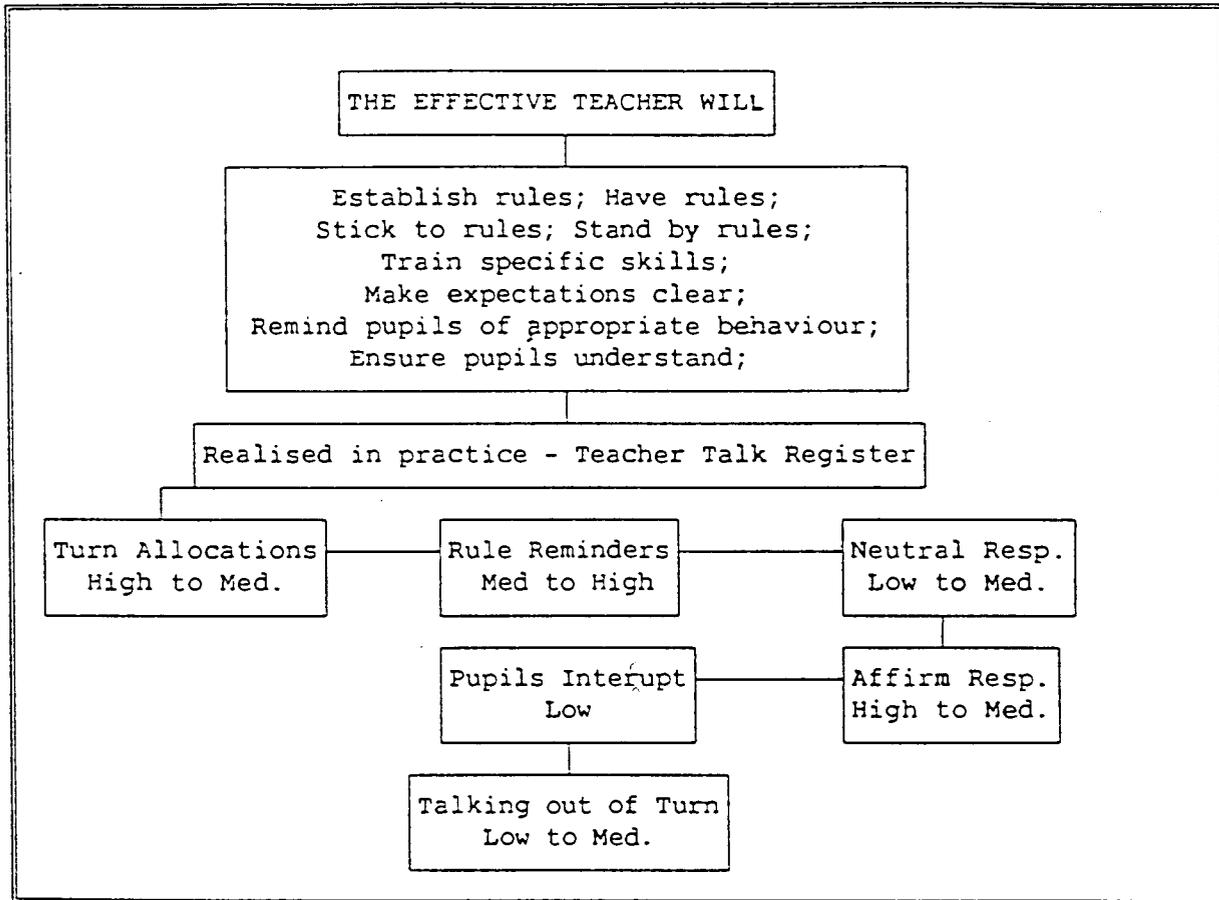
Interview questions probed knowledge concerning the teacher's role in classroom management. Questions concerned the need for rules and the application of rules particularly those rules applied at Group Time, and rules for turn-taking. Again two sets of discourse elements were identified, and these are shown in figure 20.

Figure 20 The Teacher's role in management of behaviour



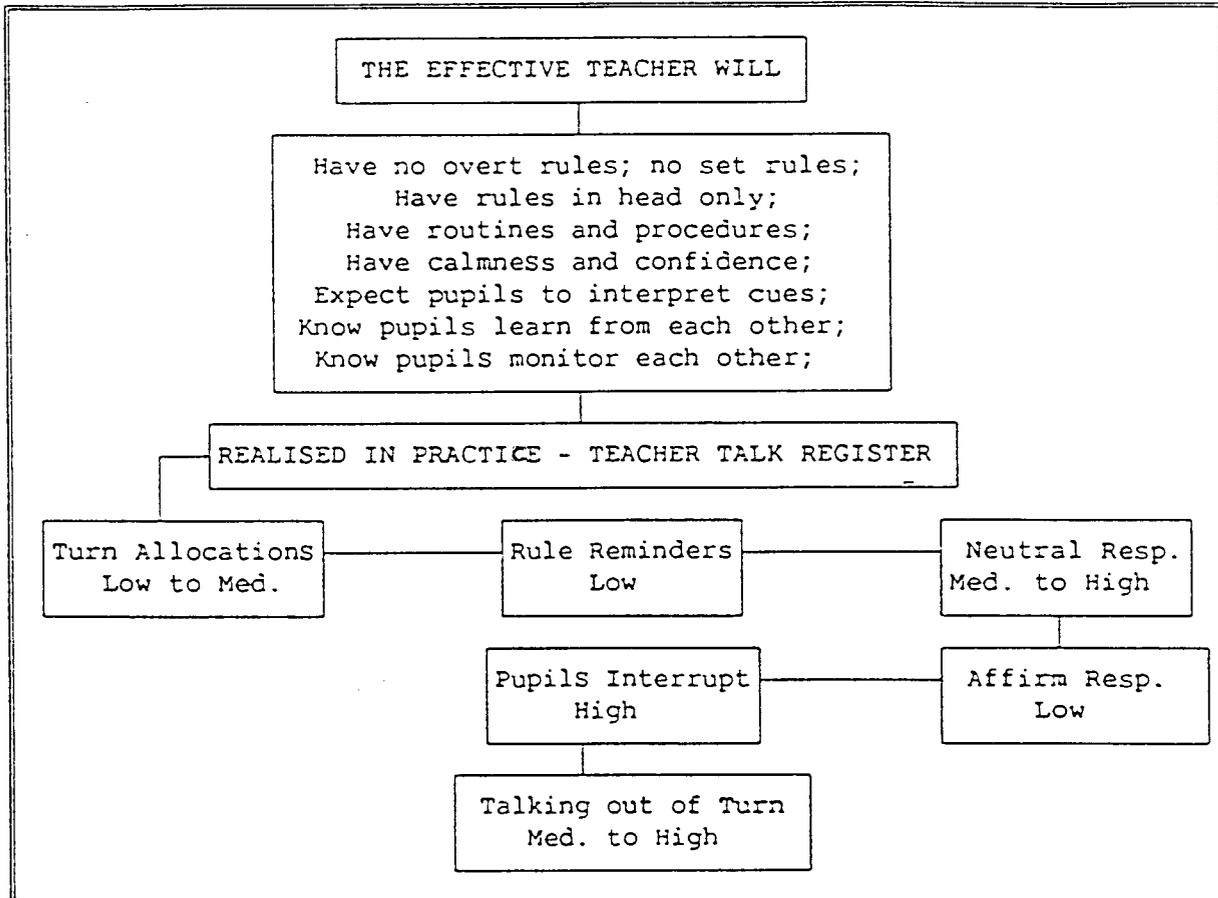
It is suggested that the first group of discourse elements indicates pedagogical knowledge that <sup>means</sup> an effective teacher has a direct role in establishing order and providing limits for pupils. By contrast the second group suggests an indirect role, where the efficacy of pupils learning from each other is emphasised, and therefore rules are unstated. Figures 21 and 22 show links to teacher talk registers.

Figure 21 Pedagogical Knowledge - The Proactive Role in Behaviour Management Teachers 6a, 7b, 8b, 9a, 9b.



As shown in figure 21 teachers who articulate a proactive and direct role for the teachers are those who give more turn allocations, more rule reminders, more feedback, ignore pupils less, have fewer pupils who interrupt them, and less talking out of turn. Figure 22 explores these links concerning teachers articulating a reactive and indirect role.

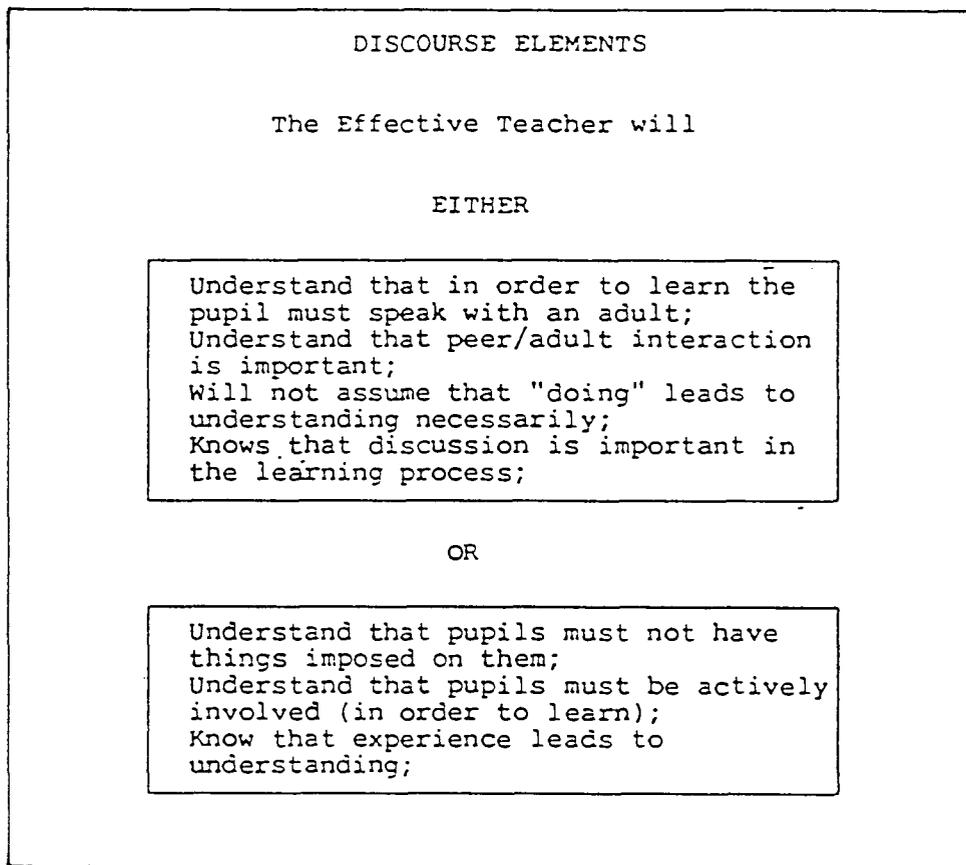
Figure 22 Pedagogical Knowledge - The Reactive role in behaviour management Teachers 6b, 7a, 10b;



As shown in figure 22 teachers articulating a reactive and indirect role gave fewer turn allocations, fewer rule reminders, ignored pupils' contributions more, gave less feedback. More pupils interrupted the teacher and there was more talking out of turn in these classrooms.

Attention now turns to the teachers' conceptualisation of the pupil's role in the learning process. Again two types of discourse elements were articulated, and these are shown in figure 23.

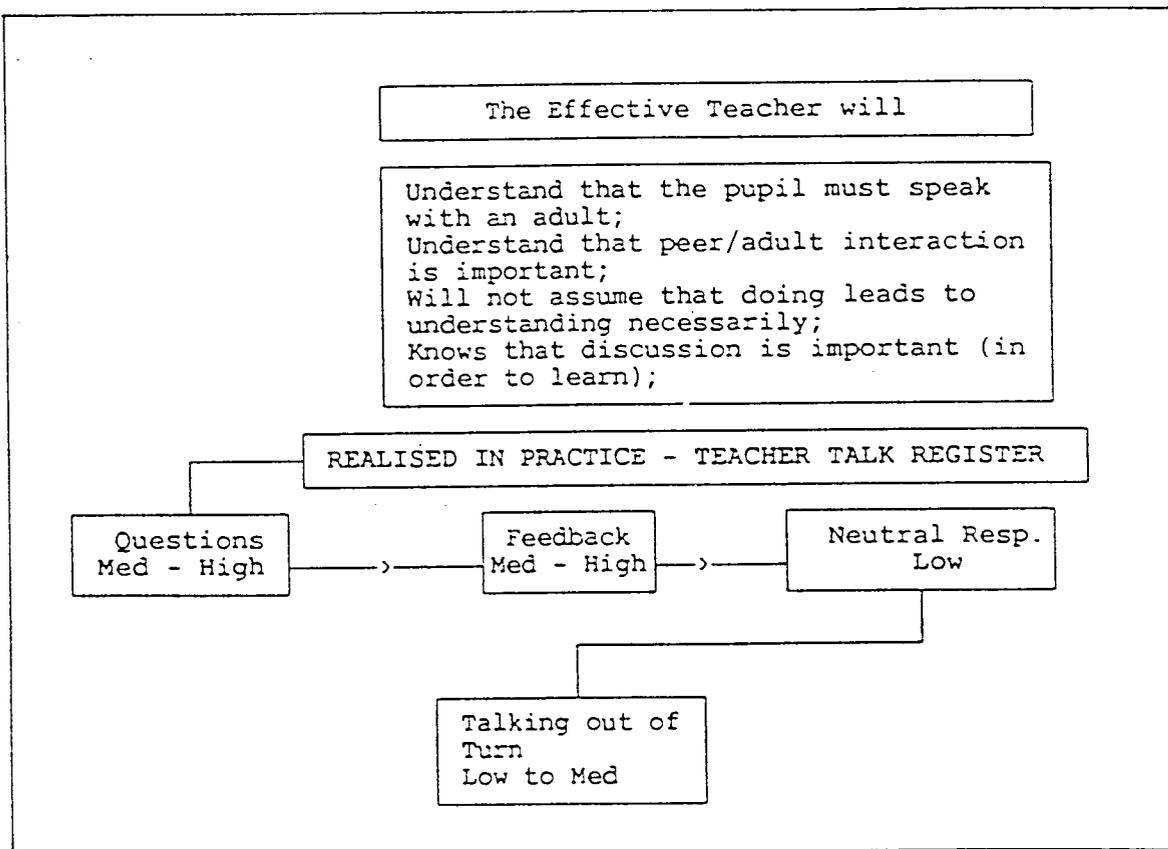
Figure 23 Pedagogical knowledge - the Pupil's Role in Learning



As shown in figure 23 the first group of discourse elements signify that pupils need interaction with an adult to gain understanding from an experience, and that pupil activity alone may be insufficient. The pedagogical knowledge articulates that pupils' concrete experience is necessary but may not be sufficient to

ensure that learning will take place. Figure 24 relates this knowledge to the teacher talk register.

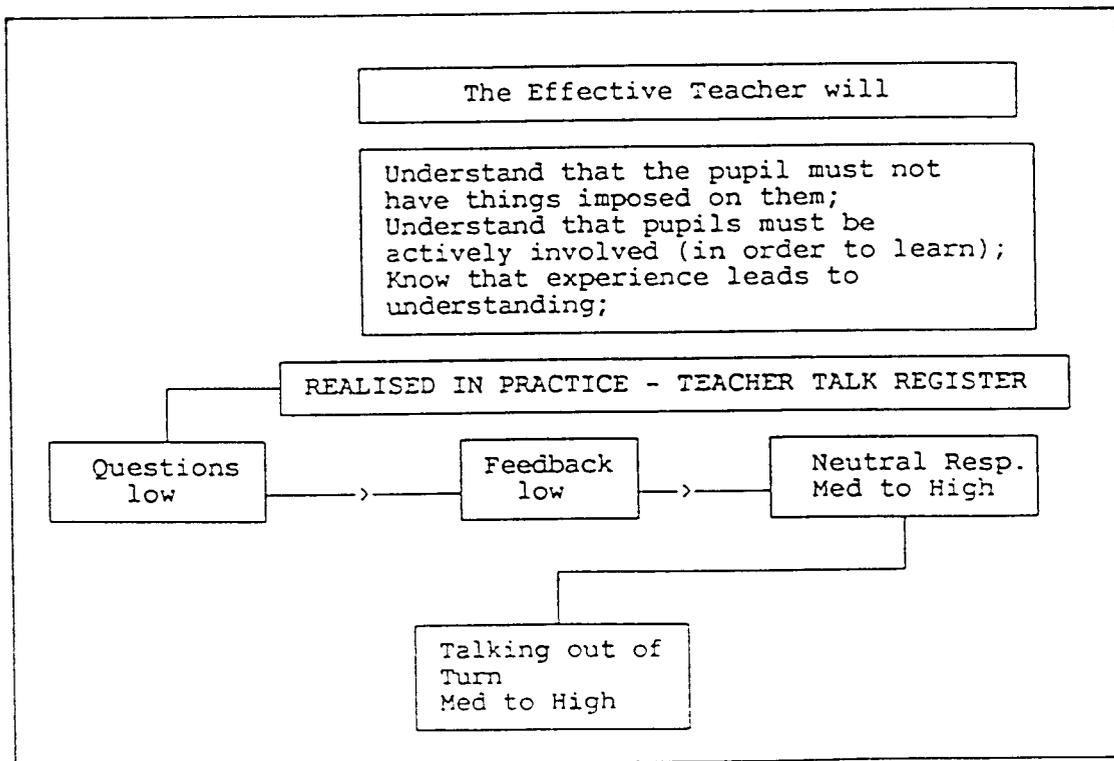
Figure 24 Pedagogical Knowledge - Interaction with teacher necessary for learning  
Teachers 6a, 7b, 8b, 9a, 9b;



As shown in figure 24, teachers who articulate discourse elements signifying the proactive teaching role that

engages pupils in interaction actually were more active in initiating and responding to language than the other group. These teachers asked more questions, gave more feedback, gave fewer neutral responses, and had less talking out of turn. Figure 25 shows links between these discourse elements and teacher talk register.

Figure 25 Pedagogical Knowledge - Pupils' direct experience necessary and sufficient for learning: Teachers 6b, 7a, 10b.



As shown in figure 25 teachers articulating discourse elements that signify that pupils' direct experience is

necessary and sufficient for learning realise this in practice with fewer questions, less feedback, higher neutral response and more talking out of turn.

#### SUMMARY

Analysis has shown that discourse elements can be classified into two groups, and that links are evident between these groups and teachers' management of their classroom groups. The first group articulates a PROACTIVE teacher role, claiming that pupils learn when teachers take an active role in the process, and pupil exploration alone is insufficient for learning without teacher input. Pupils learn acceptable classroom behaviour directly from the teacher, and this occurs when rules are established and made explicit by the teacher. This pedagogical knowledge is realised in practice by a teacher who takes direct action by asking more questions, allocating more turns, giving more rules reminders and more feedback. There is less talking out of turn in these classrooms.

The second group articulates a REACTIVE teacher role, claiming that teachers must support pupils' initiatives in learning, rather than imposing learning on them, and that pupil exploration is sufficient for

learning to occur. Pupils learn behaviour from other pupils, or indirectly from the teacher, and therefore rules are unnecessary. This pedagogical knowledge is realised in practice by teachers who take indirect action by asking fewer questions, allocating turns less, giving fewer rule reminders and less feedback. There is more talking out of turn in these classrooms.

At this stage three sources of data have been used and the data analysed. These sources are:

1. The analysis of Group Time to identify frequency of talking out of turn ;
2. The classification of preferred teacher talk register;
3. The interview and articulation of pedagogic discourse.

Figure 26 shows the rank order of teachers in frequency of talking out of turn, the teacher talk register, and the Proactive or Reactive pedagogic discourse.

Figure 26 Rank order of talking out of turn , the teacher talk register and Pedagogic Discourse;

	TEACHER TALK REGISTER	PEDAGOGIC DISCOURSE
9b	Non-Conversational	Proactive
8b	Non-Conversational	Proactive
9a	Non-Conversational	Proactive
6a	Non-Conversational	Proactive
7b	n/a	Proactive
8a	Non-Conversational	Pro/Reactive
10a	Conversational	Proactive
6b	Conversational	Reactive
10b	Conversational	Reactive
7a	Conversational	Reactive

As shown in figure 26 there is evidence of a pattern in the data. The four teachers with least talking out of turn, are classified as Non-Conversational teacher talk register and articulate discourse elements of the Proactive teacher role. On the other hand the three teachers with the most talking out of turn, classified as Conversational teacher talk register, articulate discourse elements of the Reactive teacher role. There are two exceptions to this pattern, teachers 8a and 10a, and discussion will focus on these teachers now.

#### TEACHER 8a

Teacher 8a occupies the median position in rank

order of talking out of turn, and is classified as Non-Conversational teacher talk register. Data from the interview shows a mixture of discourse elements, with both PROACTIVE and REACTIVE roles being articulated, and contradictory at times.

Teacher 8a expresses the dilemma of being trained in a set of pedagogical knowledge, and finding that the practical context demands another set. This teacher articulates the conflict between the "ideal" of pupils "doing their own thing all day" because they are stimulated and motivated to learn, and the pragmatic need to meet the demands of the National Curriculum because the teacher has to "cover so much maths and science". This was emphasised by the discourse elements

"letting them go"

and "leading them on"

where letting them go means allowing pupils to be self-directed learners. (Reactive Discourse) and leading them on means ensuring they learn knowledge the teacher wants them to learn (Proactive Discourse). It is interesting to note that results of analysis of group time shows that this teacher asks a high percentage of questions, ("leading them on") using the highest percentage of question flags, indicating the Non-Conversational teacher talk register.

Teacher 8a expresses an additional area of conflict concerning the pupils. This teacher comments that she had been taught that interesting learning experiences would result in pupils who were highly motivated to learn. However the classroom reality is that there are always some pupils who do not seem interested in learning anything. So pupils "have to be pushed" into learning, and this does not accord with her pedagogic knowledge. This teacher says nothing works the way they said it would at University, and so when you become a teacher "you just feel like you're failing".

When discussing classroom behaviour this teacher comments that pupils "pretty quickly pick up the idea" about how to behave. The teacher "just expects" certain behaviour so that it is unnecessary to have "lists of rules". These are the REACTIVE discourse elements where teachers' expectations are "picked up" by pupils. This teacher notes that some pupils have problems at school because of lack of structure at home but there should not be "rigid rules", and importance is placed on the teacher being "flexible" with rules. Often the teacher "doesn't bother to pick up" the pupils who Talk out of Turn because pupils are "quite judgemental" to those who transgress, and this "allows" the teacher to "sort of build on that". This is the discourse of the REACTIVE role. The teacher responds to the perceived

needs of individuals and the construction of events at that moment.

However it should be noted that results of analysis of group time show that far from waiting for pupils to "pick up" turn-taking rules, this teacher actually gives the HIGHEST number of veto responses to pupils who violate turn-taking rules. In addition a high number of responses that provide positive feedback is given. This indicates that talking out of turn is being actively discouraged and desired behaviour coached, rather than simply waiting for pupils to "pick up" how to behave.

The conflict between the Proactive and Reactive roles is articulated when teacher 8a said

You can get them to behave the way you want them  
to behave in YOUR classroom (Proactive discourse)

but also

it is important that pupils have a sense that  
this is THEIR classroom (Reactive discourse)

This duality seems to typify this teacher's dilemma. To whom does this classroom belong? Is it "MINE" or is it "THEIRS"?

It may be inferred by the mixed discourse that this teacher is in the process of change. It seems that in order to fulfil her conceived teaching role it is necessary to adapt the pedagogical knowledge formed during the pre-service training. The fact that this teacher is new to the school may be significant because the influence of the official discourse may have highlighted the conflict that is articulated. This notion finds support in the fact that the discourse of the headteacher is classified as "Reactive", and teacher 8b as Proactive. It is speculated that some influence may be exerted because teachers 8a and 8b teach in connecting classrooms.

#### TEACHER 10a

Teacher 10a is the only teacher whose teacher talk register and pedagogical discourse seem to lack cohesion. It is interesting to note that in rank order of talking out of turn this teacher occupies sixth position after teacher 8a, discussed previously.

The interview with this teacher was unusual because it was extremely brief and the teacher appeared ill at ease. This was shown by a refusal to sit down during the interview, frequent sighs, and glances at the door. It

is inferred from this behaviour that the teacher did not want to be interviewed, and this was puzzling as the previous week she had appeared to be very enthusiastic about being part of the study. No explanation can properly account for this teacher's behaviour, however during the observation period the previous week she apologised to the researcher for the content of the lesson saying

If they'd told me you were coming to watch I wouldn't be doing phonics, I know we're not supposed to do it because they say it's too structured but these children really need it.

It is inferred from this statement that this experienced teacher is finding it difficult to concur with the official discourse in the school. In order to fulfil the pupils' perceived needs this teacher has to do things "they say" she shouldn't do, and these are things that she will change if she knows an observer is going to be present. This teacher finds ways to teach in the way she "knows" to be the right way but is aware that "they" say she's not supposed to do so.

During informal conversations the week before the interview, she spoke at length about her intense dissatisfaction with the school system, the inability of children to learn and the lack of discipline and respect for teachers. This teacher had resigned during her first

year at the school, however her plans to return overseas to teach had been disrupted by the Gulf War. Now she is hopeful that this appointment will go ahead soon.

Overall there seems to be a lack of connection between the analysis of this teacher's discourse of the Proactive teacher, and the teacher talk register. This teacher articulates the knowledge that the teacher must take an active role in the teaching/learning process, yet she asks comparatively few questions and gives a low level of feedback to pupils. She states that pupils learn when rules are clearly expressed, and that behaviour is learned directly from the teacher. However she does not give rule reminders and she gives the highest level of neutral responses to pupils contributions, with a pattern of ignoring the pupil and continuing the topic.

At times contradictory strategies were employed. She gives a high percentage of tag questions, but also the highest percentage of unison cues. In the first phase of the study unison responses were associated with a Non-Conversational teacher talk register. Unison responses entail pupil participation that is highly controlled by the teacher, and it is difficult to tell which pupils are participating. In phase one Tag Questions were associated with a high level of talking out of turn, and a Conversational teacher talk register. By using unison cues and tag questions at a high rate this teacher is using both Non-Conversational and

Conversational teacher talk register.

When asked how pupils learn the correct behaviour, this teacher says that pupils learn how to behave

By being told what's right and what's wrong  
They've GOT to be TOLD how to behave

However no reminders concerning turn-taking are given and there is a high percentage of talking out of turn. The most frequent response is to ignore the behaviour, and here a link is found between discourse and practice as it is stated

I don't praise them for not doing something they know not to do. They just know that they don't call out, and they don't. Most times they just get ignored

The children do get ignored, but they also call out, (talk out of turn) a great deal.

Concerning rules this teacher says she had "lots of rules", however at no time are pupils reminded of rules, or given guideline concerning the way to get a turn, in spite of the fact that many pupils are not using correct turn-taking procedures.

This teacher attributes pupils' difficulty in

maintaining rules to the home. Thus pupils have difficulty with turn taking because they are

used to speaking whenever they want to at home

However when asked to explain why teachers respond to pupils who call out this teacher says that

it is because they have said something relevant or important

and the issue of consistency is not raised. The teacher makes external attributions to account for her teaching strategies and methodology, she said she is unable to use a child-centred approach because her class of five and six year olds is

...too disruptive: they need to be kept under control and you need to watch everything that they are doing...if I had the other class, the parallel class, then I would, yes...

Here the process of mitigation is made clear. According to the headteacher the pupils are assigned to a class on a random basis, and yet this particular group of pupils is used to account for the teaching methods being used. There is no reflection on the view that the methods may have had an effect on pupil behaviour.

Discussion of teacher 10a has focussed on the apparent disjunction between pedagogical knowledge and the teacher talk register. Further discussion will indicate that there is a disjunction between this teacher's discourse and the official discourse of the school. What explanation can account for the disjunction between pedagogic discourse and teacher talk register evidenced at Group Time? It is suggested that the teacher's management of Group Time was atypical and affected by the presence of the researcher and recording equipment. In other words she handles the group in the way she assumes is acceptable to the school and researcher, and not according to her pedagogic knowledge, and this may account for her unease during the interview. It seems reasonable to assume that this teacher is not willing to "adapt" to the official discourse of the school, and thus resignation becomes inevitable.

#### Summary

The discourse of two teachers has been discussed and related to their teacher talk register. The discourse of teacher 8a reveals conflicts and changes in pedagogical knowledge which are reflected in her teacher talk register. The discourse of teacher 10a shows little relationship to her teacher talk register, and this disjunction is explained by the teacher's rejection

of the official pedagogic discourse, but behaving in the recorded group session in the way she thought the researcher expected.

It is interesting to note that these teachers are ranked fifth and sixth on the talking out of turn continuum, with the ends of the continuum showing the most distinct patterns that link pedagogic discourse and teacher talk register. The discussion of the pedagogic discourse of the teachers is ended, and attention is directed to the official pedagogic discourse in each school.

THE OFFICIAL PEDAGOGIC DISCOURSE

Attention is now directed to the notion of the official discourse. As previously stated it is expected that the headteacher will articulate the official pedagogic discourse of the school. The interview data is expected to reveal the nature of the power and influence of the headteacher concerning the degree to which staff are expected to adhere to the official discourse.

The first step is to apply the criteria previously used to ascertain whether the elements articulate the Proactive or Reactive role for the teacher, and the results of this analysis are shown in figure 27.

Figure 27 The discourse of five Headteachers

OFFICIAL DISCOURSE	
6HT	Proactive
7HT	Proactive
8HT	Reactive
9HT	Reactive
10HT	Reactive

As shown in figure 27, two headteachers articulate the Proactive role for the teacher, and three articulate the Reactive role for the teacher. When the headteacher and teachers are aligned, are there similarities within schools? The discourse of each individual was grouped according to schools, and this is shown in figure 28.

Figure 28 The classification of discourse

	PROACTIVE	REACTIVE
6HT	X	
6a	X	
6b		X
7HT	X	
7a		X
7b	X	
8HT		X
8a	X	
8b	X	
9HT		X
9a	X	
9b	X	
10HT		X
10a	X	
10b		X

As shown in figure 28 discourse within schools varies. How can these differences be explained? Firstly, the small number of staff from each school may not allow obvious patterns to be revealed. Secondly, patterns may be revealed only when finer analysis has been carried out, and thirdly the influence of mobility of staff may be significant.

#### Staff Mobility

It is suggested here that some differences can be

explained by staff mobility. Length of service in the school may be a factor in the construction of the individual teacher's pedagogic discourse that shows links to the official discourse as articulated by the headteacher. Figure 29 shows the classification of discourse together with length of service.

Figure 29 The classification of discourse and length of service in school.

	PROACTIVE	REACTIVE	SERVICE IN SCHOOL
6HT	X		5th year
6a	X		6th year
6b		X	Probationer
7HT	X		2nd year
7a		X	19th year
7b	X		Probationer
8HT		X	2nd year
8a	X		1st year
8b	X		1st year
9HT		X	Acting one term
9a	X		3rd year
9b	X		2nd year
10HT		X	7th year
10a	X		2nd year (resigned)
10b		X	16th year

As shown, at school 6 the discourse of the headteacher and teacher 6a is classified "Proactive"; these two had worked together for six years and the results of the interviews showed similarities which will be discussed later. The discourse of teacher 6b is "Reactive", this is her first year in school 6 and she is a probationary teacher.

By contrast the headteacher of school 7 is in her second year at the school and teacher 7b a probationer in his first year, however teacher 7a has been at the school for 19 years. Teacher 7a is one of a cohort of four teachers who has served at the school for over 15 years. These teachers hold considerable power and this is expressed by 7a who states

...obviously the head has the final word,  
but she also has to listen to us, otherwise  
nothing would get done

It is interesting to note the use of the referent "us" which tends to separate the head from the teachers. It is possible that there is a dichotomy between the established discourse and the official discourse articulated by the comparatively new headteacher, which has been appropriated by the younger and newly qualified probationer (teacher 7b).

The staff at school 8 had worked together for one term only, and the headteacher expresses the difficulties involved when new staff come together

policies haven't been as well discussed and identified and we're really only beginning to do that now ... I want them to be able to work from a child centred point of view ... it can only happen over a period of time it can't just happen overnight

This excerpt is interesting when it is remembered that the headteacher was classified as Reactive, and 8b as proactive, 8a as a mixed discourse. It seems reasonable to conclude that the headteacher has a clearly defined official pedagogic discourse that has not yet been appropriated to a satisfactory degree by teachers 8a and 8b.

The headteacher of school 9 is the acting head with the new headteacher due to arrive in the following month, and the school's problems are attributed directly to the changes in leadership in the past six years.

