6 Pedagogic change

This short chapter is a statement of my view of the role of the project – and of pedagogic innovation generally – in educational change. As was pointed out in Chapter 1, the project was not an attempt to prove a teaching method through controlled experimentation. Equally, it should not be looked on as a field trial or pilot study leading to a large-scale statutory implementation. I think, indeed, that the value of statutory implementation as a means of bringing about better learning in a large number of classrooms is questionable generally, not so much because no single method can be suitable to varied teaching conditions or that teachers in any educational system are varied in their abilities, but much more because the quality of teaching in any classroom is dependent on the teacher's pedagogic perception, quite apart from his or her abilities and the teaching conditions.

Sense of plausibility

What a teacher does in the classroom is not solely, or even primarily, determined by the teaching method he or she intends to follow. There is a complex of other forces at play, in varied forms and degrees. There is often a desire to conform to prevalent patterns of teacher behaviour, if only for the sense of security such conformity provides. There is also a sense of loyalty to the past – both to the pattern of teaching which the teacher experienced when he or she was a student and to the pattern of his or her own teaching in the past. (Change in behaviour is a form of denial of the validity of past behaviour.) There is the teacher's self-image and a need to maintain status in relation to colleagues or the authorities. Above all, there is a relationship to maintain with a class of learners, involving factors such as interpretations of attitudes and feelings, anxieties about maintaining status or popularity, and fears about loss of face. A teacher's relationship with his or her class is based on constant and continuing contact; it therefore needs stability and finds change unsettling. Stability is provided by classroom routines which support shared expectations of behaviour and act as a framework for some balance

between conflicting motives and self-images. Patterns of classroom activity, therefore, are not just teaching and learning procedures; more importantly, they are forms of routine through which teachers and learners play their appointed roles and regulate their relationship with one another.

One further factor in the teacher's 'mental mix' is a perception of how classroom activity leads to the desired outcome of learning. The nature of this perception varies between different teachers; some may see it as direct knowledge-transfer and others as a process mediated in some way. The degree of different teachers' awareness of it and their ability to articulate it may also vary. The perception may not be coherent or consistent and, in many cases, not deliberately developed or adopted. All teachers have been students in the past and draw, especially at the beginning of their teaching careers, on their memory of what *their* teachers did in the classroom and some interpretation of why. Initial teacher-training also provides procedures to serve as routines and some rationale for those procedures. These 'borrowed' perceptions acquire, in due course and in the process of actual continual teaching, what may be called a 'sense of plausibility' in the teacher's mind as he or she comes to identify with one or another of them. This identification need not always be with one of the perceptions 'borrowed' at the beginning; it can be with some amalgam of different perceptions, or with some new interpretation of one or more of them which has developed over time in the course of actual teaching. A teacher's 'intuition' can perhaps be said to be the perception which he or she identifies with (or feels a sense of plausibility about) in an unarticulated state.

Given this view, it is possible to think of the teacher's sense of plausibility as being engaged in some teaching activities but not in others. Both cases are examples of routines, but the complex of psychological factors held together by the routine differs in each. Where the teacher's sense of plausibility is not engaged, teaching is mere routine, which can only get more and more 'set' over time. However, this is not the case where there is some engagement of the teacher's sense of plausibility, for there is an 'investment' by the teacher in each lesson and a basis for feeling satisfied or dissatisfied with it. The teacher's sense of plausibility is then likely to be influenced in some way – strengthened, weakened, modified, extended, or brought into greater awareness – by the experience of teaching, and this, in turn, is likely to be an input to professional growth. There is thus an internal

dynamic to teachers' daily work consisting of a more or less stable balance between different forces.

Impact of innovations

A new perception in pedagogy, implying a different pattern of classroom activity, is an intruder into teachers' mental frames – an unsettling one, because there is a conflict or mismatch between old and new perceptions and, more seriously, a threat to prevailing routines and to the sense of security dependent on them. If, however, there is no compulsion to adopt new routines (i.e. no statutory implementation), the sense of security is largely protected and teachers' existing perceptions may then begin to interact with the new one and to be influenced by it. The nature and extent of this influence will depend on what perceptions teachers are already operating with, how strong their sense of plausibility is about them, how firm or 'fluid' the mental frames are at the time, and so on. It will also depend on how powerful, well-articulated, or accessible the new perception is – how far, that is to say, it is able to invoke some corroborative experience in teachers. The impact of the new perception will therefore be necessarily varied, but probably beneficial in most cases, since even its rejection will have involved a re-examination – hence a heightened awareness – of an existing one. Also, the impact in all cases is likely to be a modification (rather than a replacement) of existing perceptions, even when the modification leads to a close approximation to the new perception.

To the extent that there is an activation or a modification of a teacher's pedagogic perception, there is likely to be a corresponding change in the balance of forces which constitutes his or her 'mental mix', the new balance generally representing a larger role for the pedagogic perception in relation to the other forces. As a result, there is a greater probability of satisfaction or dissatisfaction deriving from teaching routines and a greater chance of their being gradually modified in the direction of the pattern of classroom activity suggested by the innovation. Again, the changes in teaching routines will necessarily be varied in nature, extent, and speed. The modified routines will, however, not be mere routines (since the modifications were prompted by changing pedagogic perceptions) and both perceptions and routines are now likely to be more open to further change than they were earlier.

Statutory implementation of an innovation, by contrast, is likely to distort all these processes and aggravate the tensions in teachers' mental frames. The threat to existing routines can make many teachers reject the innovation out of hand, as an act of self-protection. Alternatively, a strong sense of plausibility about some existing perception may make some teachers see the innovation as counter-intuitive and look on its implementation as pedagogically harmful. If rejection itself appears to be too great a risk (in view of acceptance by colleagues or official sponsorship) teachers may take on the new routines while rejecting the perception behind them, thus making them mere routines from the beginning. Or they may dissociate perception from practice, operating with the perception in contexts in which perceptions are seen to be relevant, such as professional discussion, but operating without it in the classroom. Some teachers may accept the innovation on trust, others in the expectation of some reward, yet others as an escape from existing problems of security or routinization, yet others for reasons of self-image or personal ideology. While statutory implementation is likely, when successful, to achieve a large measure of conformity to new teaching routines, it is also likely to reduce the possible impact of the new perception and its potential for stimulating teacher development.[1]

The underlying assumption of statutory implementation is that the value of an innovation lies in the pattern of teaching activity it leads to, independently of the perception which informed that innovation, and that the value can be realized even when the pattern of activity is carried out without any engagement of the teacher's sense of plausibility. A new method is thus seen as a set of classroom procedures which carry a 'guarantee' of learning outcomes when carried out as specified. In arguing against statutory implementation, it is being suggested here that teaching procedures are of value in the classroom only to the extent they are informed by relevant perceptions, and that teaching is too complex an activity for there to be any objective procedures with guaranteed outcomes. A good system of education, from this point of view, is not one in which all or most teachers carry out the same recommended classroom procedures but rather a system in which (1) all, or most, teachers operate with a sense of plausibility about whatever procedures they choose to adopt, and (2) each teacher's sense of plausibility is as 'alive' or active, and hence as open to further development or change as it can be.[2]

When the teacher's sense of plausibility is engaged in classroom activity and the activity has, at the same time, the support of a stable routine, there is both a sense of security provided by the routine and also a feeling of there being something at stake: each lesson is a new event, unpredictably satisfying or disappointing, despite its being largely a matter of routine. This can lead to a form of rapport between the teacher and learners, enabling each to interpret the intentions of the other and to respond in the knowledge that the response has a role in shaping the activity in progress. This rapport represents a form of empathetic understanding of each other's behaviour and is probably more productive of learning than any teaching procedure by itself can be.[3]

Language teaching specialism

From this point of view, language teaching specialism ('applied linguistics' in one sense of the term) is a matter of identifying, developing, and articulating particular perceptions of teaching and learning on the one hand, and seeking ways in which perceptions can be shared and sharpened through professional debate in the teaching community on the other.[4] Without this professional debate, a teacher has only classroom experience to draw on – and the pressures towards routinization in teaching are such that the classroom can easily cease to be a source of interpretable experience. Participation in debate can activate intuitions, bring about interaction with different perceptions, and help to develop a sense of plausibility capable of guiding as well as drawing on classroom experience. Particular perceptions represent interpretations of experience; and they are defined and articulated by drawing on one or more related disciplines as sources of illuminative constructs, by relating them to other perceptions developed elsewhere or at other times, and perhaps by deliberately seeking corroboration and clarification in the classroom or in focused debate. The teaching procedures suggested by a perception help to make it accessible and available for further corroboration, development, or change through further classroom experience. What procedures a teacher follows in the classroom depends on what perception he or she sees most plausibility in, and the impact of any perception on classrooms depends on its ability to invoke corroborative intuitions in the teaching community.[5]

Eclecticism

The fact that pedagogic perceptions vary both among specialists and among teachers is sometimes taken to be an argument for some form of eclecticism in language teaching. It is, however, not clear what eclecticism consists of and how it operates. There seem to be at least four distinguishable concepts involved:

1 Eclecticism is a matter of operating with a combination of perceptions or procedures which, though all different and some perhaps arguably inconsistent with others, have nevertheless found a satisfying balance in the mind of an individual. In this sense, what was referred to above as the teacher's 'mental mix' is eclectic, as is to some extent the conceptual framework of every proposal in pedagogy (and indeed every individual's view of the world).

