

Durham E-Theses

A formative evaluation of an educational innovation in six primary schools

Eve Harrison Walton

How to cite:

Walton, Eve Harrison (1990) A formative evaluation of an educational innovation in six primary schools. Masters thesis, Durham University.

Use policy

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a <https://etheses.durham.ac.uk/id/eprint/5831/> is made to the metadata record in Durham E-Theses
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

Please consult the [full Durham E-Theses policy](#) for further details.

WALTON, E H (1990)

The Hartlepool Dockland Project, 1985 - 1988. A formative evaluation of an educational innovation in six primary schools.

ABSTRACT

The thesis examines a multi-site case study based upon an instance of educational innovation within a group of six primary schools located in an inner-urban area of Hartlepool, County Cleveland. The schools, selected by their LEA, participated in a three year Educational Support Grant Urban Project to: raise pupils' performance and teachers' expectations; improve the schools' organisation, management and curriculum; involve parents, and explore other policies that might lead to the schools' improvement.

The study is divided into four main sections. Chapter one explores a range of definitions of change and innovation through an examination of relevant literature. Attention is focussed on the concept of change and innovation, its major factors, stages and influences and its relationship to authority, leadership, power and negotiation in educational organisations.

After a brief resume of the D.E.S. Educational Support Grant, (1984), and the Cleveland LEA's response, chapter two presents a case study rationale. The research process, embodied in this chapter, examines alternative methodologies before making a defence of qualitative case study incorporating illuminative evaluation strategies.

Chapter three presents the evaluation of the Hartlepool Dockland Urban Project. The evaluation is divided into early, mid and late phases. Within the successive phases attempts are made to explore the climate of the Project schools. The progressively focussing process utilises a range of data collection, reduction and display techniques which are outlined in a conceptual framework. Each phase culminates in within and cross-site analyses, in the style of Miles and Huberman, (1984).

The final chapter is in the form of summary and recommendations. Project schools, their leadership and staff, and the innovating institution are reviewed in the light of the evaluation and in conjunction with a critical analysis of the research methodology. In the final analysis recommendations for substantive areas of innovation and for evaluators lead into a description of possibilities and opportunities for future research and overall conclusions.

THE HARTLEPOOL DOCKLAND PROJECT 1985-1988

A FORMATIVE EVALUATION OF AN
EDUCATIONAL INNOVATION IN SIX PRIMARY SCHOOLS

EVE HARRISON WALTON

A thesis submitted for the degree of
Master of Arts in Education

The copyright of this thesis rests with the author.
No quotation from it should be published without
his prior written consent and information derived
from it should be acknowledged.

University of Durham
School of Education
January 1990



24 JUL 1990

	Page
Chapter Two - The Research Process	78
2.1 Origins and Outlines of the Hartlepool Dockland Project	78
2.1.1 Education Support Grants	78
2.1.2 The Cleveland LEA Response to Circular 6/84	81
2.1.3 The Proposal	83
2.1.4 The Hartlepool Dockland Schools and Centre	85
2.2 A Case Study Rationale	87
2.2.1 Case Study and Action Research	89
2.2.2 Case Study, Qualitative and Mixed Methodologies	90
2.2.3 Case Study as a Unique Instance	96
2.2.4 Case Study, Naturalism, Description and Detail	96
2.2.5 Case Study and Validity - Triangulation and Progressive Focussing	98
2.2.6 Case Study and Generalisability	100
2.2.7 Case Study as Illuminative Evaluation	101
2.2.8 Audience of Case Study	103
2.3 Action Research	104
2.3.1 Illuminative Evaluation - The Unique Instance	104
2.3.2 The Issues of Bias, Triangulation and Validity	106
2.3.3 Progressive Focussing	109
2.3.4 Ethics and Case Study	109
2.3.5 Multi-Method Approaches to Data Collection	110
2.3.6 Curriculum Building	112

	Page
Chapter Three - Data Presentation	117
3.1 An Introduction to Data Presentation	117
3.1.1 Data Reduction	117
3.1.2 Styles of Presentation: Narrative Text and Data Display	118
3.1.3 Conclusion Drawing and Verification	120
3.1.4 Factors Influencing the H.D.P. Data Presentation Format	121
3.1.5 Implications of Cross Site Analysis	123
3.2 The Early Phase of the Dockland Project	126
3.2.1 Antecedent Influences	126
3.2.2 General Context Across the H.D.P. Schools	127
3.2.3 The Specific Context of the Project Schools	129
3.2.3.1 School A	130
3.2.3.2 School B	130
3.2.3.3 School C	131
3.2.3.4 School D	131
3.2.3.5 School E	131
3.2.3.6 School F	132
3.2.4 Specific School Data - School A	133
3.2.4.1 Documentary Evidence	133
3.2.4.2 Diary Evidence	135
3.2.4.3 Semi-Structured Interviews	137
3.2.4.4 Participant Observation	139
3.2.5 School B - Specific Data	141