In school 10 the head and teacher 10b are classified as Reactive, and they have worked together for seven years, whilst teacher 10a, classified as Proactive, is in her second year and has resigned. Links exist at a conceptual level between the head and teacher 10b, and are constructed in their discourse. This can be seen when both stress the importance of group cohesion within classrooms, and both use the term "jell" to describe cohesion. The headteacher states

Its the school's moral duty to make pupils jell as  
a group

Teacher 10b echoes this notion and explains

...(some pupils) don't jell together as a class  
and so are demanding of the teacher

Whereas the head talks in moral terms, the teacher explains the importance of cohesion in pragmatic terms. The significant point to note here is that the notion of cohesion as "jell together" did not occur in any other interview.

It is concluded that high staff mobility may add to the difficulties of construction of individuals' pedagogic discourse that accord with the official discourse. However such claims can be explored further when the first level analysis is followed with a finer grain analysis of the interview data. In the following section there is examination of several specific notions which emerged from the interviews and these include

1. The role of the head in the construction and articulation of the official discourse.
2. The use of metaphors which may articulate tacit knowledge concerning pedagogy. The same type of metaphors, or links between metaphors may indicate appropriation of the official discourse or different interpretive repertoires of staff.
3. The process of mitigation which allows staff to attribute the decisions they make to particular causes. Mitigations concern where teachers place responsibility for classroom behaviour, or lack of learning. Through mitigations they account for the compromises that may occur in schools.

Firstly attention is directed to the notion of the articulation of the official discourse by the head.

#### THE HEADTEACHERS

How do headteachers articulate notions concerning the official discourse, and its power to influence individual teachers? The headteachers discussed the importance of the initial selection of staff, and the need for all staff to adhere to the policies of the school. Relevant comments have been collated in figure 30.

Figure 30 The influence of the official discourse

Headteacher	Discourse
6HT	Teachers do not have the freedom to teach in a different way; they do not have the option of coming in and formalising the classroom.
7HT	Ethos comes from me at the top ... and is filtered down to the staff;
8HT	I want them to be able to work from the child centred point of view and I'm working towards it all the time...
9HT	Policies have fallen by the wayside because headteachers do not stay (issues of) discipline crop up because of the different expectations... there is a bit of culture shock (for new teachers)
10HT	There is a common policy ... a common aim; staff must adapt and subscribe to the general policy;

It can be seen that the notion of the headteacher's influence is shown most clearly by headteachers 6, 7 and 8. Headteacher 6 indicates that teacher's individuality is secondary to the need to teach in accordance with the official discourse. This head articulates the notion of teachers "coming into" the official discourse when she states:

they don't have the option of COMING IN  
and formalising the classroom .. (or)  
changing how WE approach things

This head states clearly that direct intervention would result if this occurred, but also refers to another way headteachers exert influence, that is when staff are being selected

I would hope that at the recruitment level  
... I would have picked it

An important aspect of the appropriation of the official discourse is highlighted. This process begins when headteachers select staff whose pedagogic discourse appears to accord with their own. This is echoed by headteacher 8 who said that if a teacher came and started to teach in a different way

I would say whatever happened at the interview!  
Either the teacher has pulled the wool over my  
eyes...(or) misrepresented a totally different  
picture... but I hope I would be astute enough  
to know...

Headteacher 7 describes her position at the top of the power hierarchy, with knowledge filtered "down" to the staff. Headteacher 8 has decided on the official discourse which

is the sort of approach I want throughout the school...

Policies are discussed, but this takes place AFTER the headteacher decides the "sort of approach I want", therefore it may be assumed that the "discussions" are part of the appropriation of the official discourse.

Acting head 9 highlights the difficulties involved when leadership changes, with "policies falling by the wayside" resulting in a "difficult" school, because of fragmentation and differences between staff.

Headteacher 10 does not claim direct influence, and places emphasis on "policy". Therefore it is the "general policy" to which staff must adapt, rather than the wishes of the headteacher, however the question that must be asked is where does the "general policy" originate?

Four headteachers (all except acting head 9) made the same claim when they held that there was a whole-school approach to pedagogy, with a high level of consensus among the staff. This includes notions of

policies, philosophies, ideas, views, perspectives, and approaches. Figure 31 summarises staff opinions concerning consensus.

Figure 31 Staff's Views of Consensus.

PEDAGOGIC DISCOURSE OF STAFF		
School	Similar	Different
6HT	Common Perspective	
6a	Same on surface	
6b		Things vary
7HT	Doesn't vary	
7a		The usual mix
7b		Very mixed bag
8HT	Common ideas	
8a		Some compromise
8b	Think the same way	
9HT		Differences
9a		Variations
9b		Differences
10HT	Common Philosophy	
10a		Differences
10b	Some agreement	

As shown on figure 31 only one school, School 9, (with an acting head) agreed that the staff held different views. It is interesting to note that the other headteachers claimed that the pedagogic discourse was shared throughout the school, whilst several teachers held that there were differences to some degree. Analysis of interviews supports the teachers' view that differences exist.

This notion is illustrated when headteacher 10 seems to articulate the notion that the school's operation is

based on democratic principles

Colleagues... (are) involved very much  
in the development of the school  
However this view finds little support with teacher 10a  
who says "we don't often talk about educational issues"  
and teacher 10b who says that there are "some staff I get  
on with as colleagues and discuss things at an  
intellectual level". It may be inferred that the  
teachers feel less involved than the headteacher  
believes.

What is the position of new staff members? Heads say  
they select staff who have a certain "style of teaching"  
(6HT) because new teachers

...don't have the option of coming in and ...  
changing the organisation and changing how  
we approach things (6HT)

However it is asserted that policies are formulated on a  
"whole school" basis, so it seems that "whole school"  
does not include new staff. The notion of collaboration  
is espoused, and yet at the same time

teachers do not have the freedom to teach in a  
different way (6HT)

The apparent dichotomy between collaboration and  
adaptation of staff to whole school policies is not  
addressed. Heads do not specify how they identify a  
potential staff members' "style of teaching", but assert  
that they are able to do this in the interview.

When discussing notions of common policies, collaboration and staff cohesion, it is relevant to explore how the teachers refer to themselves as a staff. Do they describe the staff as "WE" or "THEY"? It was noted that the teachers in school 6 refer to themselves and staff members as "WE", an inclusive term, whilst the headteacher refers to the "teachers" and "people on the staff" which tends to set the head apart. Data were examined to see how heads and teachers generally refer to staff members, and results ~~are~~ show that the majority of staff use the inclusive "we", exceptions being 6HT, 7HT, 7b, and 8HT. Teacher 7b emphasises the differences between teachers when he states

They are a very mixed bag...they all have different ways of teaching.

Note here that this teacher refers to the rest of the staff as "they" which indicates some distance from the rest of the staff. As mentioned previously, this teacher is a young man in his probationary year. He is serving on a staff of predominantly female middle-aged teachers, several of whom have spent all their teaching careers at this school and it is likely that his pedagogic discourse is different from the rest of the staff, but similar to the headteacher who is comparatively new to the school.

The power differential between the head and teachers is clarified when the head says

We haven't been so prescriptive to say

this is how you've got to do it (7HT)

It may be assumed that the headteacher is espousing egalitarian relationships between head and staff, however it should be noted that the use of "we" indicates those in power and "you" refers to the others, that is, the teachers. By contrast teacher 7a refers to the teachers' power which lies in the power to block directives. This teacher, discussed previously, is one of a group of teachers all of whom have been staff members for more than nineteen years. This teacher refers to the head as "she" and other staff as "us". Again the significance of "she" and "us" should be noted as this signals the head's position at the top of the power hierarchy. There are indications of a clique that consists of long-standing staff members, probably the ones to which teacher 7a refers to when she says

"she (the headteacher) has to listen to us"

It can be inferred that this indicates the difficulties of a headteacher "coming in" to an established official discourse which might be at odds with the head's individual pedagogic discourse.

Similarly, headteacher 8 is in the process of establishing the official discourse and indicates the process by which appropriation of the official discourse

occurs by stating

I want them to be able to work from the child centred point of view and I am working towards it... it can't just happen overnight

Clearly here the headteacher takes on the responsibility of articulating the official discourse and ensuring that it is appropriated by the teachers. There is no doubt that the head is in the position of power, and shapes the official pedagogic discourse. No mention is made of those teachers who fail to agree with the head's view, and it is inferred that this situation does not occur.

Staff in school 9 express awareness of the discrepancies and fragmentation that arise when leadership is disrupted. Staff express the view that this school is "difficult" and the reason given by the acting head is that there has been a "history" of headteachers who do not stay, with policies "falling by the wayside". Here the collective discourse is one of separation and independence to the extent that staff do not know what other staff are doing.

The headteacher and teacher b of School 10 have worked together for six years and both refer to staff members as "colleagues". Interestingly this inclusive term is rarely used by staff at other schools. Teacher 10a uses the inclusive "we" which links her to other teachers but not the headteacher.

The notion of the official discourse is referred to by the headteacher, who states that

new staff must be able ... to adapt and subscribe to the general philosophy

This echoes the view espoused by 6HT, that the discourse of individual teachers has to adapt to accord with the official discourse. It seems that if teachers do not adapt then they do not remain in the school. The discourse of teacher 10a varies in important aspects from the official discourse, and this teacher has resigned and is returning to teach overseas.

#### METAPHORS

Attention is directed now to the identification of metaphors used by staff. Metaphors are significant as in Lakoff and Johnson's (1980) view they act as a key element in cognition because they are not simply linguistic ornaments. Metaphors have the power to define reality because they hide certain features and highlight others, and they allow one thing to be seen as another (Lakoff and Johnson, 1980). Therefore metaphors are speech acts that play a crucial role in any theoretical analysis (Novek, 1992). What metaphors are apparent in the official discourse of the five schools? Results of analysis are shown in figure 32.

Figure 32 Metaphors and the Official Discourse

School	Metaphor
6HT	The Building Metaphor Teachers build up knowledge of pupils experience; Teachers extend learning by structure of organisation;
7HT	The Commodity Metaphor Teachers must offer tasks that catch pupils' interest, then they will learn;
8HT	The Journey Metaphor Teachers must keep pupils on track; Teachers must know where pupils are, some may need to be picked up;
9HT	The Commodity Metaphor Teachers must find topics that pupils find interesting, then teacher stands back to allow pupils' independence.
10HT	The Journey Metaphor Teachers should not go down the path of free choice; must follow curriculum; Teachers must know when pupils are ready to move on; Teachers must intervene by pointing pupils in the right direction.

As shown in figure 32, schools 7 and 9 the metaphor stresses the need for academic tasks to attract pupils' interest if learning is to take place. In schools 8 and 10 the Journey metaphor is used, but whereas in School 8 the teacher's role is to keep the pupils "on track", in school 10 the teachers must "follow" the curriculum.

Examination of the metaphors used by teachers reveals that in one school, school 8 all three staff members use the same Journey metaphor:

8HT Teachers must keep pupils on track; they must know where pupils are because some may need to be picked up;

8a The teacher must let them go but lead them a bit;

8b The teacher must lead them in, lead them on;

Similarly, in school 10, the headteacher and teacher 10b use the Journey metaphor:

10HT Teachers should not go down the path of free choice; they must follow the curriculum; they must know when pupils are ready to move on;

10b The teacher must lead the learning to a certain point; must support and feed the learning;

Although both encompass the journey metaphor certain differences are evident. The head's metaphor has the curriculum leading the teacher, whereas teacher 10b has the teacher leading the learning, and supporting and feeding the learning. The headteacher's discourse of the Reactive role is seen here, the teacher follows the curriculum and responds to the pupils when they are ready to move on. Can other links be made between the metaphors used by staff? This notion is explored in figure 33 concerning metaphors used for school rules.

Figure 33 Metaphors - RULES

School	Headteacher	Teacher a	Teacher b
6	Parameters really	Flexible frameworks	Flexible boundaries
7	Tchr establishes rules	should be set at home	laid down at beginning of year
8	Unwritten rules - expectations.	Not really rules. Not rigid rules.	Rules not imposed, made with teacher.
9	rules made with children.	Rules definitely necessary consistently applied	. Structure is necessary . Consistent
10	Simple rules	Lots of rules	Basic rules

Links in conceptualization of rules is shown most strongly in school 6, where rules act to contain pupils, as the head expresses

there is a need for parameters over which they mustn't step

thus pupils are not fenced in but are given "boundaries".

Links are seen also between 7HT and 7b who ascribe responsibility for rule setting to the teacher. In school 8 staff have "unwritten" rules, that are not rigid and not imposed, whereas teacher 9a and 9b insist that rules are definitely necessary. In school 10 links are seen again between the head and teacher b.

Examination of discourse concerning rules shows that metaphors can show appropriation of the official discourse in some cases. The focus now turns to the investigation of types of mitigation staff use.

## STRUCTURE OF THE DISCOURSE

### Mitigation Types

Up to this point the content of discourse has been analysed and comparisons made. However there is considerable evidence which suggests that examination of the structure of discourse can provide interesting material which may serve to illuminate the underlying dynamics of the discourse (Wetherall & Potter, 1989).

Examination of the interview data shows that some of the questions were of a sensitive nature, because they could be interpreted as a criticism of teachers' behaviour. This can be illustrated by the question which sought reasons to account for the fact that teachers evoke the "Hands up for a turn to speak" rule, but then respond to a pupil who has called out. One possible interpretation of this behaviour is that the teacher lacks consistency. Staff recognised the behaviour and gave their reasons to account for it. It is the form of explanation that is the concern here, specifically the ways by which staff formulate the mitigating force of their accounts. These mitigations are particularly important because they may form a pattern within a

school, and this might indicate appropriation of the official discourse of the school.

The analysis of mitigations is based on Wetherell and Potter's (1989) model, and the key aspects of the model will be outlined. Across a corpus of mitigating accounts Wetherell and Potter (1989) found that individuals drew on a variety of excusing and justifying components, and concluded that explanations of possibly problematic behaviour act to "defend existing social institutions and arrangements against criticism" (p.218). It seems reasonable to assume that similar types of mitigating accounts may be constructed in a school staff, and these may indicate appropriation by the staff of the official discourse.

According to Wetherell and Potter (1989) interviewees use components that either do or do not draw on self-discourse, and the components illustrate some of the linguistic resources that can be used to excuse and justify behaviour. An outline of the two types of components follows.

1. Non self discourse: Causal Context.

This account mitigates by way of an excuse by providing an external cause for behaviour. Therefore typically it would be claimed that teachers respond to pupils who call out in spite of evoking the Hands Up rule because:

Pupils "are excited...and boys in particular,

they like to dominate the situation, that's obvious, and they are not prepared to put up their hands and wait" (Teacher 7b)

In this mitigating account the possibly problematic behaviour of the teacher is justified by placing responsibility on the pupils who "dominate" the situation, thus it is the pupils who cause the teacher to act in an apparently inconsistent manner.

## 2. Non self discourse: Rational Motivation

This account mitigates by providing justifications for the behaviour, claiming "good reasons" for behaving in a particular way:

"the teacher might make a rule, then for a particular child might bend it slightly, because it might be the one and only time that child has actually got a point of view (10HT)

This account justifies the teacher's behaviour because it is done for a "good reason", that is to encourage the reluctant speaker to participate. In this way the teacher who responds when a pupil calls out is demonstrating good teaching skills.

3. Self discourse: Rational Motivation with  
Universalizer and/naturalizer

This is similar to account 2, in that behaviour is seen as a result of rational and positive motivations. A positive goal is identified and personal experience is utilised. Personal everyday rationality is applied to behaviour of the body of people, and thus the behaviour is universalised, social comparisons are made and the behaviour becomes something that happens all the time:

"because that's the nature of discussion hhhh  
you know, that the rules are likely to break  
down" (6HT)

In this account the violation of turn-taking rules is universalised, and so responsibility cannot be ascribed to the teacher.

When behaviour is naturalised the mitigating effect arises from the naturalising of possibly problematic behaviour. When interviewees respond to a question that contains a possible or implied criticism, their use of the phrase "only human/ordinary people" suggests a contrast to something that is more than human or superhuman:

"it's all part of things not being perfect in a way you know" (Teacher 6b)

The possibly problematic behaviour is acknowledged and excused because teachers are not "super-human", they are not perfect, so it's only natural that they behave this way.

#### 4. Role discourse: Doing the job

In this account the behaviour is placed in a sociological and political context and is excused by taking away the sphere of choice as in the previous account. However in this account the behaviour is not provoked by the situation, but constrained by the role, this allows a split between what teachers would really like to do and what they have to do because it is their job. In this way policies and systems can be blamed, but not the teachers who implement them.

"This is a school where the climate is:: that they have their say... they tend to be listened to ...it's not a climate of silence." (6HT)

In this account the possibly problematic behaviour of the teacher is mitigated by reference to the "climate" of the

school which encourages children to talk. The school policy accounts for the teachers' behaviour, which is seen as encouraging pupils to speak and not as encouraging talking out of turn.

Analysis of the interview data found that all types of mitigating discourse were evident in the interview data.

#### THE INTERVIEWS

The interview material contained several topics which were judged to be suited for this analysis. Analysis identified how many of each mitigation type was used by the staff. Interest was focussed on whether different schools use different mitigation types, and if headteachers and teachers use different mitigation types. Further investigation sought to identify whether staff with the same type of pedagogic discourse used the same type of mitigation.

Analysis begins with a summary of the types of mitigation used for each topic of the interview, and this is shown in table 26, with the total number of mitigation types. The mitigation responses of the headteacher (HT) is given first, followed by teacher a, then teacher b.

Table 26 Showing Mitigation type 1, 2, 3, or 4, used for each interview topic

	CCED	BEH	RSPS	RULE	TOOT	RR	GAP	PRSE
6HT	1	1	3	2	3	1	3	2
6a	1	1	2	2	3	2	1	3
6b	3	1	2	2	2	1	1	2
7HT	2	1	1	2	1	1	3	2
7a	4	1	4	1	1	1	1	2
7b	2	1	1	2	1	1	4	2
8HT	4	1	3	2	1	1	3	4
8a	1	1	4	2	1	1	4	4
8b	4	1	2	2	1	2	4	4
9HT	4	4	3	4	1	1	1	3
9a	4	1	2	2	2	2	4	2
9b	1	1	5	2	1	2	4	2
10HT	3	1	2	1	1	1	4	3
10a	2	2	2	1	1	1	4	4
10b	3	1	2	2	1	1	4	4

Code: Types of Mitigation

- 1 - Causal Context;
- 2 - Rational Motivation;
- 3 - Self Universalised and Naturalised;
- 4 - Role: policies and systems;

The summary of results shows a mixed pattern of mitigating responses, both between staff members, and between headteachers and teachers. This summary requires

further analysis in order to clarify important details. Attention is directed to a specific topic, in order to examine mitigating type. The topic is "child centred education" and the mitigation type to account for the difficulties associated in the realisation of child centred education in practice. Data were examined to see what mitigation types are used by staff in each school, and if these mitigation types can be linked to the pedagogic discourse. These results are shown in figure 34.

Figure 34 Mitigations used to explain difficulties with Child-Centred Education

	TYPES OF MITIGATION				DISCOURSE
	1	2	3	4	
6HT 6a 6b	Pupils Pupils		All		Proactive Proactive Reactive
7HT 7a 7b		Reason Reason		Policy	Proactive Reactive Proactive
8HT 8a 8b	Pupils			Policy Policy	Reactive Mixed Proactive
9HT 9a 9b	Pupil			Policy Policy	Reactive Proactive Proactive
10HT 10a 10b		Reason	All All		Reactive Proactive Reactive

Previous analysis classified Discourse Elements as either Proactive or Reactive. Figure 34 shows that in schools 6, 7, and 10 staff with the same discourse type also articulated the same mitigation type. In school 6 the headteacher and teacher 6a are classified as PROACTIVE and they explain the difficulties of practising Child-centred education by mitigation which attributes the cause of difficulties to the PUPILS. Teacher 6b articulates the REACTIVE role, and mitigates by universalising teachers' difficulties in realising Child-centred education in practice. A similar pattern is found in school 7 and 10, however the pattern is not found in schools 8 and 9, and explanations are sought to account for these interesting differences.

Assuming that the links between discourse and mitigation types indicate an aspect of the appropriation of the official discourse, some pieces of the puzzle begin to fit together. The staff in school 8 are new to the school, and it can be assumed that the official discourse is in the process of becoming known. In School 9 there is an acting head. The new head will arrive in another month, and there is little doubt that the constant changes in leadership have caused stresses for the staff. The two teachers are more alike in the mitigation type they use than the acting head, and it may be assumed that the acting head has not attempted to articulate the official discourse, rather a "holding operation" is in place.

These assumptions indicate the vital role of the headteacher in articulation of the official discourse. When there are disruptions in leadership then the effects may be far-reaching. Furthermore it may be shown that it takes time for the official discourse to be articulated, known and appropriated by staff. This suggestion finds support in figure 29, which gives a summary of all the mitigation types. It can be seen that whereas the two teachers in School 9 use the same mitigation type five times, the head uses the same type as one teacher twice only. This can be contrasted with School 7, where the headteacher and teacher 7b use the same mitigation type seven times, and in the other schools where headteacher and one teacher generally use the same mitigation type for four, five or six topics. Again the use of the same mitigation type by all three staff members occurs in four of the topics in most schools and NONE of the topics in school 9.

Examination of the question concerning the teacher's response to pupils who call out shows that schools seven and ten show these links, whilst schools 6, 8, and 9 do not. These results are shown in figure 35.

Figure 35 Teachers' Mitigations - Responses to Talking Out of Turn

	TYPES OF MITIGATION				DISCOURSE
	1	2	3	4	5
	These Pupils	Good Reasons	All Tchrs	Policy /Job	Proactive/ Reactive
6HT			All		Proactive
6a		Reason			Proactive
6b		Reason			Reactive
7HT		Reason			Proactive
7a				Policy	Reactive
7b		Reason			Proactive
8HT			All		Reactive
8a				Policy	Mixed
8b		Reason			Proactive
9HT			All		Reactive
9a		Reason			Proactive
9b				Policy	Proactive
10HT			All		Reactive
10a			All		Proactive
10b			All		Reactive

As shown in figure 35 in school 7 the headteacher and teacher 7b, both Proactive, mitigate the teacher's response by attributing the cause to the pupil. In school 10 the staff mitigate by universalising the teacher's response, so that it becomes something that "everybody" would do. Table 27 gives the total for each mitigation type identified.

Table 27 The total number of types of mitigating responses for different topics

Type	CCED	BEH	RSPS	RULE	TOOT	RR	GAP	PRSE	TOTAL
1	4	13	2	3	10	10	4	0	46
2	3	1	6	11	2	5	0	8	36
3	3	0	6	0	3	0	4	5	21
4	5	1	1	1	0	0	7	2	17
							Total		120

Examination of the mitigation responses shown on table 27 reveals that type 1 is used most often. These figures are given in percentages and clarified as follows:

1. Causal Context: The responsibility of staff behaviour is attributed to an external cause, often some aspect of pupil or parent deficit or home environment 38%
- 2 Rational Motivation: behaviour explained by justification. It is claimed that staff behaviour is based on "good reasons" which includes avoiding a difficult or negative situation 30%
- 3 Self: Personal rationality is applied to a body of people, thus behaviour is universalised and naturalised 17%
- 4 Role: Staff behaviour explained as the only way to "do the job" thus policies and systems can be blamed, not individual teachers who implement them. 14%

Following this analysis the responses of the headteachers and the teachers were compared to see if patterns could be identified across the four types of mitigation. Table 28 shows this comparison giving percentages of the four types of mitigation used over 120 responses.

Table 28 Comparison of mitigation types used by Headteachers and Teachers across five schools

%	MITIGATION TYPES			
	1 Pupil	2 Gd Rsn	3 All Tchrs	4 Policy
HTs	42%	17%	25%	15%
Ts	39%	35%	5%	21%

It can be seen that headteachers and teachers use mitigation type 1 (Causal Context) to the same extent approximately. However teachers use type 2 (Rational Motivation) twice as often as headteachers. Type 3 (Self Discourse) is used far more times by headteachers, who explain teachers' behaviour by universalising and naturalising it. Teachers use type 4 (Role Discourse) more than headteachers, thus explaining their behaviour in terms of constraint by policies or the system.

So far, results of analysis of mitigation types have looked at overall differences between types used. Attention will be directed now to investigation of types used within schools. Does one school evidence more instances of a type of mitigation than others? Results of different mitigation types used within the same school are compared in table 29. Differences between schools are evident, and can be illustrated by School 6 which does not use mitigation type 4 (Role Discourse) at all, in comparison with school 8 which uses it eight times. However caution must be exercised in drawing premature conclusions because of the relatively small numbers in the sample.

Table 29 Comparison of mitigation types used within schools

School	TYPES OF MITIGATION			
	1 Pupils	2 Reason	3 All Tchrs	4 Policy
6	37%	37%	25%	0%
7	54%	29%	4%	12%
8	37%	21%	8%	33%
9	29%	33%	8%	29%
10	42%	25%	12%	21%

Interest is directed now to the question of whether certain types of mitigation can be associated with the particular topics. Figure 36 shows the analysis of mitigation types used for four different topics.

Figure 36 Showing Mitigation type 1, 2, 3, or 4, used for four topics.

TOPICS	CCed	Response	Gap	Praise
6HT	Pupil	All Tchrs	All Tchrs	Reason
6a	Pupil	Reason	Pupil	Natural
6b	All Tchrs	Reason	Pupil	Reason
7HT	Reason	Pupil	All Tchrs	Reason
7a	Policy	Policy	Pupil	Reason
7b	Reason	Pupil	Policy	Reason
8HT	Policy	All Tchrs	All Tchrs	Policy
8a	Pupil	Policy	Policy	Policy
8b	Policy	Reason	Policy	Policy
9HT	Policy	All Tchrs	Pupil	All tchrs
9a	Policy	Reason	Policy	Reason
9b	Pupil	Policy	Policy	Reason
10HT	All Tchrs	Reason	Policy	All Tchrs
10a	Reason	Reason	Policy	Policy
10b	All Tchrs	Reason	Policy	Policy

Code: 1. Pupil - Causal Context;  
 2. Reason - Rational Motivation, a good reason;  
 3. All Tchrs - Self Universalised and Naturalised;  
 4. Policy - Policies and system.

It can be seen that more staff used type 1 (Causal Context), in particular to explain pupil behaviour in the classroom. Difficulties were ascribed to the pupils, their parents and family circumstances. Type 1 was used also to

explain the reason why pupils Talk out of Turn and the need for rule reminders, with some aspect of pupil deficit being mentioned.

Mitigation type 2 (Rational Motivation) was used most often to account for the need for rules in the classroom. Thus staff claimed various "good reasons" for having rules which govern pupils' behaviour.

Mitigation type 3 (Self discourse universalised and/or naturalised) was used less than types 1 and 2, but used most to account for teachers' inconsistent responses to pupils who talk out of turn. Staff claim that responding when pupils talk is "natural" and something that "anybody" would do.

Mitigation type 4 (Role discourse, behaviour necessary and constrained by the need to "Do the job") was used less than other types. It was used most often to account for the gap that occurs between the way a teacher would like to teach and what actually happens in the classroom.

#### SUMMARY

Overall results have shown a mixture of the four mitigation types being articulated, with no clear-cut

differences between schools, although some variations are evident. Some variations between mitigation types reflect the role of headteacher and teacher, and some reflect the topic being considered.

Most frequently mitigation type 1 (Causal Context) was articulated to account for difficulties. What purpose does this type of mitigation serve? Clearly "blame" for difficulties is passed most frequently to the pupil, and this serves to reinforce the position of the current practices of the school. Staff do not need to reflect on the influence of their practices, because it is the "pupils' fault". However it could be argued that this mitigation type actually disempowers staff, because rather than be able to take assertive action to effect positive changes they are powerless to act against the overwhelming odds of the context.

Mitigation type 2 (Rational Motivation) calls on the professional expertise of the staff, as they claim to behave as they do, for a "good reason". Clearly such a mitigation is unlikely to be called into question by those outside the profession. Furthermore it supports the notion of "autonomy" within the classroom, however it may act to support classroom practices that are inadequate in the context.

Mitigation type 3 (Self universalised and naturalised)

calls on professional support to explain certain behaviour. Therefore teachers' management practices are not questioned because all teachers do it, or it is the "natural" thing to do. It may appear that headteachers are protecting teachers when they use this mitigation type, however it is suggested here that such mitigations also protect headteachers. The behaviour of the teachers cannot be seen to reflect negatively on the headteacher because "all" teachers do it, and it is "only natural", therefore the headteacher is powerless to act to make changes.

Mitigation type 4 (Policies and systems) serves to distance all staff from criticism. These mitigations focus on the broad base of power, from the law of the land to the Education Authority. It appears to absolve the staff from responsibility, with blame being laid at the feet of anonymous decision-makers. As one teacher said

I'd be a very different infants' teacher if  
it wasn't for the National Curriculum" (Teacher 9a)

Overall the use of mitigations means that the structures and practices in place in the school context are not brought into question. Reflection of practices in a positive proactive climate of change does not occur, and there can be little doubt that these mitigations do act to defend the school against criticism (Wetherell and Potter, 1989).

## CONCLUSIONS

In the second phase there has been analysis of audio recordings of whole class group time and interviews with ten teachers and five headteachers from five schools.

Data show that in the management of the interactive cycle the teacher's preferred teacher talk register is associated with more or less talking out of turn at group time. Interviews with staff clarified related pedagogic discourse which is realised in the management of the interactive cycle at group time. When the rank order of Smooth Speaker Switches is aligned with the teacher talk register two groups of teachers become apparent, with two atypical teachers. It is suggested that one group of teachers articulates a Proactive discourse and the other group articulates the Reactive discourse.

Further analysis of the content and structure of discourse concerns the identification of metaphor and mitigation types used, with the aim of clarifying the influence of the official discourse and the process of appropriation of pedagogical knowledge. However here the results are less clear. There are indications of an official discourse being constructed, expressed, legitimated and enacted between the longer serving

members in the school. However at this stage any firm conclusions concerning the official discourse would be premature, because there is a rapid turnover of staff at many Inner London primary schools, and the sample from each school is small.

For these reasons it is proposed that a third phase is carried out. The third phase will undertake a more detailed study of one school as this may provide useful data concerning the articulation of the official discourse and the appropriation of pedagogical knowledge by the school staff.

## CHAPTER SEVEN

### The Third Phase

The first two phases of this study have revealed a great deal of information concerning the behaviour talking out of turn and pedagogic discourse. However questions are left unanswered concerning the appropriation of the official discourse of the school through the discursive practice of the staff. Therefore the focus of the third phase is an exploration of the process by which the official discourse is constructed, expressed, legitimated and enacted in the school. The high level of staff mobility that was evident in Phase Two has led to a particular interest in the process of appropriation of the official discourse by new staff members.

The third phase of this study is an examination of one school, and the aims are given as follows:

1. Analyse the Interaction Cycles of all teachers and class groups by applying the method used in Phases one and two. All teaching staff will be recorded during group time.

2. Develop a profile for every teacher to identify the teacher talk register used at Group Time, by applying the method developed in Phase Two. This provides validity and reliability checks.
3. Identify relevant points of official discourse and individuals' pedagogic discourse by using the structured interview and method of analysis as in Phase two.
4. Investigate the construction of pedagogic discourse, the influence of the head teacher and deputy head, and the process of appropriation of knowledge by staff.

#### The School

The school is situated in Inner London, and is a medium size school with one form intake including a nursery class. It is a Victorian building, with very restricted outdoor playing space, and rooms on three levels. The pupil intake comprises of mostly lower SES families, many of whom are new arrivals to England. As a result many of the pupils are housed in "Bed and Breakfast" accommodation, many can speak little or no English, and there is a constant turnover of pupils throughout the school.

## Background

The headteacher served one year as deputy head before her appointment as headteacher. The previous head had been at the school for over nineteen years, and had established a reputation as an outstanding educator and charismatic leader. She had died very suddenly a few weeks before retirement, one year before this study began. Staff (including those who are new to the school) frequently refer to her philosophy of education and practice, and it is interesting to note that five staff resigned at the end of the year following her death.

## The Staff

All staff (ten females and one male) agreed to participate in the study. All teachers are English, trained in England either as Postgraduates, or completing a degree in Education, and all are under 45 years of age. Figure 37 gives a summary of length of service in the school and total teaching experience.