2 Eclecticism is an exercise of worldly wisdom – a search for the safest course in the midst of many risks. An adviser who has responsibility for making recommendations for large-scale change in pedagogy adopts strategies such as identifying the common ground in the specialist field, distributing risks, and making concessions to practical or sentimental needs. He or she sees this role as one of mediating between the specialism and the teaching community, and regards the work as being eclectic.

3 Eclecticism is a desirable principle of life. It is a refusal to see things in terms of irreconcilable alternatives and a belief that, where there are alternative courses of action available, the 'right' course must be somewhere between the two.

4 Eclecticism is the development of a new perception which enables one to see earlier perceptions in a new light or a new relationship, thus resolving what was earlier seen as a conflict. This is what often happens when there is a shift in focus which renders earlier dichotomies irrelevant or reveals earlier interpretations as having been inadequate.

The second of these concepts relates to the context of statutory implementation, which has been argued against in this chapter. The third is not specifically related to pedagogy and not open to examination at the level of this discussion. Only the first and the last are relevant, but the difference between the two can be regarded as being only a matter of explicitness: if different perceptions have found a satisfying balance in a teacher's mind,

that balance constitutes his or her dormant pedagogic intuition which is available for articulation and which, when articulated, can represent a new relationship between the earlier perceptions. The process of articulating such dormant intuitions deserves a central role in pedagogic innovation and in the maintenance of what may be called teachers' 'professional activism'.

There appears to occur from time to time, and in different places and contexts, a convergence of similar pedagogic perceptions, or a convergence of corroborative responses to the same perception. Such convergence leads to a stable 'paradigm' of perception and practice over a period of time and may be regarded as evidence of a perception's validity, i.e. its power to invoke wide corroboration. However, this stability can promote an over-routinization of classroom practice, causing a gradual weakening or loss of the sense of plausibility about the original perception. Pedagogic innovation in such a situation may be viewed as an act of renewing contact with intuition and re-interpreting experience through a fresh perception.

The project in India was essentially an attempt to develop a fresh perception of second language teaching and learning. It drew on a pedagogic intuition arising from earlier experience, and deliberately sought further sustained experience, both to test the strength of the intuition and to be able to articulate it in the form of principles and procedures. As described in Chapter 2, the project arose in the context of a loss of plausibility to the perception behind the prevailing S-O-S pedagogy, and drew on the stimulus provided, at the time, by some of the proposals for communicative language teaching.[5] How the project's initial intuition came to be articulated in the form of teaching procedures, teaching principles, and hypothesized learning processes was described in Chapters 3, 4, and 5. As the perspective on pedagogic change outlined in this final chapter will have indicated, my intention in presenting this description is to make the perception developed on the project available for corroboration, criticism, and interaction with other perceptions in the profession, perhaps resulting in the development of further perceptions.

Notes

1 It is common to interpret this phenomenon as a failure on the part of teachers to understand the theory behind the new

method – and to seek ways of making the method 'easy to follow', i.e. a matter of well-defined routine, which is easy to carry out as mere routine.

2 See Fenstermacher (1982) for a similar view of the relationship between educational research and teacher effectiveness. Fenstermacher argues that research is best passed on to teachers in the form of schemata – 'a way to see a phenomenon and a way to think about it' – thus providing teachers with 'the means to structure their experience with the classroom'.

3 It is this empathetic understanding which seems to me to represent what is referred to as 'knowing teaching from the inside'. See, for instance, the discussion in Brumfit (1984a: 5–7).

4 See Widdowson (1980). For Widdowson, however, even the pedagogically relevant sense of 'applied linguistics' has to do with developing models of *language description* relevant to pedagogy.

5 As mentioned in Chapter 1, note 5, at the time it was set up the project did not have access to other proposals relevant to its thinking, such as those of promoting acquisition through comprehensible input (Krashen 1981), delaying production in the early stages of instruction (Winitz 1981), and, most significantly, viewing language development as a sequence of transitional competences (Corder 1981). However, these proposals did have an influence on the articulation of the project's perceptions at later stages and I think they indicate a measure of convergence of perceptions at the present time.

Descriptions of S-O-S pedagogy
Appendix Ia

A report in *The Indian Express* of 13 April 1960: 'Learning English Without Tears' by our Staff Reporter, New Delhi

'This is a pencil. . . . This is a book. . . . This is a flower. This is a red pencil. . . . This is a red book. . . . This is a red flower. The pencil is on the book. The red pencil is on the book.'

The teacher, holding aloft one by one pencils, books and flowers of various colours, went on repeating each sentence and the little girls in the class spoke after him. Within a few minutes, some of them were even able to repeat the sentences, without the help of the teacher.

The wonder about it was that only a few minutes earlier none of the girls knew even a word of English. They were now able to speak a few sentences and knew what they conveyed.

Still more surprising, this was achieved without the teacher having to use a single Hindi word to make himself understood.

New system

The teacher was Mr U. who was giving at the M.C. Higher Secondary School, Rouse Avenue, a demonstration of how to teach English according to a new system, the structural-situational method, which is the other name for learning English without tears.

Revolutionary in its approach, the new system straightaway starts teaching the child the complete sentence. The alphabet comes much later.

The system is designed to teach English to children in the same way they learn their mother tongue.

This new system has already found much support. It has been recommended by the UNESCO for use in teaching foreign languages. It is at present being taught in schools in Indonesia, Burma and East Pakistan.

The schools of the Delhi Corporation will switch over to this system from the next term, beginning on July 15, in the sixth class.

Avoiding confusion

The new system deserves wide publicity for if parents and private tutors continue to teach students at home according to the old system and the Delhi schools switch over to the new system, the children will be subjected to much confusion. A guide book has been prepared for teachers and another for students. The Corporation teachers are being trained at present under the auspices of the Study Circle of English Teachers of the Corporation, with the assistance of the British Council.

The old system of beginning with the alphabet has been criticised as an 'approach completely divorced from life's situations'. People who follow this method may become masters of the theory of language but they cannot use it as a vehicle of communication for satisfying their everyday needs, it is said.

It has been proved by language experts that learning of individual words is not of much importance in the learning of English as a foreign language. In the new system, the sentence, and not the word or the letter, is treated as a unit.

Vocabulary

People who follow the new system say if the vocabulary is taught through graded sentence structures used in actual situations, the learning of the language becomes easier. It is a waste of time, they say, to teach the alphabet to beginners. The learning of a word is as difficult or as easy for young minds as the learning of a letter. Since English is not a phonetic language, the new system also eliminates pronunciation difficulties.

The system rests on one main assumption, that the sentence is the unit of the language. If the sentence is taught straightaway, there is no need to teach the grammatical terminology in the beginning.

Although the alphabet is not taught in the beginning in the new system, the students learn to get acquainted with the written word. This was also demonstrated by Mr U. He sketched a pencil, a book and a flower on the blackboard and, as earlier, made the students repeat after him 'this is a pencil' and so on. Next, under each figure he wrote out the respective word for it. After the students had considerable practice and could associate the respective figures and words written beneath them, he rubbed off the figures. The students could read the words without any

difficulty, although they did not know a single letter. The new system seeks to acquaint the student with the word as a 'complete block by itself'.

A barrier

Mr U. emphasized that it was not necessary to teach English with the aid of the mother-tongue. In fact, he positively discouraged the practice. The teacher, he said, should always speak in the language he was trying to teach. In the English class the teacher should always speak in English, without having to resort to mental translation, which was a barrier to fluency. 'Teaching with the help of translation is a pointless waste of time', he said.

According to Mr U., a beginner can learn 600 words in one year by following the new system. The syllabus, however, provides for only 240 words to be learnt. A great advantage in this system is that the students can start learning the use of the preposition and the article from the very beginning.

In order to enable the child to enjoy the sensation of beginning to be able to express ideas and to avoid boredom, the lessons should be short, preferably not of more than half an hour's duration.

There is little doubt that the new method can succeed only if the teachers approach the students 'gently and patiently' – as was brilliantly displayed by Mr U. himself in his lecture-demonstration. His approach all along was to help the child to speak up and not to be constantly putting his understanding to test.

Appendix Ib

A report, made by S. Durairaj in March 1965, on observable classroom effects of in-service teacher training in S-O-S pedagogy: 'Procedures in teaching the structures "the green line is very long, the white one is very short"'.

Teacher A

Draws first a horizontal green line on the blackboard as long as possible and then another white line about six inches long. Says 'The green line is very long, the white one is very short'. Rubs the line out and, giving a piece of green chalk to a pupil, commands 'Draw a very long line on the blackboard'. Rubs it out and gives the same command to one or more pupils. Then, rubbing the line out each time and giving, a piece of white chalk to a pupil, commands him to draw a very short line. This action is repeated in the case of several boys.