	Page
3.2.5.1 Documentary Evidence	141
3.2.5.2 Diary Evidence	143
3.2.5.3 Semi-Structured Interviews	144
3.2.5.4 Participant Observation	147
3.2.6 School C - Specific Data	149
3.2.6.1 Documentary Evidence	149
3.2.6.2 Diary Evidence	151
3.2.6.3 Semi-Structured Interviews	152
3.2.6.4 Participant Observation	155
3.2.7 School D - Specific Data	157
3.2.7.1 Documentary Evidence	157
3.2.7.2 Diary Evidence	159
3.2.7.3 Semi-Structured Interviews	160
3.2.7.4 Participant Observation	162
3.2.8 School E - Specific Data	164
3.2.8.1 Documentary Evidence	164
3.2.8.2 Diary Evidence	167
3.2.8.3 Semi-Structured Interviews	168
3.2.8.4 Participant Observation	170
3.2.9 School F - Specific Data	172
3.2.9.1 Documentary Evidence	172
3.2.9.2 Diary Evidence	173
3.2.9.3 Semi Structured Interviews	176
3.2.9.4 Participant Observation	177
3.3 Within Site Analysis	179
3.3.1 Dovetailed Issues in School A	179
3.3.2 Dovetailed Issues in School B	182
3.3.3 Dovetailed Issues in School C	184

	Page
3.3.4 Dovetailed Issues in School D	186
3.3.5 Dovetailed Issues in School E	188
3.3.6 Dovetailed Issues in School F	191
3.4 Cross Site Analysis	193
3.5 The Mid Term Phase of the Dockland Project	200
3.5.1 Introduction	200
3.5.2 Methodology	200
3.5.3 Specific School Data - School A	202
3.5.3.1 Diary Evidence	202
3.5.3.2 Semi-Structured Interviews	204
3.5.3.3 Participant Observation	206
3.5.3.4 Science and Technology Questionnaires	208
3.5.3.5 The DION Questionnaire	209
3.5.4 Specific School Data - School B	216
3.5.4.1 Diary Evidence	216
3.5.4.2 Semi-Structured Interviews	217
3.5.4.3 Participant Observation	219
3.5.4.4 Science and Technology Questionnaires	221
3.5.4.5 (School B) The DION Questionnaire	221
3.5.5 Specific School Data - School C	225
3.5.5.1 Diary Evidence	225
3.5.5.2 Semi-Structured Interviews	226
3.5.5.3 Participant Observation	228
3.5.5.4 Science and Technology Questionnaires	229
3.5.5.5 (School C) The DION Questionnaire	230

	Page
3.5.6 Specific School Data - School D	234
3.5.6.1 Diary Evidence	235
3.5.6.2 Semi-Structured Interviews	235
3.5.6.3 Participant Observation	237
3.5.6.4 Science and Technology Questionnaire	239
3.5.6.5 (School D) The DION Questionnaire	240
3.5.7 Specific School Data - School E	243
3.5.7.1 Diary Evidence	243
3.5.7.2 Semi-Structured Interviews	245
3.5.7.3 Participant Observation	246
3.5.7.4 Science and Technology Questionnaires	247
3.5.7.5 (School E) The DION Questionnaire	249
3.5.8. Specific School Data - School F	253
3.5.8.1 Diary Evidence	253
3.5.8.2 Semi-Structured Interviews	255
3.5.8.3 Participant Observation	255
3.5.8.4 Science and Technology Questionnaires	256
3.5.8.5 (School F) The DION Questionnaire	257
3.6 Within Site Analysis - Mid Phase	261
3.6.1 Dovetailed Issues in School A	261
3.6.2 Dovetailed Issues in School B	264
3.6.3 Dovetailed Issues in School C	267
3.6.4 Dovetailed Issues in School D	269
3.6.5 Dovetailed Issues in School E	271
3.6.6 Dovetailed Issues in School F	274

	Page
3.7 Cross Site Analysis - Mid Term Phase	277
3.8 The Late Period of the Dockland Project	281
3.8.1 Introduction	281
3.8.2 Methodology	281
3.8.3 Specific School Data - School A	282
3.8.3.1 Diary Evidence	282
3.8.3.2 Semi-Structured Interviews	284
3.8.3.3 Participant Observation	286
3.8.4 Specific School Data - School B	287
3.8.4.1 Diary Evidence	287
3.8.4.2 Semi Structured Interviews	288
3.8.4.3 Participant Observation	290
3.8.5 Specific School Data - School C	292
3.8.5.1 Diary Evidence	292
3.8.5.2 Semi-Structured Interviews	294
3.8.5.3 Participant Observation	296
3.8.6 Specific School Data - School D	298
3.8.6.1 Diary Evidence	298
3.8.6.2 Semi-Structured Interviews	299
3.8.6.3 Participant Observation	301
3.8.7 Specific School Data - School E	303
3.8.7.1 Diary Evidence	303
3.8.7.2 Semi-Structured Interviews	305
3.8.7.3 Participant Observation	307
3.8.8 Specific School Data - School F	308
3.8.8.1 Diary Evidence	308
3.8.8.2 Semi-Structured Interviews	310
3.8.8.3 Participant Observation	312

	Page
3.9 Within Site Analysis - Late Phase	314
3.9.1 Dovetailed Issues in School A	314
3.9.2 Dovetailed Issues in School B	317
3.9.3 Dovetailed Issues in School C	320
3.9.4 Dovetailed Issues in School D	323
3.9.5 Dovetailed Issues in School E	327
3.9.6 Dovetailed Issues in School F	330
3.10 Cross Site Analysis - Late Term Phase	333
Chapter Four - General Conclusion, Summary and Recommendations	342
4.1 Introduction	342
4.2 The Nature of the Innovation	343
4.3 Leadership of the Innovation	345
4.4 The H.D.P. Participants	348
4.5 The Innovating Institution	349
4.6 Critical Analysis of the Research Methodology	353
4.7 Implications and Recommendations	362
4.7.1 For Substantive Areas of Innovation	362
4.7.2 For Evaluators	364
4.8 Future Research	366
4.8.1 Methodology	366
4.8.2 Substantive Areas	366
4.9 General Conclusions	367