Figure 37 Details of staff service and experience

Teacher	Service in School	Teaching Experience
Head	Age group taught 3rd year	Over 20
Ann	5th year/support	12 years
Pam	4th year/top juniors	4 years-B postholder
Lena	3rd year/infants	3 years-B postholder
Sue	2nd year/support	3 years
Kate	2nd year/nursery	2 years-Nursery Nurse
Peta	1st year/nursery	Probationer
Pip	1st year/top infants	2 years
Jane	1st year/juniors	Probationer
Deputy	1st year/juniors	7 years
David	1st year/juniors	Probationer

## METHOD

### GROUP TIME

Following the same method in Phases 1 and 2, audio recordings are made of each teacher and their whole class group. Each teacher is asked to gather their class as a group on the carpet, read a story, and involve the pupils in discussion. It is known that this activity is a daily occurrence in all classrooms in the school. As this procedure was used in the previous phases it provides continuity of context necessary for valid data collection. Analysis of audio recordings follows procedures of Phase 1 and 2. It should be noted that Sue is recorded with the Deputy's class, and the head is recorded with Pip's class.

### INTERVIEWS

A structured interview is conducted with all staff members, and this is the same structured interview that was used in Phase 2. The aim of the interview is to identify relevant aspects of the official discourse and the different meanings, explanations, accounts and causal attributions that are made concerning pedagogic knowledge. It is assumed that the headteacher will articulate the official discourse, and that the pedagogic discourse of individual teachers will evidence appropriation of the official discourse to a greater or lesser extent.

## FEEDBACK

As a result of identification of the teacher talk register, feedback is given to the staff individually. It is expected that staff's responses to this feedback will provide further insights concerning their discourse. After feedback has been given staff are asked to complete a sociogram.

## SOCIOGRAM

Staff are asked to show their preference for staff members they would consult if they were experiencing a problem with a pupil in their class. The aim of this activity is to give insight to staff relationships which may be important in determining the construction of pedagogic discourse and individual's interpretive repertoires (following Moreno, 1953; Kerlinger, 1986;).

## INSERVICE SESSIONS.

Two inservice sessions are conducted. The purpose is to engage staff in discussion concerning their pedagogic knowledge. These sessions are audio recorded to enable key points in the appropriation of knowledge to be identified.

## RESULTS

### GROUP TIME

Eleven teachers and their whole class groups were

recorded during story time, and all teachers conducted the sessions as agreed. The only different context was the head teacher's session which took place in her study with thirteen children rather than a whole class. It has been included as there are good indications of the head's management of the interaction cycles.

TALKING OUT OF TURN

The story time tapes were transcribed and data analysed according to the criteria established during the first phase of the study, and the percentage of talking out of turn is shown in table 30.

Table 30 Rank order of percentage of talking out of turn (TOOT) 11 Teachers and groups at story time.

Teacher	TOOT	Low 50-63	Medium 64-77	High 78-91
	%			
Head	50	-----		
Ann	56	-----		
Pam	58	-----		
Lena	66	-----	-----	
Sue	73	-----	-----	
Kate	78	-----	-----	-----
Peta	79	-----	-----	-----
Pip	80	-----	-----	-----
Jane	85	-----	-----	-----
Deputy	88	-----	-----	-----
David	91	-----	-----	-----

As shown in table 30 each interaction cycle is identified as a Smooth Speaker Switch or Disrupted Speaker Switch, which is talking out of turn. In order to ease the task of assimilation of information, and following Miles and Huberman's (1984) procedures, the numerical results of each factor of the interaction cycle have been transcribed to classifications of high, medium, and low, in order to clarify trends evident in the data.

Table 30 shows that the headteacher has the lowest percentage of talking out of turn, and David has the highest percentage of talking out of turn. It is important to note the position in rank order of the deputy head (10th) showing a high percentage of talking out of turn. It is interesting that the first five staff members in the rank order, (Head, Ann, Pam, Lena and Sue), are the longer serving members of the staff. As shown in figure 37, Kate is the nursery nurse who has worked at the school for two years. The remainder of the staff, Peta, Pip, Jane, Deputy and David are in their first year at the school.

#### THE INTERACTION CYCLE

The percentage of talking out of turn for each teacher and class during story time has been established.

Following the method used in Phase 1 and 2 attention is directed now to an examination of the three stages of the interaction cycle.

It should be noted that reliability checks on 25% of the story time transcripts show 88% correlation between two coders.

The analysis begins with the Teacher Exit Cues that signal to the group that the Turn Transition Point has been reached. Data were analysed to show how often QUESTIONS mark the Turn Transition Point and results are shown in Table 31.

Table 31 Turn Transition Point - Percentage of Teacher Questions

Teacher		Low 24-36	Medium 37-49	High 50-61
	%			
Head	61	-----	-----	-----
Ann	39	-----	-----	-----
Pam	54	-----	-----	-----
Lena	52	-----	-----	-----
Sue	49	-----	-----	-----
Kate	30	----	-----	-----
Peta	42	-----	-----	-----
Pip	51	-----	-----	-----
Jane	26	----	-----	-----
Deputy	24	----	-----	-----
David	30	----	-----	-----

It can be seen that a HIGHER percentage of teachers' questions occur at Turn Transition Points of teachers with less talking out of turn. Whereas a LOWER percentage of teachers' questions occur at the Turn Transition Points of teachers with more talking out of turn. At this point it is relevant to note that teacher questions are associated with the Non-Conversational teacher talk register.

It was found in phase 1 that the Turn Transition Point may be indicated when the teacher addresses a comment directly to one child, or makes a comment that is related to the content of the task in hand. It is suggested that a high percentage of such comments may be associated with a Conversational teacher talk register, and analysis is shown in Table 32.

Table 32 Turn Transition Point - Percentage of comments made by teacher

		Low 40-51	Medium 52-63	High 64-76
	%			
Head	40	----		
Ann	63	-----		
Pam	45	----		
Lena	47	----		
Sue	51	----		
Kate	70	-----		
Peta	60	-----		
Pip	49	----		
Jane	74	-----		
Deputy	76	-----		
David	72	-----		

Analysis shows that there is a tendency for teachers with a lower percentage of talking out of turn to make a low to medium percentage of comments, whilst the teachers with more talking out of turn have a higher percentage of such comments. This result might be explained by inferring that a tendency for the teacher to make comments does not result necessarily in talking out of turn if the teacher has established rules and procedures for turn-taking. This reinforces the view that one factor alone is not responsible for talking out of turn, and that factors interact.

Phase 1 identified other factors that are present at the Turn Transition Point and these will be examined here. They include percentage of flags to questions, open questions, turn allocation, rule reminders, and unison cues. The results of this analysis begin with questions flags. As shown in table 33, there is an inverse correlation between the percentage of question flags and the percentage of talking out of turn. The teachers who evidence more talking out of turn have a low percentage of questions with a question flag, whereas the teachers with less talking out of turn have a high percentage of questions with a flag. Question flags signal that a question is about to be asked, and indicate a regular speech pattern which accords with the Non Conversational teacher talk register.

Table 33 Turn Transition Point - Percentage of Teacher questions flags.

Teacher		Low 0-14	Medium 15-28	High 29-43
	%			
Head	41	-----		
Ann	29	-----		
Pam	43	-----		
Lena	28	-----		
Sue	0	---		
Kate	0	---		
Peta	7	---		
Pip	4	---		
Jane	9	---		
Deputy	10	---		
David	0	---		

Attention is directed to Turn Allocation which occurs when the teacher asks the question and then nominates the pupil who has the right to reply. Results are shown in table 34. It can be seen that teachers with a lower percentage of talking out of turn gave a high to medium percentage of Turn Allocations, and teachers with a high percentage of talking out of turn gave a low percentage of turns with Turn Allocation. Turn allocations are associated with a Non-Conversational teacher talk register.

Table 34. Turn Transition Point - Percentage of Turn allocations.

Teacher		Low 6-14	Medium 15-23	High 24-32
	%			
Head	32	-----	-----	-----
Ann	22	-----	-----	-----
Pam	27	-----	-----	-----
Lena	12	----	-----	-----
Sue	20	-----	-----	-----
Kate	8	----	-----	-----
Peta	11	----	-----	-----
Pip	10	----	-----	-----
Jane	12	----	-----	-----
Deputy	6	----	-----	-----
David	7	----	-----	-----

Data are examined to identify the percentage of rule reminders that are given, and results are shown in table 35. It can be seen that the headteacher, Ann and Pam are in the High to Medium range, and the remainder of teachers in the Low range. It should be remembered that reminding pupils about turn-taking rules is associated with a Non-Conversational teacher talk register.

Table 35. Turn Transition Point - Percentage of Rule Reminders given

Teacher		Low 0-3	Medium 4-6	High 7-9
	%			
Head	9	-----		
Ann	5	-----		
Pam	9	-----		
Lena	0	---		
Sue	0	---		
Kate	0	---		
Peta	2	---		
Pip	1	---		
Jane	2	---		
Deputy	0	---		
David	1	---		

Attention is directed to the percentage of open questions asked by each teacher. Open questions are questions asked to the whole group without turn allocations or rule reminders. As noted in Phase 2 of the study, the significance of open questions can be seen in two ways. Firstly, in classrooms where turn-taking strategies have been established open question can be asked without talking out of turn occurring. Secondly, in classrooms where turn-taking strategies have not been established, open questions often lead to talking out of turn. Therefore there should not be emphasis on the significance of open questions alone. However a high percentage of open questions and a high percentage of talking out of turn would

indicate a conversational teacher talk register. Results are shown in Table 36.

Table 36 Turn Transition Point - Percentage of Open Questions asked

Teacher		Low 4-12	Medium 13-21	High 22-30
	%			
Head	16	-----		
Ann	6	---		
Pam	12	---		
Lena	21	-----		
Sue	16	-----		
Kate	16	-----		
Peta	18	-----		
Pip	30	-----	-----	
Jane	10	---		
Deputy	9	---		
David	17	-----		

As seen in table 36, the headteacher asks a medium percentage of open questions yet has the lowest percentage of talking out of turn and this supports the suggestion that there is not one factor that is a "key" factor in the interaction cycles. Rather it is the interaction between factors that makes a difference to the percentage of talking out of turn. The headteacher has established rules for taking turns, and is reinforcing these rules and this enables open questions to be asked without an increase in talking out of turn.

The last category that is examined is the percentage of unison cues that are used by each teacher. Unison cues act to draw the whole group together, with the production of a universal answer. As such they are more likely to be associated with a Non-Conversational teacher talk register. Results are shown in table 37.

Table 37. Turn Transition Point - Percentage of Unison Cues given

Teacher		Low 0-5	Medium 6-11	High 12-18
	%			
Head	4	----		
Ann	11	-----		
Pam	6	----		
Lena	18	-----		
Sue	13	-----		
Kate	5	----		
Peta	11	-----		
Pip	7	-----		
Jane	1	----		
Deputy	8	-----		
David	0	----		

Analysis of unison cues gives a mixed result with the headteacher (lowest talking out of turn) and David (highest talking out of turn) both giving a low percentage of unison cues, whilst Lena and Sue give a high percentage. Several reasons may account for the mixed result. It is possible that the teacher with a Non-Conversational register uses unison cues when it is judged that the group is becoming fragmented, or when pupils have not had the opportunity to speak because of the extent of control on turn-taking. Again this suggestion highlights the notion that factors are interdependent.

PUPIL ENTRY

Having completed analysis of Teacher Exit Points, attention turns now to Pupil Entry, in particular whether or not the pupil directly interrupts the teacher talk at the moment of entry. Results are shown on Table 38.

Table 38 Pupil Entry -Percentage of Turns that directly interrupt the teacher's speech

		Low 30-41	Medium 42-53	High 54-65
	%			
Head	30	----		
Ann	44	-----		
Pam	39	----		
Lena	34	----		
Sue	39	----		
Kate	60	-----		
Peta	56	-----		
Pip	63	-----		
Jane	65	-----		
Deputy	56	-----		
David	65	-----		

The results of table 38 are interesting when it is remembered that pupils' talking out of turn may directly interrupt the teacher talk, or may occur in a gap or pause in the teacher's turn. Results show that teachers with a lower percentage of talking out of turn have a lower percentage of pupil entry that directly interrupts the teacher. This indicates that these pupils are speaking in the gap that appears in talk, and it is suggested that either these pupils are developing certain skills and knowledge associated with Communicative

Competence, or they make fewer errors of timing. It is suggested that timing errors may occur when teachers give a faulty cue indicating that a Turn Transition Point has been reached, however then they continue their turn. To adopt a Kounin (1985) term, these teachers perform a "flip-flop". Analysis continues with an examination of the teachers' responses to pupils' entry.

#### TEACHER RESPONSE

Teachers have been observed to respond differently to pupils' contributions in the interaction cycle.

Teachers' responses may:

AFFIRM the contribution (gives feedback, echoes)

BE NEUTRAL (no comment made; ignores)

VETO the contribution in some way, (not accept; remind pupils of rules; select another pupil).

It is suggested that a high neutral response may indicate a Conversational TTR, as an affirming or veto response may well evaluate the pupil's contribution, or method of making it. Therefore high to medium affirming or veto responses may be indicators of a Non-Conversational TTR. Table 39 shows the results of analysis of affirming responses.

Table 39 Teachers' AFFIRMING responses

		Low 20-31	Medium 32-43	High 44-55
	%			
Head	55	-----	-----	-----
Ann	50	-----	-----	-----
Pam	45	-----	-----	-----
Lena	47	-----	-----	-----
Sue	49	-----	-----	-----
Kate	38	-----	-----	-----
Peta	45	-----	-----	-----
Pip	42	-----	-----	-----
Jane	32	-----	-----	-----
Deputy	25	-----	-----	-----
David	20	-----	-----	-----

As shown in Table 39, teachers with less talking out of turn gave the highest percentage of affirming responses to pupils' contributions. Table 40 shows results of neutral responses.

Table 40 Teachers' NEUTRAL response

		Low 28-38	Medium 39-49	High 50-60
	%			
Head	32	-----	-----	-----
Ann	28	-----	-----	-----
Pam	30	-----	-----	-----
Lena	42	-----	-----	-----
Sue	33	-----	-----	-----
Kate	59	-----	-----	-----
Peta	35	-----	-----	-----
Pip	41	-----	-----	-----
Jane	49	-----	-----	-----
Deputy	50	-----	-----	-----
David	60	-----	-----	-----

As shown in Table 40 teachers with more talking out of turn tend to give medium to high percentage of NEUTRAL responses. Table 41 shows results of VETO responses.

Table 41 Teachers' VETO responses

		Low 3-10	Medium 11-18	High 19-26
	%			
Head	14	.....		
Ann	22	.....		
Pam	24	.....		
Lena	11	.....		
Sue	18	.....		
Kate	3	----		
Peta	17	.....		
Pip	17	.....		
Jane	18	.....		
Deputy	25	.....		
David	20	.....		

Table 41 shows that all teachers tend to use a medium to high percentage of VETO responses to pupil contributions. When the difference in percentage of talking out of turn is considered this result is surprising. It may be inferred that the veto response of the teachers with a high percentage of talking out of turn has less meaning for pupils, possibly due to the effects of other factors and this supports the suggestion that one factor alone is not responsible for talking out of turn.

Following the coding used in Phase 2, a Teacher Talk

Register profile for each teacher is developed (see appendix) and a summary is given in figure 38. It should be noted that the classification of teacher talk register results from trends in results.

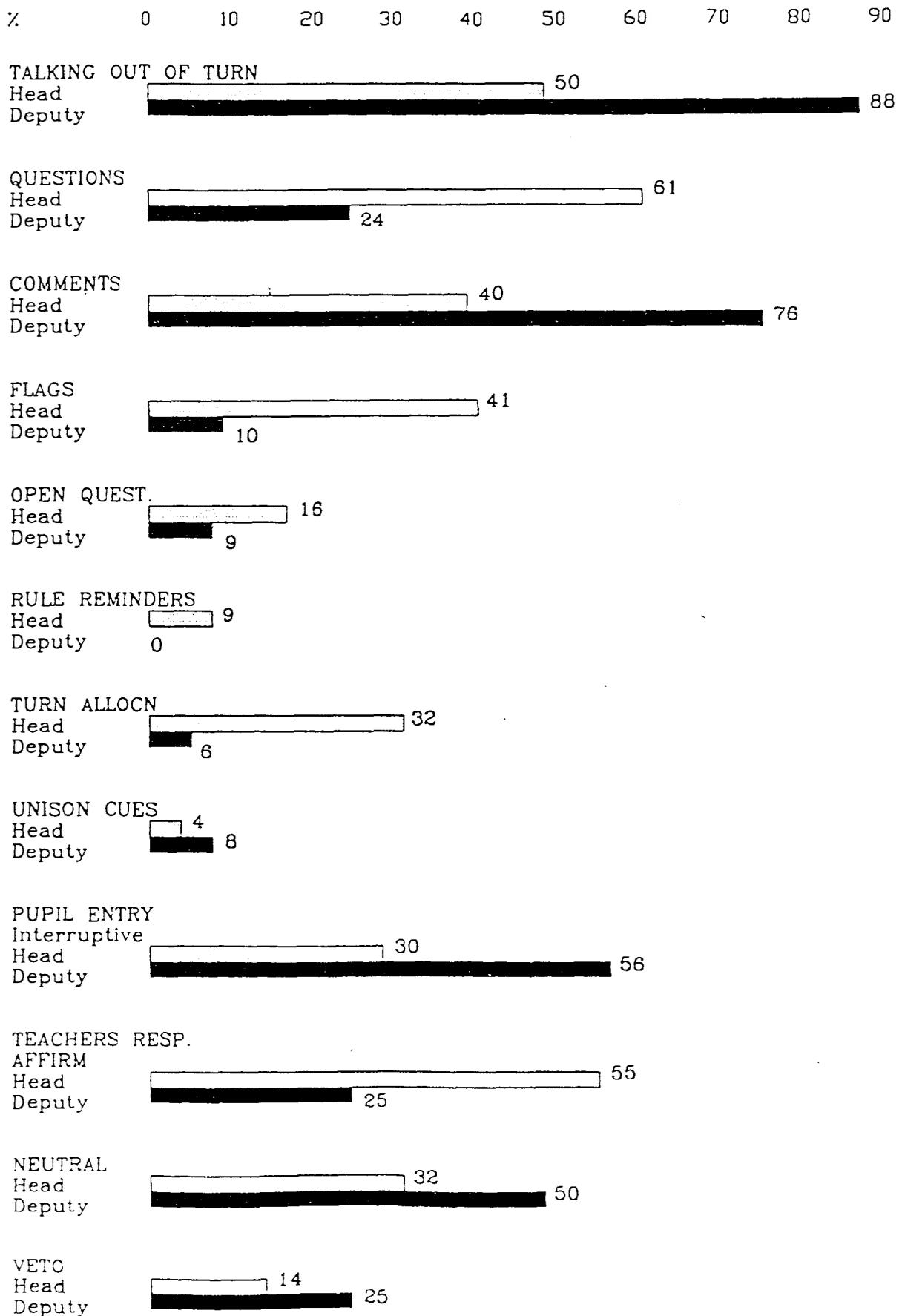
Figure 38 Teacher Talk Register for 11 Staff

	TEACHER TALK REGISTER	TALKING OUT OF TURN
Head	Non-Conversational	Low,
Ann	Non-Conversational	Low
Pam	Non-Conversational	Low
Lena	Non-Conversational	Medium
Sue	Non-Conversational	Medium
Kate	Conversational	High
Peta	Conversational	High
Pip	Conversational	High
Jane	Conversational	High
Deputy	Conversational	High
David	Conversational	High

As shown, the results of classification of teacher talk register and talking out of turn follow the trend identified in Phase 2. That is the Non-Conversation<sup>al</sup> teacher talk register is associated with less talking out of turn. The Conversational teacher talk register is associated with more talking out of turn.

At this stage it might be useful to compare the interaction cycles of the headteacher and deputy head, particularly as this phase is concerned about the influence of the hierarchy on the construction of the official discourse. Figure 39 summarises the results of the headteacher and deputy.

Table 42 Comparison of headteacher and Deputy Factors of teacher talk register



It can be seen in table 42 that differences are apparent between the headteacher and deputy on each factor of the Interactive Cycle, and these differences highlight the contrast between the two teacher talk registers. The fact that these differences have been identified may be of particular significance as investigation moves to the pedagogic discourse.

#### SUMMARY - TEACHER TALK REGISTER

Data from Phase 3 support the findings of Phase 2. A relational tendency has been found between key factors associated with a Non-Conversational or Conversational teacher talk register and the percentage of talking out of turn. The differences between the two Registers is highlighted by the differences found between the headteacher and deputy head, and these differences follow the pattern shown in Phase 2 (table 25).

It is of particular importance to note that the two groups of staff (Non-Conversational and Conversational) correlate with length of time in the school; that is, the Non-Conversational teacher talk register group of five staff which includes the headteacher, are the longer serving members; the Conversational teacher talk register group of six staff are those who are newer to the school, and include the deputy head. The position of Sue, ranked fifth out of eleven, should be noted. The trend of the

teacher talk register is Non-Conversational, however there is some evidence of a mixed discourse. In Pip's case the mixed discourse is clear, and shown in figure 39.

#### THE INTERVIEW

Each staff member is interviewed, and the interview is audio-taped, transcribed and analysed according to the procedure used in Phase 2. Discourse Elements are identified and found to follow the same pattern as in Phase 2. Accordingly discourse is classified as either PROACTIVE or REACTIVE. A summary of this analysis follows in figure 39.

Figure 39 The analysis of Pedagogic Discourse

	Proactive	Reactive
Head	X	
Ann	X	
Pam	X	
Lena	X	
Sue	X	
Jane	X	
Kate		X
Peta		X
Pip	X	X (Mixed)
Deputy		X
David		X

When the three sources of data are aligned the links become clear, as shown in figure 40.

Figure 40 Links in the data from three sources

	TOOT	TEACHER TALK REGISTER	DISCOURSE
Head	Low	Non-Conversational	Proactive
Ann	Low	Non-Conversational	Proactive
Pam	Medium	Non-Conversational	Proactive
Lena	Medium	Non-Conversational	Proactive
Sue	Medium	Non-Conversational	Proactive
Kate	High	Conversational	Reactive
Peta	High	Conversational	Reactive
Pip	High	Conversational	Mixed*
Jane	High	Conversational	Proactive*
Deputy	High	Conversational	Reactive
David	High	Conversational	Reactive

As shown in figure 40 the clear exceptions to the pattern are Pip and Jane, and these teachers will be discussed later. Results show a marked difference between the headteacher and deputy head in the three sources of data. It seem that a more detailed examination of the discourse of these two important staff members is indicated because a major aim of the third phase is to explore the influence of those in the power hierarchy on the official discourse. Analysis is concerned with the type of metaphors used, and differences and similarities in discourse, and these are shown in figure 41.

Figure 41 Comparison of pedagogic discourse  
headteacher and Deputy

HEADTEACHER PROACTIVE	DEPUTY REACTIVE
CHILD CENTRED EDUCATION Journey Metaphor Teacher FINDS child's starting point and GOES from there	Journey Metaphor Teacher FOLLOWS pupils; RESPONDS to pupils interests;
ETHOS Living Metaphor When powerful it BREEDS; GIVES Commonality;	Container Metaphor Is ESTABLISHED and all work WITHIN it;
LEARNING Like learning Word Processing: Teacher teaches skill, pupil practices, experiments, when achieved, teacher teaches next skill; cycle repeated.	Like child wants to open a heavy gate, opens a little then teacher helps, and child goes on.
TEACHING FIND OUT where child is, in order to MEET the child, HEAR the child; KNOW the next stage, so can LEAD the child	Observe the child to HELP and SUPPORT learning
BEHAVIOUR LEARNED When teacher GIVES clear messages about HOW to behave	Learns from friends, wants to belong, so conforms;
RULES Teacher must ESTABLISH clear rules	Overt Rules NOT necessary learns from other pupils;
HANDS UP RULE Teachers must ENFORCE rules Must ESTABLISH a pattern; Must KEEP to the rules; Teachers must be CONSISTENT	hands up STILTS language; Often INADEQUATE to INSIST on hands Up; Best conversations not at group time; talk should be NATURAL, hands up not natural;
PRAISE Teachers must USE it as it SUCCEEDS;	FAKE to use it to control; Bad if used to MAKE others COPY;

Figure 41 highlights some of the differences between the headteacher and deputy. Differences are articulated consistently throughout the discourse, and are realised in the management of pupils at group time. This claim is supported by differences in percentage of talking out of turn, and teacher talk register. It should be noted here that the results of analysis show that the deputy gives a high percentage of veto responses, apparently attempting to reduce talking out of turn, even though she maintains that insisting on hands up is "inadequate", and rules "are not necessary". This suggests that certain pedagogical knowledge is being maintained even though it is proving difficult, if not impossible, to put into practice in the classroom.

Whilst superficially the deputy articulates discourse that shows links to the official discourse, deeper level analysis shows that there are considerable differences. This can be illustrated by the common use of the "Journey" Metaphor because there are significant differences between the two versions, with the headteacher articulating the teacher as the Proactive leader

The teacher must FIND the child's starting point  
and GO from there (Head)  
and the deputy articulating a Reactive role  
the Teacher FOLLOWS the pupils and RESPONDS  
to their interests; (Deputy)

It is interesting to note that the same metaphor was identified in Phase 2, and similar differences noted in its usage. When the deputy's discourse is considered, it seems that little appropriation of the official discourse has occurred. How might this be explained?

The deputy was trained in Early Childhood and has teaching experience at the Nursery level. This is her first year of teaching at the Primary level, and first year in the school. However she has just completed a Masters in Education, and shows considerable confidence when discussing theory. On the other hand the head, with many years of teaching experience in a variety of contexts, has not undertaken further studies. Furthermore, as later discussions will show, the head tends to downplay her knowledge, and emphasise her role as "Learner", and it is suggested that this is an important part of the official discourse, that is, ALL staff are learners

We've all said we're on the biggest learning  
curve we've ever been on this year (Head)

The use of the inclusive "we" is significant here.

It is suggested that possibly some of the difficulty in appropriation of the official discourse lies in these differences in training, experience, and academic qualifications, together with the fact that the head is comparatively new to the job and has a tendency to downplay her knowledge and skills.

Differences in discourse have been illustrated, and now attention turns to the head and deputy in the construction of the official discourse.

#### OFFICIAL DISCOURSE AND HIERARCHY

Both staff referred to the hierarchic organisation in the school, and the official discourse, which was referred to in various ways as "philosophy" "ethos" "culture" and "climate". Both claim that the fundamental discourse of the school has not changed with the change in head, but simply has become more organised and structured. Their language showed similarities at this point with both staff using the Building Metaphor

#### head

My input has been BUILDING  
ON ...the philosophy;  
I want to start a culture  
...a BASE culture;  
Now we've got a management  
STRUCTURE;

#### deputy

The philosophy was  
ESTABLISHED but it wasn't  
STRUCTURED  
...that's been BUILT ON

Both staff use the Building metaphor, however differences are evident. The head is personally involved in the process, saying she is "building on" to the existing philosophy. However the deputy is detached, noting that the philosophy has "been built on".

Both staff emphasise that the staff is a group implying equality amongst members, however their discourse reveals the hierarchic structure, which is

illustrated when the deputy says that the staff are all similar

... from me DOWN to the Probationers (deputy)

The head uses the notion of the Management Structure to emphasise that the staff is a group

...certainly the atmosphere was when I first came was very much that we were a group. I think it's become increasingly so because one thing we've got a Management Structure... (Head)

The management structure consists of three staff who are referred to as "Senior Management. They are the deputy, Pam (B Postholder), and Lena (B Postholder). It seems that the official discourse includes notions of collaboration as the head notes that Senior Management have a great deal of responsibility, and staff involvement in decision making on democratic principles is implied in the use of the inclusive "we"

...we were a group

...we've got a Management Structure (Head)

In the head's view the management structure heightens the involvement and cohesion of the group. However clearly it creates a hierarchy in the staff. The additional pay and status acts to delineate the postholder from other staff members, and involves certain responsibilities concerning the official discourse. This function is

indicated when the head says

...(Senior Management) tend to think what the head and the School have been saying for some time: and therefore it becomes part of them as they say it, and therefore it breeds...(Head)

This excerpt is used to highlight several important points. Firstly, the head's influence in construction of the official discourse is evident. Note that the head refers to the Senior Management as "they", making a distinction between the head and Senior Management. Secondly, the process of appropriation of the official discourse is highlighted. As the staff articulate the official discourse "it becomes part of them" and this leads to a development of their thinking, which is articulated because of the continuing discursive practice. The position of senior management carries certain responsibilities which are revealed when the head says that the Senior Management are

obliged to have the practice going on in their own classrooms that they were asking of the probationary teachers ... they began to think about how they were going to tell the probationers (Head)

and one result of this responsibility is that

it's become much clearer ... and certain things which I hoped would be standard practice became standard practice (Head)

Here "it's become much clearer" refers to the official discourse, which has become much clearer to Senior Management. However the process does not end there. Senior Management serves the function of articulating the official discourse, and in doing so they maintain it, and through discursive practice it becomes known to other staff.

The process of appropriation of the discourse is facilitated by a second major innovation introduced by the head

... now the Senior Management are mentors to the younger teachers it's very much a system of talking about what should go on so it just doesn't come from me really ... (Head)

Senior Management staff has specific responsibility for a probationer or less experienced staff member and they talk "about what SHOULD go on...", quite clearly this provides a further opportunity for the articulation of the official discourse. The discursive practices of the staff may lead to changes in thinking and appropriation of the official discourse. The head asserts that the reason for the mentor system is teacher development

...the reason is because I moved on when I had someone to talk to and I just think you need that (Head)

Here the head downplays the importance of the mentor system. A mentor becomes "someone to talk to" because the head "just" thinks individuals need it. However the head does acknowledge the function of the system to maintain the official discourse,

I kind of edged that in ... it infiltrated the whole school in an underlying policy that wasn't explicit ... it became explicit because of the management, the way the management team worked  
(Head)

It seems that the mentor system is operating at two levels. On the surface level it provides less experienced teachers with support, "someone to talk to", however on the deeper level it serves to maintain the official discourse, and facilitate appropriation by newer staff members. This process is made more effective because it is articulated by Senior Management, and not overtly from the head.

The head implemented another innovation which serves the same purposes. As one probationer notes

we have quite a lot of staff meetings, and last term we went into one another's classrooms, each teacher had to say what they were doing in their classroom (Peta)

Staff meetings and classroom visits provide Senior Management staff with the opportunity to enact the official discourse, and further legitimate it by demonstrating its efficacy. Note the importance of "each teacher had to say ..." (Peta), staff are required to give explanations of their practice, and again this creates opportunities for appropriation of the official discourse through verbally mediated social interaction.

It seems that "Openness" is an important part of the official discourse, because of the function of openness in facilitating appropriation of the Discourse. Senior Management do not just go into the less experienced teachers' classrooms to advise, reciprocated classroom visits mean that they, in turn, become "open" to the less experienced staff. In addition Senior Management have regular contact with the School Psychologist who acts as their "Response Partner". Both the Senior Management and the Psychologist report to the head. It is suggested that because of the innovations of Senior Management, Mentor and Response Partners, all teachers become more open and visible to the head, and therefore more control can be exerted concerning the appropriation of the official discourse.

It should be noted here that the head makes herself visible to the staff. This happens in many ways, and can be illustrated by the importance placed on the School Assemblies that are conducted by the head most mornings.

Teachers use the head as a role model at this time, as remarks made at the In-Service show. Staff are discussing the fact that teachers often respond to pupils who call out even when the hands Up rule has been evoked. Several agree that they MAY do it, because they have noticed the head does it in assemblies

It's funny ... but in assembly I always notice whether it's (the head) or anyone, you know who who always gets picked? (Pip);

Well I've seen (the head) do it and ...(deputy)

Staff watch the head, and being visible means being open to criticism. In this case the head responds by thoughtfully reflecting on her actions, and this leads to a fruitful discussion concerning why some children get attention even when they call out. It is suggested that here the head is articulating an important part of the official discourse which concerns the fact that ALL staff are participants in the learning process, and that feedback is a valuable part of the process. Furthermore that feedback can be given openly in a spirit of collaboration and trust.

Concerning the changes that have taken place the head tends to downplay the importance of the innovations

... people were very ripe (for change) ... I would say that's the major change that I'm writing things

down and very much formalising things... (Head)

There seems to be a reluctance to admit to the power and influence that is being exerted, however it is revealed when the head says

...I want to START a culture in the school...(Head)

Clearly this head is responsible not only for articulating the official discourse, but also for constructing it, and enabling the appropriation of the discourse by individual teachers through the Senior Management structure. It requires many skills to make important changes without alienation of staff, and the Inservice session highlights a further set of skills that this head displays, and this will be discussed later.