Teacher then draws a very long green line and a very short white line, and asks:

Teacher Is the green line very long?
Pupils Yes, it is.
Teacher Is the green line very short?
Pupils No, it isn't.
Teacher Is the white line very long?
Pupils No, it isn't.
Teacher Which line is very long? – The green one is.

Teacher repeats the question and answer several times and then asks the pupils:

Teacher Which line is very long?
Pupils The green one is.
Teacher Which one is very short?
Pupils The white one is.

Then teacher uses the same procedures again but uses, instead, coloured pieces of string and ribbon, and sticks, some of them

very long, and some very short. As pupils give the answers, the teacher works out the following substitution table on the blackboard and uses it for practice in reading and writing:

	blue	line			
	yellow	stick			very long
The	red			is	
	green	piece of	ribbon		very short
	white		string		
			cloth		

Teacher B

Teacher B uses the same aids as those used by teacher A (i.e. coloured lines, sticks, and pieces of ribbon) but asks the specific question as soon as she makes the statements:

Teacher The red line/stick is very long. Which line/stick is very long?

Teacher gives the answer and pupils repeat it.

Teacher The white line/stick is very short. Which line/stick is very short?

Teacher then puts these sentences on the blackboard and gets pupils to read them first and then copy them into their exercise books.

Teacher C

Gets pupils to open their texts. Reads out the following sentences: 'The green line is very long, the white one is very short.' Then he draws a very long green line and a very short white line, moves his finger along each line as he says: 'The green line is very long, the white one is very short'. Then he gets all children to repeat after him the two sentences as he runs his stick or finger along the two lines. Then he gets each pupil to go to the blackboard, run his finger along the lines and repeat the sentences. Then teacher reads the two sentences from the text and passes on to teach the next sentence in the text.

Comments on the procedures adopted

These three procedures represent a fair cross section of Campaign teaching potential, with teacher A reflecting the best, and teacher C just the minimum.

All three of them conform to the spirit of the Campaign in the sense that they:
– use situations to introduce new language
– provide for speech, reading, and writing while teaching a new structure
– teach reading a sentence after pupils have learnt to say it
– avoid the use of the mother tongue.

Teacher C depends solely on the sentences given in the course book, monotonous repetitive drill of a single sentence, and statements (note that he asks no questions).

Teacher B is less rigid and contrives more than one situation to introduce the new language. She and her children open the coursebook only after pupils are familiar with the new pattern. Though she uses questions to a certain extent, she does not lead pupils up to answer the specific questions.

Teacher A is very resourceful and imaginative; uses a variety of situations; makes use of commands and recognition questions to facilitate comprehension; leads up naturally to the specific question; makes drills more interesting by concentrating on the pattern rather than on a single sentence; uses the substitution table for two purposes; provides for revision of vocabulary learnt earlier (e.g. names of colours and objects).

Conclusions

It is evident that:

– all Campaign-trained teachers are aware of the importance of speech before reading and writing
– the effectiveness of a teacher in the classroom depends as much on the resourcefulness and personality of the teacher as on Campaign methodology.

Appendix II
Initial perceptions of the project

January 1978

Broadly, semantic syllabuses promise two things: (1) an extension of the area of competence that is imparted to learners – i.e. an extension beyond grammatical competence, to include (at least some aspects of) what has been called 'communicative competence'; and (2) a reorientation of methodology, with the aim of keeping the learner preoccupied with (some form of) meaning while he learns much less consciously than he does under present procedures – the forms of language and their abstract relationships. . . . However, [a semantic syllabus] inevitably destroys the systematicity of structural progression on a course. One hopes that the methodology that goes with a semantic syllabus (namely, learners' preoccupation with meaning) will make up for such a loss of structural systematicity, but it might be advisable to satisfy oneself that it does, before launching a new syllabus. (*RIE Bulletin, Special Series No. 2, 1978: 33, 35*)

April 1978

We thus have something of a paradoxical situation, as follows: (1) courses based on grammatical structure often fail to achieve their aim of imparting grammatical competence; (2) it is now realised that learners need to go beyond grammatical competence to acquire communicative competence; and (3) teaching for communicative competence necessarily involves less systematic teaching of grammatical structure (and therefore appears less likely to succeed in imparting grammatical competence).

Some suggestions have appeared in the literature on possible ways of reconciling grammatical and semantic organisations . . . [but] I think there is a basic claim, made hesitantly, in such proposals, namely, that the linguistic code is learnt better if, in the process of learning it, learners' attention is not on the code itself but on some problem of meaning or message involving the use of the code. There is a parallel here to the essential claim that

was involved in the earlier transition from language teaching through rules of grammar to merely the presentation and practice of (sets of) similar sentences: the claim was that the rules of grammar are learnt ('internalised') better if, in the process of learning them, attention is not on the rules but on the actual forms which exemplify them. . . . There is thus, from this point of view, a progression from explicit grammar (in the classroom) to exemplificatory forms alone to meaning and use – from a direct learning of the theory (i.e. grammar) to its indirect acquisition through evidence to an indirect perception of the evidence itself. (*Prabhu 1979: 78–9*)

July 1979

A language teaching approach is concerned primarily with (1) a view of what is being taught and (2) a consensus on how it is best taught. . . . In the Communicational Approach here being investigated, what is taught is seen in terms of both language structure (i.e. the rules of 'usage') and language use (i.e. the employment in successful communication of the rules learnt). We believe this to be best taught by bringing about in the learner a preoccupation with meaning or with a task to be performed, resulting in a desire on his part to communicate. . . . The Working Group feels that this perception of how language is best taught is the most distinctive characteristic of this approach, the addition of 'use' under 'what' being almost a consequence of this methodological principle. . . . The new methodological principle should stand or fall by its success in achieving an internalization of structure. (*RIE Newsletter 1/1, 1979: 1–2*)

September 1979

We adopt of necessity what may be called an 'eclipsing view': the view that what we are hypothesising is the 'whole truth' – that communicational activity, which we are trying to define, evolve and test the result of, is *all* that is needed in language teaching. It is only by taking such a stance (and acting accordingly) that we can find out *how much* such activity can achieve. (*RIE Newsletter 1/2, 1979: 21–2*)

Appendix III
Schools involved in the project

Government Girls' High School, Malleswaram, Bangalore 560 012

Corporation Girls' High School, Nungambakkam, Madras 600 034

Sri R.K.M. Sarada Vidyalaya Middle School, T. Nagar, Madras 600 017

Corporation Boys' High School, Tasker Town, Bangalore 560 052

Sacred Heart's School, Cuddalore, South Arcot District, Tamil Nadu

St Anthony's Kannada Upgraded Primary School, Jayanagar T-Block, Bangalore 560 041

Vellayan Chettiar Higher Secondary School, Tiruvottiyur, Madras 600 019

Transcripts of project lessons
Appendix IVa

Transcript of the pre-task stages of a lesson taught on 2 March 1981 to a class of forty eleven-year-olds who were in their fourth year of English but in the first year of project teaching. See Chapter 2, pages 31–3 for a general description of this lesson. This transcript was made by A. Gilpin and B. Kumaravadivelu.

Teacher Good morning, children.
Students Good morning, sir.

(Preliminary pre-task.)

Teacher Sit down. Look at that. (*The teacher writes '0600 hours = 6 a.m.' on the blackboard.*) Zero six zero zero hours. That means . . .
Students Six a.m.
Teacher Now, what does this mean? Zero six three zero hours. (*The teacher writes '0630'.*)
Students Six thirty p.m.
Teacher Six thirty . . .? (*pause*)
Students p.m.
Teacher Six thirty . . .? (*pause*)
Students a.m.
Teacher a.m. . . . yes. (*pause*) Zero eight zero zero hours. (*The teacher writes '0800'.*)
Students Eight a.m.
Teacher Eight a.m. (*pause*) Now, next question. Don't give the answer. Just put up your hands. Zero nine one five . . . (*The teacher writes '0915'.*) Whom shall we ask? Uh . . . (*indicates student 1*)
Student 1 Nine – nine – nine fifteen a.m.
Teacher Nine fifteen a.m. Yes, good . . . One one four five. (*The teacher writes '1145'.*) Eleven four five hours.
Students (*indistinct*)
Teacher Say it again.
Student Eleven forty-five.