Appendices

	Page
Appendix A - The Factors Necessary for Successful Curriculum Change	369
Appendix B - Teachers' Perceptions of Change	371
Appendix C - The Dimensions of Change	372
Appendix D - Examples of Possible 'Costs' and 'Rewards' to Teachers arising from the Implementation of Innovations	373
Appendix E - Semi-Structured Interview Schedule	374
Appendix F - The DION Questionnaire	375
Appendix G - Evaluation Questionnaire : Primary Technology	382
Appendix H - Evaluation Questionnaire : Primary Science	385
Appendix J - Evaluation Questionnaire : Primary Science Module Analysis	388
Appendix K - Evaluation Questionnaire : Primary Technology Module Analysis	390
Appendix L - Overview of the Hartlepool Dockland Project Network Development	392

List of Illustrations

	Page
Fig. 1 The State of the Organisation	3
Fig. 2 A Conceptual Framework for the Study of Educational Innovation	7
Fig. 3 The Nomothetic and Idiographic Model	11
Fig. 4 Relations in Educational Change	11
Fig. 5 Research, Development and Diffusion Model	51
Fig. 6 Social Interaction Model	51
Fig. 7 Research, Development and Diffusion Model in a Social Context	53
Fig. 8 The Problem Solving Model	53
Fig. 9 A Linkage View of Resource-User Problem Solving Model	56
Fig. 10 The H.D.P. Conceptual Framework	116
Fig. 11 Components of Data Analysis : Interactive Model	120
Fig. 12 Diagram to Show the H.D.P.'s Data Presentation Format for its Early Phase	125
Fig. 13 School A. Context Chart - Early Phase	181
Fig. 14 School B. Context Chart - Early Phase	183
Fig. 15 School C. Context Chart - Early Phase	185
Fig. 16 School D. Context Chart - Early Phase	187
Fig. 17 School E. Context Chart - Early Phase	190
Fig. 18 School F. Context Chart - Early Phase	192
Fig. 19 Scatterplot Comparison of Initial Project Planning Outcomes	197
Fig. 20 School A. Context Chart - Mid Phase	263
Fig. 21 School B. Context Chart - Mid Phase	266
Fig. 22 School C. Context Chart - Mid Phase	268
Fig. 23 School D. Context Chart - Mid Phase	270
Fig. 24 School E. Context Chart - Mid Phase	273

	Page
Fig. 25 School F. Context Chart -- Mid Phase	276
Fig. 26 Progress through the Mid Term Implementation	280
Fig. 27 School A. Context Chart -- Late Phase	316
Fig. 28 School B. Context Chart -- Late Phase	319
Fig. 29 School C. Context Chart -- Late Phase	322
Fig. 30 School D. Context Chart -- Late Phase	326
Fig. 31 School E. Context Chart -- Late Phase	329
Fig. 32 School F. Context Chart -- Late Phase	332
List of References	395

I certify that all material in this thesis which is not my own work has been identified and that no material is included for which a degree has been previously conferred upon me.

Signed...

E H Walton

The copyright of this thesis rests with the author. No quotation from it should be published without her prior written consent and information derived from it should be acknowledged.

ACKNOWLEDGEMENTS

I have received an immeasurable amount of help and support during my research from many people, too numerous to list here. However, I wish to thank them all and to place on record my particular thanks and gratitude to the following:

- the headteachers and staffs of the Project schools;
- Mrs Lilian Colquhoun, my typist;
- my long-suffering family, John, Tom and Jonathan;
- and, above all, to my tutor, Keith Morrison, for his quiet, effective persuasion and helpful advice.

CHAPTER ONE - THE CONCEPT OF CHANGE AND INNOVATION IN EDUCATION

1.1 Hoyle (1972) in Bolam (1974) defines change as a generic term which comprises a group of allied concepts (eg innovation, development and renewal). Everard (1985) also states that 'For practical purposes we can ignore the semantic differences between these words' change, innovation and development. However, Paisey (1982) contends that the words change and innovation in education are used interchangeably and confused with one another. He argues that the terms need to be clearly distinguished for practical purposes in the management of organisations Paisey states that

'Change is the province of chance and random events which arise both from inside the organisation and impinge on it from without. They serve either to deflect the organisation from its agreed and declared purposes or alternatively to serve them. Such events may be entirely fortuitous as well as designed to injure or assist the organisation'

(Paisey, 1982, p.180)

Therefore, he stresses, that remaining true to the organisations purposes and objectives in the change state as defined here is the essential management task. In this sense change is a natural part of the constant ebb and flow of life in which organisations must solve problems created by change in order to ensure its survival and effectiveness.



Paisey holds that, in contrast, the concept of innovation

'may be reserved for specific and focussed events which are deliberately introduced by management in response to or in anticipation of, perceived change. Innovation is a new or different departure - a creative rather than a repeated or stereotypic response. It represents solution seeking activity in response to the problems created by change and is generally characterized by a practical rather than a reactive attitude and stance. It particularly represents a reassertion of rationality in the face of increasing instability, confusion and entropy. Its purpose is to reconstitute, renew and re-energize the organisation in relation to its objectives.'