However it should not be inferred that the process of change is smooth and easy. It has been shown that the deputy articulates a different pedagogic discourse, and the deputy has an important role in the Senior Management Structure. It has been assumed that the influence of the power hierarchy is important, so how do staff respond when the head and the deputy articulate differences in discourse? It is claimed here that such differences have an important effect on the teachers. Probing this issue is a matter of delicacy, probably because it concerns tacit knowledge, and also the researcher as an "outsider" is seeking "insider"

information. There seems to be a strong initial response by all staff to maintain the notion of collaboration, and a reluctance to discuss differences or difficulties.

#### THE OFFICIAL DISCOURSE AND THE TEACHERS

In the initial interviews staff tend to emphasise the similarities between staff members because of the "strong School ethos" (Sue). The notion of "ethos" is raised by all staff members and not by the researcher. Several staff refer to the ethos "coming from" or being "maintained" (Sue) by the head. Staff "took" ethos "on board", or had to "adapt" (Jane). The head is said to have "a great influence" (Ann), and because of this "the same views are passed down" (Lena) or "filtered through" (Jane) and "all are following the same ethos and policy" (Lena). In all the interviews except one, staff stress that they all maintain the same approach.

One probationer indicates how the similarity in approach is achieved, and expresses surprise at the level of control that is exerted

...I actually thought as a TEACHER you're a professional in your own right and you have your own ideas and your way of teaching but in THIS school anyway I don't think it's necessarily the case. There is a common thread, the fact that they put an emphasis on it being

a CARING school; the way children are disciplined, they don't like you to raise your voice and to shout; it's very low key discipline so that is definitely kind of school policy. (Peta)

This excerpt indicates some of the difficulties in appropriation of the official discourse, and Peta's use of "they" when referring to the "School" indicates a distance between her and the Discourse. It is significant to note that Peta left the school the following year.

So far all the staff articulate the view that there is general agreement, or appropriation of the official discourse to some extent. However David asserts that this is not the case. He claims that there is a "definite split" in the staff group, with two groups that he describes as:

The Formal Group	Vs	The Informal Group
For structure; Hierarchy		Against structure, hierarchy;
Against equality;		For equality;
For authority;		Against authority;
Supports the system;		Supports the individual;

At this time this matter was not pursued, because no other staff member refers to the "split" in any way, and David left the school unexpectedly soon after the interview.

However the notion of the split is raised later in the year during the sociometric task. When completing the sociometric task Sue talked in a joking manner about the "Subversives", describing them as a group who are the "Smokers". The group includes Kate, Peta, Jane, and the deputy. It should be noted that smoking is not required for group membership, as Peta joins the Smokers, although she does not smoke. Sue includes herself in this group, laughing and saying

we've got the SUBVERSIVES round the back:  
there's me in the middle (laughing) ...  
it's like I get everybody in SO MUCH  
trouble! ... that's kind-of-like-my  
whinging, kind-of-moan-group!

The other members of the group as identified by Sue, include the deputy head, the nursery nurse, and the two probationers.

This is interesting as in the months before the study began there had been considerable debate among staff concerning a smoking area. It was agreed eventually that they are able to smoke only in a corner of the staff room behind a dividing wall, and this area has come to be known by the Smokers as "round the back" (Sue). During the study it was observed that frequently those who smoke are slow to react when the morning Staff

Meeting begins, and when notices are given out often they have to be repeated. Many times the head is heard to ask the "Smokers" to join the main body of staff, and they are observed to chat and joke amongst themselves when staff matters are being organised or discussed.

#### THE GROUPS

It is important to note that Sue was the only staff member to refer to the clique as "the Subversives" although others commented on the fact that the Smokers often talk to one another about problems, reasoning that this happens because of "proximity" (deputy), simply they were together during the break in the smoking area.

It may be significant that members of the Smokers group chose each other in the sociometric choice, however Sue (the apparent Leader of the group) did not. She selected "Formal" group members in first rank. Furthermore the teacher talk register of Sue aligns more closely with these "Formal" group members, whilst the remainder of the "Smokers" align more closely with each other. These results are detailed in figure 42 where it can be seen that all teachers except two (David and Pip) are placed clearly in two groups. It is assumed that David would belong in the "Smokers Group", the group he referred to as the "Informal Group", however he has left the staff and this can not be confirmed. This leaves Pip unplaced, and her position will be discussed.

Figure 42 The two groups - The Formals and the Smokers, and the Isolate.

FORMALS	TOOT	teacher talk register	Discourse
Head	Low	Non-Conversational	Proactive
Ann	Low	Non-Conversational	Proactive
Pam	Low	Non-Conversational	Proactive
Lena	Medium	Non-Conversational	Proactive
SMOKERS			
Sue	Medium	Non-Conversational	Proactive
Kate	High	Conversational	Reactive
Peta	High	Conversational	Reactive
Jane	High	Conversational	Proactive
deputy	High	Conversational	Reactive
David*	High	Conversational	Reactive
ISOLATE			
Pip	High	Conversational	Mixed

Pip is not placed in the Formals or Smokers Group. This teacher is in her second year of teaching and her first year at the school. In terms of experience she is between the probationers and the more experienced staff. Peta claims that Pip has the reputation of being "more authoritarian, more teacherish" than other younger staff members; however the more experienced staff members consider she is still learning the job. She does not smoke, and does not participate in the "Smokers Corner" where the other less experienced staff congregate. It can be inferred that Pip is somewhat isolated, and indeed this is supported by the sociograms produced by the staff

(see appendix). Pip is placed on the outside position on almost everyone's sociogram. In fact Sue places her off the paper. The one exception is Pam, who is Pip's Mentor, and who places her in a second rank position after the "Formal" group members. It should be noted that Pip selects the "Formal Group" members in first rank on her sociogram.

As might be expected the sociograms showed that the "Formal" group members select one another in the first rank, with a clear distinction being made between the two groups. As mentioned the "Smokers" generally select one another in the first rank. Two exceptions are Kate, who selects the head with the "Smokers", and Jane who selects Lena, the head and the "Smokers".

Jane's selection is important as her discourse is classified as Proactive. It indicates that this Probationer is appropriating the official discourse, and this view is reinforced by Jane during the follow up interview. This takes place soon after Jane passes her "Probationary Year" with a positive report from the head,

... I feel ... less of an outsider than before,  
it seemed to happen very quickly when I passed  
my probationary year ...  
now I know I'm staying, I don't know, I feel far  
more interested (Jane)

Reports from the head in the year following the main data collection support the notion that Jane has appropriated the official discourse

Jane ... is unrecognisable, much happier and consequently doing a better job (Head)

#### ANALYSIS OF MITIGATION

Interview data were examined to investigate whether the types of mitigation used could be linked to the official discourse. Overall the types of Mitigation used follow the pattern found in Phase 2. However some interesting features are evident, and can be illustrated by the similarities between the types of mitigation used by the deputy and Sue, and by the head and Ann

As shown on figure 43 the head and Ann mitigate five out of six topics in the same way. These staff are ranked in first and second place with low talking out of turn, and they have the same teacher talk register and discourse type.

Figure 43 Mitigation types used by head and Ann

	CCED	Beh	Resp.	Rule	Toot	Prse
Head	Pupil	Pupil	All	Reason	Reason	All
Ann	Reason	Pupil	All	Reason	Reason	All

These two teachers have worked together for more than three years, The similarity between the mitigation types used show links in their discourse. The fact that these staff members worked with the previous head may be significant, and it is interesting that Ann is mentioned by several of the younger teachers as a teacher they hold in high esteem. Further evidence of the links between the head and Ann is shown by the results of coding of teacher talk register and discourse type. Both teachers are coded as Non-Conversational teacher talk register, and articulate a Proactive Discourse. In addition, in the sociometric choice both staff members nominated each other as first choice, and both are implied members of the "Formal" group.

Attention now turns to the deputy and Sue. Figure 44 shows the similarities in the mitigation types used by these two staff members.

Figure 44 Mitigation types of the Deputy and Sue

Topic	CCED	Beh	Resp.	Rule	Toot	Prse
deputy	Policy	Pupil	Policy	Policy	Policy	Policy
Sue	Reason	Pupil	Policy	Policy	Policy	Policy

It is interesting to note that these two members of the "Smokers" group both use mitigation type 4, that is they attribute reasons for difficulties to the "system" or to "policies" and doing the job. There are links between this type of mitigation and David's description of the Informal Group, which is said to support the individual rather than the system. The deputy and Sue use ten of the total number of eleven cases of this mitigation type. It is suggested that the use of this mitigation type "allows a split between genuine motives and beliefs ... and what they are required to do because it is their job" (Wetherell & Potter, 1989, p. 215). Using this mitigation type means that talking out of turn occurs because of the policy that says pupils must put their hands up to speak. These two staff members have different teacher talk registers and Discourse types, however as stated, Sue articulates some contradictory notions, and has been classified on the basis of trends.

When the mitigation types of these four staff members are aligned, the differences are highlighted, and this is shown in figure 45.

Figure 45 The Mitigation Types of Four Staff

Topic	CCED	Beh	Resp.	Rule	Toot	Prse
Head	Pupil	Pupil	All	Reason	Reason	All
Ann	Reason	Pupil	All	Reason	Reason	All
deputy	Policy	Pupil	Policy	Policy	Policy	Policy
Sue	Reason	Pupil	Policy	Policy	Policy	Policy

As shown in figure 42 when the mitigations of four staff members are compared differences in mitigation of teacher behaviour are clarified and patterns in response between the two sets can be seen, indicating differences in discourse. Attention now turns to an examination of the discourse of Sue, as several interesting points have been raised.

#### SUE

Sue's perception of her position as the "leader of the subversives" is interesting in view of her classification as Non-Conversational teacher talk register and Proactive discourse like the head and other long standing staff. It should be noted that the other members of the Smokers Group are classified differently, and reasons to account for this may be inferred. Examination of Sue's discourse shows an ambivalence that can be illustrated when she talks about the Hands Up to speak rule

...it's such a common practice with children  
sort of, throughout the land, I will, sort of,  
use it, I suppose (Sue)

thus the reason that Sue "sort of" evokes the Hands Up rule comes from the system that insists on it, and not because she thinks it is the best way to manage the group

... ideally (pause) in an ideal world ummmmm

I suppose ideally ... I would move towards an environment where the children didn't have to signal with their hands (Sue)

and later Sue mitigates the fact that teachers respond to pupils who call out by saying

I don't think that I put such a heavy thing on answering questions by putting your hand up (Sue)

Sue articulates that "ideally" children would be able to participate in discussions without Hands Up and so does not "put such a heavy thing" on the Hands Up rule, and this is supported in practice as no rule reminders were given during the group time recording. She says that "it all depends whether it's an issue for you", and it's not for her because "I sort of feel in control". However it should be noted that Sue gives a medium percentage of veto responses, and she says that sometimes she is "completely like screaming" with this class at group time. At the same time she maintains that personal relationships are the key to teaching, but in discussions concerning classroom management War metaphors are used

half your discipline BATTLES are over ...

and ...you can BLOW up over something and they'll realise...

In the discussion about Praise, Sue maintains that using praise "is a very old behaviour modification trick" which is "very very bizarre and very embarrassing" because it is "patronising children ... it's all Pavlov's

Dogs and all that sort of stuff". However she notes that pupils behave "like animals", sometimes going "absolutely scrappy and wild". Interestingly the animal metaphor is used for "learning", where the learner is in a rabbit warren "you can hit dead ends but you can surface again"; but the teacher is the bunny "I've been bashing my head in the warren" and "trying out all these different things in the dark". Teaching is described as "throwing mud at a brick wall and hoping some of it will stick", which is a hit and miss affair, akin to trying out things "in the dark".

It is inferred that this teacher is articulating some conflicts concerning pedagogy, the dilemma of control and relationships with the pupils. Sue appears to be a thoughtful and reflective practitioner, who articulates the Proactive discourse yet feels "in the dark". It is significant to note that at the time of the feedback session she has decided to leave the teaching staff. However she will have links with the school, as she is to be employed on a part-time basis running the after-school play centre. Commenting on this move Sue says

... you see that's why I think, that's why I'm moving into the play centre, because then, you know, I'm not going to go round saying WELL DONE how BEAUTIFUL:: you've got a straight back!!

In summary, it is suggested that this teacher's leadership of the "Smokers" clique is related to her

conflicts concerning the official discourse. It seems that Sue has appropriated the official discourse, accepting that this is the way to do the job of teaching. Yet there is a split between this pragmatism and her "genuine desires and motives" (Wetherell & Potter, 1989), shown by her use of Mitigation type 4. Sue has resolved this conflict by withdrawal from the teaching profession and changing her career path.

Attention will focus now on the notion of the process of appropriation of the official discourse. This process was observed and recorded during the two inservice sessions and individual feedback sessions to staff.

#### INSERVICE SESSIONS

##### PROCEDURE

After input concerning issues of teaching and learning the staff are asked to divide into small groups and discuss a set of statements that relate to pedagogic discourse. They are asked to change any statement they do not like, to make up their own, or to discard them, and then to order the statements in a pyramid, with the key statement at the top.

The head, deputy and School Psychologist are directed to be one group, and remainder of the staff left to form

their own groups. The groups form quickly as follows:

- |        |        |
|--------|--------|
| 1. Sue | 2. Ann |
| Lena   | Pip    |
| Pam    | Peta   |
| Kate   | Supply |
| Supply |        |

The groups go to their own space with a tape recorder to record their discussion.

#### MEMBERSHIP

The membership of each group is interesting. By the time this inservice takes place David has left, and Jane is absent on this day. Kate attempts to join the group with the head, and is redirected to the other group. It should be noted that the group 1 consists of the longer serving members of staff, the exception being Ann in group 2. The fact that Ann has a special place on the staff can be seen in the discussion that emerges from the set task.

#### SMALL GROUP DISCUSSION

##### Group 1

Early in the discussion Ann nominates the statement she thinks should go at the top of the pyramid. The others

agree and this statement becomes "Ann's" as Pip says

...I think Ann's on top and then..(Pip).

Here Pip makes a suggestion for the next rank, and the following interaction takes place:

Pip ....the next two there, do you Ann?  
Ann I haven't quite read them yet  
(Silence)

Here Ann blocks Pip's proposal, and communicates this indirectly. Pip does not pursue the matter, and the talk turns to another statement. However later attention returns to the statement, Ann counters Pip's original suggestion and Pip quickly supports Ann's view.

Ann ....if the child who comes in has no  
schooling whatsoever: (pause)  
Pip Yes true Ann  
Ann [they need to be able to  
Peta [mmmm  
Ann [cut out  
Pip True, true:

The pattern of Ann asserting and the others, particularly Pip, agreeing is a pattern that is repeated.

Ann What if we were to cut them out and start:  
start shuffling them round  
Pip [and start shuffling. Good idea Ann!

Several times Pip and Peta differ and debate the point. During these times Ann says nothing, but later makes an alternative assertion that is accepted without discussion by both Pip and Peta.

Concerning the official discourse and appropriation of knowledge what is going on here? Firstly it seems that Ann represents the official discourse to the younger and less experienced teachers. They take notice of the points she makes, and generally treat them as the "truth" or the right answer. Several times they begin with a view that is quite different from Ann's, but quickly change to agree with her, although at times Peta attempts to debate the point but does not succeed. At these times Ann often supplies an antidote to the FTA (Face Threatening Act, Brown & Levinson 1978), such as implying that differences are due to the ambiguity of the statement itself

It all depends how you take it (Ann)

In this way Ann downplays her role as "mentor" which makes it easier for the younger and less experienced staff to appropriate the discourse articulated.

Pip's role is worth examining. Several times this teacher raises points that are not taken up by the others. She responds quickly to others' suggestions, and she seeks agreement more than others, using 8 out of 13 Tag Questions that are asked during the discussion

...(without) order or routine it's very  
difficult to learn, isn't it? (Pip)

and she emphatically supports Ann's views. It is suggested that Pip is in the process of appropriation of the official discourse, and her mixed Proactive/Reactive discourse reflects that this is a particularly important stage in her professional development.

## GROUP 2

Examination of the discussion in this group shows far more equality between members, with no member acting as leader, although the quantity of contribution varies as shown:

Pam and Lena,	70 turns (approximately)
Sue	48
Kate	10
Supply	1

Sue contributes less as the discussion continues. Tag questions are used, but far more equally spread; no member gives praise to another. Several times Lena acts to diffuse disagreements between Pam and Sue, and this is illustrated in this excerpt

Sue (Reading a statement) "Expect children to be autonomous self-directed learners" ?  
Pam Not all the time  
Lena No  
Sue But we do expect it when we ask children ()  
Pam Mmmm (silence; pause)  
May be that can go half way down  
Sue No! hang on!  
(Discussion continues between Sue and Pam)  
Lena Its probably what you are HOPING will happen...  
(Attention is directed to another statement by Pam)

It is interesting to note that the statement in question was not discussed again, and was placed near the bottom of the pyramid. This example illustrates a pattern that was shown in the discussion, and Lena's last contribution acts as an antidote to Pam's Face Threatening Act to Sue.

Points of conflict are not resolved, mostly they are not pursued and Sue becomes more and more silent as the discussion progresses. It can be inferred that the pyramid that is produced results from Sue's acquiescence rather than agreement, and there is no indication that Sue is appropriating the official discourse as articulated by Pam and Lena.

#### GROUP 3 (Head, deputy, Psychologist)

In several instances the pattern shown in Group 2 is repeated in Group 3, with the Psychologist acting to provide the antidote to Face Threatening Acts by the head to the deputy. However the difference between this group and Group 2 is that there are several cases when appropriation of the official discourse by the deputy appears to take place.

An interesting exchange occurs over the same statement as discussed in Group 2. Like Sue (Group 2) the deputy proposes that the statement "Expect children to be autonomous self-directed learners" is a key statement, and the discussion continues

Psych well except it says EXPECT children I don't  
EXPECT I'd expect to TEACH them (Proactive  
Discourse)

...

Deputy In a way:: you see::

Head [but do you actually have to  
EDUCATE them? Set up a system, a culture?  
(Proactive Discourse)

Psych [That's right

Head [in a classroom where that happens

Psych [So is THAT what we're  
aiming for? (indicating another statement)

Here the head warms up to the issue, and if allowed to prove the point possibly will present a Face Threatening Act to the deputy. The Psychologist intervenes by presenting an antidote, using the inclusive "we" which suggests cohesion rather than fragmentation, and by steering the focus to another statement.

It is interesting to note that Sue and the deputy both propose this particular statement. These two are both members of the Smokers Group, and links between them have been shown. Neither Sue nor the deputy is able to persuade other members to agree to the point, and both are overruled by members who articulate the official discourse. However the difference between the deputy and Sue can be seen in the following excerpt when the members are discussing the statement "Understand that children will learn when they are ready":

Head Children learn when they're ready, down there

Psych [I I I its

too iffy

Head Its sloppy

Deputy Hmmm

(later)

Head Understand that children will learn when they're ready  
Psych I don't like it  
Deputy Well:: it's the way it's phrased I think  
Head It's Sloppy!  
Deputy ['cos in a way:: it could be the same as that (indicating another statement)  
Head Yes but its when, its when, they're  
Psych [Its woolly isn't it? (Tag question, seeks agreement)  
Head It's woolly.  
Deputy It's very woolly. (stated firmly)

Here the Psychologist's tag question succeeds in finding agreement, the discussion turns to another statement and is not raised again. The firm agreement by the deputy to the position held by the head and the Psychologist indicates that appropriation of the official discourse is taking place, and this pattern is repeated several times during this discussion. It should be noted that there are several times when the head and deputy disagree, with the head making firm assertions which are not changed. This is in marked contrast to the role that the head adopts in the second Inservice, however this time the discussion takes place between all the staff and so it is a public forum.

## INSERVICE TWO

### PROCEDURE

The session begins with staff being asked to create some metaphors of Teaching and Learning.

Following the metaphor activity staff are given input concerning theories of Teaching and Learning with discussion being encouraged, then they are asked to relate the theory to a recent Learning Experience they have presented to their class. Finally they are asked to relate the theory to the way pupils learn classroom behaviour.

The session is audio-recorded.

#### METAPHORS

Staff complain that this is very hard to complete, and only eight out of eleven staff managed one metaphor. It is interesting to note the links between staff and metaphor types. The metaphors concern learning, and are categorised as follows:

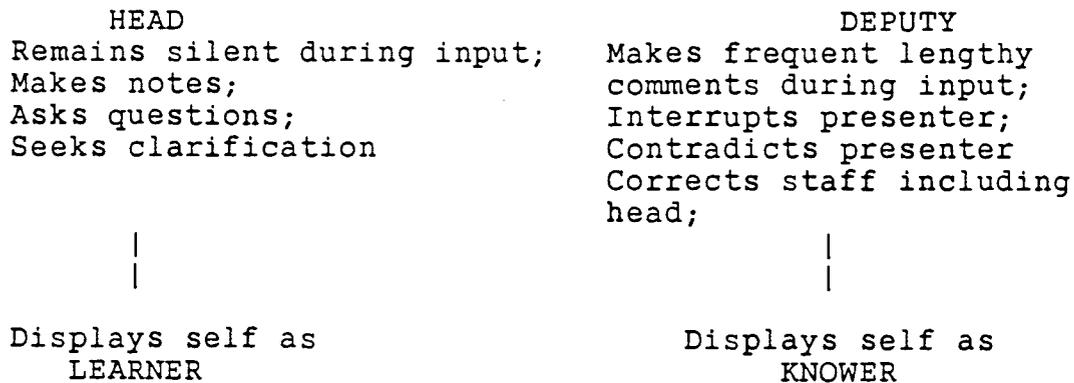
Head;	Learning as a process
Ann; Pip;	Learning as a growing plant;
Pam; Lena;	Learning as a never ending journey;
deputy; Sue;	Learning as exploration;
Kate	Learning as a building;

Previously links have been shown between the deputy and Sue, and between Ann and Pip. Pam and Lena are both

postholders, with the same teacher talk register and both articulate the Proactive Discourse. It is interesting to note that during the discussion that follows the sharing of metaphors the deputy corrects staff members, and attempts to clarify certain points of apparent confusion. During this time the head says very little except to complain about the difficulty of the exercise.

During the input concerning processes of teaching and learning, the head and deputy take different roles in the group. This is conceptualised in figure 46.

Figure 46 The Roles of head and deputy



It has been suggested that the notion of ALL staff are learners is part of the official discourse, and this is being enacted by the head. These roles continue during the workshop activity, when staff are asked to apply the theory to a lesson they have taught, by analysing it in terms of the teaching and learning process. The deputy continues to give advice to staff although at times it

is inaccurate. The head remains silent. As staff set to work individually, the following exchange between head and deputy occurs

Deputy I don't know where to start: isn't it awful?  
(no response)  
Deputy I feel awful  
Head Pardon?  
Deputy I feel awful doing this  
Head (very soft tone) Why?  
Deputy Because I know that:: (laughs) I can't relate  
Head you probably CAN: it's just the [situation]  
(confidential tone)  
  
(voice becomes loud)  
When you try and find out what they know,  
what's that called?  
(spoken quickly to the group, puzzled tone)

In this public forum the head supplies an antidote to the Face Threatening Act, which occurs when the deputy is unable to relate theory and practice. The head follows the reassuring remark to the deputy with a question to the whole group, seeking their help. The head is presenting a model of self as learner, and after this other staff members ask for help.

Overall staff appear to find it difficult to analyse a lesson in relation to pedagogical theory, however it seems to be even more difficult for them to consider pupils' behaviour in the same way. Observations show that staff appear not to make links between behaviour and pedagogy. They were very quiet during this section of the inservice session, avoided eye-contact, and appeared tired. In response the researcher ended the session.

## FEEDBACK SESSION

Following the analysis of the classroom recordings, and the two inservice sessions, staff members were given feedback individually concerning their teacher talk register. This was an informal session which included the sociometric task. Questions probed teachers' awareness of the surface structure of their language, and knowledge concerning the theoretical constructs discussed in the in-service. This session took place in a small private room, and the majority was audio-recorded and transcribed.

The material from the feedback session showed that teachers were not aware of the surface structure of their language, and they expressed surprise when shown frequency of question flags, turn allocations, open questions, and praise.

I've noticed lots more () since the tape () but  
I mean at the time I just can't remember it at all  
(Lena)

Comments indicated that since the inservice sessions and class recording sessions they had become more aware of their use of language at group times.

I've tried, I've definitely been trying ...  
I do try actually to direct questions a lot more  
... it has alerted me to it (Pip)

Lack of awareness of surface structure was shown when talking out of turn was mitigated by pupil behaviour

well yes I think I do a lot of umm: actually  
... I'm asking specific questions because  
I put the name at the end, they don't hear  
(it) very well, at the end, I don't  
know: (deputy)

Here the deputy is claiming that she does give Turn Allocations, but talking out of turn results because pupils do not hear the name as it is at the end of the question. However it should be noted that material from the class recording shows that the deputy does not give turn allocations at the end of the questions. It is interesting that the deputy reasons that talking out of turn results from pupils not hearing the name allocation, but does not explain WHY they don't hear it. It is suggested here that the most likely explanation is the pupils are already talking out of turn.

When staff were asked why they used particular strategies it seemed hard for them to articulate reasons. This can be illustrated when the deputy was being given feedback concerning rule reminders (no rule reminders had been given during the classroom recording). She was asked if she had a particular reason for not stressing rules for turn-taking, she replied

ummm (pause) because I () (pause; silence;)  
(Deputy)

This is significant as in the previous interview the deputy states clearly that rules are not necessary as pupils learn from other pupils how to behave, and this seems to be an important aspect of the Reactive

discourse. It is assumed that this is an implicit theory that is not articulated often, and therefore is not linked to decisions and actions in classroom practice.

Overall all staff articulated difficulty with the theoretical section of the inservice session. As discussed, comments indicate that staff had become more aware of their strategies to manage talk at group times since the class recordings and subsequent discussions. However staff responded to questions concerning pedagogical theory with hesitation,

I kind of (), but I don't know: I don't really know:

... apart from what you've been saying (Lena)

One teacher said that she had been thinking about

... the proximal thing, I think I do quite

a bit of it (Pip)

This comment refers to the part of the inservice dealing with the Vygotskian notion of "Zone of Proximal Development", and indicates that the theory had been interpreted as prescriptions of "things to do".

Generally comments indicate that staff have not applied theoretical constructs of pedagogy discussed at the inservice to their classroom practice. It is interesting to note Pip's apparent difficulty when referring to the zone of proximal development, ("the proximal thing"), as this is echoed in the staffroom by other staff members, including the head. Observations in the staff room at this time show there is some teasing of colleagues when they attempt to use these terms.

## DISCUSSION

It seems that staff had interpreted information given at the inservice concerning management of talk at group times as "prescriptions" for classroom practice, rather than make links to their own pedagogical knowledge. No comment at the feedback session indicated that staff had reflected on management of talk in terms of theory of pedagogy. Furthermore it seems that it is hard for staff to use theoretical terms such as "zone of proximal development" accurately. The inservice sessions did not lead staff to articulate their implicit theories of pedagogy, or link their classroom practice to theory. Material suggests that staff are not aware of the surface structure of their language, but their awareness has been raised since the classroom recording and discussion of management of talk at group time.

Overall staff tend to deal with discrete facts, rather than make links between theory and practice. There is little evidence of articulation of links between their teacher talk register and pedagogic discourse, indicating that their theories of pedagogy remain at the tacit level. Staff appear to find the language of theory difficult to articulate, and there was a marked reluctance to use appropriate theoretical terms.

Aspects of the head's role in the articulation of the official discourse have become more clear as a result of analysis of the inservice material. The head displays a range of skills and understanding of group processes,

and presents a model of self as learner, giving support to the learning process of the staff. During the small group discussion in private the head confronts the deputy's pedagogic discourse and highlights the differences between them. However in the public forum this does not occur. The head provides reassurance to the deputy, and draws focus away from the deputy's difficulty in relating theory and practice. It is suggested that this behaviour relates directly to the official discourse. Collaborative responsibility and decision making are important parts of the official discourse and if it is to be maintained then the head and Senior Management must be seen to be in agreement because

if the ethos is there you tend to adopt it, if it's powerful enough, and that gives you commonality

(Head)

It has been suggested that the head constructs and articulates the official discourse, and it must be "powerful" enough to be appropriated by senior staff. However there is another reason. The head has an added responsibility of ensuring appropriation because of the selection procedures when staff are appointed. Concerning staff selection, this head claims

I don't think I would have chosen somebody who didn't fit in because I would explain the kind of philosophy here before people came and if they didn't like it I think I'd feel they

didn't like it... (Head)

This excerpt echoes the views expressed by headteachers in Phase 2. Heads claim to be able to tell whether or not teachers will appropriate the official discourse and when this does not happen mitigations are made in a variety of ways. In the case under discussion, the head mitigates the deputy's differences in discourse by attributions such as "she is early years trained.." (Head). There is further pressure to facilitate the deputy's appropriation of the discourse because the head was influential in the selection procedure

...with the deputy certainly they listened to me because they were doubtful about her experience (Head)

"They" refers to the Governors, and the head needs the deputy to appropriate the discourse, so that the Governors will see that the head has sound judgement in these matters.

As stated earlier there are indications that the deputy is appropriating the official discourse. This claim is supported by information received from the head in the year following the main data collection. The head reports that the deputy has had difficulties with classroom management but notes that

... she is very good at taking advice

... she comes to me to talk about it (Head)

In addition the head notes a change in the deputy's role

This year she has concentrated on the

classroom and not the staff dynamics...(Head)

The fact that the deputy is willing to consult with the head indicates continuing appropriation of the official discourse. It can be assumed that the head still provides antidotes to public Face Threatening Acts, as the head notes that none of the staff

... think that the problems with the classroom

are to do with (the deputy). They just think

that it is a difficult class. (Head)

It seems likely that the head continues to support the deputy during the process of appropriation of the official discourse.

At the end of the year of the main data collection several staff changes occurred. Sue and Peta have left the teaching profession. Pam has changed schools to gain more experience, and Lena has become part-time because of family commitments. Of course this means that new staff have come to the school, and the process of appropriation of the official discourse begins once again. At the beginning of Phase 3 the head says

I want to start a culture in the school where ...  
we have a base culture ... which teachers  
automatically, they just know that this is SCHOOL  
POLICY and they do it the same way ...

It can be assumed that this has been achieved as in the  
year following data collection the head reports that

I am trying to do different things now as the  
structure is more or less in place.

The use of the Building metaphor again should be noted.  
Now that the official discourse is "in place" the head  
can attend to other matters, such as spending more time  
consulting with individual teachers. It seems that the  
school will continue to have high mobility in terms of  
pupils and staff, however it is entering a period of  
consolidation and stability concerning the official  
discourse.

#### SUMMARY

There has been an investigation of one school which  
has included analysis of the interaction cycles at group  
time in order to identify the frequency of talking out of  
turn; classification of every teacher's teacher talk  
register; examination of the related official discourse

and its construction and maintenance; the process of appropriation of the discourse, and the interpretive repertoires of staff.

Discourse elements and metaphors have been examined to analyse the content of the discourse, and mitigation types identified to analyse the form of the discourse. This has enabled patterns and differences to be highlighted. In the course of this report a great deal of interesting material has had to be excluded. This includes the influences that are brought to bear on the headteacher in the construction of the official discourse.

The notion of collaborative learning is central to the official discourse. It is reasonable to assume that the headteacher's construction of the discourse is influenced by the interpretive repertoires of individual teachers, although the focus of this exploration has been the head's influence and construction of the official discourse. However it would be a mistake to overlook the interactive process, and the fact that the head is influenced directly by the power hierarchy at the Local Education Authority level. This is particularly important as the field work for this study occurs during the ending of ILEA, and the introduction of the National Curriculum which marks a period of considerable change at a national and local level. It is suggested that the challenge of these changes has been met by the headteacher.

It is important to note that the influences that are brought to bear on the headteacher have not been investigated fully, and this indicates the direction that this work might take in the future. Phase three is concluded, and a discussion of the findings of the study will follow.

## CHAPTER EIGHT

### DISCUSSION

In this chapter there is discussion of the general findings of the study which are related to the proposition stated earlier:

In the management of the interaction cycle there is a relational tendency between the teacher's preferred teacher talk register and the frequency of talking out of turn.

The teacher talk register is the realisation of the teacher's pedagogic discourse which reflects the official pedagogic discourse of the school to some extent. Links between the teacher's discourse and the official discourse relate partly to the influence of the power hierarchy in the school.

The theoretical framework developed in the earlier chapters is considered, implications for further work are outlined, and conclusions are drawn.

This study supports the view that talking out of turn is a widespread and disruptive classroom behaviour that often causes annoyance to teachers and reduces teaching and learning time (Elton, 1989). Previously, a behaviourally oriented study was unsuccessful in changing the frequency of talking out of turn (Wheldall & Merrett, 1988), and it has been concluded that teachers need further training in classroom management skills to ameliorate deficiencies (Elton, 1989).