Teacher Eleven forty-five . . .?
Student Umm . . . a.m.
Students p.m. . . . a.m.
Teacher a.m. yes, good. (*pause*) One two zero zero . . . (*The teacher writes '1200'.*)
Student Twelve.
Teacher Twelve, do we say a.m.?
Students p.m. . . . noon.
Student Afternoon.
Teacher Twelve noon, yes. Now, one three zero zero hours. (*The teacher writes '1300'.*)
Student One thirty a.m. . . .
Students p.m.
Teacher One . . . thirty . . .
Student p.m.
Teacher p.m. (*indicates student 2*)
Student 2 One thirty
Teacher One thirty . . .
Student 2 p.m.
Teacher p.m. . . . (*indicates student 3*)
Student 3 One p.m.
Teacher One p.m.
Student 4 One p.m.
Teacher One p.m.
Students One thirty p.m.
Teacher One thirty p.m.?
Students One p.m.
Teacher One p.m. is correct. (*The teacher writes '12 noon' and '1 p.m.'*) Twelve noon, thirteen. One hour more. Zero zero . . . how many? Right. One p.m. Now, one five zero zero hours. (*The teacher writes '1500'. After a pause, he indicates student 5.*)
Student 5 Three p.m.
Teacher Three p.m.
Students One forty-five p.m.
Teacher One forty-five . . .
Students One forty-five . . .
Students One forty p.m.
Teacher One forty p.m. Yes?
Students Three p.m.
Teacher Three p.m. (*indicates student 1*)
Student 1 Three p.m.

Teacher Three p.m. (*After a pause, the teacher indicates student 2.*)
Student 2 Three p.m.
Teacher Yes, three p.m. Correct. (*The teacher writes '3 p.m.'*) Three p.m. Twelve . . . fifteen . . . three . . . uh . . . one eight zero zero (*The teacher writes '1800'.*) One, two, three, four, five, six, seven, eight . . . (*The teacher counts the number of students who put up their hands and then indicates student 6.*)
Student 6 Three p.m.
Teacher Eighteen . . . uh . . . three p.m. (*After a pause, the teacher indicates student 7.*)
Student 7 Six p.m.
Teacher (*indicates student 5*)
Student 5 Six p.m.
Teacher (*indicates student 8*)
Student 8 Six p.m.
Teacher p.m. (*indicates student 4*)
Student 4 Six p.m.
Teacher Six p.m. . . . Yes, how do you know?
Student 4 Eighteen minus twelve.
Teacher Eighteen minus twelve . . . after twelve . . . six more . . . six p.m. Good. Now, it's going to be a little difficult . . . twenty one five hours. (*The teacher writes '2015'.*) Who can give the answer? One, two, three, four, five, six, seven . . . (*indicates student 9*)
Student 9 Eight fifteen a.m.
Teacher Eight fifteen, a.m.
Eight fifteen, a.m. . . .? (*indicates student 3*)
Student 3 Eight fifteen, p.m. . . .
Teacher (*indicates student 9*)
Student 9 Eight fifteen p.m. Teacher Eight fifteen, p.m. is correct. (*The teacher writes '8.15 p.m.'*) Now, it's going to be *very* difficult. Zero zero zero zero hours. (*The teacher writes '0000'.*) Who can give me the answer? Selvi . . . Alamelu . . . uh . . . yes?
Alamelu Zero p.m.
Students (*laugh*)
Teacher Zero p.m. . . . (*indicates student 4*)
Student 4 No hours.
Teacher No hours . . . (*indicates student 5*)

Student 5 No hours.
Teacher No hours . . . (*indicates student 2*)
Student 2 No hours.
Teacher No hours . . . Well, actually it means twenty-four.
Student Twenty-four?
Teacher Twenty four. What does twenty-four mean?
Student Twelve p.m. One day.
Teacher Twelve.
Student p.m.
Teacher Twelve p.m.
Student Twelve night . . . noon?
Teacher Midnight. Yes, twelve midnight, yes twelve midnight here . . . the day . . . twelve noon . . . there midnight. Now, zero one four five hours. What does that mean? (*The teacher writes '0145'.*) One, two, three, four . . . yes?
Student One forty-five p.m.
Student One forty-five . . . one forty-five . . .
Student p.m.
Teacher Not p.m.
Students a.m.
Teacher a.m. . . . yes a.m. This is the last. Zero four one five hours. (*The teacher writes '0415'. After a pause, he indicates student 10.*)
Student 10 Four . . .
Teacher Four . . .
Student 10 . . . fifteen a.m.
Teacher Four fifteen a.m. Four fifteen a.m. yes, good.

(Pre-task – preliminary 'task' omitted)

(*The teacher writes the timetable for the Brindavan Express on the board.*) That is Brindavan Express which goes from Madras to Bangalore. Where does it stop on the way?
Students Katpadi.
Teacher Katpadi and . . .
Students Jolarpet.
Teacher Jolarpet, yes. What time does it leave Madras?
Students Seven twenty-five a.m.
Teacher Seven twenty-five . . .
Students . . . a.m.

Teacher Yes, seven twenty-five a.m. What time does it arrive in Bangalore?
Students Nine. . . . One
Teacher What time does it arrive . . .
Students (*severally*) One p.m. . . . One thirty p.m. . . . One p.m.
Teacher Who says one p.m.? . . . Who says one thirty p.m.? (*pause*) Not one thirty p.m. One p.m. is correct. One p.m. When does it arrive in Katpadi?
Students Nine fifteen a.m. . . . Nine fifteen a.m.
Teacher . . . arrive . . . arrive in Katpadi.
Students Nine fifteen a.m.
Teacher Nine fifteen a.m. Correct . . . . When does it leave Jolarpet? Don't give the answer, put up your hands. When does it leave Jolarpet? When does it leave Jolarpet? When does it leave Jolarpet? . . . When does it leave Jolarpet? (*pause*) Any more . . .? (*indicates student 11*)
Student 11 Ten thirty p.m.
Teacher Leaves Jolarpet at ten thirty . . .
Student 11 a.m.
Teacher a.m. Yes. Ten thirty a.m. correct Now, you have to listen carefully. For how long . . . for how long does it *stop* at Katpadi? How long is the *stop* in Katpadi? . . . (*indicates student 4*)
Student 4 Five minutes.
Teacher Five minutes, yes. How do you know?
Student Twenty . . .
Student 4 Twenty minus fifteen.
Teacher Fifteen . . . nine fifteen arrival, nine twenty departure . . . twenty minus fifteen, five, yes . . . . How long is the stop at Jolarpet? How long is the stop at Jolarpet? (*After a pause, the teacher indicates student 12.*)
Student 12 Two minutes.
Teacher Two minutes, yes. Thirty minus twenty-eight, two minutes, yes correct. Now we shall listen again carefully. How long does it take . . . how long does the train take to go from Madras to Katpadi? How long does it take to go from Madras to Katpadi? . . . to go from Madras to Katpadi? (*pause*) It's

difficult. You have to calculate. (*After another pause, the teacher indicates student 2.*)
Student 2 Two hours.
Teacher Two hours. Any other answer? (*indicates student 4*)
Student 4 Two ten.
Teacher Two ten. (*indicates student 12*)
Student 12 Two hours ten minutes.
Teacher Two hours ten minutes. Any other answers? (*pause*) Yes? (*indicates student 13*)
Student 13 Two hours, uh . . . five . . . five . . . five minutes.
Teacher Two hours five minutes . . . uh . . . no, that's not the answer. No. Any other answer? (*pause*) If it is two hours, if it is two hours, what time should it arrive in Katpadi?
Students Nine fifteen.
Teacher Nine . . .
Students Fifteen.
Teacher If it is two hours? It leaves at nine twenty-five . . . seven twenty-five, sorry. It leaves at seven twenty-five. If it is two hours when should it arrive here?
Students Nine fifteen.
Teacher Nine . . .
Students . . . fifteen.
Teacher Add two hours to seven twenty-five . . . (*pause*) seven twenty-five . . .
Students Four hours.
Teacher No, add two hours to seven twenty-five . . . (*pause*) seven twenty-five and then two hours.
Student Eight . . .
Teacher Eight twenty-five?
Students Nine twenty-five.
Teacher Nine twenty-five it should arrive at Katpadi. When does it arrive in Katpadi?
Students Nine fifteen.
Teacher Nine fifteen, *before* that. So, is it less than two hours or more?
Student Less.
Teacher Less, less than two hours, yes. Now . . . (*indicates student 3*)
Student 3 Two fifteen, two fifteen.
Teacher Two hours fifteen minutes, no. It's less than two hours. One hour and some minutes. How many minutes?

Students Fifteen. . . . One fifty.
Teacher One hour and yes . . .
Student One fifty.
Teacher One hour and fifty minutes. Yes, correct. One hour and fifty minutes. One hour and fifty minutes. (*The teacher writes '1 hour and 50 minutes'.*) If it is two hours, it will be nine twenty-five. Nine fifteen. Ten minutes less. One hour and fifty, ten minutes less than one hour . . . . All right. The next question. How long does it take to go from Madras to Jolarpet? Madras to Jolarpet. How long does the train take to go from Madras to Jolarpet . . . (*After a pause, the teacher indicates student 2.*)
Student 2 Ten hours three minutes, ten hours three minutes.
Teacher Ten hours and three minutes. Ten hours?
Student 2 Three.
Teacher Three hours and yes – yes . . .
Students . . . three minutes.
Teacher Three hours and three minutes. That's correct. Three hours and three minutes. If it is three hours, seven twenty-five, eight twenty-five, nine twenty-five, ten twenty-five. Ten twenty-eight. Three more minutes. Three hours and three minutes. Right. . . . (*pause*) How many stations . . . how many stations does the train stop at, on the way? On the way from Madras to Bangalore, how many stations does it stop at? How many?
Student Four stations.
Teacher Four stations.
Student Two stations.
Teacher Two stations. (*indicates student 3*)
Student 3 Two stations.
Teacher Two stations. (*indicates student 4*)
Student 4 Two stations.
Teacher Two stations. (*indicates student 2*)
Student 2 Two stations.
Teacher (*indicates student 7*)
Student 7 Two stations.
Teacher Two stations, yes. Which stations does it stop at, on the way?
Students Katpadi, Jolarpet.