(Paisey, 1982, p.180)

Paisey (1982) diagram (Fig 1) states the distinction between change and innovation. It shows that in this model innovation is an invention deliberately introduced into a specific organisation which will affect the ideas, behaviour and materials within the organisation. Organisational life is constantly unstable - the degree of instability being the major variable. Internal and external change exerts pressure and demands upon the capability of the organisation which then requires innovation as a modifying strategy.

Fig 1 State of Organisation

	<u>First</u>			<u>Second</u>			
Need for Innovation	I	Change from Inside and Outside	I	Need for Innovation	I	Change from Inside and Outside	Need for Innovation

Key

I = Ideas

B = Behaviour

M = Materials (physical objects)

(Paisey, 1982, p.182)

Fullan (1985) suggests that the management of change might be regarded as the way in which people complete the task in hand or

'.... a process whereby individuals alter their ways of thinking and doing'

(Fullan M, 1985, p.10)

Sensitive issues are involved in the highly charged change situation process. Who is to be changed? Who is to do the changing? How is change to be brought about?

McLaughlin and Marsh (1978) point out that in their research they

'learned that the problem of reform or change is more a function of people and organisations than of technology'

(McLaughlin and Marsh, 1978, p.69)

Brown (1980) suggests that there is a need to establish a general prescriptive strategy for the effective implementation of change for the barriers to it are all too easily identifiable.

Whilst change can bring enjoyment, satisfaction, acquisition of new skills, new ways of working and efficiency, there are also many potential drawbacks explicitly or implicitly present for the adopters of innovation, Pierson and Gutkin (1983).

Initially, there is a sense of being deskilled, an increased workload, loss of confidence and a period of confusion which leads to resistance. Becher (1980) catalogues how many major innovatory programmes have had far less impact than had been hoped for.

School centred innovation, points out Hargreaves (1982), promised much from an effective method of managing innovations in schools to the realization of staff democracy.

Its practical success in actual instances is uncertain. Becher (1980) asks if this is because the patient won't take the medicine? The medicine isn't effective? The original diagnosis is faulty? The original analysis of the situation was

incorrectly formulated? It would appear that all of these influences operate.

Morrison (1986) in his model of innovation identifies the factors necessary for successful curriculum change. They include the nature of the innovation, the leadership, the participants and the innovating institution. (See Appendix A).

'One common element in all the strategies for education innovation is the conscious utilization and application of knowledge'.

(Nicholls, 1983, p.28)

Benne and Chin (1976) describe the most comprehensive analyses of strategies for innovation. They define the strategy as the science and art of planning and directing operations and utilizing the tactics necessary to solve the problem. Benne and Chin identify three major groups of strategies for innovation. The first is the empirical rationale group where knowledge is seen as a source of power. Man is seen as a rational being and the innovation is viewed in terms of the gains achieved by adopting it. The empirical rationale strategy is an optimistic view. The second group of strategies for innovation is the power coercive model where the emphasis centres on the directive approach, the

use of moral power and political and economic sanctions.

The normative reeducative approach centres on the use of behavioural and technological knowledge. The client system and change agent work collaboratively in this group of strategies. The latter two groups of strategies involve changes in attitude, behaviour, relationships and skills.

Bolam (1975) states that

'In any innovation process we can usefully distinguish between four major factors; the change agent, the innovation, the user system and the process of innovation over time.'

(Bolam R, 1975, p.274)

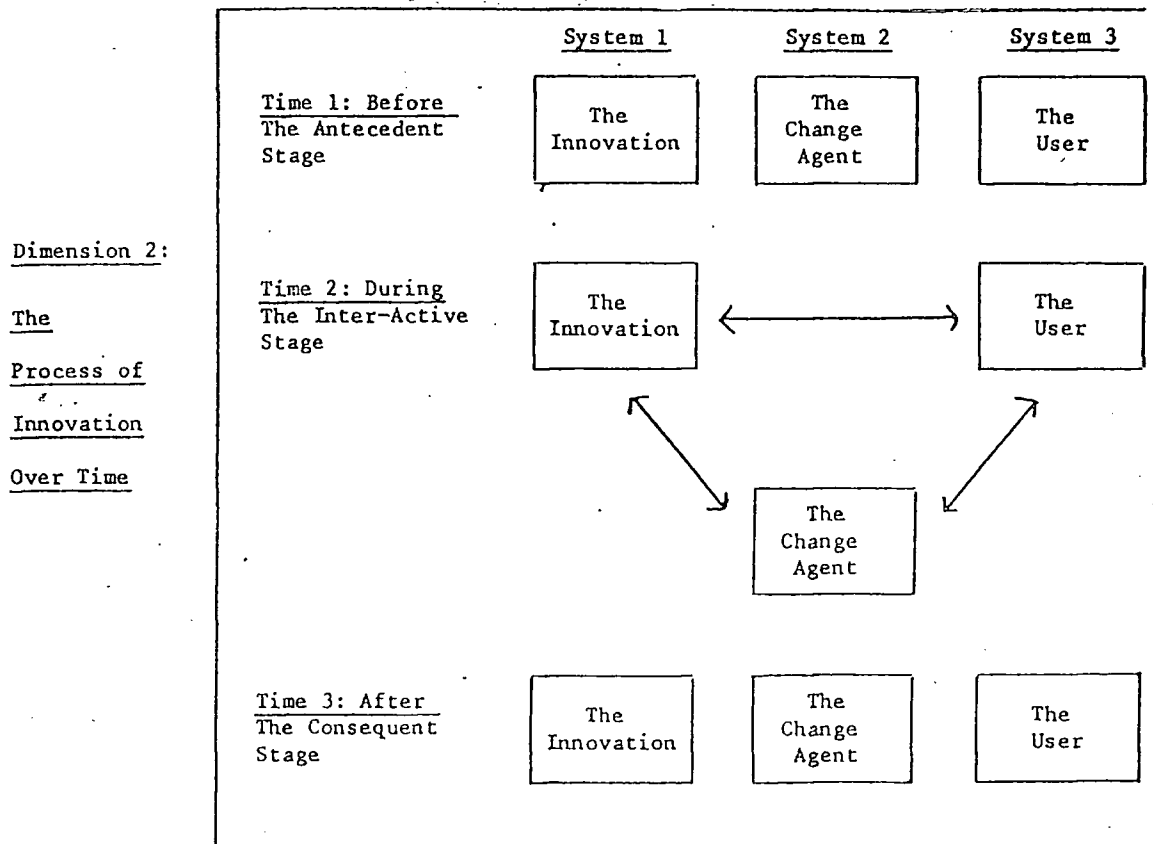
He represents the four factors as a two dimensional conceptual framework, (Fig 2) in which Dimension One indicates the change agent, innovation and user. Dimension Two indicates the innovation process over time i.e. the antecedent; interactive and consequent stages.