It is argued here that the focus on teachers' management skills is inappropriate, and reflects the process of psychological reductionism, where "problems, causes and cures are assumed to reside in the person" (Cornbleth, 1989 p.12). The current study provides evidence that classroom practice is linked to teachers' pedagogical knowledge, and it is asserted that this link must not be ignored if teachers' classroom practices are to be addressed. Furthermore this requires attention to the official discourse of the school, and the discursive practices of the staff. Theoretical support for this view is found in Vygotsky's work (Au, 1990).

This study investigates the links between the frequency of talking out of turn at story time, teachers' management strategies, teachers' pedagogical knowledge and the official discourse of the school. Results of the study show that the frequency of talking out of turn can be related to the teachers' management of the interaction cycle. Differences are apparent between teachers, however it is evident that these differences reflect the teachers' pedagogical knowledge rather than competence. Furthermore, it is claimed that much pedagogical knowledge is held at the tacit level and is articulated rarely. Such knowledge does not become explicit, and inconsistencies and misunderstandings remain unchallenged (Au, 1990). This may account for the fact that a disruptive behaviour such as talking out of turn, which neither pupils nor teachers desire (Corrie, 1989; Elton,

1989), continues to pervade classrooms. Yaxley (1991) asserts that there is a need for staff "to bring into consciousness, to describe, review and publicly justify their implicit theories" (1991, p.10), because when staff are able to reflect on theory and practice, then they are able to make appropriate changes.

An important aspect of this study concerns the influence of the headteacher in the social construction of pedagogic knowledge within a school, and results support Bernstein's (1992) view that language is an empowering device which is never neutral. Contrary to the widely accepted notions of "teacher autonomy" and "staff collaboration", this study shows that the headteacher is responsible for the articulation of the official discourse, and it seems that staff conform to certain principles, or leave the school.

It is asserted that staff often accept the official discourse without reflection, because of the authority of the headteacher's role (Hoyle, 1986). When this occurs meanings are "received but not read" (Larrain, 1986, p.134) by teachers, and knowledge is held intuitively which means it does not become the object of reflective thinking (Greeno, 1989). This is "compliant cognition" (McCaslin & Good, 1992, p.4) which lacks a cohesive theoretical framework, and leaves teachers without substantial voice (Prawat, 1992) when matters concerning pedagogy could be debated.

Evidence shows that the rhetoric of the official discourse is characterised by imprecision, and articulated "as if" shared meanings have been established by the staff. The assumption of consensus means that the head is not required to explicate pedagogic knowledge, and indirect control is exerted over teachers which serves to reproduce the dominant ideology (Apple, 1979; Bourdieu & Passeron, 1977).

However data from this study indicate that staff within the sample are unaware of this control, and it seems that apparent collaboration leads them to believe that they have the power to influence the official discourse, when they do not. Often the reality is that collaboration does not result in increases of shared knowledge (Greeno, 1989), and it is merely "pseudo-collaboration", serving to "ensure quiescence" (Ball, 1987, p.126). Such quiescence, together with the lack of clearly defined pedagogical theory, results in knowledge that is articulated and received as "prescriptions", rather than providing a common language with which professionals can communicate, critically debate, and reformulate pedagogical knowledge (Yaxley, 1991; Calfee, 1989; Clark, 1992).

It is argued that if changes are to be made to teachers' classroom practice, such as the management of talk at story time, then the teachers' pedagogical knowledge must be the focus of attention. The Cartesian

reductionism of "I think" must be adapted to "We think" (Sampson, 1981), because changes to classroom practice will be made most effectively when the official discourse is examined in an active process of discursive practice by the staff of the school. This can occur when staff have established a shared technical and professional vocabulary, shared knowledge of the structures and processes of pedagogy, and the ability to explicitly articulate pedagogical theory in a shared language (Calfee, 1989).

McCaslin & Good ask how can schools "build better bridges from grade to grade?" (1992, p.14). It is suggested here that establishing shared meanings would create opportunities for ambiguities and misunderstandings to be addressed, therefore reducing inconsistent classroom practice. This would result in greater accountability of staff, cohesion throughout the school, and the advancement of professionalization of teaching. Attention will be directed to the study in order to support these assertions.

#### THE STUDY

A total of eleven schools, twenty five teachers and six headteachers were involved in this study, and results show that talking out of turn at story time occurs to some extent in all classrooms. Observations show that at the surface level the context of story-time appears to be similar in all classrooms, with the exception of 7Tb. It

is a routine part of the school day and for these reasons was selected as the context for exploration of talking out of turn.

Generally the pupils gather on the carpet area, and the teacher sits in a low chair facing the group. Overtly the rule is "Pupils are quiet when the teacher is speaking, otherwise one person at a time speaks". Pupils are expected to listen when the teacher is reading the story, and to participate orally at certain times. They are expected to get a turn to speak by bidding for a turn following the "Hands Up" routine, or responding to the teacher's allocation of a turn. However in all classrooms pupils get a turn at times by calling out, interrupting the teacher or other pupils, bidding by making noises and attracting the teacher's attention. Results show that there are marked differences between frequencies of talking out of turn, and these have been linked to differences in teachers' management strategies. Evidence suggests that pupils' age is not a factor in frequency of the behaviour.

#### THE SURFACE STRUCTURE

One important aspect of this study is the analysis of the interaction cycles between teachers and pupils. The study identifies conditions where talking out of turn occurs, and there has been clarification of distinctive features evident in the interaction cycle. These constitute the teacher talk register, and relate to the

frequency of talking out of turn. The difficulties of identifying particular conditions are discussed by McHoul (1978), and concern public knowledge that is constructed by the teacher and class, but is not known by the researcher. It is clear that the history of the group has an important effect on events that occur during the thirty minute recording of story time.

However whilst there are clear differences between the contexts in the twenty five classrooms, support is found for Edwards' (1987) view that classrooms are not necessarily complex or unique communication environments. Evidence supports the assertion that pupils possess a wide range of communication skills (Tharp & Gallimore, 1991), and that they can discriminate between the expectations of different teachers (Romaine 1984; Willes 1981).

Results of the first phase finds support for the proposition (p.141) that in the management of the interaction cycle there is a relational tendency between the teacher talk register and the frequency of talking out of turn. In accordance with Stubbs' (1981) view, it has been necessary to identify where the event of talking out of turn occurs in the structure of classroom talk at story-time, and this has led to the clarification of particular aspects of the interaction cycle. Each teacher's talk during story time with the whole class group has been classified according to the trends of

particular factors identified in the interaction cycle. It is important to emphasise that the aim is not to identify attributes of "effective teaching". It has been established that teachers find talking out of turn troublesome, and it would be easy to assume that teachers with less talking out of turn are more successful, however this is not necessarily so. The intentions of the teacher must be taken into account, and it is suggested here that such intentions are linked to the teacher's pedagogic knowledge.

Following the position taken by Cook Gumperz and Gumperz (1982), the focus has been on identification of variability rather than deficit. Results have shown that variability between teachers concerning management of the interaction cycles relates to a set of apparently simple strategies. The simple nature of these strategies reinforces the notion that teacher competence is not the issue. The feedback session in Phase 3 shows that teachers are unaware of the surface structure of their language, thus supporting Dorr-Bremme's (1990) assertion that teachers do not know they use certain markers. There are no indications that some teachers deliberately use certain markers or strategies that others avoid, and so judgements concerning competency are not made. However the teacher talk register is used to investigate links to the teachers' pedagogic discourse in phases two and three.

#### THE UNDERLYING STRUCTURES

The second part of the proposition states that the teacher talk register is the realisation of the teacher's pedagogic discourse, and evidence supports this notion. Phase 2 and 3 show that teachers who articulate discourse elements describing a Proactive role for the teacher, evidence the Non-Conversational teacher talk register, whilst teachers articulating a Reactive role evidence the Conversational teacher talk register. It should be noted that teachers on the end point of the continuum of talking out of turn most clearly demonstrate the links between pedagogic discourse and teacher talk register, and teachers at midpoints have been discussed as separate cases.

The last part of the proposition claims a relationship between a teacher's pedagogic discourse, and the official discourse of the school. Analysis in the second phase of the study found some links, illustrated by the similarity in some cases in the construction of metaphors, and the uses of types of mitigation. This suggests appropriation of knowledge structures embodied in the official discourse, although much is held at the tacit level. Articulation of certain types of metaphors and mitigation reflected links, however the small number of staff in each school led to difficulties in drawing conclusions. Some relationship was indicated, however the discursive practice of the staff was not explored sufficiently to enable reliable conclusions to be drawn.

It seems reasonable to suggest that the availability of teaching posts in inner London allows staff to change schools when they wish, and that this has a significant influence on the appropriation of the official discourse. Staff have the option to change schools if faced with difficulties concerning the official discourse, and this reduces the necessity to either appropriate or debate the official discourse. However rapid staff changes means that there are reduced opportunities for the official discourse to become established and enacted throughout the school.

Data from this study show that headteachers have an important role in the articulation of the official discourse, and changes in headteachers represent a particularly sensitive time for the staff. In the second phase two heads were well-established, two in the process of becoming established, and one was temporary, and these differences were reflected in the process of articulation and appropriation of the official discourse.

Difficulties in clearly identifying the process of appropriation of the official discourse lead to the development of the third phase, which involves an examination of one school and includes all the teaching staff. Methods follow phase two, however data collection is extended to include recordings of two staff inservice sessions, and individual feedback sessions with staff. These data lead to more substantial conclusions being

made concerning the discursive practice and appropriation of the official discourse.

In the following discussion the notion of the teacher talk register will be addressed. Issues involved in the analysis of the data, and methodological concerns will be highlighted, and this will include factors that were identified in the first phase but not continued in the second and third phases.

#### THE TEACHER TALK REGISTER

As a result of the analysis of the interaction cycles, two types of teacher talk register (following Cazden, 1988), have been identified and are named as the Non-Conversational and Conversational teacher talk register. These types of teacher talk register represent a discourse system (Stubbs, 1981), and seem to be similar to the "styles" identified by Shuy (1988), who contrasted the "ritualised" and "natural conversational" language styles of six teachers. The current study prefers the notion of teacher talk register rather than "style" which suggest that a teacher has a particular style for all contexts, rather than a "register" for a particular context. Here it is suggested that an individual teacher may use different types of registers for different contexts, however this has not been investigated in the current study and it would provide an interesting avenue of exploration at a later date.

Analysis of audio-recordings of teacher and class at story-time in Phase 1 involves identification of patterns in the discourse, and the development of a description of the patterns. The method of analysis is informed by pragmatic and sociolinguistic models, in particular studies by Shuy (1988), Ramirez (1988), and Green, Weade and Graham (1988) have been useful. As Shuy (1988) notes the issue is essentially not a language issue but a teaching/learning issue, however studying language has clarified the dynamics of talking out of turn at story-time.

The category system has been derived from the analysis of the transcriptions of audiotapes from five classrooms at story-time. Unlike systematic observation, the analysis is carried out retrospectively, and categories have been derived from the audiotapes rather than being imposed on the recordings. No claim is made concerning the identification of interactional or pedagogical significance, simply what occurred, where it occurred, and how often it occurred. The audio-recording is partial and has reduced and simplified reality, as not all pupils' talk is recorded. However it is also comprehensive as all recorded talk is transcribed and coded, and not just selected samples of talk. There has been no attempt to carry out complex linguistic analysis or to impose meaning on the interactions recorded.

The issue of the method of analysis affecting what

becomes known is acknowledged (Morine-Dershimer, 1988), and the associated problems of creating categories is recognised here. In an attempt to gain an understanding of the complex interaction process at story-time, certain features of the talk have been identified. The frequency of these features led to the delineation of the teacher talk register as either Non-Conversational or Conversational. Teacher talk registers enabled clarification of the similarities and differences between teachers, and this diversity has been related to frequency of talking out turn. The limitations of this approach is recognised because categories may have been formed at the expense of considerable richness of material which may be important to the teachers' management strategies. In other words complexity may have been reduced for the benefit of the research, however in Stubbs' (1986) view this cannot be avoided. Descriptions of phenomena have to simplify material, but the challenge is to simplify without making reductionist statements.

The aim has been to classify features of a teacher talk register without ignoring diversity, and it has been important to identify factors that are representative of a group. The delineation of teacher talk registers does not deny the importance of issues of homogeneity and diversity, which are addressed by Augoustinos & Innes (1990), who note that variation will always exist within a group. There is no doubt that variations exist within

the groups of teachers studied here, however trends have been identified, and ranked percentages of frequencies of particular elements have led to the identification of the teacher talk registers.

It has not been the aim to identify "key" elements or particular management strategies by statistical analysis. Data analysis in this study has followed Van Dijk's (1990) injunction not to overemphasise the structure of the talk, but to focus on the conditioned structures and processes of the social context. It is suggested that statistical analysis of the data at this point is premature, and could lead to the focus remaining on the structure of the talk. Statistical analysis could rank elements of the teacher talk register, and could lead to certain management techniques being promulgated. In that case this study would be following the structural-functional model and Cartesian reductionism (Bidell, 1988), which is not the aim. There are powerful analytic methods, such as path analysis, that could be used with this non-experimental data, but in Kerlinger's (1986) view such analysis will not provide answers about causes of behaviour. Following Kerlinger it is suggested that in further research it would be appropriate to set up experimental conditions in order to test the validity of the assertions being made here. Certain variables could be manipulated and measured in controlled settings, and at this point statistical analysis could be conducted with validity and reliability.

Whilst the focus of the first phase was the surface structure of the talk at story time, the intention goes beyond identifying "a string of isolated features" (Stubbs, 1981, p.75). Analysis has focussed on the form (what is said) and discourse (what is done) (Barnes & Todd, 1986). The communication level (what is meant) presents some difficulties, because of difficulties in identifying what is meant, when often teachers have no knowledge of what they said. Stimulated recall is a technique that could be used, however in these cases teachers may say what they think the interaction meant, and this may or may not be accurate.

It has been more appropriate to focus on the form and discourse level of the interaction cycle, which enabled identification of what was happening in smooth and disrupted speaker switches (talking out of turn). The teacher talk register has been used to identify patterns in interaction cycles, and links have been made between these patterns and pedagogic knowledge. It must be noted that pedagogic knowledge has not been inferred from the teacher talk register, but articulated by the teachers during the structured interviews.

This study has answered Stubbs' (1981) call for researchers to attend to the notion that the system of communication is dependent upon the organisation of language. The management of turn taking at story time is

a communication system which is related to pedagogical knowledge held at the tacit level. This may account for the fact that teachers continue to implement story time as a whole class routine, when the strategies used to organise turn taking result in a high level of talking out of turn, and an apparently stressful situation for the participants.

The teacher's management strategies have been identified by examination of the interaction cycle and this is discussed now.

#### THE INTERACTION CYCLE

The three stages of the interaction cycle have been based on Mehan's (1979) teacher-initiation, pupil-response, and teacher-evaluation pattern. McHoul (1978) discusses the same "utterance triad", (p.191) and notes that in the third step (teacher's response) the teacher has the "right and obligation to give ... a comment on the sufficiency of that answer" (p.190). In fact this highlights one of the interesting differences between the two types of teacher talk register; teachers with less talking out of turn give more feedback to pupils, whilst those with more talking out of turn are more neutral in their responses to pupils' contributions, whether or not the pupil had maintained the turn-taking rules. This study finds that frequently the teacher's response does not fulfil Mchoul's "obligation" to give feedback, as often there is a "neutral" response to the pupil's

contribution. McHoul's study takes place in secondary schools which may account for the difference in the apparent function of the teacher's response. However Ramirez (1988) also notes that teachers evaluate by praise, comment or a correction. By contrast the current study finds that frequently teachers do not evaluate pupils' answers, or give feedback at all, however the particular context of story-time may account for this lack of feedback.

This finding raises questions concerning the pedagogical aims of story time, given that it is a daily routine in classrooms. Some teachers claim that story time is important for social reasons, whilst others say it is an important context for learning. Teachers may ask questions to evaluate pupils' learning, or as an indirect strategy to control pupil behaviour. If teachers are not using story time as a context for learning then possibly feedback to the individual becomes unimportant, and serves only to allow the teacher to regain the floor, and maintain control of who speaks next. Teacher intentions are important, yet the teachers may not be fully aware of their intentions as such knowledge may be held at the tacit level.

When the factors that mark the three points of the interaction cycle are compared (teacher exit, pupil entry, teacher response), there is consistency between the results of the second and third phases. This

includes factors such as the percentage of questions asked by the teachers, turn allocations given by the teacher, interruptions of the teacher's turn, and the teacher's responses to the pupil's turn. This consistency between results of the two phases adds weight to the conclusions concerning the two registers, however this refers only to the context of whole class story-time and generalisations to other contexts should not be made. Further research could compare teacher talk registers at different times and contexts within the classroom, and also during Assembly Time. Several headteachers raised the difficulties of managing talking out of turn during assembly, and this could be an illuminative source of data. Research could investigate the model that the headteacher is presenting to the staff, and links between the official discourse and frequency of talking out of turn in classrooms. The model presented by the headteacher in Phase 3 showed direct links to the official discourse.

Results of the three phases showed that a clear relational tendency exists between the frequency of talking out of turn and certain factors evident at three points of the interaction cycle. As discussed previously, it seems that the turn transition point when the teacher asks a question is important, and the percentage of questions asked, turn allocations given, questions with a flag, and frequency of open questions are related to talking out of turn.

The type of pupil response to the speaker switch was examined, and results show some interesting evidence of the effects of pupil entry. Whether or not the pupils spoke in a gap or pause in the teacher talk, or directly interrupted the teacher varied considerably and consistently according to the teacher talk register.

The third point of the cycle, the teacher's response to pupils' contribution, also shows interesting differences. Results show that more veto responses are given by teachers with more talking out of turn, showing that the behaviour was not acceptable to these teachers. However it cannot be assumed that some teachers have more talking out of turn than others because they lack certain management skills. Such deductive reasoning is considered to be insufficient at this point, because it ignores teachers' intentions which reflect pedagogic knowledge. It reduces teaching to "survival skills", which have their roots in the "individualistic, technical, and ameliorative tendencies within the dominant culture in teacher education" (Beyer, 1987, p.23). It is not the aim of this study to support the "technical skills" view of teaching, and for this reason the study was extended to include exploration of teachers' pedagogic knowledge during interviews which were conducted in phases 2 and 3.

Although in this study the emphasis has been on the teacher's management of the interaction cycle, there is

full recognition of the reciprocal nature of the interaction. This is shown when pupils in class 7Tb show different turn-taking behaviour with their class teacher and the supply teacher. Furthermore the interactive effect occurs within the interaction cycle, such as the frequency of questions asked and turn allocations given. Each group has a history, and this was illustrated in phase 3 with the headteacher's story time session. As the thirteen children entered the head's office, each one took a teddy bear off a low shelf and sat quietly with the bear on their knees. It was clear that a ritual was being enacted. The head's comment later confirmed that it was a ritual that carried with it a rule, that is, children had to sit the bear still on their knees to be allowed to keep it. The rule had been established previously, and was maintained without discussion, making rule reminders unnecessary.

Results of this study show that rule reminders concerning turn taking are associated with less talking out of turn, however frequent reminders are not required when rules are established. Therefore in some class recordings there are few rule reminders and a low percentage of talking out of turn. Groups have histories that may not be clear during a single recording session, and for this reason there is no claim that one factor is the "key" to less talking out of turn. There is no suggestion that teachers should be taught to apply certain strategies which will reduce talking out of turn,

because this ignores the history of the group, and teacher intentions and decision making. This approach promotes a narrow, technocratic view of teachers' skills, and "ahistorical and decontextualized" (Cornbleth, 1989 p.20) knowledge being promulgated as a universal truth.

#### THE USE OF PRAISE

Frequency of praise has been recorded in all three phases of the study. Praise is described as any positive or encouraging remark made by the teacher to the pupil or the group. Frequencies of praise have not been included in the results of phase two and three, as it was found that generally very little praise was used by the teachers studied. This is interesting as the majority of teachers support the use of praise at group time, and claim to use it, however audio-taped material does not confirm this as fact.

There is an interesting gap between the frequency of praise actually used, and how often teachers think they use it. Even when asked about this issue immediately after the group time, teachers will assume they have used praise frequently when in fact they have not. This indicates support for the notion that teachers are not aware of the surface structure of their language. They are not sure exactly what they say and how they say it. This was shown in the third phase when teachers were asked if they knew what they said to signal a forthcoming question to the group. Material shows that some teachers

use a phrase or particular word regularly, however they are not able to identify what they actually say. Some teachers claim to know what they say, but on further enquiry they were unable to say what it was. It seems that this information is held in the unconscious store of knowledge, and is not available for reflection. Without exception teachers appeared surprised and interested to know what they did say. It is interesting to note that the headteachers assert that praise is important and used in their schools. when in fact it is not evident.

Overall the paucity of praise is surprising and does not support Rosen, Taylor, O'Leary and Sanderson's (1990) results which found that the type of response a teacher implements depends upon the acceptability of the intervention. If teachers endorse praise, why is it not used? The absence of praise is significant when identified by researchers such as Huls (1989) as a "school speech act", and assumed to typify interactions between teacher and pupils. Evidence from the current study suggests that praise, or other positive reinforcement, is not a typical teacher response at story-time. There is a consistent pattern in the teacher talk registers concerning lack of feedback with results showing that the mean of the neutral response for the Conversational TTR is 44%, the Non-Conversational TTR is 29% (Phase 2). The importance of this result is highlighted when aligned with Hattie's (1992) findings, which show that feedback is the most powerful single

factor that enhances education. Here evidence suggests that some pupils are receiving little feedback to their contributions at story-time, and this is linked to teachers articulating a Reactive discourse saying learning must not be "imposed" or pupils should not be "pushed" because they will learn when they are ready. Praise is seen as "patronising" (Sue, phase 3) and manipulative (Deputy, phase 3), although "it works" (Sue).

#### NON-VERBAL SIGNALS

Data from the transcripts of audio-recordings show consistent differences in the frequency of talking out of turn in each classroom, and in the form of the interaction cycles. Examination of the form (what was said) shows that different teachers construct a different discourse in the process of managing talk at story-time. What audio-recordings do not show is the non-verbal interaction between teacher and pupil. Observations show that such non-verbal signals vary between teachers and pupils, and a record of this would provide rich and useful insights into the topic. Notwithstanding the lack of these data, it is asserted that conclusions concerning teacher talk register are valid. However the non-verbal cues would enable the notion of teacher "Miscues", to be analysed with greater reliability. Miscues were analysed in Phase one, but not continued in Phases two and three because the analysis depended on the subjective

judgements of the researcher at times. These miscues may occur when teachers begin to ask a question, and then change to a statement. Edwards and Westgate (1987) note the difficulties involved in identifying such ambiguity, and possibly that difficulties would be reduced with video-recordings.

In addition, video-recordings would allow identification of pupils who talk out of turn. This could provide interesting information as teachers often assert that they allow talking out of turn to encourage reluctant speakers to participate, but observations indicate that those pupils who talk out of turn generally do not fall into this category. Analysis of audio tapes shows how frequently teachers respond to talking out of turn, and the type of response, but not how often they affirm the behaviour in some pupils and not others.

Video recordings would have provided additional useful data, however the dilemma is the risk of intrusion and contamination of data. The audio-recording equipment was relatively unobtrusive, and the object of only brief comments by pupils.

#### SPATIAL ORIENTATION

Analysis of data from phase 1 showed specific differences between teachers concerning spatial orientation, and the notion of detachment and involvement

was created to describe this aspect of the teacher talk register. "Involvement" seems to be similar to Cazden's (1988) notion of "personalisation" in teacher talk register, which is linked to the social distance teachers wish to maintain. However Stubbs, (1981) cautions against selection of certain linguistic units "which appear intuitively to be interesting" (p.51) in order to establish them as "indicators of social-psychological and educational processes" (p.51). Indicators of detachment and involvement were investigated in the first phase, however not pursued, because of the difficulties outlined by Stubbs concerning validity, and also issues of reliability.

The notion of detachment/ involvement is interesting and it may be significant that teachers frequently mitigate talking out of turn by ascribing blame to "dominant pupils", however the behaviour of teachers who respond to pupils who talk out of turn is mitigated as "encouraging reluctant speakers" (that is, for a good reason). Evidence suggests that some teachers are affiliated more "closely" psychologically than others, and this is inferred when teachers use more personal language to pupils, such as greater use of pupils' names, more personal feedback and personal comments made to individuals. However it was found that both the Non-Conversational teacher talk register and the Conversational teacher talk register could be described as either detached or involved. It is inferred that the

teacher talk registers can be described with validity excluding the detachment or involvement factor, and in addition there were difficulties in reliably analysing the data, therefore this line of enquiry was not pursued. However differences in spatial configuration have been indicated, and it may be productive to pursue this further when more reliable methods of analysis are established.

In the earlier chapters the important notion of communicative competence was discussed, as previously researchers have assumed that talking out of turn is linked to deficits in communicative competence. Attention is directed now to this notion in view of the results of this study.

#### COMMUNICATIVE COMPETENCE

Data indicate that pupils are capable of adapting to the turn-taking requirements in the classroom, and perform different behaviours with different teachers. Therefore this study does not support the view that the performance of talking out of turn indicates lack of communicative competence. Hymes' (1971) notion of feasibility must be taken into account, and relevant factors concern the extent to which turn-taking is feasible in a classroom

where procedures are not clarified or consistently maintained;

where pupils who talk out of turn succeed in getting the turn;

where teachers respond positively to those who talk out of turn;

It seems that talking out of turn might be seen by pupils as a more feasible way to get a turn to speak than keeping to turn-taking rules.

The suggestion that turn-taking is less feasible with certain teachers is illustrated by examination of the deputy and Sue's management strategies (Phase 3). Sue and the deputy are recorded with the same group of children, as Sue is the support teacher in the deputy's class. Sue is ranked fifth and the deputy tenth in talking out of turn, with a 15% difference in talking out of turn. It could be assumed that pupils might exhibit more talking out of turn with a support teacher, which was found in class 7b. Pupil behaviour changed quickly and dramatically from adhering to strict turn-taking procedures to a situation where all turn taking procedures broke down. However in Sue's case there was less talking out of turn, and analysis shows a consistent difference between the strategies used by the two teachers (see appendices), with Sue being classified as Non-Conversational and the deputy as Conversational teacher talk register.

It cannot be assumed that the deputy accepts talking out of turn. The deputy responds to talking out of turn

with a 25% veto response, considerably higher than the mean of 17% for the Conversational teacher talk register, and exactly the same as the teacher with the highest percentage of talking out of turn in Phase 2 (Teacher 7a). It was confirmed during the interviews that these teachers find talking out of turn troublesome, however their management practices are linked to pedagogical knowledge stored at the tacit level.

Examination of turns that directly interrupt the teacher's turn when speaking provide interesting data concerning communicative competence. The mean of interruptive turns in the Non-Conversational teacher talk register is 38%, and by contrast it is 65% in the Conversational teacher talk register, which indicates greater use of skills of communicative competence by pupils with a teacher classified as Non-Conversational TTR. Speaking in a gap or pause is an important aspect of turn-taking in conversation, and knowledge that is central to communicative competence. However it cannot be concluded that pupils in some classrooms are having less practice in this aspect of communicative competence, and therefore are less likely to develop the skill. Results from Sue and the deputy show different results with the same class, with Sue 39% interruptive turns, and the deputy 56% of interruptive turns. This may indicate that pupils have more communicative competence than previously thought, as they seem to know (even at a tacit level) the strategies to use with different teachers for

getting a turn to speak, and they adapt their behaviour accordingly.

Results show that talking out of turn occurs in all age groups, as in the third phase every class in the school was recorded. If communicative competence is related to maturational development and experience as often asserted, then it could be assumed that there would be less talking out of turn in classrooms of older children. However results from phase 2 and 3 show that this is not the case. Furthermore, a basic assumption of communicative competence is that norms of behaviour are maintained by those with power. Although teachers articulate norms concerning turn-taking at group time, they evidence considerable differences in practice, as shown by analysis of the teacher talk register.

The results of the investigation discussed so far indicate support for the view that lack of specific performance cannot be correlated with lack of competence. It may be that the interactive effects of a teacher's management strategies makes it more appropriate and more feasible to talk out of turn rather than maintain turn-taking rules. The notion of communicative competence gives interesting insights to the behaviour of talking out of turn, however it does not include the system of regulation operating in the classroom context, and therefore does not provide a full account. Having discussed communicative competence, attention is directed

to the behavioural approach.

#### THE BEHAVIOURAL APPROACH

As noted in the first chapter, Wheldall & Merrett (1988) implemented a behavioural change programme and found it ineffectual in changing talking out of turn. Results support Wheldall & Merrett's view that other explanations account for the behaviour. The basis of this assertion comes from results that show that all teachers positively reinforced talking out of turn some times. Specifically teachers were found to respond most often to the pupils who call out the right answer, or to those who talk the loudest or the longest. These results support Edwards and Westgate's (1987) observation that teachers respond to pupils' attempts to answer by supplying signposts to keep pupils on track. The importance of "the right answer" is emphasised by Shuy (1988), who notes that teachers respond to pupils they can depend on to produce the correct answer. The present study found that teachers were most likely to veto pupils when they interrupted another pupil, or attempted to take the floor from another pupil. In general teachers were more protective of other pupils' right to speak than their own.

Teachers agreed that they responded to pupils who talk out of turn, and offered several reasons in mitigation. Most often these mitigations focus on the

pupils' learning or social needs, and so in the teachers' view they respond "for a good reason". In behavioural terms results show that all teachers use intermittent reinforcement (the most powerful form of reinforcement), at certain times, yet it was not the case that teachers with more talking out of turn used more intermittent reinforcement. In fact teachers with less talking out of turn tended to use more affirming responses to pupils overall, and more affirming responses to talking out of turn. By contrast teachers with higher talking out of turn tended to use fewer affirming responses, and more neutral or veto responses overall.

It is agreed that the behavioural approach does not adequately explain the prevalence of the behaviour. As Wheldall and Merrett (1988) found, no simple mechanistic paradigm gives a satisfactory account of talking out of turn, and this leads to consideration of the interactive system.

#### THE INTERACTIVE SYSTEM

In earlier discussions (p.20) it was suggested that a better understanding of talking out of turn could be achieved by exploration of the interactive system (Sameroff, 1980; Wallat & Piazza, 1988). Results have shown support for this position. Variations between frequency of talking out of turn do not appear to be linked to particular age groups, or even to particular classes, as different teachers with the same class show

different results. Furthermore one type of strategy cannot be shown to be more important than another. However features of the teacher talk register appear to interact and the pupils reciprocate with particular turn-taking behaviour. Explanations to account for these variations in the teacher talk register are sought by examination of the teacher's pedagogic discourse.

#### THE PEDAGOGIC DISCOURSE

Examination of the surface structure of talking out of turn is informative, giving insight into the presenting behaviour, however it does not answer the question concerning what is supporting the behaviour and making it resistant to change. This is important information if changes to talking out of turn are to be made. It is claimed here that answers lie in the teacher's pedagogical knowledge, and support is found in this study and other research for the view that there is a reciprocal relationship between action and knowledge (Clark & Peterson, 1986; Au, 1990, Prawat, 1992).

An important aspect of phases 2 and 3 of the study is the examination of teachers' pedagogic discourse, and the schools' official discourse. This is defined as the knowledge which constitutes the "collective definition of the nature of teaching and learning" (Metz, 1989, p.206). The importance of pedagogic discourse is emphasised by researchers concerned with school improvement, who

suggest that it is central to the critical issue of the professionalization of teaching (Smyth, 1987; Cornbleth, 1989; Calfee, 1989; Mertz, 1989; Yaxley, 1991; Clark, 1992).

Exploration of the pedagogic discourse concerns "the theoretical and general knowledge underlying the framework of teacher decision-making as well as on skills" (Hayon, 1990, p.57). Material was collected in structured interviews, which were analysed to identify patterns in discourse elements. In addition, there was exploration of the social construction of knowledge, which encompasses how the official discourse of the school is constructed and becomes known to staff. The results of the analysis given earlier shows consistent and clear differences in the pedagogic discourse of teachers, and these differences have been linked to differences in the teacher talk registers.

Parker (1990) cautions that contradictory impulses of interviewees must not be ignored, and that accounts from interviews may vary according to the situation.

This point is accepted here, as in the interview situation interviewees may give the response they think the interviewer wants. However interview material shows that particular discourse elements can be identified. These comprise two distinctive types, leading to the conceptualisation of the Proactive and Reactive

discourse. This finding is similar to the results of Clark's (1992) study, where teachers were found to articulate two broad based "belief patterns" which could be correlated with classroom practice.