Teacher Katpadi and Jolarpet. Madras is the starting station, Bangalore is the station it arrives at in the end. On the way it stops at two stations. Right.

(Introductory questions to task)

Now, I want you to look at the sheet of paper I've given you. Look at the sheet of paper. Which train is described there? Which train?

Students Bangalore Mail.
Teacher Bangalore Mail. Where does it go?
Students Bangalore.
Teacher Bangalore. From where?
Students Madras.
Teacher From Madras. Is it a day train or a night train?
Students Day . . . night train.
Teacher It's a night train. How do you know? (*indicates student 3*)
Student 3 It's twenty-one forty.
Teacher It starts at twenty-one forty. Twenty-one forty is . . .
Student Nine . . .
Student Eleven forty.
Teacher Nine, not eleven. Nine forty . . . a.m. or p.m.?
Students a.m. . . . p.m.
Teacher p.m. yes, p.m. That's right. It's a night train . . . . (*pause*) Is the Brindavan a night train or a day train?
Student Night . . .
Teacher Is the Brindavan a night train or a day train?
Students Day train.
Teacher It's a day train. Is it a morning train or an afternoon train?
Students Afternoon train.
Teacher Afternoon train.
Students Morning train.
Teacher Who says afternoon train? One, two, three, four, five . . . uh who says morning train? . . . A lot of people. Yes, it's a morning train. It's true it arrives in Bangalore at one p.m. in the afternoon, but it starts at seven twenty-five a.m. early in the morning . . . um – morning train.

Appendix IVb

Transcript of the pre-task stages of a project lesson taught on 2 February 1983 to a class of ten-year-old children who were beginners in English and had had about ninety lessons on the project. The transcript was made by Esther Ramani.

(Preliminary pre-task)

Teacher We are going to do another lesson today on timetables. OK? (*The teacher draws the columns and rows of a class timetable on the blackboard. At the head of the first column, she writes '9.30–10.15', the duration of the first period.*) What should I write here? (*pointing to the second column*)
Students Ten fifteen – ten fifteen – ten fifteen.
Teacher Ten fifteen.
Students Eleven o'clock.
Teacher Eleven o'clock. Here? (*pointing to the third column*)
Students Eleven o'clock to eleven forty-five. (*tentative*)
Teacher Eleven to . . .?
Students Eleven forty-five.
Teacher Eleven to eleven forty-five.
Students Eleven forty-five to (*not clear*)
Teacher To?
Students Twelve o'clock – twelve thirty – twelve thirty. (*many voices*)
Teacher Twelve thirty. This is lunch, lunch break. And after lunch . . .
Students Two o'clock. (*chorus*)
Teacher Yes?
Students Two forty-five. (*many voices*)
Teacher Two forty-five. And the last period?
Students Two forty-five to three thirty – three thirty – three forty-five – three thirty. (*several voices*)
Teacher Three thirty. Yes. Who will write the names of the

weekdays here? Who will write? (*Some students raise their hands. The teacher calls on one.*) Come. (*The student writes the names of all the weekdays, Monday to Friday correctly, the rest of class helping with the spelling.*) Is that correct?

Students Correct.

Teacher Right?

Students Right.

Teacher What about Saturday? Do they have school on Saturday?

Students No . . . holiday.

Teacher Holiday. Yes. It's a holiday on Saturday.

(Pre-task)

Now, the first period on Wednesday for this class, VI-B, the first period on Wednesday is English. Who will come and write that? (*Some students raise their hands. The teacher calls on one.*) Yes, come. (*The student writes 'english' in the first period for Monday.*)

Students Teacher – teacher! (*making a bid to correct*)

Teacher Is that right?

Students No – wrong . . . . Teacher – teacher!

Teacher The first period on *Wednesday* is English. (*The student re-writes 'english' in the right slot.*) Is this correct?

Students Correct.

Teacher This is correct . . . . You have to make a capital, big E. (*The student corrects the mistake.*)

Teacher The second period on Tuesday is for Kannada. Who will write that? The second period on Tuesday is for Kannada. Yes? (*A student writes the correct answer on the board.*) Good.

Teacher The last period on Thursday is for Games. . . . The last period on Thursday is for Games. Who will do that? Who will write that? (*A student comes up.*) The last period on Thursday is for Games. Yes? (*Peer consultation is followed by the student writing 'G-o-m-e-s' in the last period for Thursday morning.*)

Teacher Yes?

Students Wrong – wrong.

Teacher What is wrong?
Student G-a-
Teacher G-a. The spelling is wrong. OK. Change the spelling. G-a-m-e-s. (*The student corrects the spelling, but the entry is still in the wrong slot.*) Is that correct? Listen to my question. The *last* period on Thursday is for Games.
Students Teacher – teacher!
Teacher Yes, Shyambai. Yes, come along. (*Shyambai writes 'Games' in, the right slot.*) Is that correct?
Students Yes. Correct.
Teacher How many say that this is correct? How many say this is correct? (*Some students raise their hands.*) You say this is correct . . . Yes? The last period on Thursday is for Games, that is from two forty-five to three thirty. You say *that* is correct. (*The teacher points to the second student's answer on the board.*) How many say eleven forty-five to twelve thirty is Games . . . *that* is correct. (*The teacher points to the first student's entry.*) How many children say that is correct? (*silence*) You don't understand? We have two answers here, right? Thursday eleven forty-five to twelve thirty . . . Games; Thursday two forty-five to three thirty . . . Games. Which is correct?
Students Two forty-five to three thirty.
Teacher How many say that is correct? How many of you say that is correct? (*The majority of bands go up.*) Why?
Student Last period. (*very faint*)
Teacher Did you listen to my question? I said the *last* period on Thursday is for Games. Which is the last period? Which is the last period?
Students Two forty-five to three thirty.
Teacher The last period of the *morning* is eleven forty-five to twelve thirty. Correct? The last period in the morning. Four periods in the morning . . . last period in the morning is eleven forty-five to twelve thirty. What I said was the *last* period, which is the last period for the day, for Thursday, so this is the right answer. (*The teacher erases the wrong answer.*)

Teacher There is a Kannada lesson, there is a Kannada lesson in the first period on Monday.
Students Teacher – teacher! (*A student comes up and writes the answer on the board with others calling out the spelling when needed*.)
Teacher On Thursday – listen – on Thursday, there is a Maths lesson just before Games. On Thursday, there is a Maths lesson just before Games. Who will do that? Yes? (*tentative voices: A student comes up, and writes 'maths'*.)
Student Big 'M'.
Teacher What did you say?
Student Big 'M'.
Teacher Big 'M'. Yes . . . . Is that correct?
Students Correct.
Teacher On Friday, on Friday the period just before lunch is for History. On Friday, the period just before lunch is for History. (*silence*) On Friday, the period before lunch – just before lunch – is for History. (*There is peer discussion then one student puts up his hand*.)
Teacher Nobody can do it, except Mubarak? Yes, come. (*The teacher calls on another student who has tentatively volunteered. He writes 'H-i-s-t-e-r-i' in the slot after lunch*.) All right?
Students Spelling.
Teacher Yes. The spelling is not correct. You know the spelling of History? Tell him.
Students H-i-s-t-o-r-y.
Teacher That's the spelling of History. (*The student corrects the spelling*.) Now is that correct, Mubarak?
Mubarak No, wrong. (*faint*)
Teacher Is that correct or wrong?
Students Wrong.
Teacher Wrong. Now where should you write History?
Students Teacher – teacher!
Teacher Yes, come. (*Another student comes up and writes 'History' in the right slot*.) Is that correct, Mubarak?
Students Correct.
Teacher Correct: What did I say? D'you remember what I said?
Mubarak Before lunch. (*faint*)

Teacher Yes – before – before what?
Students Before lunch.
Teacher Before lunch, just before lunch. Which is the period before lunch? Tell me the time.
Students Two o'clock . . . eleven forty-five, eleven forty-five to twelve thirty. (*chorus*)
Teacher That is the period just before lunch. This is lunch, isn't it? So the period just before lunch is . . .
Students Eleven forty-five. (*chorus*)
Teacher And I said . . . on Friday, the period just before lunch is for History. So this is correct. (*The teacher erases the wrong answer.*)
Teacher The Science lesson, the Science lesson on Friday is just before History. The Science lesson on Friday is just before History. Who will do that? Yes? (*A student comes up and writes 's-c-i-n-s'.*)
Teacher Is that all right? Yes?
Student Wrong.
Teacher What is wrong?
Student Spelling.
Teacher The spelling is wrong. OK. Who can give me the right spelling? Who can give him the right spelling? Stand up and say the right spelling.
Student S-c-i-n . . .
Teacher S-c-i . . .
Student S-c-i-n . . .
Teacher No. – *e*-n-c-e, S-c-i-e-n-c-e. Yes, Science. (*The student corrects the spelling, but begins the word with a small 's'.*)
Student Big 'S'.
Teacher Yes. . . . Yes. Good.
Teacher The next question – listen – The first period after lunch on Tuesday is Geography. The first period after lunch on Tuesday is Geography. (*peer talk: No hands go up.*) Do you understand the question? Shall I say it again? Shall I repeat it? The first period after lunch on Tuesday is Geography. Yes? Want to try? (*Mubarak puts up his hand.*) Come, Mubarak. (*Mubarak comes to the board, locates the correct slot, but doesn't start writing. The teacher infers that the problem is spelling.*) I'll tell you the spelling. G-e-o . . . G-e-o-g-r-a-p-h-y. What

is the— What— What time is the first period after lunch?