'We also have to recognise the way in which individual members of the three systems perceive their own system, the other two systems and the process over time may crucially affect the fate of the innovation'

(Esland, 1972)

Figure 2 : A Conceptual Framework for the Study of Educational Innovation

Dimension 1: The Three Major Systems



'Real changes or innovations in social systems do not have the same effects for all'

(Dalin, 1978)

'Discussions of innovation, therefore, should include not only a careful definition of what improvement has resulted but also who has gained'

(ibid)

1.2 Factors Influencing the Implementation of Innovations

Fullan (1983) identified four major groupings related to the implementation of change.

The first 'attributes of the programme' refers to the clarity, complexity and scope of the innovation and the quality of materials and information put before the participating schools.

The second 'implementation strategies', refers to the mix of persuasion and cohesion used, the extent of staff involvement and the type of staff in service training adopted.

The third, 'district and school factors' has to do with the influence and style of administrators and headteachers, the nature of inter-teacher relationships and the nature of the adoption

decision. To these we could add the influences of the children and of outside pressure groups.

The last grouping, 'extraneous factors', refers to the changes in leadership, strikes, changes in funding and resourcing etc. Fullan (1983) neglects those factors which have to do with working conditions and the needs of outside innovation agencies and consultants, but his views illuminate the complexity of the issue.

Mathias and Rutherford (1983) put forward six decisive factors in educational innovation. These are linkage, openness, gain/loss, leadership, ownership and power. This last factor is considered to be the most important. However, Mathias and Rutherford identify a more tentative seventh factor. That of resource. The availability to innovators of sufficient power within the system will often result in the provision of the necessary resources. In that sense, resources may be seen as a consequence of power and not as a separate factor.

Lewis (1982) stresses that in attempts to help schools to implement innovation one needs to look to the group processes within the school, systems of leadership and power-sharing which produce or hinder adaptability and effective collaboration.

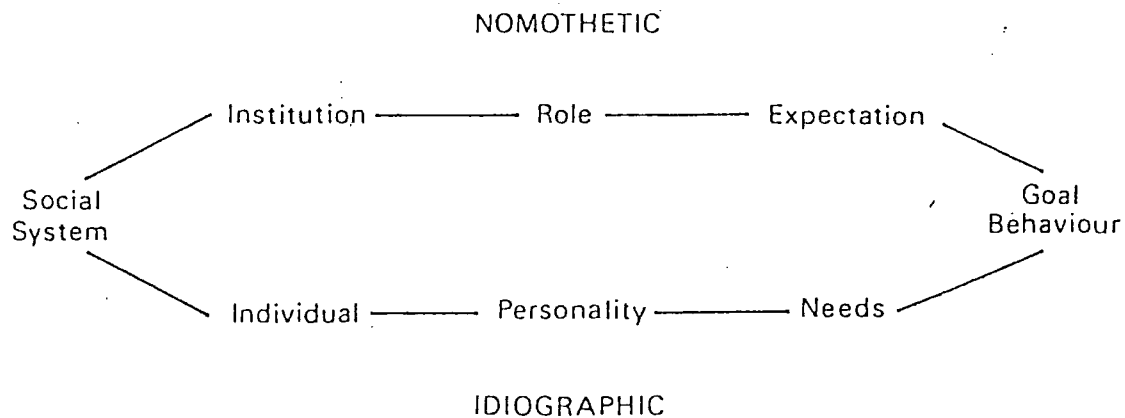
1.3 Schools as Organisations

Hoyle and McCormick (1976) identify two major strands of thought with regard to the concept of organisations applied to schools. Most changes in education take place within an organisational context. (Fig 3)