#### THE PROACTIVE AND REACTIVE DISCOURSE

The claim that teachers' discourse can be classified into two categories is open to the same criticism that has been levelled at previous attempts to classify pedagogical knowledge. Zeichner, Tabachnick and Densmore (1987) note that dichotomous categories are said to be overly reductionist and ignore overlap and inconsistencies. The current study does not claim solutions to these issues, nor does it claim that teacher's knowledge fits neatly into one category or another. Rather, the classification of discourse is based on persistent trends evident in the discourse, aligning with particular trends in the teacher talk register. This point is confirmed in the results that show teachers articulating a Proactive discourse ask more questions during story time, give more turn allocations and more feedback, and that the frequency of talking out of turn in these classrooms was less than others.

The reasons for the two types of discourse identified may be found in Mumby and Stohl's (1991) explanation that discourse acts to structure systems of presence and absence of knowledge within organisations, so that

certain "conceptions of reality are organized into everyday practices, and others are organized out" (p.314). Discourse elements filter reality, and this point can be illustrated by the question concerning classroom rules. When asked how pupils learn the rules, teachers articulating a Reactive discourse maintain that pupils "pick" them up from other pupils, meaning that it is not necessary for teachers to teach the rules. This legitimates the indirect method of teacher control, therefore if pupils violate the rules it is mitigated as the "pupils' fault". In this way elements included in the discourse highlight the teacher's reality, and other aspects are downplayed (Lakoff & Johnson, 1980).

There was no evidence to suggest that teachers are aware of their conceptual systems, but their language is an important source of evidence that reveals knowledge structures, often through the use of metaphors (Lakoff & Johnson, 1980). Metaphors express abstract and elaborate concepts central to pedagogical knowledge. Analyses show that some staff consistently used one type of metaphor (such as the Journey metaphor) throughout their discourse, whereas others employed mixed metaphors, such as the Journey and Building metaphor. However evidence suggests agreement with Lakoff and Johnson's (1980) view that metaphoric coherence rather than consistency is common. Therefore elements of the Proactive or Reactive discourse could be discerned regardless of which metaphor was used.

Interesting differences were seen when one school used the same metaphor. This is illustrated by the Journey Metaphor used by the headteacher and deputy in Phase 3. The headteacher emphasises the importance of the teacher "finding" the pupil's starting point and "going" from there (Proactive discourse), whilst the deputy says that the teacher must "follow" the pupil (Reactive discourse). Staff articulate these different elements consistently, and they are used to classify the discourse. These discourse elements are realised in the teacher talk register used at story time. In summary, links are shown between the type of pedagogic discourse articulated, the type of teacher talk register used at story-time, and the frequency of talking out of turn.

Interview material from phase two shows support for Lakoff and Johnson's (1980) assertion that people are unaware of their conceptual systems. Part of the reason may lie in the fact that teachers are not required to articulate their pedagogic knowledge. Several teachers commented on the novelty of the experience of talking about teaching and learning, saying that nobody had asked them their opinions on these matters before the interview. It seems that staff talk between themselves about a range of matters but not about pedagogical knowledge. This is significant, and supports the view that there is a pervasive anti-intellectual stance that is prevalent in the field of education (Sykes, 1989; Smyth, 1987).

The anti-intellectual position ensures that pedagogic theory remains implicit, and this was shown in the current study when teachers generally found it difficult to talk about some fundamental precepts of pedagogy. This is illustrated by the question concerning child centred education. Teachers asserted that their practice was child centred, however when asked to explain what they meant by child centred education they responded slowly, with many false starts and much confusion. Several teachers laughed, some were silent, and vague terms were used to describe the approach:

(sigh) ummmmm::: its, well, there's lots of things

(6tb)

Another teacher, after one attempt, said

the child::, Oh God! I'm going to do an interview next week! ... (laughter) (10t2)

indicating that the only time this explanation was required was in the job interview situation, a view echoed by the head in phase 3, who said

when I was interviewed apparently I gave the best response to child centred education that the Head ever heard, and unfortunately I did not write it down! (laughter)... (Head)

Several commented that they knew what it was but could not quite put it into words. This difficulty occurs because in Calfee's (1989) view teachers do not have the means to articulate notions as they lack the concepts, labels for concepts, and a technical vocabulary. Calfee's view is supported here, and in addition it is

suggested that whilst staff may not have the means, neither do they have the need to articulate this knowledge, apart from specific times such as job interviews

It should be noted that interview material shows little difference between teachers' and headteachers' use of theory. There is little reference to theory at any level, and no theoretical base is offered to support the views expressed. The results of phase 3 showed that staff appeared to find it very difficult to associate curriculum with pedagogical theory, but did not relate behaviour management with pedagogical theory at all.

Teachers do not refer to theory to legitimate their knowledge, however in common with Au (1990), this study found that teachers tend to support their knowledge with reference to their experience, and they frequently evidence inductive reasoning when mitigating actions. Evidence shows that teachers are not called on to articulate pedagogical knowledge and so it remains stored at the tacit level. This has important implications concerning classroom practice, and attention is directed to this issue.

#### TACIT KNOWLEDGE AND IMPLICIT THEORIES

Consistency in the interview material suggests definite trends in the construction of a pedagogic

discourse, and these have been identified as either Proactive or Reactive discourse elements. However this knowledge does not appear to be in the conscious awareness of the staff. It is suggested that it is held as tacit knowledge, rarely articulated and not readily available for reflection.

Interview material shows that teacher knowledge is articulated as discrete facts rather than a coherent theory which could show inconsistencies. This may account for teachers continuing to implement routines such as whole group story time, when their pedagogical knowledge means it will not be a satisfactory context for teaching and learning.

This point is illustrated when teachers consistently articulate the Reactive discourse, which espouses the notion that the teacher must "follow" the child's interests so that learning will result. Therefore at story time the teacher is supposed to respond to the diverse interests of twenty five individuals, as well as reading the story, and it is suggested here that this task is impossible to operationalise. These teachers say that it is not necessary to have "overt rules" to govern behaviour at story time, because pupils monitor and learn turn-taking from each other. These assertions support their view that teachers must not "impose" learning on the pupil because they will learn when they are ready by "picking up" cues from other pupils. However the results

show that some groups of pupils do not take turns appropriately, and that there is a great deal of disruptive talking out of turn which erodes time for teaching and learning.

It would seem more feasible for teachers articulating this Reactive discourse to organise story time in small groups, where pupils' interests and contributions could be pursued fully, and where turn-taking could be achieved more easily, without teacher control. However these teachers do not reorganise story time to accommodate their pedagogical theory. This study finds that the lack of a cohesive theory means there is little understanding of the relationship between classroom behaviour and academic tasks. Knowledge structures are less accessible because they are fragmented (Prawat, 1992), and so there is an "unwarranted separation of pupil behaviour from their academic development" (Hargreaves, 1989, p.2), which results in institutional routines being implemented without adaptation.

Teachers participating in this study did not refer to established pedagogical theory when articulating their Proactive or Reactive discourse. However clear links can be seen between the Proactive discourse and Dewey's theory, and Prawat (1992) terms the Reactive discourse "naive constructivism" (p.369), noting that it results from a distortion of Dewey's theory. Misconceptions of

Dewey's theory are said to have been reinforced during the educational reforms of the sixties, when Dewey's notions of pedagogy were aligned with the theory of Jean Piaget, and then enshrined in the Plowden Report as a pedagogical theory (Galton, 1987).

Dewey is said to emphasise that "it is the educator's business to determine where an experience is heading" (Prawat, 1992, p.370). Here Dewey's use of the Journey Metaphor succinctly illustrates the links to the Proactive discourse as articulated by the Head, phase 3. The same metaphor is found in the Plowden report and is linked to the Reactive discourse articulated by the Deputy.

DEWEY  
It is the educator's  
business to determine  
WHERE an experience is  
heading

LOWDEN  
Until a child is ready  
to take a STEP FORWARD  
it is a waste of time  
to teach him to take it

HEAD (Phase 3)  
The teacher FINDS the  
child's starting point and  
GOES from there.

DEPUTY (Phase 3)  
The teacher FOLLOWS the  
pupils' interest and  
responds to it.

According to Prawat (1992), Dewey maintained that teachers first step is to build on pupils' experience then to organise and plan experience so that it contributes to the growth of subject-matter knowledge; there are clear links between this theory and the Proactive discourse. At no time does Dewey advocate pupils structuring their own learning, or that experience alone is enough for learning to take place (Prawat,

1992), notions that reflect Plowden, and are encapsulated in the Reactive discourse.

Consistent links between the Reactive discourse and Plowden can be found. Plowden is said to eschew teacher domination (Kogan, 1987), and the Reactive discourse elements state that teachers must "not impose" learning, or "push" the pupil, because learning through concrete experience will occur when pupils are ready. Rules are unnecessary, as pupils learn how to behave from other pupils. It is interesting that the current study finds that four out of five probationers articulate a Reactive discourse.

Notwithstanding the small number of probationers involved in this study, it is worth considering certain inferences concerning teacher education institutions. It might be said that such institutions have a tendency to espouse Plowdenesque notions that have been shown to leave schools "hopelessly adrift" (Kogan, 1987 p.16). The lack of clearly articulated theory might indicate institutions that are "atheoretical in their conception" employing educators who are largely "anti-intellectual" (Galton, 1989 p.36), so that important notions concerning integration of theory and practice are not addressed. This may result in newly trained teachers being equipped with "handy hints" and a philosophy which emphasises the individualization of teaching, from which no effective pedagogy may be derived (Galton, 1989).

Analysis shows that one frequently used expression in the interview material is "in an ideal world" or "ideally" when espousing "individualization" or some related notion, yet the difficulties of putting these "ideals" into practice are glossed, and Kogan states unequivocally that Plowden's emphasis on the individual is "unrealistic" (1987, p.16). Yet it seems that experienced and newly trained teachers believe that if they could only "do" it more effectively, then they would be able to achieve the "ideal", and when this does not happen "you just feel like you're failing" (Teacher 8a). This leads to teachers seeking and accepting prescriptions, which lack elaboration and degenerate into slogans (Bennett, 1987).

While the head (phase 3) articulates a theory that is consistent with Dewey's notions of pedagogy, at no time is reference made to this theory. At times vague and fleeting references are made to Piaget, and certain distinctions concerning "formal" and "informal" teaching methods are made. Staff do not refer to established pedagogical theories, neither do they present their own knowledge on a theoretical base. When discussing the process of learning, there is no reference to cognitive processes, memory structures, or thinking skills. Staff assert that language is important in the learning process, but seem unable to explain the role it plays. Staff emphasise that concrete or "hands on" experience leads to learning, but do not explain how this occurs.

It seems that staff neither think about theories or with theories (Rowell, Pope & Sherman, 1992), but they construct some knowledge from previous experience and individual perceptions which guides practice in an intuitive way. Some knowledge appears to relate to principles promulgated in the Plowden report, which in Bennett's (1987) view requires teachers to implement an attractive but unworkable theory. This keeps teachers in a relatively powerless position, as they continue to strive for an ideal that cannot be achieved. In Weiler's (1988) view, empowerment will come when teachers take control of knowledge actively reflecting on pedagogical theory, however this means accepting that teaching is a form of intellectual labour (Symth, 1987).

An important aspect of phase 2 was to investigate the official discourse of the school, and how this was constructed, legitimated, and enacted in the school. There was examination of the appropriation of such pedagogic knowledge, and attention turns now to a discussion of these findings.

#### THE OFFICIAL DISCOURSE

It has been assumed that the headteacher is responsible for articulating the official discourse. Heads refer to the official discourse by citing "in this school we ...", and they talk about teachers "coming into" the school, and needing to adopt certain policies

and approaches that represent the school's way. In phase two, evidence was inconclusive concerning links between the official discourse and the teachers' discourse, probably due to the small number of staff interviewed in each school, however it is suggested that staff mobility and length of service in the school is a significant factor, and this is discussed later. The lack of conclusive evidence in phase 2 led to the development of phase 3 which examined all the staff in one school resulting in greater insights concerning the appropriation of the official discourse by staff.

Headteachers articulate the notion of the official discourse by referring to the "school" or to "policies". They espouse the notion of teacher autonomy on one hand, and staff collaboration in policy making on the other. The power and influence of the official discourse is implicit, and is shown when it is said that teachers "do not have the freedom" to use different teaching methods, and "do not have the option" to change the organisation and how "we approach things" (6HT). The head appeared to be unaware of the dichotomy between teachers' autonomy and lack of freedom, or between collaboration and lack of options. This was typical of the heads' discourse which is marked by the same fragmented knowledge seen in the discourse of the teachers.

In this study it was found that heads tend to deal in generalities. They speak as if consensus has been

reached, thus normalising principles and practices of the school (Ball, 1990). Gaps in the head's knowledge are not revealed, details cannot be challenged and indirect control of teachers is maintained. The causes of actions remain clouded and the mitigating effect of accounts to rationalise actions are enhanced (Wetherell and Potter, 1989). It is claimed that knowledge is a source of power (Shibutani, 1961), here it is suggested that assumed consensus of "expert" knowledge affirms the head's position of leader, and legitimizes the power of the role (Goodson & Dowbiggin, 1990).

Although consensus is assumed, the notion of teacher autonomy is used to mitigate a range of phenomena. It is claimed that heads are faced with great difficulty when they attempt to change teachers' classroom practice (Nias et al. 1989), and causes are attributed to teacher autonomy, rather than the staff's lack of pedagogical knowledge. It seems that teacher autonomy has important effects on several fronts.

## AUTONOMY

The headteachers in the current study called on the notion of teacher autonomy to account for a variety of practices evidenced by teachers in their schools. The heads' discourse showed a tendency to use slogans and vague terms rather than clear articulation of pedagogical knowledge, and evidence shows that "autonomy" is used to account for the lack of articulation of the official discourse. Some heads maintain that they do not wish to be "prescriptive", and so they do not tell teachers how to do it (7HT). Therefore teachers are not expected to appropriate knowledge from the head, but they are expected to "pick up on things that work for some people" (7HT). Pedagogic knowledge is "picked up" and rests at the level of "things that work", that is, technocratic rationality, which in Cornbleth's (1989) view results in acceptance of discrete facts without creating conceptual frameworks. It is the technical skills of practitioners that are valued, rather than the appropriation of pedagogical knowledge.

Autonomy is valued by staff, and relates to the doctrine of individualism (Harré, 1986), but it permits a range of institutional norms to remain unchallenged. It allows heads to refer to teachers' competencies in mitigation to questions concerning school effectiveness, by ascribing failure to teachers' shortcomings which are universalised (Henriques et al, 1984). This was shown in the mitigations used by heads and teachers. Twenty five

per cent of mitigations used by heads were type three, which normalises teachers actions, whereas only 5% of teachers' mitigations were made in this way. If heads explicated pedagogical knowledge, then this type of mitigation would not be open to them, as more responsibility for teacher actions could be ascribed to shared meanings, and difficulties in operationalising pedagogy made clear.

The notion of autonomy permits varying levels of control to be exerted by the headteacher. This was seen in phase 3 of this study, where the head was implementing a range of strategies to facilitate collaboration among the staff, including reciprocal classroom visits and the mentor system. One probationer commented on the level of control that was exerted by the head, noting that she was required to explain her practice to the head and the deputy, and make changes if required. It was implied that her professional status had been diminished as a result of the high level of control that was exerted by those in the power hierarchy.

The value teachers place on autonomy is indicated by the analysis of mitigation which shows that type two, "for a good reason" was the second most frequently used mitigation by teachers. Teachers maintain they are free to make decisions concerning classroom management "for a good reason", and this is respected because of the teacher's professional status.

However the reality of autonomy is questioned here, and by Ball (1987) who claims that it is a "cosy illusion" (p.122) which may enhance the teacher's sense of efficacy, but acts to control staff by ensuring isolation and separation, protecting the institution from change. Isolation fragments teachers' strength as a body, and minimises the possibility of a cohesive voice at an organisational level (Sykes, 1989). Isolation was clearly expressed by teacher 9b, who notes that staff do not know what is happening in other rooms concerning teaching strategies or behaviour management. Observations in the staff room of School 7 showed that it was not the place to discuss educational matters, but rather staff meetings were used for matters of organisation. Fragmentation and isolation was observed in the staffroom, and the lack of contact between staff was typified by the fact that all staff had their own supplies of coffee and tea. There appeared to be little sharing at any level in the staff room, and this may have important consequences. As Ball (1987) comments in "celebrating their autonomy, teachers accept a whole set of constraints upon their participation in school decision making" (p.123). Weiler (1988) echoes this view, and urges teachers to break out of the isolated classroom in order to be empowered collectively.

However not all schools endorse the notion of autonomy. The staff room in School 7 contrasted greatly to the rituals and traditions of sharing established in

the school of Phase 3. Here specific actions are taken by the headteacher to ensure isolation is reduced, and many opportunities have been created to ensure professional interaction between staff, such as the senior management team, the mentor system, frequent staff meetings and talks by visiting "experts" who address the latest issues in education. Often there are informal meetings in the staffroom where staff share refreshments and adult company before making the journey home. In many ways this head enacts the principle that "all are learners" and this means that collaboration is enhanced, isolation is reduced and visibility is increased.

What is gained by maintaining isolation of staff? Clearly to be open and visible means becoming vulnerable to criticism. Without a common language to discuss issues of importance to the profession, without the confidence of knowledge of pedagogic processes and structures, it is safer to take the defensive route and to close the classroom door. This was shown by teacher 10a, who appeared ill at ease during the interview and the audio-recording. It is assumed this was due to fear of critical judgements concerning her practice, and differences between the official discourse and her pedagogical knowledge.

The notion of autonomy has important implications concerning the appropriation of pedagogical knowledge, and these affect teachers' power to initiate change at

the institutional level. Since teachers have limited access to the official discourse, they also have difficulty in questioning its legitimacy (Nias, Southworth & Yeomans, 1989). Therefore staff are unlikely to take interpretive positions which demand active, reflective and responsible teacher roles (Cornbleth, 1989).

Autonomy can be used to mitigate the variations that exist between teachers concerning management. Analysis of discourse shows major differences in pedagogical knowledge within the staff and this is linked to variations in classroom practice. Differences in management from teacher to teacher appear to be accepted as inevitable. This point is illustrated when it is said that the "overall umbrella" of the school teaches pupils how to behave, but

children will be within the parameters of what's acceptable with one teacher, and outside the parameters with another teacher (6HT)

There was no indication that this was a problem requiring a solution, and the same point is made when teachers say that pupils learn how to behave in the classroom at group time when the rules are established at the beginning of the year (Proactive discourse) or when pupils "pick up" how to behave from other pupils (Reactive discourse). The point is that a whole school policy concerning principles of classroom behaviour should make it unnecessary for pupils to learn new rules at the

beginning of each school year, notwithstanding the obvious variations because of age differences.

Rules are said to reduce uncertainty and ambiguity, but they must be shared and communicated to all members in the organisation (Tattum, 1989). This study shows that teachers apply rules differently in the same school, not only according to the age levels, but also when different teachers teach the same class, and it seems that this is accepted because of teacher autonomy. Daniels and Corrie (forthcoming) note that making meaning is difficult for pupils when rules are applied differently in the same context. Supporting this view McCaslin and Good (1992) assert that such "competing definitions" (p.14) increase pupils' difficulties in learning. This study shows clear links between teacher actions and knowledge, and suggests that teachers lack a cohesive theory concerning academic tasks and classroom behaviour, and this results in teacher actions that may be judged as inconsistent and even incompetent.

In relatively recent times notions of collaboration and whole school decision making have been espoused. However this study shows that there are few precise shared meanings constructed by the staff concerning pedagogy. It is suggested that true collaboration is difficult to achieve without shared meanings, and attention is directed to this issue.

## COLLABORATION

Evidence from this study shows that the heads claim that collaboration is school policy. They tend to espouse the view that the "philosophies" and "beliefs" of the staff are the same, leading to joint decision making and shared policies, however teachers are more likely to note differences between individual teachers. The only school which agreed that staff have different views is the school with a temporary head.

It is suggested that these different views reflect the head's role in articulating the official discourse, and the expectation that teachers will behave in a certain way when they became members of staff. Heads say that they select staff who will "fit" into the official discourse, and in this way normative influences reduce the need for displays of overt authority from the head (Nias et al 1989), they reduce the need for explicit articulation of the official discourse, and therefore reduce the risk of direct challenge from staff members.

Whilst heads espouse the notion of collaboration, the reality may be quite different. It is suggested that at times collaboration and staff participation in decision making, is in fact "pseudo-participation" (Ball, 1987, p.124). This can be shown when a head claims that

Colleagues ... (are) involved very much in the development of the school ...

yet staff must "adapt and subscribe to the general policy" (10HT)

To be involved in school development means subscribing to the established policies, however this head seems unaware of the evident contradiction. Policies may be established "as if" consensus had been reached and shared meanings constructed when in fact they have not, and it may mean that there is an appearance of participation rather than real participation (Ball, 1987). The result is "compliant cognition" which McCaslin & Good, (1992, p.4) notes arises from ambiguity concerning professional goals. Although McCaslin and Good are writing about pupils, it is suggested here that the same reasoning can be applied to school staff. Assumed consensus results in pseudo-participation, and ambiguity surrounds the "shared" meanings, which are undefined.

This point is illustrated in the interview material when several heads refer to "collegiality" and staff being involved in decision-making through consultation, but the true extent of "decision making" is shown by the head of school 8, who notes that discussions take place AFTER she has decided the sort of approach she wants. However the teachers seem unaware of this fact, shown by the comment

... everybody seems to be trying to work things out together, which is really nice (8a)

In fact, policy formation will not be the teachers'

responsibility, as the head has the most important policies in place, and it seems that the pseudo-participation has led to the teachers' illusions of control (Ball, 1987). Teachers have been appointed to the staff because they are able to carry out the policies decided by the head

...I've got staff that I - who are able to do it, because I want them to be able to work from a child centred point of view, I am working towards it all the time (8HT)

By promoting notions of an egalitarian democracy, which gives the appearance of staff participation in policy formation, the head ensures "quiescence" (Ball, 1987, p.126) through compliant cognition. Quiescence serves to prevent teachers' reflection of normative practices, thus protecting the institution against change. Furthermore quiescence means that the official discourse does not have to be explicated by the head, and the head is not challenged to develop a conceptual framework by activating a constructivist conception of knowledge (Calfee, 1989).

It is suggested here that pseudo-collaboration results from a policy that cannot be implemented because the distance between policy and practical reality is too great. The lack of a shared professional language and cohesive framework of knowledge means that whole school involvement in decision making is not possible. Staff

that do not communicate in the same professional language will not be able to discuss and debate notions of pedagogy. Pedagogical knowledge that is held in the tacit store will not be articulated, and the only recourse is for staff to affirm the existing policies.

However evidence from Phase 3 defines a different model of collaboration. The hierarchical structure of the staff has been accentuated by the introduction of the senior management team so collaboration has not led to an egalitarian democracy, however in many ways this school enacts a true collaborative culture (Hargreaves, 1992).

#### COLLABORATION AS SHARED MEANING

The headteacher in phase 3 trained in the sixties and has not undertaken further study. She presents herself as learner particularly regarding pedagogical theory, affirming that a head does not have to embody all the professional expertise which a school needs (Hoyle, 1986), It is suggested that a particular strength of this headteacher lies in the fact she has a clear understanding of what she knows and what she does not know, which Calfee (1989) asserts is critical to the educational experience. This headteacher is clear about what she needs to know, and has creative and innovative ways of getting to know it, thus enacting the role of a reflective practitioner as one who thinks analytically about goals to achieve better results (Hayon, 1990).

In many ways this head enacts "collaboration as shared meaning", which aligns with her role as learner. As discussed, she has taken many steps to alleviate the isolation of teaching staff, and in addition she has given considerable time to formalising policies with written statements, which are available for reflection by staff, governors and parents. Currently this head does lack the professional language to explicate pedagogical theory, however she has taken important steps to become informed, and to create shared meanings throughout the school on a wide range of educational issues.

According to the head, the senior management team has particular responsibilities to articulate and legitimate the official discourse, and through the process of enactment, the discourse has "become clearer" (HT). There is implementation of certain practices which "infiltrated the school in an underlying policy" (HT), and these have come covertly from the head. This head indicates that the official discourse will be appropriated more easily by the staff if it is not articulated directly by her, saying that when it comes from the senior management "it breeds" (HT). Here the power of the official discourse is seen, and the importance of the discursive practice of the staff. This clearly embodies the Vygotskian model of learning, so it is that "the verbally mediated collaborative social action ... provides the foundation for new forms of thinking" (Daniels, 1990, p.11). The official discourse

is legitimated, enacted, and strengthened in practical and symbolic terms, by the "open door" policy that operates throughout the school.

The process of appropriation of the official discourse is a delicate one, even when facilitated by this head. Staff articulate considerable differences in discourse, and by the end of the year several members of the "clique" had left the school. The position of the deputy is interesting as her discourse was significantly different from the official discourse, however evidence from the inservice sessions suggested appropriation of the official discourse, and this process has continued in the year following the main data collection.

Examination of this school shows that the official discourse is constructed by the head and that collaboration as shared meaning (rather than joint decision making) is an important part of the discourse. Quite clearly the discourse comes from the head, and it is suggested here that this is an extremely important function of leadership that has been downplayed, because of the widespread acceptance of collaboration and "whole school" decision making, which may actually be pseudo-participation.

When the head specifies the discourse and facilitates discursive practices, then there is increased visibility which carries the risk of being evaluated and

criticized. Steps to ameliorate this risk can be taken when "all are learners" is established, and when isolation of teachers is lessened through collaboration as shared meanings. Furthermore the creation of the senior management structure means that the head has support in promulgating the discourse. Examination of this school show support for Van Dijk's (1990) claim that the system of discourse is closely associated with ideology. In this case collaboration is not only espoused but active discursive practice makes true collegiality a feasible proposition.

As indicated, staff are likely to leave the school when appropriation of the official discourse does not occur. This phenomenon can be explained partly by the large number of teaching jobs available in Inner London at the time of the study, and it is suggested that a move to a new school can offer a solution to a range of problems for a teacher. However it is possible that mobility has significant effects on pedagogic discourse that are largely unrecognised.

#### STAFF MOBILITY

The significance of staff mobility is discussed here, mainly because of the links to the discursive practices of the school and the need for the explicit articulation of pedagogical knowledge. The notion of mobility is addressed by McNeil (1989) who cites

Hirschman's metaphor of "exit, voice and loyalty" to explain the process that may result in teachers changing schools.

One reason for such changes may be found in the level of disequilibrium the teacher experiences between their own pedagogic discourse and the official discourse. In response to the pressure to appropriate an official discourse some teachers will exit. However it is suggested here that this reason for staff changes is often unrecognised and this is due partly to the fact that pedagogical knowledge is articulated rarely, and partly because of staff selection processes.

Selection of new staff takes place in consultation with the Board of Governors, however the headteacher exerts considerable influence over staffing decisions. Interview material of Phase 2 and 3 shows that most headteachers articulate the knowledge that they are able to select teachers who will "fit" into the school. Heads claim that they can judge when a teacher will be suitable, but this is based less on an alignment of pedagogical theory than on their "personal perceptions of candidates" (Nias, Southworth and Yeomans 1989 p.137).

Interview material shows that headteachers accept responsibility for judging the goodness of fit between prospective staff and the school's requirements. Quite clearly the selection procedures are not always

successful, and later if teachers do not appropriate the official discourse they are likely to leave the school. However the head mitigates such staff changes in a variety of ways, referring to the inadequacies of the teacher's training, unsuitable previous experience, or personal "failings".

Without a professional vocabulary, it is hard for staff to discuss and recognise differences between the individual's pedagogic discourse and the official discourse. It is suggested here that explicit articulation of pedagogic knowledge by staff could prevent some inappropriate staff appointments, and make appropriation of the official discourse more likely, resulting in more stability in schools. However stability on the school staff, while necessary is insufficient to ensure the appropriation of the official discourse.

It is likely that a particularly sensitive time arises on the school staff when there is a change of head. This is illustrated in the third phase of the study, when five members of the staff resigned in the year following the head's appointment. This concurs with Nias et al's (1989) view that "the change of head is analogous to a change of owner" (p.132), and marks an exceptionally difficult time for the staff. In Nias et al's (1989) view "the head is the leading agent of change" (p.136), with the right to make changes to the

official discourse. Such changes may mark a period of staff turnover, and this was seen in School 7 and 8 of the second phase. In School 9 many of the difficulties of the school were ascribed to the frequent changes in leadership.

During the period of appropriation of the official discourse some teachers may attempt to act as change-agents. McNeil (1989) notes that teachers use their "voice" when they stay and attempt to influence the official discourse. This allows exit to be postponed, but does not require loyalty. The position of Sue (Phase 3) illustrates this point. Sue's discourse reflects ambivalence towards the official discourse, and she describes herself as a subversive, apparently acting to subvert the official discourse thus having voice but not loyalty. The analysis of discursive practices during the first inservice shows that Sue uses "voice", but has little influence in making changes to the official discourse. Although it seems that she has difficulty in appropriating the official discourse, pragmatically she accepts that it is sound, but ultimately it leads to her resignation (exit), and a change of career path.

In McNeil's (1989) view, "loyalty" occurs when there is a collective sense that reinforces the individuals' interpretation of the organization's aims. Applying this notion to the model being developed here, this means that loyalty occurs when teachers appropriate the official

discourse through discursive practice, so that gaps between the individual's discourse and the official discourse are minimized. Again this can be illustrated by the third phase, where the longer serving members of staff demonstrate "loyalty" to the head in contrast with the probationers. Appointment to the senior management team carried with it the responsibility to construct, articulate, legitimate and enact the official pedagogic discourse, so that it is appropriated by the newer staff. However in spite of the active discursive practice it is not appropriated by all, as shown by the three probationers. One probationer, David, left suddenly in second term; Peta, a member of the "Smokers" clique, resigned at the end of her first year; Jane, is articulating loyalty towards the "Formals", and has decided to stay at the school.

Mobility of staff means that appropriation of discourse is avoided, and that teachers' implicit theories are not made explicit; tacit knowledge remains in the deep level store; there is no need for staff to reflect on the issues that dynamically effect teachers' classroom management, such as the management of talking out of turn. Inconsistencies apparent in discourse can remain unchallenged when "exit" is a viable option, and confrontation that requires articulation of pedagogical knowledge is avoided. Shotter (1986) makes the point that individuals act into a situation in terms of the choices it offers, and evidence from this study suggests

that agency means that staff are likely to exit, rather than challenge the official discourse.

It is argued that staff are not able to specify the differences in pedagogical knowledge held by other teachers, because much knowledge is held intuitively and not available for reflection, and is held as discrete facts rather than a cohesive theory. Staff appear to construct knowledge from direct experience, or from general principles, rather than the discussion and debate of pedagogical theory. In Seddon's (1991) view, this has given rise to the notion of "craft" knowledge, which accents the importance of knowledge specific to individuals, and this has downplayed the extent to which teachers work collectively in the dynamic institution of the school. The conception of teachers' "craft" knowledge leads to a view of teaching which is "susceptible to domestication" (Smyth 1987 p.155) being a feminized occupation involving service to low-status clients (Sykes, 1989). Isolation and pseudo-collaboration lead to teachers' presenting few challenges to prevailing sedimented meanings (Giroux & Freire, 1988).

### SUMMARY

This study shows that teachers' classroom practice at story-time is related to their pedagogic knowledge, and suggests that changes to practice must be addressed at the level of knowledge. Analysis shows that links to the official discourse are evident but that staff may have widely different pedagogical theories, even though heads claim that staff hold similar knowledge. It seems that this discrepancy arises because pedagogical knowledge is discussed infrequently and only in general terms. It is argued that the notions of teacher autonomy and staff collaboration mean that differences are not addressed, and the option of changing jobs allows staff to "exit" when appropriation of the official discourse is difficult.

Calfee (1989) comments that the critical role of the headteacher has been highlighted in recent educational research, however the exact nature of that leadership is less clearly defined. The current study seeks to address this "neglect of the headteacher factor" (Reynolds, 1989, p.37), and presents evidence that an important part of the role lies in the articulation of the official discourse, and the creative use of resources to encourage discussion and debate. When this happens the result is likely to be a true collaborative culture, rather than contrived collegiality (Hargreaves, 1992). As shown in phase 3, the head's role as leader remains clearly defined, and is not diminished by collaboration

that results in increases of shared knowledge (Greeno, 1989). By creating a differentiated staff structure, (the senior management team), this head has developed a reflective professional cadre (Cornbleth, 1989), whose goal is to stimulate quality teaching throughout the school.