Students Two o'clock. (*several voices*)

Teacher Two o'clock to . . .?

Students Two forty-five.

Teacher Two to two forty-five. That's what I said. The first period after lunch on Tuesday. So that's right. Geography. Good.

Teacher Next question. On Thursday the class is doing Science at ten thirty. On Thursday the class is doing Science at ten thirty. (*Several hands go up. The teacher selects one student, who writes the word in the right slot, but spells it wrong.*) Yes. The place is correct.

Students Spelling, wrong – wrong.

Teacher Wrongly spelt.

Students – e – e.

Teacher Good. I said the class is doing Science at ten thirty. In which period does ten thirty come? Which period?

Student Two – two period.

Teacher Second period. Yes, ten fifteen to eleven. So at ten thirty, I said they are doing Science. So, it's the second period. This is correct.

Teacher Next question. At two thirty on Monday, at two thirty on Monday, the class is doing Hindi. The class is doing Hindi at two thirty on Monday. Yes? (*A student comes up and writes the correct answer.*) Is that right?

Students Right. Correct.

Teacher Is that right?

Students Yes.

Teacher Yes. Which period is that?

Students First period.

Teacher First period . . .

Student After lunch.

Teacher After lunch. Yes – first period after lunch. And what is the timing?

Students Two o'clock. (*several voices*)

Teacher Yes. Two o'clock to two forty-five. So two thirty is the first period after lunch; so that's the right answer.

Teacher Now listen to the next question. In the third period

of the morning, in the third period of the morning on Tuesday, the class is doing English.

Students Teacher – teacher! (*A student comes up and writes the correct answer.*)

Teacher Is that right?

Students Right. Correct.

Teacher Correct? All of you say it's correct?

Students Correct.

Teacher That is the third period in the morning. Now, this is the last question before you write . . . . This is the last question before you write. The last periods on Wednesday and Friday are for Drawing. The last periods on Wednesday and Friday are for Drawing. (*peer talk: Some hands go up.*) Yes? (*A student comes up and writes 'D-o-r-i-n-g' in the slot for Wednesday.*) Is that right?

Students Wrong – wrong.

Teacher What is wrong?

Student The spelling.

Teacher The spelling. The spelling is wrong. Can you give him the right spelling? Yes?

Student D-r-o-w-i-n-g.

Teacher Is that the right spelling? Yes?

Student D-r-a-w-i-n-g.

Teacher Yes – D-r-*a*-w-i-n-g. (*The student at the board corrects the spelling and starts to go back to his place.*) Has he finished?

Students Finished . . . Friday – Friday!

Teacher Friday. (*The student returns to the board and writes 'Drawing' in the slot for Friday as well.*) Is that right? Is that correct?

Students Correct.

Teacher Yes. The last period. That's the last period – On Wednesday and Friday – is for . . .

Students Drawing.

Teacher Now here there are some blank timetables. Take one and pass the rest. (*The timetables are distributed.*) Have you all got one?

The task stage of the lesson consists of similar instructions from the teacher for completing a blank timetable, listened to and carried out by students individually.

Appendix V
List of task-types used on the project

1 Diagrams and formations

a Naming parts of a diagram with numbers and letters of the alphabet, as instructed.

b Placing numbers and letters of the alphabet in relation to one another, as instructed, to arrive at particular formations.

c Placing numbers and letters of the alphabet in given cross-word formats; constructing/completing such formats, as instructed.

2 Drawing

a Drawing geometrical figures/formations from sets of verbal instructions.

b Formulating verbal instructions for drawing/completing such figures.

c Comparing given figures to identify similarities and differences.

3 Clock faces

a Telling the time from a clockface; positioning the hands of a clock to show a given time.

b Calculating durations from the movement of a clock's hands; working out intervals between given times.

c Stating the time on a twelve hour clock and a twenty-four hour clock; relating times to phases of the day and night.

4 Monthly calendars

a Relating dates to days of the week.

b Calculating durations in days and weeks (in the context of travel, leave, etc).

c Identifying relevant dates or days of the week in relation to cyclic activity (e.g. 'twice a week').

5 Maps

a Finding, naming, or describing specific locations on a given map.

b Constructing/completing a map from given descriptions/instructions.

c Constructing the floor-plan of a house from a description.

d Deciding on the best route from one place to another; giving directions.

e Deciding on the best form of transport (given information on bus routes, fares, etc).

f Making decisions on good/bad siting (e.g. of a new hospital or school).

6 School timetables

a Constructing class timetables from instructions/descriptions.

b Comparing such timetables to identify the frequencies of lessons in different subjects (or possibilities for different students to exchange shared materials, etc).

c Constructing timetables for teachers of particular subjects from given class timetables, and vice versa.

7 Programmes and itineraries

a Interpreting individuals' daily routines (e.g. to say where a person is at a given time).

b Relating the routines of different individuals (e.g. members of a family) to tell who is where at given times, etc.

c Constructing itemized programmes from narrative accounts (involving a re-ordering of events and/or some inference).

d Inferring where something must have happened (e.g. something lost/left behind) from a narrative account of activities.

e Constructing itineraries from descriptions of travel or from a statement of needs and intentions.

f Working out feasible timings for personal appointments (e.g. going to the bank, meeting a friend) consistent with the requirements of work, travel, etc.

8 Train timetables

a Interpreting train timetables (i.e. identifying arrival and departure times, stopping places, and durations).

b Constructing train timetables from given descriptions of travel.

c Selecting trains appropriate to given needs/intentions; making travel plans.

d Working out the consequences of a train's delay at a given place for arrivals/departures at other places, for onward travel by other trains, etc.

e Filling in forms for making/cancelling train reservations; composing messages to request onward reservations, and to convey arrival times, etc.

9 Age and year of birth

a Working out year of birth from age, and vice versa.

b Inferring who is younger/older, how old, when born, etc. from general descriptions of families or peer-groups.

c Relating individuals' age/year of birth to given age requirements (e.g. for school enrolment, driving, voting).

10 Money

a Working out the money needed to buy a set of things (e.g. school stationery, vegetables) from given price lists and needs.

b Deciding on quantities to be bought with the money available; inferring quantities bought from the money spent.

c Discovering errors in bills; inferring when an underpayment/overpayment must have taken place.

d Deciding between alternatives in shopping (e.g. between a small store nearby and a large one which involves lower prices but expenditure on transport).

e Working out possibilities of saving, from information about incomes and expenses.

11 Tabular information

a Interpreting information presented in tables – e.g. about books (columns for title, author, publisher, price, year of publication); applicants for a job (columns for age, qualifications, past employment); also schools, hotels, etc.

b Constructing such tables from given descriptions.

c Deciding on choices (e.g. of a school for a given child) which best meet given needs.

d Making generalizations from tables; testing generalizations against them.

12 Distances

a Working out the distances between places, from given distances between other places or from the scale of a map.

b Comparing distances and deciding on desirable routes of travel in given situations.

c Constructing maps from distances and directions inferred from given descriptions.

13 Rules

a Interpreting sets of rules, e.g. those for concessional bus tickets for students; railway concessions for holiday travel; a savings account in a bank; membership of a library.

b Applying rules to given cases/situations; examining the consequences of a breach, and deciding on the best course of action.

c Identifying anomalies/problems in rules and deciding on desirable amendments.

14 The postal system

a Interpreting the Postal Index Number code (prevalent in India) from a given description; relating the numbering system to a map of India.

b Inferring the geographical location of places from their postal code numbers; determining, from such numbers, the relative distance/proximity between different places.

c Working out the postal code numbers for particular places

from geographical information and/or from the numbers for other places.

d Identifying errors in the writing of the postal code in particular instances and possible consequences for the transmission of the letters concerned.

e Identifying the advantages/difficulties of the postal code system and deciding on possible improvements.

f Interpreting the related system of Quick Mail Service and determining its relevance in given cases.

g Deciding on the quickest way to send a letter, given a set of circumstances and the rules of Quick Mail Service.