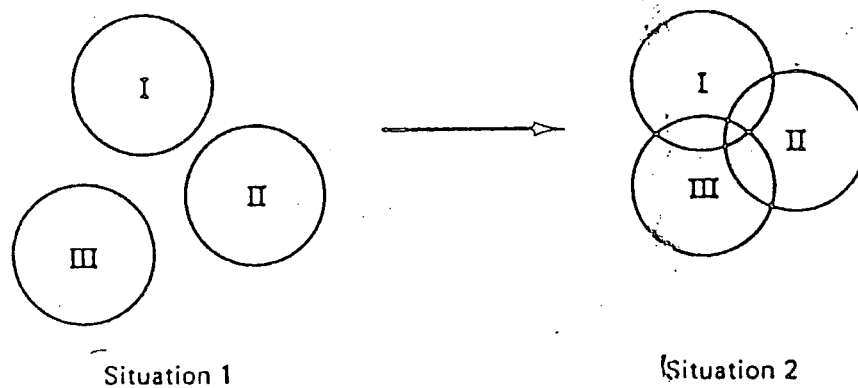
The Nomothetic or Structural view tries to understand the operation of the system from the perspective of an outside observer. Nomothetic refers to an abstract structural rule-following dimension in which the incumbents conform to the role pattern and actions expected of them. It focusses on the institution as a system of regularities of structure independent of the people working within it.

The Idiographic or Person Centred view takes as its starting point the workers themselves. It looks at their personalities and the concepts which they use to make sense of the world in general and their world of work in particular. It also looks at the needs of the individuals involved. This latter view is sometimes referred to as the 'phenomenological' emphasis.

Fig 3



HOYLE and McCORMICK (1976)



Relations in educational change. I, those who benefit; II, those who decide; and III, those who have to change

Fig 4

DALIN (1978)

The idiographic dimension conveys a model of the institution balanced by the incumbents. The role of the individual incumbent is balanced by him or her personality. The personality is viewed as a function of the incumbents needs and needs correspond to expectations.

Successful change in the nomothetic dimension occurs when new structures are imposed which bring about changes in the behaviour of individuals when they are asked to conform to a new set of roles. Successful change in the idiographic dimension occurs when the change springs from an individual within the institution who succeeds in influencing and converting others within the institution.

Gray and Heller (1982) suggest that the structural view is only behaviour viewed statistically. But Theodossin (1983) argues, that the structuralist and phenomenological approaches have more or less to offer depending on the scale and scope of the particular innovation. He states that the systems approach is helpful for innovations which take place on a grand scale at Area or National level which are all embracing and fundamental, whilst the phenomenological approach may have more to offer when the innovation is contained within a small number of people who can be identified and whose separate views can realistically be sounded.

Westbury (1980) maintains that 'the basic function of any organisation is the maintenance of its core functions. The possibility of change is predicated on securing and delivering its fundamental organizational mission'.

Schools, however, differ from industry in this sense. They feel market forces less acutely and are less accountable. Westbury (1980) goes on to state that schools are more likely to adopt cost raising innovations than a competitive firm and less likely to adopt cost reducing ones. They are more likely to adopt superficial change that does not alter institutional structure and less likely to adopt change that fundamentally alters authority roles and established ways of doing things.

MacDonald and Rudduck (1971) suggest that innovatory experience settles well only where teachers are already confronting problems and contemplating action. Webster (1976) argues that radical change is invariably the result of external interference precipitating crisis. Gray and Heller (1982) maintain that most changes occur at the margins of real issues and is usually in response to external pressure, rarely to pressure within the school itself. Lasting change only occurs when advice or insight offered from outsiders initially made individuals within the school question their

own view of themselves as teachers leading to genuine review and rejection of current practices and attitudes.

Gross, Giaquinta and Bernstein in Nicholls (1983) emphasise that many educational innovations 'cannot be implemented without the cooperation and support of a number of teachers'. Teachers, says Nicholls (1983) might find it more helpful to consider the idea and the adoption, planning and implementation of an innovation as a series or stages rather than as a single event. Nicholls (op cit) suggests that the orator may well see the validity of providing support to teachers when and where necessary, monitor the innovation over a period of time and understand the scale of the innovation when the existence of stages and associated activities are recognised by the innovator.

The main problem as Dalin (1978) sees it is that teachers 'invest their time and energy' in innovation programmes because of their 'content' bias. They lack understanding regarding schools as organisations and the process and management of the innovation within them.

The introduction of many innovatory programmes has been inadequate. There has been no structure for identifying problems. Staff do not know why the

programme has been initiated, what its purpose is or who will benefit. Therefore it would appear that such a programme is doomed to failure because of its unsystematic introduction to the clients.

Dalin (op cit) argues "that most reformers are 'content oriented' rather than 'process oriented'" the assumption behind this being that if we could develop better content and concentrate on setting goals, the system will benefit. However, process orientation advocates a clear understanding and development of the change process. Nicholls suggests that process orientation would include understanding the school as an organisation within a national and local linkage system. The need to be aware of human relationships, leadership patterns, organisational structures, incentives, creating conditions for the development of new skills in content, planning, monitoring and evaluation.

One aspect of the process oriented model which is crucial to the implementation of education innovation is the relationship between those who benefit, those who decide and those who change. Dalin gives two illustrations of these relationships (Fig 4). One shows the three as separate elements with no common purpose or identity. The second model is a Venn diagram

showing the three elements in relationships overlapping to reflect a common core, a shared ownership, a collegial approach to the innovation programme. The latter is more likely to reflect real needs and a commitment to developing the innovation.