It is suggested that the goal of the senior management team (phase 3) is made more difficult because there is no common professional vocabulary, and this hampers communication at a professional level. Evidence shows that, in the schools that took part in this study, often pedagogical knowledge is articulated as vague prescriptions and slogans. It seems that the lack of discussion, criticism, and reflection of pedagogical knowledge results in emphasis being given to procedures or techniques, which ignores questions of purpose and substance.

Concerning methodology, it is considered that the audio recording of story-time provided a reliable context for analysis of talking out of turn. In future studies video recordings could provide more complete information concerning non-verbal interactions, and teachers' responses to different pupils. Control of the story that is presented would ensure that variables, such as rate of questioning, would not vary according to the different story content, rather than teacher's strategies.

This study has been concerned with identifying variations in teachers' management practices, and categories of teacher talk register have been created to describe differences. In the process of classification much information has been set aside or reduced, however trends in the data have been apparent. Statistical analysis has not been carried out on these data, but this could be done in future studies when certain variables are manipulated. These might include training teachers to use particular strategies at group times, such as giving turn allocations, rule reminders, or praise for correct behaviour. Another group of teachers might receive intervention at the level of pedagogical knowledge only, and comparisons could be made concerning the management strategies of the teachers. It would be valuable to make group time recordings after an interval of three months, and to compare the results.

Classification of the pedagogic discourse has relied on reduction of interview material in order to identify trends, and this has meant inconsistencies have been ignored to some extent. In support of the approach adopted in this study, it is claimed that persistent trends have led to the assertions concerning pedagogic discourse. This was shown most clearly in phase 3, when audio-recordings of the inservice sessions and individual feedback sessions supported material obtained in the interviews. It is claimed that there is greater validity of the conclusions drawn because of triangulation across

contexts, (structured interview, inservice sessions, informal individual feedback session), together with analysis of the content and structure of the discourse (analysis of metaphors and mitigations used by individuals).

The current study did not explore the management practices of the heads, except the head in phase three. Future studies could include the heads' management of a classroom group, or management of turn-taking during school assemblies, which is a time when heads are visible to the staff, and this could be an illuminative source of data.

As discussed previously, an intervention study could lead to comparisons between groups concerning the influence of pedagogical knowledge on classroom practice, such as the management of talking out of turn. Although it is suggested that clarification of pedagogical knowledge should take place at the whole school level, a more practical solution may be intervention of those with influence in the power hierarchy of the school, and this would include the head, the deputy, and postholders. The efficacy of this approach could be compared with the whole school approach.

This study has been restricted to Inner London schools, and undoubtedly the findings reflect this particular context. Broadening the context is an

important step, and in addition the management style of schools could be used as a criterion for selection in future studies which may bring variations between and within schools into sharper focus.

Concerning the theoretical development, this study finds that there are links between management practices and pedagogical knowledge. In addition links between individual teachers and the official discourse were shown in phase three, and this supports the claim that the notion of individualism is inadequate when considering teachers' management of talking out of turn.

The difficulties evidenced by staff in this study when attempting to articulate their knowledge of pedagogy has provided interesting material. The heads' assumption of consensus concerning pedagogical knowledge is seen as an empowering device which raises the official discourse above debate, and the notions of autonomy and collaboration act in a similar way. It appears that there is a cultural process (in addition to the interpersonal process) which is embedded in the appropriation of knowledge. There appears to be a need to investigate such cultural forms of relations (which include institutional functioning and organisation), and explore possible effects of these relations on the appropriation of pedagogical knowledge. The findings of this study have important implications both at the micro level of classroom interaction, and at the macro level of institutional organisation and functioning, and these will be discussed in the following conclusion.

## CONCLUSION

This study began with an exploration of language at the micro level, talking out of turn in classrooms, and this has led to interest in language at the macro level which concerns the development of a professional language that explicates pedagogical knowledge. It is suggested that current changes in Initial Teacher Education mean that it becomes increasingly important for school staff to have the symbolic tools with which to challenge, construct, and reformulate pedagogic discourse. The view taken here is that teacher education institutions have a vitally important role to play in this development.

The current study finds that it is possible that the lack of articulation of pedagogic discourse results in few challenges being made to normative practices, or the assumptions which underpin some practices. These include the Plowdenesque principles which are espoused by staff and yet are found to be difficult, if not impossible, to operationalise. Teachers may become disempowered by their apparent failures, and it is suggested that this may be exacerbated by the lack of debate concerning pedagogic practice. This lack of debate seems to be related to norms of autonomy and collaboration. As discussed previously, autonomy may be an illusion which protects the institution from change by fragmenting the teachers' strength as a cohesive voice. Collaboration may be little more than assumed consensus by those with

power which means that explication of pedagogy does not have to take place. It is possible that autonomy and collaboration are two important aspects of cultural relations which are influential in the construction of pedagogic knowledge.

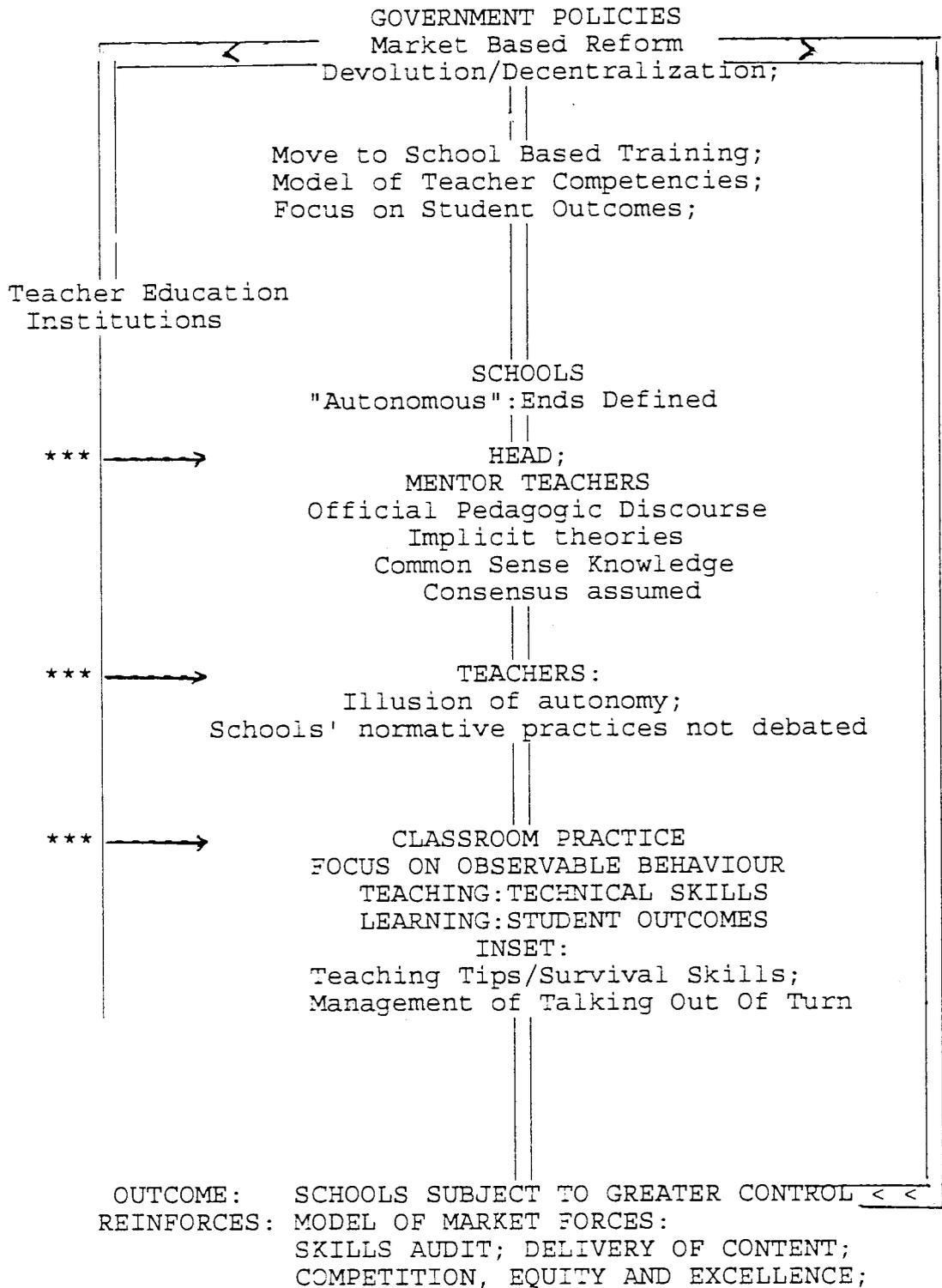
The current study has begun to answer Au's (1990) call for more understanding of the discourse processes that support the development of teachers' knowledge. It is suggested that headteachers' knowledge should receive similar attention, because they have a key role in the articulation of the official discourse. Further research is required to investigate effective ways of enabling headteachers to develop cohesive theories emphasising links between elements of knowledge, and ending current fragmentations, such as the dichotomy of behaviour management and curriculum content (McCaslin & Good, 1992).

Complex issues are raised when the lack of a professional language is aligned with the view that language is an empowering tool (Bernstein, 1992). Here the issue concerns cultural relations at the most macro level which may be serving to keep educators without a professional language, thus diminishing their professional status and power. It is suggested that the challenge of developing a technical and professional vocabulary should be taken up by teacher education institutions, and then emphasis could be given to the

explicit articulation of pedagogical knowledge at each stage of the pre-service education programme, continuing throughout teachers' careers. This proposal raises serious questions concerning current changes in Initial Teacher Education (ITE) that are taking place in England (Edwards, 1992), and being discussed in Australia. The change to school based training and the focus on teacher competencies and student outcomes may mean more emphasis is given to technical skills (O'Keeffe, 1990), and less to professional knowledge. This study carries with it the implication that training teachers to articulate, debate and develop their ideas on pedagogic practice could increase the effectiveness of school based training. However it seems that there is a need to address complex issues concerning cultural relations which might hamper the efficacy of such programmes.

Certainly the current changes in ITE provide a vivid example of the process whereby the education system becomes a political means of modifying and maintaining a particular discourse (Ball, 1990). These links between macro and micro levels are conceptualised in figure 47.

Figure 47 Links between the Micro and Macro Levels.



Key:    || stronger control;  
         | weaker control;  
      \*\*\* explicit pedagogical  
          knowledge required;

In earlier discussions it was said that metaphors highlight certain aspects of reality and cloak others, so that some information is organised into the discourse and other information is organised out. As shown in figure 47, currently the business metaphor is being applied to education, and this serves to construct the discourse by organising out certain factors. The view taken here is that this may not lead to higher levels of expertise in classrooms because it appears that the absent factors include professional knowledge.

However it is suggested that this situation could be changed at the school wide level. A neo Vygotskian perspective would give priority to creating opportunities for the appropriation of pedagogical knowledge in social interaction. The move to school based training means that it is extremely important for the official discourse to be articulated, debated, reformulated and enacted. This may result in the theory that underpins practice being clarified and articulated in the context of the school.

In addition it seems there is a need to know more about the cultural, interpersonal and personal processes that influence the development of professional knowledge. Staff need to understand the relationship between elements of knowledge, in order to construct cohesive theories with accessible knowledge structures (Prawat, 1992). This could arise in discussions which use a

shared professional language concerning specific issues, such as pupils' development of turn-taking skills at group time. Staff would have the intellectual tools with which to address the meaning of a troublesome classroom behaviour such as talking out of turn, and make appropriate institutional changes.

The conclusions of this study urge educators to take conscious control of knowledge, and to confront issues that blur the development of pedagogical theories. It is possible that such knowledge will result from an ongoing process of collaborative reconstruction of theory and practice in a shared language. The current changes in teacher education seem to emphasise the need for staff to develop explicit professional knowledge, and opportunities could be created for teacher educators to work with school staff at all stages of their professional development. It is suggested that when a behaviour such as talking out of turn can be addressed by articulate professionals, then there may be increased likelihood that the broad goals of education will be achieved.

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APPENDIX

PHASE ONE - Results

Table 43 shows a comparison of the frequency of Smooth and Disrupted Speaker Switches, (Talking out of Turn).

Table 43 Frequency of Smooth and Disrupted Speaker Switch

School	1	2	3	4	5
SSS n =	38	83	117	33	55
DSS	110	52	50	140	76

QUESTION FLAGS

Data showed that the following flags are used by the teachers:

1. Pause - the teacher pauses, then asks the question.
2. Appositionals - These are usually short signals spoken with an emphatic manner "RIGHT" "NOW" followed by the question.
3. Reformulate Question - the teacher asks a question, then reformulates it, possibly to clarify the content or to allow thinking time, or to signal the actual question.
4. Phrase - a short phrase may be used "RIGHT who can tell me..."
5. Name - the teacher may use the pupil's name to focus attention before asking the question and the primary purpose is different from that of turn allocation.
6. Rule - the teacher will invoke the "Hands up" rule before asking the question.
7. Sounds - the teacher makes a particular sound "urrrr" or "ummmm" just before asking the question.
8. Long signals - signals of over 10 words are coded as long as they often embed one or more of the flags.

Table 44 shows the use of flags.

Table 44 Comparison of Flags

School	1	2	3	4	5	Total
Pause	0	0	3	0	0	3
Appositionals	3	6	7	4	0	20
Reform. Quest.	3	2	6	3	9	23
Phrase	1	11	17	0	3	32
Name	4	0	5	1	5	15
Rule	0	1	5	1	1	8
Sounds	2	11	0	0	0	13
Long qu. sign.	0	12	1	1	3	17
Total	13	43	44	10	21	131

QUESTION TYPE AND STRUCTURE

Questions were coded into one of eleven categories.

1. Tag question, at end of turn.
2. Open question, no turn allocation.
3. Open question, then turn allocated.
4. Question directed to individual pupil.
5. Turn allocation given by name, followed by question;
6. Pseudo question, to control pupils;
7. Question with rule reminder (Hands up)

8. Question which is embedded in a sentence, the teacher continuing directly with the topic.
9. Open question resulting in Unison reply, as opposed to Simultaneous Speaking.
10. Open question followed by smooth speaker switch.
11. Rule for reply is given, then question asked.

The number and percentage of types of teachers' questions i given in table 45.

Table 45 Analysis of Questions

chool	1	2	3	4	5	
Total	n = 86	64	96	52	68	364
1. Tag %	5	1	0	20	10	
2. OQ>TOOT	17	16	5	50	32	
3. OQ>TA	6	14	25	2	4	
4. Q1:1	31	22	12	2	32	
5. TA>Q	16	3	5	0	4	
6. Q>control	15	9	12	8	3	
7. OQ>Rule	2	1	3	2	0	
8. Q>Tag content	6	1	16	8	7	
9. OQ>Unison	0	17	5	2	0	
10.OP>A	0	14	11	6	4	
11.Rule>Q	1	0	4	0	1	

USE OF PRAISE AND PUPILS' NAMES

The frequency of use of praise and use of individuals' names wa counted because of the high rate of questioning it was assume that praise and name use would be high. Results are shown o the table 46.

Table 46 Use of Praise and Pupils' Names

School	1	2	3	4	5
Praise	2	9	17	0	0
Names	72	14	60	10	37

PUPILS' ENTRY DEVICES

Data was examined at teachers' point of completion to ascertain what type of entry devices were activated by pupils, and i these varied between classrooms. In addition data showed tha at the pupils point of entry the content may be:

- An extension of the teacher's topic.
- On the teacher's topic.
- Off the teacher's topic.

Comparison of the number of the analysis of disrupted speake switches is shown in table 47. It was not possible to code eac point of entry, however where possible they were coded a follows:

- either Anticipated point of completion OR Miscue;
- either Interruptive OR Non-interruptive;
- either Self selecting OR Simultaneous Speech;
- either extension OR on OR off teacher's topic;

Table 47 Pupil Entry

School	1	2	3	4	5
Ant.POC n=	32	29	33	32	27
Miscue	25	6	3	43	24
Self Sel.	42	26	22	30	43
Sim.Sp.	38	20	19	87	22
Interruptive	37	25	17	80	41
Non-interr.	44	20	25	46	36
Ext.Topic	13	10	6	2	3
On Topic	41	25	31	82	51
Off Topic	18	1	4	0	16

TEACHERS' RESPONSES

Teachers' responses were examined as it is likely that they have a function in the maintenance of Talking out of Turn. The affirming and veto responses had several sub-types and the criteria for classifying the response are as follows:

TEACHER'S RESPONSE AFFIRMS PUPIL ENTRY:

- 1) When pupil supplies topic related 1st interaction step, teacher responds with the second.
- 2) When pupil responds with topic related 2nd step, teacher responds with the 1st.
- 3) When pupil supplied unrelated topic 1st step, teacher responds with 2nd step.
- 4) When pupil responds with unrelated topic 2nd step, teacher accepts contribution and continues with 1st step.

Affirmation may take place explicitly or implicitly:

TEACHER'S RESPONSE APPEARS NEUTRAL TO PUPIL ENTRY:

Teacher continues topic as if pupil entry had not occurred.

TEACHER'S RESPONSE ACTS TO VETO PUPIL ENTRY

Teacher responds to the METHOD of speaker switch not the CONTENT and examination showed that the veto may be conveyed either directly or indirectly.

Direct Veto:

- 1) Teacher instructs pupil to end turn. No reference made to content.
- 2) Teacher instructs pupil to end turn and refers to the rules:
  - i) invokes rules;
  - ii) explains rules;
  - iii) rebukes pupil for rule contravention;
- 3) Teacher instructs pupil to end turn and coaches pupil in turn-taking behaviour.
- 4) Teacher instructs pupils to end turn and nominates one pupil to respond OR reminds others of pupil thus nominated.
- 5) Teacher makes statement explicating expectations, requirements, and intentions.
- 6) In response to group TOOT
  - i) group told to end
  - ii) individual told to end.

Indirect Veto:

- 7) Name only used: tone indicates veto.
- 8) Turn allocated to another compliant pupil.
- 9) Teacher sanctions another behaviour.
- 10) Teacher refers to TOOT behaviour through another pupil.
- 11) Teacher uses appositional "right" etc. to signal return to topic, and end of TOOT.
- 12) Teacher changes voice level/tone/tempo and continues directly with the topic.

Table 48 shows the frequency of each response.  
Table 48 Teachers' Responses

School n=	1	2	3	4	5	Total
Affirm	44	17	22	37	21	141
Neutral	12	13	5	34	9	75
Veto	54	22	23	69	46	214
Total	110	52	50	140	76	430

When teachers' respond by affirming the pupils contributions what do they say exactly? Do teachers' vary when they respon to pupils' answer to the content question? This respons represents the teacher's way of regaining the turn and contro of the turns that follow. Investigation shows that si different categories of responses can be identified:

1. Praise - either addressed to the pupil or the response; might be for a correct answer or for an attempted answer.
2. Echo - the teacher responds by repeating part of pupils' answer
3. Questions - the teacher asks clarifying questions, questions to develop the topic, or unrelated questions.
4. Evaluation - the teacher agrees or disagrees with the answer
5. Appositional - a word is used to signal teacher's re-entry
6. Comments - the teacher makes a comment as the turn is taken, and it is more like "normal" conversation than classroom interaction.

Results of this analysis are shown on table 49.

Table 49 Types of Affirming Responses

School	1	2	3	4	5
Praise	0	9	17	0	0
Echo	8	19	28	18	19
Question	15	10	4	6	13
Evaluation	5	13	20	15	10
Appositional	3	0	2	0	2
Comments	7	3	4	9	7
Total	38	54	75	48	51

#### TYPES OF TALKING OUT OF TURN

Two types of Talking out of turn have been identified. There i talk that sustains the current topic (collaborative), and tal which is off-topic (individuated). Does the teacher's respons to the pupils' entry vary according to whether it is on th topic or off the topic?

#### EACHER'S RESPONSE TO THE COLLABORATED TURN:

##### i) DIRECT RESPONSE:

1. There is a direct response to the CONTENT of the TOOT. The TOOT comment may be repeated and/or comment on the content may be added.
2. Teacher invites pupil to elaborate content.
3. Repeats or answers the TOOT question, and makes a comment on the content.
4. Answers the TOOT question or repeats the TOOT comment, or responds to the the comment, then returns to the topic in the same turn.

5. TOOT question answered then confirmation sought from pupil;  
Comment made or repeated, affirmation sought from pupil;
  6. Question directed or redirected to pupil, or opened to the group.
- ii) INDIRECT RESPONSE
7. Teacher integrates or refers to content of pupil's comments or question in own comments, without direct reference to the pupil.
  8. Teacher makes a blocking comment which cues attention then continues in same turn directly with topic.

TEACHER'S RESPONSE TO THE INDIVIDUATED TURN:

- i) DIRECT RESPONSE
9. Responds to content of TOOT; makes a comment, asks a question.
  10. Action taken in response to the content of TOOT and reference made to it.
  11. Question answered; question asked concerning content of TOOT.
  12. Teacher returns the question back to the questioner, or opens it to the group.
- ii) INDIRECT RESPONSE
13. Teacher incorporates content into own comments.
  14. Teacher asks an open question incorporating the content.
  15. Teacher acts to intervene in any way because of the TOOT, without direct reference to it.

TEACHERS' VETO RESPONSE

DIRECT VETO

16. Teacher instructs pupil to end turn and does not refer to content.
17. Teacher instructs pupil to end turn and invokes rules for turn-taking.
18. Teacher instructs pupil to end turn, and gives explanations for turn-taking rules.
19. Teacher directly rebukes pupil for contravening rules.
20. Teacher instructs pupil to end turn and coaches pupil concerning appropriate turn-taking behaviour.
21. Teacher instructs pupil(s) to end turn, and in the same turn nominates one pupil to respond, or reminds pupil(s) of pupil already nominated.
22. Teacher instructs pupil(s) to end turn, waits briefly, then repeats instruction.
23. Statement made of teacher's expectations, requirements or intentions.

24. Pupil instructed to end turn, reference made to content.
25. In response to several or many pupils' TOOT teacher instructs group to end turn.
26. In response to several or many pupils' TOOT teacher instructs one pupil to end turn.

INDIRECT RESPONSE:

27. Teacher refers to Pupil by name only, tone of voice indicates veto response to TOOT.
28. Teacher continues topic as if TOOT had not occurred.
29. Teacher allocates turn to another pupil who is complying with turn-taking rules.
30. Teacher refers to or sanctions another behaviour rather than TOOT.
31. Teacher addresses one pupil, referring to the TOOT of another pupil.
32. Teacher gives indirect reminder of rules or coaches turn-taking indirectly.
33. Teacher signals Pupil(s) to end TOOT by focus attention and return to topic in same turn "right"
34. Teacher changes voice level/tone/tempo and continues with topic in same turn.

Results of analysis of data are given in the following section.

Frequency of COLLABORATED and INDIVIDUATED TURNS:

School	1	2	3	4	5
Collab	39	40	38	90	54
Indiv.	58	3	5	20	19
Total	98	43	45	110	73

Frequency of Affirming/Veto Responses:

School	1	2	3	4	5	Tot
Coll.	23	23	19	38	23	125
Indiv.	12	1	3	5	5	26
Veto	63	19	23	67	45	217
Total	98	43	45	110	73	368

Number of DIFFERENT TYPES of VETO Responses used;

School	1	2	3	4	5
Types	15	6	9	7	12
Direct/					
Indirect	9+6	2+4	5+4	4+3	4+7

FREQUENCY of Direct and Indirect Veto Responses:

School	1	2	3	4	5
Direct	26	2	9	23	7
Indirect	37	17	14	44	38
Total	63	19	23	67	45

Analysis of NEUTRAL response

School	1	2	3	4	5
Indirect neutral	37	17	14	44	38
% neutral	22%	76%	35%	91%	18%

Veto responses classified as neutral.

School	1	2	3	4	5
%	35%	68%	21%	70%	84%

% of Direct and Indirect Response to Total Veto Response

School	1	2	3	4	5
Direct	41%	10%	39%	34%	15%
Indirect	59%	90%	61%	66%	85%

% of total VETO response to Total responses:

School:	1	2	3	4	5
	64%	44%	51%	61%	62%

Teachers' response to convergent topic-sustaining question:

Affirms the TOOT by:

i) EXPLICIT AFFIRMATION:

3. Teacher repeats question and makes a comment without answering the question; Teacher maintains turn and control over turn length and right to allocate next turn;
4. Teacher answers question by explanation or elaboration of topic point, and then continues topic; Teacher maintains turn and control over turn length and right to allocate next turn;
5. Teacher answers question and then seeks confirmation that answer has been received and understood; teacher offers turn for further question to pupil;
6. Teacher redirects question back to questioner thus offering turn and control of topic development to pupil;

ii) IMPLICIT AFFIRMATION:

7. Teacher incorporates answer to question in subsequent comments and continues topic; Teacher maintains control of turn and turn length, and right to allocate next turn;

Response to topic-divergent comments

i) EXPLICIT AFFIRMATION:

8. Teacher invites pupil to elaborate; Teacher offers turn to pupil, giving pupil control of turn length and topic development;
9. Teacher repeats comment and elaborates it; Teacher maintains control of turn and turn length, and right to allocate next turn; Teacher permits topic expansion but remains in

- control of further development;
10. Teacher repeats comment or part of comment then continues own previous topic;  
Teacher maintains control of turn and turn length, and right to allocate next turn;  
Teacher affirms the TOOT but retains power to direct topic;

ii) IMPLICIT AFFIRMATION:

11. No direct reference is made but some aspect of content incorporated in subsequent comments.

Response to divergent topic-developing questions:

i) EXPLICIT AFFIRMATION

12. Teacher redirects question back to questioner;  
Turn given to pupil, and control of topic;
13. Teacher answers question and seeks confirmation of understanding;  
Turn given to pupil and possible further development of topic;
14. Teacher answers question and expands new development;  
Teacher maintains turn and turn length;  
Teacher follows pupil's topic development;
15. Teacher answers question then return to original topic;  
Teacher maintains turn and control of topic;

ii) IMPLICIT AFFIRMATION

16. Teacher incorporates answer into subsequent comments;
17. Teacher repeats question and makes a blocking comment, or no comment, then continues own topic;  
TOOT affirmed but teacher retains topic control and turn control;

In all the cases outlined the teacher affirms the act of Talking Out of Turn, when to be consistent with the rules veto may be expected. In all cases veto may take the following forms:

i) EXPLICIT VETO

18. Teacher directly instructs pupil to end turn and refuses contribution;
19. Teacher directly instructs pupil to end turn and gives reminder of rule for turn-taking;
20. Teacher directly rebukes pupil for contravening rule;
21. Teacher invokes rule for turn-taking;

ii) IMPLICIT VETO:

22. Teacher continues as if TOOT had not occurred;
23. Teacher allocates turn to another pupil who is adhering to turn-taking rules; teacher may or may not make reference to this;

TEACHER'S RESPONSE TO INDIVIDUATED TURNS

- a) Teacher response to topic-changing comments or questions

i) EXPLICIT AFFIRMATION OF THE TOOT

Teacher responds to the topic-changing comment by:

24. adding a comment which continues the new topic;

Teacher accepts the topic change, retains the turn and right to allocate next turn.

25. Teacher asks the pupil a topic-expanding question  
Teacher affirms pupil's right to change the topic, and allows the pupil the power to further direct the topic-change. Pupil has the turn, and can allocate turn-length, and next turn.

Teacher responds to topic-changing question by:

26. directly answering the question, may follow up by asking confirmation of understanding from pupil;  
Teacher affirms pupil's right to change the topic; turn offered to pupil, but may be restricted to confirmation of understanding;
27. directly answering the question then makes further comments on new topic;  
Teacher affirms the pupil's right to change the topic; teacher retains turn, and right to allocate next turn.
28. returning the question back to questioner;  
Teacher affirms the pupil's right to change the topic; Teacher offers the turn, turn length, to pupil.

ii) IMPLICIT AFFIRMATION OF THE TOOT.

Teacher responds to the topic-changing comment by:

29. Shortly after the comment has been made incorporating new topic into own comments;  
Teacher affirms pupil's right to change the topic; Teacher maintains the turn, turn length and right to allocate next turn.
  30. Teacher asks an open question which incorporates the new topic change;  
teacher affirms the pupil's right to change the topic; teacher offers turn back to pupils, but maintains the right to select which pupil will have the next turn.
- b) Response to a comment that blocks topic development

i) EXPLICIT AFFIRMATION OF THE TOOT

31. Teacher takes up the comment and expands it;  
Teacher affirms pupil's right to block the topic; Teacher has turn and right to allocate next turn.  
Teacher follows comment with a question connected to it;  
Teacher affirms pupil's right to block the topic; Teacher offers turn, and allocates it back to pupil, giving turn length and further topic to pupil.

ii) IMPLICIT AFFIRMATION OF THE TOOT

32. Teacher acts to intervene in any way, without making direct reference to the TOOT, but action taken because of the TOOT.

VETO OF TOOT:

EXPLICIT VETO OF THE TOOT

33. Teacher responds to the topic changing or blocking comment or question by stating that that is not the topic under discussion, and redirecting attention to original by a restatement of it.  
Occurrence of the TOOT is affirmed, but minimised.

Turn taken by teacher, power to allocate turn when wishes to do so.

34. Teacher responds by affirms the topic-change but notes that timing is not appropriate. Occurrence of the TOOT is affirmed but results minimised. Teacher maintains turn, and right to allocate next turn.

#### IMPLICIT VETO OF THE TOOT

35. Teacher re-states the topic under discussion. Re-statement implies TOOT has been heard, but focus on topic not TOOT. Teacher maintains topic, and turn, and turn allocation.

The quantitative results have indicated areas of difference and now each teacher will be discussed with regard to the language style that has emerged. In addition certain qualitative features will be highlighted.

#### THE TEACHER TALK REGISTERS

##### Teacher 1

This teacher's interactions focus on the individual rather than the group, and is more like a dyadic conversation, rather than group interaction.

This teacher addresses most instructions and directives to individuals, and shows the highest use of pupils' names. Frequently instructions have to be repeated several times before pupils respond. In addition a high percentage of questions raised are categorised as

- a) Questions addressed directly to an individual
- b) Turn allocation is given first, then the question is asked.

Both strategies heighten the attention of the individual concerned, however they may act to exclude the other group members.

This teacher uses praise twice only, this directed to the same boy for re-telling the story. The low amount of praise is surprising however reasons can be inferred. The focus of this lesson is the individual rather than the academic content, thus correct answers are not a priority. The recognition of individuals may be tied to egalitarian notions concerning individual achievements, and praise of one child may be considered to lead to others feeling inadequate. It is noticeable that most of the content questions this teacher asks are higher order inference questions rather than factual recall. However two rather contradictory points should be noted. Firstly the questions themselves are complex, and could be judged unsuited to a six year old group many of whom have little English. The teacher asks the children to consider why the man wants to build a new house, and tells them they must consider all the factors such as maybe his wife is having another baby. The demands of this abstract level of thinking must be seen in context, and it should be remembered that these are pupils who live in bed and breakfast accommodation, with

whole families crowded into one room.

There seems to be a gap between the teacher's intention to treat the pupils as individuals, and skill to operationalise this concept. It is a matter of conjecture whether this gap may be the cause of the pupils' apparent reluctance to follow simple instructions even when directly addressed to individuals.

It can be inferred that this individualised and conversational style of discourse results in the evident lack of regularity in the discourse. This teacher uses very few question signals, and very little feedback of any type is given to pupils. The main way the teacher regains her turn is to ask another question, which may or may not require an answer. A relatively high number of miscues were recorded. These mainly occurred when the teacher asked a tag question or made a second step comment, which leaves the turn with the pupils and can be interpreted as an invitation to talk. Again this indicates a conversational style of interaction commonly found between dyads. A further indication of this is found when the teacher shows willingness to answer a pupil's off-task question, just at the important point of beginning to tell the story. The needs of the individual was put above the needs of the group.

#### Teacher 2

This teacher is the most diametrically opposed to Teacher 1. The discourse of this teacher is directed to pupils as learners, and the articulation of the right answer. This teacher talks a great deal more than the other teachers, and she uses the pupils' names a great deal less. Although she uses praise nine times it is directed to a small percentage of the pupils, and one girl in particular. Praise is always for a correct answer, rather than appropriate behaviour or for an attempt. This teacher asks many factual questions concerning recall, with very few higher order questions. Certain questions are given extremely long question signals which contain the message that the question is going to be very difficult. In fact several times the question was extremely easy, however the publicised "difficulty" of the question may have encouraged some pupils not to attempt the answer.