15 Telegrams

a Interpreting given telegrams in relation to their context (e.g. deciding between alternative interpretations, identifying possible misinterpretations.)

b Composing telegrams for given purposes, with the aim of reconciling economy with clarity.

c Discovering errors made in the drafting or transmission of telegrams, from given accounts of events/actions.

16 Stories and dialogues

a Listening to stories (of a 'whodunit' kind) and completing them with appropriate solutions.

b Reading stories or dialogues and answering comprehension questions (particularly of an inferential kind) on them.

c Completing or continuing given dialogues, as appropriate to given situations.

d Identifying factual inconsistencies in given narrative or descriptive accounts.

17 Classification

a Finding the 'odd man out' in a given set of objects or a classified list.

b Making classified lists from unclassified ones.

c Deciding on classifications suited to given purposes.

18 Personal details

a Finding items of information relevant to a particular situation in an individual's curriculum vitae.

b Constructing a curriculum vitae from personal descriptions.

c Organizing/reorganizing a curriculum vitae for a given purpose/audience.

d Working out ways of tracing the owners of objects, from information gathered from the objects.

Appendix VI
Evaluation of the Bangalore Project

Alan Beretta and Alan Davies

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The Bangalore/Madras Communicational Teaching Project (CTP) was the subject of a searching discussion by Brumfit in an earlier issue of this Journal [Brumfit 1984b]. *The present article may be seen as a follow up to that discussion. The main purpose here is to disseminate the results of an independent evaluation of the CTP that was carried out early in 1984. Firstly, a brief account is given of the aims and principles of the CTP itself. Following this, some of the problems involved in the evaluation are considered, and the adopted framework, tests, and hypotheses are described. Finally, the results are discussed and appropriate conclusions drawn.*

The CTP: a brief description

Our description of the Bangalore/Madras Communicational Teaching Project (CTP) need only be brief, as the principles and methodology have already been documented more fully in the published sources. (The most accessible are Brumfit 1984a, Brumfit 1984b, and Johnson 1982.) The CTP grew out of a dissatisfaction with 'structural' teaching. Notional/functional syllabuses were considered, but Dr Prabhu[1] and his associates believed that the need for a change in syllabus content was less pressing than the need for a change in methodology. This belief was fuelled by the expectation that linguists' generalizations about language structure are unlikely to match whatever generalizations are involved in the learner's process of grammar construction. Thus, the CTP syllabus contains no linguistic specification at all, but instead comprises a series of tasks in the form of problem-solving activities. The central tenet of the CTP

is that language form is best learnt when the learner's attention is focused on meaning. More specifically,

> Grammar-construction by the learner is an unconscious process which is best facilitated by bringing about in the learner a preoccupation with meaning, saying or doing. (*Prabhu 1982: 2*)

Consequently, the syllabus is dictated by the methodology, which is three-pronged: pre-task, task, and feedback. The 'pre-task' makes known the nature of the task, brings relevant language into play, regulates the difficulty level of the task, and allows some learners to learn from attempts made by others. The task itself is a period of self-reliant effort by each learner to achieve a clearly perceived goal (e.g. interpreting a schedule or a map). The 'feedback' gives the learners an indication of how successfully they have done the task.

Difficulties in evaluating the CTP

The stated purpose in seeking an evaluation was:

> to assess, through appropriate tests, whether there is any demonstrable difference in terms of attainment in English between classes of children who have been taught on the CTP and their peers who have received normal instruction in the respective schools. (*Prabhu 1983: personal communication*)

The second author of the present article was invited to report on the feasibility of an evaluation during a visit to South India in 1983. As a result of his report, which provided a design for the evaluation, the first author constructed the 'instruments' and visited India to carry out the evaluation in early 1984.

Our brief was to compare the communicational method with the Indian version of the structural method. Comparisons of methods, as an approach to evaluation, have an undistinguished history in language teaching research. Most notably, the attempts by Scherer and Wertheimer (1964) and Smith (1970) to compare the audiolingual method with the cognitive code failed to yield conclusive results. But, as Stern remarks,

> The inconclusiveness of these studies does not mean that research is a waste of time. The studies gradually revealed that the 'methods' are not clearly defined entities that can be

> juxtaposed and compared. It would be a waste of time if that lesson had not been learnt. (*Stern 1983: 71*)

On the other hand, Krashen argues that some methods, for example Total Physical Response,[2] have been shown to be 'superior to others' (Krashen 1982: 155–60). This type of comparison implies that we can make a distinction between some methods and others, or between one method and another. But things are not so simple. Methods are notoriously difficult to pin down. 'Method' may imply a particular syllabus content (for example, a selection and arrangement of structures or functions); or it may involve certain set classroom practices (as with the Silent Way[3]), or both. Any one method may have a variety of manifestations, some of which may be barely distinguishable from the methods they are to be contrasted with. This is illustrated in Valette's comment about the distinctions between certain teaching methods:

> . . . the features which the modified traditional and the modified audio-lingual [methods] have in common are more numerous than those which divide them. (*Valette 1969: 397*)

Although we would not wish to endorse global comparisons, there seem to be reasonable grounds to believe that the CTP is sufficiently distinct from the structural method to avoid ambiguity or overlap.

Given our brief, there were two major problems facing us: firstly, how to control the investigation in a way that would be experimentally valid; and secondly, how to produce tests that would be equally fair to both teaching methods.

Experimental control

The evaluation design assumed two types of class: CTP classes were to be regarded as 'experimental', and structural classes as 'control'. A true experiment would require students to be randomly assigned to experimental and control classes, so as to ensure initial equivalence of the two groups. However, since the CTP was not set up in this way, it was necessary to adopt a less rigorous design which involved intact classes.[4] Thus, caution is required when assessing the validity of the experiment.

Basically, the problem concerns the conflicting demands of 'internal' and 'external' validity. Internal validity has to do with

factors which may directly affect test scores, while external validity is concerned with generalizability. If all variables, such as the school environment, the selection of groups, the age and social background of learners, and so on, are strictly controlled, then we might say that 'laboratory conditions' pertain, and that the evaluation is internally valid. However, what occurs under such conditions may *not* occur in normal circumstances, and the question arises: how far may we generalize from the results? By contrast, if the experiment is carried out in real school settings, this may facilitate generalizability and make the evaluation more valid externally, but the reliability of the data can then be questioned. For example, perhaps one group of learners managed better results than another because they were more advanced to start with, or because they had greater motivation.

The study

Four schools, each with one 'experimental' and one 'control' class were included in the evaluation (see *Table a*). In evaluating the CTP, the most serious threat to internal validity was that in one of the schools (T. Nagar), one group had maintained its stability over a period of time while the other had not. In addition, in the same school a third of the students in one group were not available for our tests. As for external validity, three of the four experimental groups were taught: by better qualified, more highly motivated teachers, and in addition they were frequently observed and were consequently aware of being 'guinea pigs'. Given the origins and evolution of the CTP – the idea was generated by a few people, and tried out in circumstances which were far from ideal and accompanied by openness to public scrutiny – most of these problems were unavoidable. Nevertheless, the threats to validity must be stated clearly, as they have implications for the interpretation of the results.

Test content bias

It was clear that if we used tests that were solely CTP-based, we would be unfair to the structural group, and vice versa. The problem is a familiar one in educational research. A review of twenty-six studies which attempted to compare curricula concluded that

> . . . innovative students do better when the criterion is well matched to the innovative curriculum, and traditional students do better when the criterion is matched to the traditional curriculum. (*Walker and Schaffarzick 1974: 94*)

Although there is no neat, conclusive remedy to this problem, some investigators have tried to overcome 'test content bias' by using achievement tests, one favouring each method. Others have tried to develop tests that focus on areas of proficiency and reflect patterns of emphasis. For our purposes, we decided to construct a battery of tests intended to measure *achievement* separately for experimental and control groups (by a structure test and a CTP task-based test), and *proficiency* by three 'neutral' measures: contextualized grammar, dictation, and listening/reading comprehension.

Description of the tests[5]

The achievement tests were designed as measures of each method, while the proficiency tests required some degree of transfer from classroom practice. With reference to tests of contextualized grammar, Krashen and Terrell comment:

> While it is possible that the student will understand the meaning and fill in the blank on the basis of acquired knowledge, it is also possible that the student will simply figure out the morphological pattern . . . without even understanding the text. (*Krashen and Terrell 1983: 167*)

If this is true, then both CTP and structural classes would be equally advantaged or equally disadvantaged on a test of this nature.

Our justification for dictation tests rests on the theory proposed by Oller (1979 and elsewhere) that dictation tests measure a learner's 'grammar of expectancy'. He maintains that if the segments are too long to be memorized and regurgitated, they must be reconstituted by drawing on the grammar of expectancy. Performance is therefore more or less successful, depending on the sophistication of the learner's grammatical competence. Dictation may also be regarded as a sentence-bound test, thereby measuring structural awareness. In either case, dictation seemed to be a test suitable both to experimental and to control groups.