1.4 Authority, Leadership and Power

Attempts to change organisations from a position of authority and power can, however, be subtle. Isaac (1980) calls this the 'power based' method of bringing about change. For example, headteachers have considerable power. Their central role is important, deriving from the traditions of authority their opportunity to see the school as a whole, their contact with messengers of innovation and the expectations imposed on them by the LEA. Whilst a leader changes structures and procedures, possibly even the goals of the organisation, the administrator maintains established procedures. As the headteachers role encompasses all of these elements, so the personality and administrative style of the headteacher is argued to be crucial. Many authors consider the variety of leadership styles of headteachers and the organisation and social ethos they create. These and the way decision processes occur within the school are

thought to have an important bearing on its innovative potential.

The importance of the role of the headteacher is recognised by several writers. Hoyle (1968) in Nicholls (1983) states that 'the rate and nature of the innovation depend very largely on him (the head teacher). MacDonald and Rudduck (1971) quoted in the same book, state that the headteacher within the innovation would require understanding, knowledge of curriculum development and

'be sensitive to tensions that invariably arise and provide a background of support, without dominance, for the innovating teacher'

(MacDonald and Rudduck, 1971, p.150)

Williams (1974) says that 'Ideally a climate must be created in which, innovation is accepted as a naturally occurring continuous process integral to the normal working pattern'.

Hargreaves (1982) questions whether teachers can reasonably be expected to participate in a democratic process of school centred innovation when the majority of them are excluded from other important areas of decision making?

Initially, efforts should be concentrated on the organisational climate and the quality and nature

of inter-personal relationships within the school. These efforts should include the fostering of better mutual understanding and collaboration so that each member understands the nature of his role and those of his colleagues and that they derive mutual aid.

An alternative way to promote change suggests Isaac (1980) is to promote it within the people who make up the organisation.

Gray and Heller (op.cit.) advocate counselling individuals within an organisation to promote their self awareness from which change can come. Their view is that organisational problems are better approached as problems of human perception and understanding. This approach attempts to modify behaviour moulded by the culture of the work situation where the norm appears to be that

'the old way of doing things remains the shortest path to approval within an organisation'

(Scale 3, E.S.G. Cleveland Urban Project Teacher)

1.5 Teachers as the Clients of an Innovation

MacDonald and Rudduck (1971) suggest an innovation, such as curriculum development, can demand an unlearning of teacher habits and a long time of

learning to handle new tools efficiently, until then it may appear less effective than the old way. This effect has been described as the Inverse Hawthorne Effect, Rubin (1969)

Teachers conservatism may be partly a question of accountability. Hoyle (1973) writes that teachers taken as a whole are: atheoretical, unimpressed by research, influenced in their curriculum decisions by factors internal to school and committed more to the joys of teaching than to educational objectives. They evaluate their work subjectively, cherish their classroom autonomy, get their major satisfactions from their personal relationships with pupils and approach teaching intuitively. When faced by alternative techniques and a narrow working definition of abstract terms, teachers are seen as restricted professionals in Hoyle's (op.cit.) terms.

Simon (1976) suggests that a truly professional education service should be concerned for the general welfare of its clients and society. It should be capable of identifying and responding to need and of playing a role, initiating debate and action concerning social and educational progress. For this, he claims, a broad based education in educational theory, psychology and social studies is necessary.

Hurst (1979) noted that, with regard to Initial Teacher Training, students and experienced teachers suggested that during initial training less should be taught about the theory of education and social studies. More time should be spent giving students a core of skills to help them cope in the classroom, with emphases on subject method, classroom organisation and management skills. However, Hoyle and Taylor (1973), feel that such a training for extended professionalism may be better given later in a teacher's career. Students, fresh from school, may be too immature in their personal development and certainly in respect to their understanding of job demands. It is argued therefore that school based in-service training offers the best scope for development and extended professionalism.

Hargreaves (op.cit.) takes a pessimistic view of the prospects for extending the professionalism of teachers but Young (1979) feels that teachers must participate in the management of their own affairs ultimately. Decisions made at school level, he says, effect the quality of a teachers work with pupils, which is a primary source of job satisfaction. Charged with responsibility teachers can no longer play a passive role. Teachers participation in decision making will expand their

perspectives beyond their classroom and promote interdependence of staff.

Hoyle and Bell (1972) suggest that peoples perception of change varies and this affects their interpretation of the factors of change. They hypothesise four types of teacher with respect to change ranging from those approving of it and believing that important positive changes are always occurring in education, to those disapproving of change but seeing the educational world crumbling around them due to new ideas. (see Appendix B) They suggest it is hard to modify these fundamental personality types and taking a view rather like the power-based approach to innovation suggest that the best that one can do is to provide a context which might modify such views.

Jenkins (1976) suggests that there is no real demand from either teachers or administrators for their own programmes to be evaluated. A teachers work culture offers no rewards for self appraisal, only penalties. Teachers, too, may have less than full faith in the motives, abilities and techniques of evaluators. Some may see themselves as operating intuitively or opportunistically and fear that evaluators methods take no account of that.

Hoyle and McCormick (op.cit.) make an interesting point that if governors, parents and the local community are to be involved in curriculum development as many have suggested that they should be, then should they not, too, be candidates for in-service education?