Teacher 2 does not accept answers from pupils when they are not exactly accurate, and she constantly shapes their answers until it matches her model of "the correct answer". A pupil who is having difficulty is ignored and attention directed to the pupil who is able to supply the correct answer, even if that pupil has supplied the answer by talking out of turn and taking the other pupil's turn. The correct answer is the focus, not the individual. When pupils cannot answer a question the teacher simply repeats the question several times, rather than reformulating the question, or leading the pupils to the answer by a different track. Thus in the discussion about their forthcoming confirmation service the teacher says

T: when you receive your first Holy Communion...who comes to you? - yes Natalie  
Nat The Priest  
T: The priest...WHO is it who comes to YOU ?- yes  
P: God  
T: God () but who is it exactly?  
P: " Jes  
T: [Je:sus"  
Ps Unison "Jesus"

The teacher's apparent reluctance to accommodate creative answers is seen in the following discussion. A few turns earlier one girl had said that she is scared of big dogs that bite children. The discussion turns to Lent and pupils are encouraged to give up something, such as cakes or biscuits; several put up their hands and tell of giving up sweets, or cakes, then the same girl comments

Pupil I gave up dogs for Lent  
Teacher You gave up what?  
Pupil I gave up dogs and cats for Lent  
Teacher What do you mean  
Pupil dogs and cats  
(here another pupil explains)

Pupil 'cos she don't like dogs and cats!  
The teacher appears to be having difficulty accommodating a contribution that was novel, in spite of the fact that this same pupil had talked about being scared of dogs that bite little children a few turns earlier. The narrow range of types of questions asked is shown by the high number of unison responses recorded. A unison response differs from simultaneous speech both in content and timing. Unison responses requires that the content is the same thus the question asked must direct the answer to one and only one correct answer, and all answers must be given at the same time. This class recorded the highest number of unison responses, by a wide margin.

Teacher 3

In many ways there is not a great quantitative difference between teacher 2 and 3, however the qualitative differences are substantial. Like teacher 2, this teacher is focussed on the academic task in hand, however, several important differences are evident. This teacher has the highest number of successful speaker switches, and uses some strategies that other teachers do not exhibit.

Teacher 3 has the clearest and most regular pattern to her discourse than the other teachers. She regularly uses a question flag, and a phrase was the most used flag, in addition to this she used a variety of other flags most appropriate to the particular context of the question to be asked. This teacher varied the type of question in accordance with the content and she varied her type of feedback to the pupil. Thus responses to factual questions were praised or evaluated, and higher order questions or those relating to the pupil's experiences were echoed or affirmed.

Unlike teacher 2, this teacher protected the right of the pupil with the current turn, and vetoed interruptions. In addition she engages with a pupil having some difficulty and by varied

approaches guided the pupil to understanding. She involved a wide range of pupils and used names frequently. This teacher used more praise than any other teacher, and used 61% of the total praise for all the classes, in addition her praise was directed to many different pupils and equally spread between boys and girls.

The pupils in this class exhibited fewer interruptive talking out of turn incidents than other classes, less simultaneous speech than others, and more talking out of turn that resulted from their anticipating the teacher's point of completion, that is just overlapping the teacher's end point. The teacher's response to talking out of turn is interesting. She shows fewer neutral responses than other teachers, and her affirming and veto responses are almost equally divided. This teacher coaches the pupils in turn-taking strategies more than other teachers.

Teacher 3 appears to be very involved with her pupils, engaging with them in a clear and direct manner. It could be concluded that the standard she has set meets the pupils' current level of development, thus there is a good match both in terms of academic content and behaviour required in order to learn. Talking out of Turn does occur in this classroom, however the academic content of the lesson is pursued, along with consistent signals and cues, good modelling and coaching of required behaviour.

#### Teacher 4

The discourse of this teacher is hard to label, being similar to teacher 1, with some important differences. There were very few moments in the audio tape when the teacher was the only person talking. This class had more disrupted speaker switches than others, more simultaneous speech, more interruptive talking out of turn, more talking out of turn after miscues. This teacher used fewer question flags than others, no praise, fewer questions with turn allocation, and more tag questions. Data showed on a quantitative basis that this teacher was frequently diametrically opposed to teacher 3.

In some ways this teacher's approach was similar to Teacher 1, as it was conversational however there are some important differences. She used fewer names apart from teacher 5, and more neutral responses to Talking out of Turn were recorded. She appeared to be uninvolved with the pupils as individuals in direct contrast to Teacher 1, ignoring much talking out of turn and other uncompliant behaviour that frequently contravened instructions that were stated but not enforced. This teacher often responded to pupils giving the second-step of an interaction, leaving the turn not allocated and frequently this resulted in chaotic simultaneous speech. In addition her timing led to miscues; these can be seen in the following exchanges:

T: =a microphone, a very tiny microphone - so  
everything I S:ay:(pause)  
P: [goes in there  
T: [will be re:corded  
there's a little pack there I presume its like a  
remote control pack, isn't it?  
Ps (general chatter)  
P: dynamite!!  
P: dynamite!! dynamite!!  
T: No its what PE:ople wear-on-television  
I've-seen-them  
Ps (Babble, many voices)  
P: They wear them on their tie they do  
T: Well I haven't got a t:ie!  
P: (giggles, babble)  
(babble continues)  
T: ALL RIGHT!! sHSHSHSHSH!!

These exchanges contain many elements that typify this teacher's interactions. Firstly her drawing out of the word "S:ay" which is followed by a pause constitutes a miscue, which is picked up by at least one pupil, who completes the sentence with "goes in there", however the teacher ignores this contribution rather than affirming or expanding it. However it seems that her reason for this is not based on a decision to continue the topic, because in the same turn she returns the turn to the pupils with the tag question "isn't it?". This question seeks agreement, but there is no turn allocated and the result is simultaneous speech, and "dynamite" is called out. The teacher responds to this however when a pupil expands her response "They wear them on their tie they do" her rather defensive reply does not affirm the contribution: "Well I haven't got a t:ie!" is the second step in the interaction sequence, and as this is followed by a pause, it leaves the group open to take the turn and inevitably simultaneous speech results. Only a few seconds later the teacher attempts to gain control and attention, a process that is never entirely completed.

It seems there are two conflicting processes at work. The teacher appears to acting on the belief that pupils must be given turns to speak, and yet contributions that are made meet with minimal and often discouraging responses. She verbalises rules for turn-taking, and yet by continually adopting a conversational style she does little to help pupils achieve turn-taking skills.

In terms of academic content the teacher had a clear purpose for reading this particular story. The pupils were to create their own "super car" and write about it with a partner after the story. However this objective was not emphasised during the story session. At many point the teacher could have highlighted Gumdrop's uniqueness, however the emphasis was placed on decoding the signs. At the end of three-quarters of an hour of writing time the majority of the class had less than one line of writing on their pages. The majority of the

pupils were unable to explain what they were supposed to be doing. In terms of story topic, it could be said that this would be more appealing to boys than girls, and no choice was allowed.

In terms of overall group management, in the observer's opinion the most uncompliant behaviour came from the boys who sat themselves in two distinct groups. However the teacher's most firmly chastising remarks were addressed to the girls.

#### Teacher 5

In some ways this teacher's language style was similar to Teacher 1 and Teacher 3. She attended to individuals, responded to their contributions, and involved a range of pupils in interactions. In terms of Disrupted Speaker Switches her class was the median point, and this is where frequency scores fell on many of the variables.

Examination of sequences showed that she regularly asked an open question then waited, presumably for the pupils to bid for a turn to respond however during this pause pupils would talk out of turn, then the teacher would allocate one pupil to respond. Thus the sequence was:

Open Question >>> (pause) >>>>Talking out of Turn  
>>>Turn allocation >>>pupil responds

This teacher evidenced the highest number of veto responses to talking out of turn, many directly rebuking the pupil. However she did very little coaching of desired behaviour, reminding pupils about the rules only once.

This teacher regularly repeated the same question to many pupils, and frequently the questions were extremely simple. It may be assumed that the reasons for asking were not so much to probe the pupil's knowledge, as to give equal opportunities to participate in the discourse.

The teacher did not always ask series questions of course, and several times when novel questions were asked, pupils anticipated the question and responded with the answer before the question was completed as the following exchange shows:

T: What do we  
Ps: [cartons  
T: [have our milk in?  
Ps: [cartons  
T: [we have it in cartons -  
that's right.

This type of exchange indicates a possible mismatch between the teacher's assumption of level of academic capabilities of the pupils and their actual level. The Talking out of Turn occurs in response to the teacher's slow pace, and the pupil's anticipation and level of interest.

In comparison to Teacher 3, this teacher lacks flexibility to adapt strategies to differing contexts or pupils' needs. The questions are factual throughout, mostly "what" questions involving recall, and clearly these questions reduce the potential for pupil's to make an original contribution to the topic. In addition the lack of open-ended questions means a reduction in opportunities to find out fully what the pupil knows. Apart from the egalitarian notion of giving all a fair turn to participate, these questions could be asked in order to control the pupils. The pupils were participating in the discourse however their contributions were controlled and directed by the teacher. In this way, this teacher's questioning strategies were markedly different from teacher 1, who asked primarily open-ended questions.

#### Summary

Aspects of teacher talk register relevant to the process of smooth and disrupted speaker switches in classroom groups have been identified. Quantitative and qualitative differences between the five teachers have been identified, and it appears that these differences can be related to the frequencies in Talking out of Turn.

Overall the Teacher Talk Register can be seen as promoting two different types of classroom discourse, however there are qualitative differences within the two types. The two types of discourse can be known as

1. Non Conversational Teacher Talk Register- Teachers 2, and 3.
2. Conversational Teacher Talk Register - Teachers 1, 4, and 5.

Table 50 SUMMARY OF RAW DATA PHASE TWO and THREE

	9b	8b	9a	6a	8a	10a	6b	10b	7a
SSS	57	71	57	47	21	26	18	17	13
DSS	38	49	75	72	50	102	95	117	135
Flag	4	2	10	9	7	3	0	2	2
OQ	11	5	7	9	8	12	8	14	21
RR	0	0	0	3	1	0	2	0	0
TA	57	72	65	53	25	9	22	19	35
::	0	1	6	2	0	17	2	0	1
tag	0	0	1	2	0	6	2	8	0
Comment	27	42	53	50	36	84	77	93	89
PE									
SS	38	47	65	72	49	102	95	117	135
Int	28	36	56	49	36	79	69	96	127
NonInt	67	84	76	69	35	49	44	38	21
Aff	69	73	78	54	28	45	32	67	54
N	20	39	38	46	16	71	48	55	57
V	0	8	16	18	27	12	35	12	37

PHASE THREE

	Head	Ann	Pam	Lena	Sue	Kate	Peta	Pip	Ja	Dep	Dav
SSS	44	8	14	34	12	8	23	29	19	10	12
DSS	44	10	19	56	33	29	85	113	110	77	128
Flag	22	2	9	13	1	0	3	3	3	2	0
OQ	14	1	4	19	7	6	16	43	13	8	24
RR	8	1	3	0	0	0	2	2	3	0	2
TA	28	4	9	11	9	3	12	14	15	5	10
::	4	2	2	16	6	2	12	10	2	7	0
tag	0	0	0	1	0	0	3	4	1	1	6
Comment	35	11	16	43	23	26	65	70	96	66	101
PE											
SS	43	10	17	56	33	28	82	113	96	66	101
Int	26	8	13	31	20	23	61	90	84	49	91
NonInt	62	10	20	59	25	14	47	52	46	38	49
Aff	48	9	15	42	22	14	50	60	42	22	28
N	28	5	10	38	15	22	38	58	64	43	84
V	12	4	8	10	8	1	18	23	23	21	27

Key:

SSS - Smooth Speaker Switch; DSS - Disrupted Speaker Switch(TOOT  
 Flag - cue to question, word, phrase or sound;  
 OQ - Open question; RR - rule reminder (hands up etc.);  
 TA - turn allocated; :: Unison Cue; Comment-Teacher speaking;  
 SS - simultaneous speaking, self selected, or or more pup  
 speaks without a turn allocated;  
 Inter/Non-Interr. Either directly interrupts teacher's turn,  
 speaks at same time as teacher OR speaks in a gap or pause in  
 teachers turn;  
 A - teacher affirms pupils turn; N - teacher continues topic  
 if pupil had not spoken; V - Teacher vetos pupil's tur

TEACHER TALK REGISTER INDIVIDUAL PROFILE

Phase 2: Teacher 9b

Interaction cycle	%	
Talking out of Turn	40	Low
Teacher Exit		
Questions	72	High
Comments	28	Low
Flags to question	6	Low
Turn Allocation	66	High
Rule Reminder	0	Low
Open Questions	12	High
Unison cues	0	Low
Pupil Entry		
Interruptive	29	Low
Teacher Response		
Affirms	73	High
Neutral	21	Low
Veto	6	Low

TEACHER TALK REGISTER - NON-CONVERSATIONAL

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TEACHER TALK REGISTER INDIVIDUAL PROFILE

Phase 2: Teacher 8b

Interaction cycle	%	
Talking out of Turn	41	Low
Teacher Exit		
Questions	65	High
Comments	35	Low
Flags to question	2	Low
Turn Allocation	60	High
Rule Reminder	0	Low
Open Questions	4	Low
Unison cues	1	Low
Pupil Entry		
Interruptive	30	Low
Teacher Response		
Affirms	61	High
Neutral	33	Med
Veto	6	Low

TEACHER TALK REGISTER - NON-CONVERSATIONAL

TEACHER TALK REGISTER INDIVIDUAL PROFILE

Phase 2: Teacher 9a

Interaction cycle %  
Talking out of Turn 57 Low

Teacher Exit

Questions 60 High  
Comments 40 Med  
Flags to question 1 Low  
Turn Allocation 49 High  
Rule Reminder 6 High  
Open Questions 5 Low  
Unison cues 5 Med

Pupil Entry

Interruptive 42 Low

Teacher Response

Affirms 59 High  
Neutral 29 Low  
Veto 12 Low

TEACHER TALK REGISTER - NON-CONVERSATIONAL

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TEACHER TALK REGISTER INDIVIDUAL PROFILE

Phase 2: Teacher 6a

Interaction cycle %  
Talking out of Turn 61 Med

Teacher Exit

Questions 58 Med  
Comments 42 Med  
Flags to question 13 Med  
Turn Allocation 45 Med  
Rule Reminder 1 Low  
Open Questions 8 Med  
Unison cues 1 Low

Pupil Entry

Interruptive 42 Low

Teacher Response

Affirms 46 Med  
Neutral 40 Med  
Veto 15 Low

TEACHER TALK REGISTER - NON-CONVERSATIONAL

TEACHER TALK REGISTER INDIVIDUAL PROFILE  
Phase 2: Teacher 8a

Interaction cycle %  
Talking out of Turn 70 Med

Teacher Exit  
Questions 49 Med  
Comments 51 High  
Flags to question 20 High  
Turn Allocation 36 Med  
Rule Reminder 1 Low  
Open Questions 11 Med  
Unison cues 0 Low

Pupil Entry  
Interruptive 51 Med

Teacher Response  
Affirms 39 Low  
Neutral 23 Low  
Veto 38 High

TEACHER TALK REGISTER - NON-CONVERSATIONAL

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TEACHER TALK REGISTER INDIVIDUAL PROFILE  
Phase 2: Teacher 10a

Interaction cycle %  
Talking out of Turn 80 High

Teacher Exit  
Questions 34 Low  
Comments 66 High  
Flags to question 7 Med  
Turn Allocation 7 Low  
Rule Reminder 0 Low  
Open Questions 9 Med  
Unison cues 13 High

Pupil Entry  
Interruptive 62 Med

Teacher Response  
Affirms 35 Low  
Neutral 55 High  
Veto 9 Low

TEACHER TALK REGISTER - CONVERSATIONAL

TEACHER TALK REGISTER INDIVIDUAL PROFILE  
Phase 2: Teacher 6b

Interaction cycle %  
Talking out of Turn 84 High

Teacher Exit  
Questions 32 Low  
Comments 69 High  
Flags to question 0 Low  
Turn Allocation 19 Low  
Rule Reminder 2 Low  
Open Questions 7 Low  
Unison cues 2 Low

Pupil Entry  
Interruptive 61 Med

Teacher Response  
Affirms 28 Low  
Neutral 41 Med  
Veto 31 High

TEACHER TALK REGISTER - CONVERSATIONAL

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TEACHER TALK REGISTER INDIVIDUAL PROFILE  
Phase 2: Teacher 10b

Interaction cycle %  
Talking out of Turn 87 High

Teacher Exit  
Questions 31 Low  
Comments 69 High  
Flags to question 5 Low  
Turn Allocation 14 Low  
Rule Reminder 0 Low  
Open Questions 10 Med  
Unison cues 0 Low

Pupil Entry  
Interruptive 72 High

Teacher Response  
Affirms 28 Low  
Neutral 41 Med  
Veto 31 High

TEACHER TALK REGISTER - CONVERSATIONAL

TEACHER TALK REGISTER INDIVIDUAL PROFILE  
Phase 2: Teacher 7a

Interaction cycle %  
Talking out of Turn 91 High

Teacher Exit  
Questions 40 Low  
Comments 60 High  
Flags to question 3 Low  
Turn Allocation 24 Low  
Rule Reminder 0 Low  
Open Questions 14 High  
Unison cues 1 Low

Pupil Entry  
Interruptive 86 Med

Teacher Response  
Affirms 36 Low  
Neutral 39 Med  
Veto 25 Med

TEACHER TALK REGISTER - CONVERSATIONAL

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TEACHER TALK REGISTER INDIVIDUAL PROFILE

HEAD, PHASE 3.

Interaction cycle	%	
Talking out of Turn	50	Low
Teacher Exit		
Questions	61	High
Comments	40	Low
Flags to question	41	High
Turn Allocation	32	High
Rule Reminder	9	High
Open Questions	16	Medium
Unison cues	4	Low
Pupil Entry		
Interruptive	36	Low
Teacher Response		
Affirms	55	High
Neutral	32	Low
Veto	14	Medium

TEACHER TALK REGISTER - NON-CONVERSATIONAL

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TEACHER TALK REGISTER INDIVIDUAL PROFILE

ANN, Phase 3.

Interaction cycle	%	
Talking out of Turn	56	Low
Teacher Exit		
Questions	39	Medium
Comments	63	High
Flags to question	29	High
Turn Allocation	22	Medium
Rule Reminder	5	Medium
Open Questions	6	Low
Unison cues	11	Medium
Pupil Entry		
Interruptive	44	Medium
Teacher Response		
Affirms	50	High
Neutral	28	Low
Veto	22	High

TEACHER TALK REGISTER - NON-CONVERSATIONAL

TEACHER TALK REGISTER INDIVIDUAL PROFILE  
PAM, Phase 3.

Interaction cycle	%	
Talking out of Turn	58	Low
Teacher Exit		
Questions	54	High
Comments	45	Low
Flags to question	43	High
Turn Allocation	22	High
Rule Reminder	9	High
Open Questions	12	Low
Unison cues	18	High
Pupil Entry		
Interruptive	39	Low
Teacher Response		
Affirms	45	High
Neutral	30	Low
Veto	24	High

TEACHER TALK REGISTER - NON-CONVERSATIONAL

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TEACHER TALK REGISTER INDIVIDUAL PROFILE  
LENA, Phase 3.

Interaction cycle	%	
Talking out of Turn	66	Med
Teacher Exit		
Questions	52	High
Comments	47	Low
Flags to question	28	High
Turn Allocation	12	Medium
Rule Reminder	0	Low
Open Questions	21	Medium
Unison cues	13	High
Pupil Entry		
Interruptive	34	Low
Teacher Response		
Affirms	47	High
Neutral	42	Medium
Veto	11	Medium

TEACHER TALK REGISTER - NON-CONVERSATIONAL

TEACHER TALK REGISTER INDIVIDUAL PROFILE  
SUE, Phase 3.

Interaction cycle	%	
Talking out of Turn	73	Med
Teacher Exit		
Questions	49	Med
Comments	51	Med
Flags to question	0	Low
Turn Allocation	20	Med
Rule Reminder	0	Low
Open Questions	16	Med
Unison cues	13	High
Pupil Entry		
Interruptive	39	Low
Teacher Response		
Affirms	49	High
Neutral	33	Low
Veto	18	Med

TEACHER TALK REGISTER - NON-CONVERSATIONAL

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TEACHER TALK REGISTER INDIVIDUAL PROFILE  
KATE, Phase 3.

Interaction cycle	%	
Talking out of Turn	78	High
Teacher Exit		
Questions	30	Low
Comments	70	High
Flags to question	0	Low
Turn Allocation	8	Low
Rule Reminder	0	Low
Open Questions	16	Medium
Unison cues	5	Low
Pupil Entry		
Interruptive	56	High
Teacher Response		
Affirms	38	Med
Neutral	59	High
Veto	3	Low

TEACHER TALK REGISTER - CONVERSATIONAL

TEACHER TALK REGISTER INDIVIDUAL PROFILE  
PETA, Phase 3.

Interaction cycle	%	
Talking out of Turn	79	High
Teacher Exit		
Questions	42	Med
Comments	60	Med
Flags to question	7	Low
Turn Allocation	11	Low
Rule Reminder	2	Low
Open Questions	15	Med
Unison cues	7	Med
Pupil Entry		
Interruptive	63	High
Teacher Response		
Affirms	45	High
Neutral	35	Low
Veto	17	Med

TEACHER TALK REGISTER - CONVERSATIONAL

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TEACHER TALK REGISTER INDIVIDUAL PROFILE  
PIP, Phase 3.

Interaction cycle	%	
Talking out of Turn	80	High
Teacher Exit		
Questions	51	High
Comments	49	Low
Flags to question	4	Low
Turn Allocation	10	Low
Rule Reminder	1	Low
Open Questions	30	High
Unison cues	7	Med
Pupil Entry		
Interruptive	63	High
Teacher Response		
Affirms	42	Med
Neutral	41	Med
Veto	17	Med

TEACHER TALK REGISTER - CONVERSATIONAL

TEACHER TALK REGISTER INDIVIDUAL PROFILE  
JANE, Phase 3.

Interaction cycle %  
Talking out of Turn 85 High

Teacher Exit  
Questions 26 Low  
Comments 74 High  
Flags to question 9 Low  
Turn Allocation 12 Low  
Rule Reminder 2 Low  
Open Questions 10 Low  
Unison cues 1 Low

Pupil Entry  
Interruptive 65 High

Teacher Response  
Affirms 32 Med  
Neutral 49 Med  
Veto 18 Med

TEACHER TALK REGISTER - CONVERSATIONAL

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TEACHER TALK REGISTER INDIVIDUAL PROFILE  
DEPUTY, Phase 3.

Interaction cycle %  
Talking out of Turn 88 High

Teacher Exit  
Questions 24 Low  
Comments 76 High  
Flags to question 10 Low  
Turn Allocation 6 Low  
Rule Reminder 0 Low  
Open Questions 9 Low  
Unison cues 8 Med

Pupil Entry  
Interruptive 56 High

Teacher Response  
Affirms 25 Low  
Neutral 50 High  
Veto 25 High

TEACHER TALK REGISTER - CONVERSATIONAL

TEACHER TALK REGISTER INDIVIDUAL PROFILE  
DAVID, Phase 3.

Interaction cycle %  
Talking out of Turn 91 High

Teacher Exit  
Questions 30 Low  
Comments 72 High  
Flags to question 0 Low  
Turn Allocation 7 Low  
Rule Reminder 1 Low  
Open Questions 17 Med  
Unison cues 0 Low

Pupil Entry  
Interruptive 65 High

Teacher Response  
Affirms 20 Low  
Neutral 60 High  
Veto 20 High

TEACHER TALK REGISTER - CONVERSATIONAL

TABLE 51 Phase 2 & 3 - Mean percentage of Non-conversation conversational Teacher Talk Registers;

%	0	10	20	30	40	50	60	70	80	90
<b>TALKING OUT TURN</b>										
Non Conv.	phase 2	*****54								
	phase 3	*****60								
Conv.	phase 2	+++++++86								
	phase 3	+++++++84								
<b>QUESTIONS ASKED</b>										
Non Conv.	phase 2	*****61								
	phase 3	*****51								
Conv.	phase 2	+++++++34								
	phase 3	+++++++34								
<b>COMMENTS</b>										
Non conv.	phase 2	*****39								
	phase 3	*****49								
Conv.	phase 2	+++++++66								
	phase 3	+++++++69								
<b>TURN ALLOCATION</b>										
Non conv.	phase 2	*****51								
	phase 3	*****23								
conv.	phase 2	+++++16								
	phase 3	+++9								
<b>RULE REMINDERS</b>										
Non conv.	phase 2	****10								
	phase 3	*5								
conv.	phase 2	+2								
	phase 3	+1								
<b>FLAGS</b>										
Non conv.	phase 2	*****41								
	phase 3	*****28								
Conv.	phase 2	+++++15								
	phase 3	++5								
<b>OPEN QUESTIONS</b>										
Non conv.	phase 2	***8								
	phase 3	*****14								
conv.	phase 2	+++++10								
	phase 3	+++++++16								
<b>UNISON CUES</b>										
Non conv.	phase 2	***7								
	phase 3	*****10								
conv.	phase 2	+3								
	phase 3	+1								

Table 52 Mean percentage of Non Conversational and Conversational Teacher Talk Register Phase 2 and 3;

%	0	10	20	30	40	50	60	70	80
PUPIL ENTRY									
SELF SELECT									
Non conv.	phase 2	*****54							
	phase 3	*****58							
conv.	phase 2	+++++++86							
	phase 3	+++++++79							
INTERRUPT TEACHER									
Non conv.	phase 2	*****39							
	phase 3	*****37							
conv.	phase 2	+++++++70							
	phase 3	+++++++61							
TEACHERS RESPONSE									
AFFIRM									
Non conv.	phase 2	*****56							
	phase 3	*****49							
conv.	phase 2	+++++++37							
	phase 3	+++++++33							
NEUTRAL									
Non conv.	phase 2	*****29							
	phase 3	*****33							
conv.	phase 2	+++++++44							
	phase 3	+++++++49							
VETO									
Non conv.	phase 2	*****15							
	phase 3	*****18							
conv.	phase 2	+++++++18							
	phase 3	+++++++17							

THE PEDAGOGIC DISCOURSE  
PHASE TWO AND THREE INFORMATION SHEET

PHYSICAL ENVIRONMENT:

1. Age of building  
State of repair, decorative order
2. Enough space? Specialist teaching rooms?
3. Playgrounds adequate? Grass area? Bitumen.

PUPILS:

4. Age range  
Nursery provision?
5. Percentage receive free school meals?
6. percentage single parent families?
7. Social class: non-manual; skilled manual;  
semi-skilled manual; unskilled  
unemployed;

STAFF:

8. Head teacher - length of service:  
in this school:  
Deputy  
Postholders
9. Percentage of staff less than 2 years at this school  
more than 7 years at this school
10. Overall age of staff: mostly 20-35; 35-50; over 50?

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PHASE TWO AND THREE - STRUCTURED INTERVIEW (Audio recorded,  
and transcribed)

INTRODUCTION

First of all, thank you for allowing me to interview you. I appreciate it very much indeed, and please know that everything you say is treated in strictest confidence. Any material I use will be anonymously, I hope that reassures you so you can be as honest and open with me as possible.

I'd like you to talk about your opinions about teaching and learning, and some things that are relevant to this particular school. Just start talking as soon as some thoughts come to your mind, there are no right or wrong answers! All these things are matters of opinion, and I am interested in yours, and I will respect everything you say as your opinion. Is there anything you'd like to know before we start?

1.
  - a) Would you like to start by telling me somethings about yourself and your teaching career?
  - b) How long have you been teaching, and how long here at this school?

2. If you think about this school, and compare it with another school you may have experienced, what are some of the differences?

3.
  - a) Usually the staff of a school is very varied, coming from different backgrounds and experience, does that apply here?
  - b) Thinking about the other members of staff, are there some that you feel especially comfortable with? Why do you think that this is so?

4. Often people on the staff talk about educational issues, the way pupils learn, and teachers teach and so on.

- a) Are there some members of staff whose opinions you respect more than others? Why do you think this is so?
- b) Are you responsible for appointing new staff? What qualities do you think are important?

5. What do you understand by "CHILD CENTERED EDUCATION" and how do you think the school stands in relation to that? At these times is there any debate or disagreement about the best approach or solution? What sort of different opinions might be given, for example about the ways to help children learn? Talk about any examples that come into your mind.

6. Can we just think for a few minutes about what you think about the teaching/learning process;

What are the important things that would help a teacher be effective? Will you just talk about what you think are the important things for teachers to remember?

What is the function of talk in the learning process?

7. How do you think children learn the ways to behave in the classroom? How do they learn correct behaviour?

8. Why do you think that some children have difficulty in learning correct behaviour?

9. Do you think that rules are necessary in a classroom? It seems that some pupils have trouble keeping to the rules. What might stop a child from keeping to a rule?

10. Let's think of a specific behaviour, when you have the children in a big group like story-time, and you're having a discussion most teachers have some rules about who can speak, and how the children get a turn to speak. Do you have rules and what are they? Do the children keep to the rules? If they don't, why don't they?

11. I've heard some teachers tell the children they must put their hand up to speak, yet a minute later a child calls out and the teacher responds to them. What do you think about that? Do you think you may do that? Why?

12. Do children need reminding about the rules? Say particularly about taking turns to speak? Why do you think this may be important?

13. Do children learn by talking? How? Can you think of an example? So what happens if a teachers tells them to be quiet?

14. Sometimes there seems to be a gap between the way a teacher wants to teach, and what actually happens in the classroom. Do you ever think this? Why do you think this happens?

15. What do you think has the greatest effect on the pupil's behaviour in school, the school or the home?

16. I'd like you to talk about your view of praise? What do you think about using praise for behaviour, rather than academic achievement? Do you agree with praise used for behaviour? Do you hear teachers using praise in this way?

17. I heard a Headteacher say that children will learn if a classroom gives "clear messages" to pupils. What do you think of this view? How are "clear messages" given? Can you apply this to behaviour, such as turn-taking, and talking out of turn?

18. There is a saying I'm sure you know:  
I hear and I forget  
I see and I remember  
I do and I understand.

b) What do think of this?

c) Does it describe your approach, your school's approach? If not, how do you differ?

End of Interview;

PHASE 3 SOCIOMETRIC CHOICE

\*Deputy

HEAD \*Pam  
\*Ann \*Lena

\*Sue

\*Kate \*Peta \*Pip \*Jane

\*Pip \*Peta \*Head \*Lena

\*Pam \*Jane DEPUTY \*Kate  
\*Sue \*Ann

\*Kate \*Pip \*Jane \*Peta

\*Deputy

\*Head  
ANN

\*Pam \*Lena \*Sue

\*Sue \*Peta \*Case \*Pip \*Head PAM \*Lena \*Jane  
\*Ann

\*Deputy

\*Peta \*Pip \*Jane \*Case \*Deputy \*Ann \*Pam \*Sue \*Head LENA

Sociometric choice Phase 3/...

\*Jane  
 \*Deputy      \*Peta  
                  KATE      \*Head  
                  \*Sue  
                  \*Pam      \*Lena  
 \*Pip      \*Ann

\*Pam  
 \*Jane  
 \*Pip      \*Case      \*Sue      \*Lena  
                  PETA  
                  \*Deputy  
 \*Head      \*Ann

\*Ann  
 PIP      \*Head  
 \*Lena \*Pam      \*Jane  
          \*Deputy  
          \*Sue      \*Peta  
 \*Kate

\*Kate      \*Peta  
 \*Lena      JANE      \*Deputy  
                  \*Sue  
 \*Head

\*Pam  
 \*Ann      \*Pip  
 \*Pip (off the paper)

\*Pam  
 \*Deputy  
 \*Peta      \*Case  
                  SUE  
 \*Head      \*Ann  
                  \*Lena      \*Jane

TO WHOM IT MAY CONCERN

RELIABILITY CHECKS  
TALKING OUT OF TURN STUDY - LORAIN CORRIE

This is to say that I have conducted reliability checks on some the data of the above PhD research study. The checks involved coding transcripts of audio-recordings of teachers and their classroom groups. Each interaction cycle has been coded, according to the classification delineated. I have coded two transcripts from Phase 2 of the study, and agree that there is a high level of inter-coder correlation (mean 96%).

*Jennifer Olney JP*

Jennifer Olney.  
West Australian Ministry of Education.  
Justice of the Peace.

RELIABILITY CHECKS  
TALKING OUT OF TURN STUDY - LORAIN CORRIE

This is to say that I have conducted reliability checks on some of the data for this PhD research study. The checks involved coding transcripts of audio-recordings of teachers and their classroom groups. Each interaction cycle has been coded, according to the classification delineated. I have coded four transcripts from Phase 3 of the study, and agree that there is a high level of intercoder correlation (mean 88%).

*Tina Proffitt*

Tina Proffitt.  
3rd year Psychology  
University of Western Australia