The listening/reading comprehension test is one of receptive ability to use language. Its function was to determine how far what is learnt in structural and CTP classrooms can be deployed.

Hypotheses

Three hypotheses were to be confirmed or disconfirmed by the results of the above: tests:

1 there is a difference between the language abilities arising from form-focused teaching and those arising from meaning-focused teaching. Thus, we expected each group to perform significantly better on its own achievement test;
2 acquisition of non-syllabus-based structure is best achieved without focus on form; if this were true, experimental classes would do significantly better than control classes on the proficiency tests of contextualized grammar and dictation;
3 structure acquired *without* focus on form is more readily available for deployment than structure learned *with* focus on form; for this to be confirmed, CTP groups would have to score significantly higher than control groups on the proficiency test of listening/reading comprehension.

Results

The results of the tests in the four schools are summarized in *Table a*.[6] We have mentioned that the difficulties of appropriate test construction and of controlling experimental variables would modify interpretation of results. However, *Table a* does offer some vindication of the tests themselves. The superior knowledge of the experimental and control groups on the two tests designed as measures of the two methods indicates that the two measures do assess different kinds of learning. As for the proficiency tests, the experimental groups do better in five out of twelve possible results, and in no case does the control group do better. This ragged pattern suggests that the tests are reasonably unbiased and that they allow for legitimate competition between the two groups.

Controlling experimental variables was always going to be difficult, since the project was not organized with such an evaluation in mind. Nevertheless, from the limited information

Table a *Group means and patterns of significance for four schools and five tests*

School	*Group*	*Structure*		*Contextualized grammar*		*Dictation*		*Listeninglreading comprehension*		*Task-based*	
		Class mean	*$p = 5\%$	*Class mean*	*$p = 5\%$	*Class mean*	*$p = 5\%$	*Class mean*	*$p = 5\%$	*Class mean*	*$p = 5\%$
Ba	C	10·27	'C'	8·17	'='	15·11	'E'	9·20	'E'	12·02	'E'
	E	8·07		9·76		18·67		18·26		19·26	
Cu	C	8·31	'C'	3·38	'E'	8·79	'='	3·52	'E'	3·39	'E'
	E	4·53		6·03		11·38		18·03		6·76	
T.Na	C	8·63	'C'	5·64	'='	14·6	'='	10·03	'='	9·31	'E'
	E	5·15		4·32		11·7		7·65		14·00	
Ti	C	10·07	'C'	6·11	'='	18·34	'='	11·26	'E'	11·21	'E'
	E	8·41		5·55		19·29		14·73		13·74	

The four schools were at Jayanagar, Bangalore (Ba), Cuddalore (Cu), T. Nagar (T.Na), and Tiruvottiyur (Ti).
*p = 5 per cent means that for the two-tail 't' test used, the 5 per cent level was selected to determine significance, i.e. t at the ·05 level of significance.
In the column headed 'p = 5 per cent', 'E' indicates that the experimental group did significantly better, '=' that there was no significant difference, and 'C' that the control group did significantly better.

available (results in other subjects, and headmasters' and teachers' judgements), there is some reason to believe that the groups were initially equivalent, even though not randomly constituted. However, the serious threat to internal validity mentioned above makes it very difficult to interpret the T. Nagar results, and consequently, we ignore them as confirmation or rejection of hypotheses.

In the other three schools, as can be seen from *Table a*, both the experimental and the control groups did significantly better on their own achievement tests, satisfying the demands of the first hypothesis. The requirements of the third hypothesis are also fulfilled, as the experimental groups significantly outperformed control groups on the test of listening/reading comprehension. The second hypothesis, that acquisition of non-syllabus-based structure is best achieved without focus on form, is partly borne out. There was no significant difference in two of the schools on the dictation and contextualized grammar tests, but in the Bangalore school the experimental pupils did significantly better on the dictation, as they did in the Cuddalore school on the contextualized grammar test.

In short, the results reveal a pattern which is consistent with the first and third hypotheses, and in part consistent with the second (and central) hypothesis.

Conclusion

From the beginning, it was our view that the results of the evaluation might constitute a 'probe' of the central CTP hypothesis, but not 'proof'. The impossibility of full experimental control, and the potential for bias in test construction make generalization impossible. Also, the fact that no group of learners has been exposed to the CTP treatment for more than three years precludes any firm statement about the effectiveness of this method at later stages of learning. While admitting these limitations, we regard the results as being, on the whole, positive and conclude that they provide tentative support for the CTP claim that grammar construction can take place through a focus on meaning alone.[7]

Notes

1 Dr N. S. Prabhu (then) of the British Council, Madras, initiated the project in 1979, and directed its activities throughout.

2 Total Physical Response is the name of a method given prominence by J. Asher (e.g. in his article 'The total physical approach to second language learning' in *Modern Language Journal* 53: 3–17). It involves a lengthy period of listening to and carrying out instructions in the foreign language.

3 See *ELT Journal* 36/4: 237–41 for a discussion with Dr Gattegno, creator of the Silent Way.

4 For discussion of quasi-experimental designs, see Campbell and Stanley (1963).

5 For samples of the Tests see Appendix A.

6 This table is merely a broad summary. Those requiring further details should contact the authors.

7 We acknowledge our gratitude to all those in South India who made this evaluation such a rewarding experience for us. In particular we thank Dr Prabhu, his colleagues, and the teachers and pupils of the four schools.

References

Brumfit, C. J. 1984a. *Communicative Methodology in Language Teaching: the Roles of Fluency and Accuracy*. Cambridge: Cambridge University Press.

Brumfit, C. J. 1984b. 'The Bangalore Procedural Syllabus.' *ELT Journal* 38/4: 233–41.

Campbell, D. T. and **J. C. Stanley**. 1963. 'Experimental and quasi-experimental designs for research on teaching' in N. L. Gage (ed.). 1963. *Handbook of Research on Teaching*. Chicago: Rand McNally.

Johnson, K. 1982. *Communicative Syllabus Design and Methodology*. Oxford: Pergamon.

Krashen, S. D. 1982. *Principles and Practice in Second Language Acquisition*. Oxford: Pergamon.

Krashen, S. D. and **T. D. Terrell**. 1983. *The Natural Approach: Language Acquisition in the Classroom*. Oxford: Pergamon/Alemany.

Oller, J. W. 1979. *Language Tests at School*. London: Longman.

Prabhu, N. S. 1982. 'The Communicational Teaching Project, South India.' Madras: The British Council (mimeo).

Scherer, G. and **M. Wertheimer.** 1964. *A Psycholinguistic Experiment in Foreign Language Teaching*. New York: McGraw Hill.
Smith, P. D. Jnr. 1970. *A Comparison of the Cognitive and Audio-Lingual Approaches to Foreign Language Instruction: The Pennsylvania Foreign Language Project*. Philadelphia: The Center for Curriculum Development.
Stern, H. H. 1983. *Fundamental Concepts of Language Teaching*. Oxford: Oxford University Press.
Valette, R. M. 1969. 'The Pennsylvania Project, its conclusions and its implications.' *Modern Language Journal* 53/6: 396–404.
Walker, D. F. and **J. Schaffarzick.** 1974. 'Comparing curricula.' *Review of Educational Research* 44: 83–111.

Appendix

The following five tests were used:

1 Structure
2 Contextualized grammar
3 Dictation
4 Listening/reading comprehension
5 Task-based

1 *Structure:* This test consisted of a series of multiple-choice items. The structures were drawn from the Karnataka and Tamil Nadu State syllabuses. Example:

We _____ going to school today. It's Sunday.
a aren't **b** not **c** isn't **d** don't

2 *Contextualized grammar:* This comprised a number of items where the testee was required to fill in the blank with one word. Example:

Through the window I can see my father. He can't see me because he _____ looking at the road. He is going to the market.

3 *Dictation:* A short passage was dictated in the following way:

i reading of whole passage at conversational speed; e.g.

I have two brothers and three sisters. We all go to the same school. Sometimes we take the bus. Today we are going by bus. After school we will walk home.

ii one reading only of each segment at conversational speed;
iii final reading of whole passage at conversational speed.

4 *Listening/reading comprehension:* This required testees to read, for example, a hotel advertisement and to write answers to spoken questions. It demanded a great deal of inference; e.g.

Hotel Ashok: One room only Rs 150 a day! Bring your family! In our grounds you can enjoy cricket, football, and kabaddi. We have a good restaurant. English and Indian meals. Film show every night at 8 p.m. Write to: Hotel Ashok, 74 Gandhi Street, Delhi. Tel. 883921.

Listen carefully to the questions. You will hear each question twice. Answer the questions, using the information from the advertisement.

e.g. Spoken question: *Where is the hotel?*

5 *Task-based:* The test was a representative sample of the tasks used in the CTP classroom. For example, solving problems related to a timetable and to a calendar.