Since the change process is intended to be an improvement we might think that a good foundation of the process would be to ask 'What constitutes a good teacher?'

It isn't an easy question to answer as there are so many interacting factors in any context. However, consideration might be given to the generally applicable steps in the change process and to the problems there are within it.

The first step might be to establish the attitude of the change agents or critical agents as Paisey (1982) terms them. Herriott and Gross (1979) make an important distinction between managing educational change in the sense of dealing with a problem which has got out of hand, and, leading people towards a change in the manner that leaders diagnose problems and suggest solutions. There is a need for teachers to feel that they are involved in a collaborative process of participatory democracy for

'educational changes need to be tailor made for the particular community in question'

(Herriott and Gross, 1979, p.240)

The alternatives, are sometimes called 'top-down' or 'grass roots' innovations. The 'top-down' model is one in which the innovation is imposed upon teachers. It may be accepted, but it may be met with indifference or outright resistance.

The 'grass roots' model indicates that the innovation is initiated by the staff of an educational establishment thus promoting the school based form of in-service. Clearly it is preferable to an imposed form, but McLoughlin and Marsh (op.cit.) suggest that the results are not as good as might be expected because 'it was difficult to sustain initial enthusiasm and motivation' (p.73). Grass roots changes must overcome inter-staff personal rivalries and inter-departmental professional rivalries. It tends to make more demands on the staff than other forms of in-service. McLaughlin and Marsh suggest an amalgam of all the styles as 'collaborative planning'. They say that

' participants at all levels in the system were treated as partners in the process of planning for a special project effort'

(McLaughlin and Marsh, 1978, p.73)

An essential ingredient of successful change is the principle of conceptual clarity. This means that all participants understand what the innovation is and what its rationale is.

McLaughlin and Marsh (1978) state that for the change to succeed there should be some measure of consensus. The participants should feel that they are sharing the planning process with the in-service providers and that these people value their contribution, for

'teacher suggestions improved the implemented project and staff participation in reviewing and modifying project procedures significantly enhanced staff clarity'

(McLaughlin and Marsh, 1978, p.80)

It is sometimes necessary to admit that the innovation is unsuitable or does not, in fact, promote progress and therefore should not be introduced at all. Gross, Giaquinta and Bernstein (1971) comment that the reason why an innovation 'was ineffective may even reduce to the simple fact that it was not in reality operative' (p.7.). In its initial stages any programme must be regarded as Stenhouse (1975) suggests 'provisional specific'. Teachers should have the right to test the innovation for themselves. They, however, must be free from the restraints of 'negativism', that is, being too concerned with finding out what is

wrong with the programme. They should discover if anything is wrong, but then, suggest a positive improvement.

Time is a prime requirement when attempting to bring about worthwhile change. Stenhouse suggests that teachers

'must have time and opportunity for professional development. The conditions of teaching at present too often make survival a more urgent concern than scholarship'

(Stenhouse L, 1975, p.96)

Adequate time should be allocated for teachers introduction to an innovation, the implications of its introduction and preparation for its implementation. Too many demands are being made upon teachers time; they reach a point that Belasco and Alutto (1976) discovered in their Study in the United States of America where too little time '.... is given to the nature of the innovators and the nature of the social system within which they work' (p.8). They concluded that many staff in change situations reach 'decisional saturation' and innovation fatigue and simply give up.

There is a need for a sensible and just allocation of time to alleviate the natural anxieties and uncertainties in the initial stages. It is

important to accept that those who will carry out the programme have varying, perhaps conflicting, traits. They may be based in their varying ages, experiences and status. The occupational identity of the target users should be considered. They may feel that their sense of competence is being questioned, even undermined, and this could result in an undeserved decline in self esteem. Milstein (1982) says that 'Innovation designers, operating from distant plateaus have been so busy planning that they have rarely thought much about the commitment needs of those who have to operate the innovations'. Allocating sufficient time for target users to appreciate what is involved in an innovation programme does not conflict with the statement made by Cohen and Mannion regarding the 'principle of parsimony' which states that phenomena should be explained in the most economical way possible for regard should be given to the word 'possible'. Gross regarded teachers hostility to innovation as a potent reason for its failure. There was a lack of ability to perform the new role because staff did not know precisely what was expected of them and did not receive adequate help and resources to perform their new roles.

'The notion is that a teacher on his own will somehow find within himself the ability and drive to carry out new school programmes and practices should be questioned. This

perspective ignores the need that teachers have for stimulating and professional leadership'

(Gross, 1971, p.212)

The target users should be sure of the need for the change and see that there is a discrepancy between their present practice and that which the innovation proposes. They should be assured that the innovation will be an improvement on the current situation and that it will be effective. The innovator therefore, has a catalytic role rather than a coercive one.

Fullan (1982) states that '.... successful educational change involves two components: a theory of education relating to what should change and a theory of change concerning how to bring about that change' (p.4). Change should include an aspect of revitalisation and this cannot come about if adequate resourcing is not provided.

'Even well-intentioned change initiatives can create havoc among those who are on the firing line if support for implementation has been neglected'

(Fullan, 1982, p.x1)

McLaughlin and Marsh (1978) in the Rand Report suggest that the successful implementation of an innovation and the continuation of that process depend on certain crucial factors. Firstly, the

right message must be conveyed to the target users for 'institutional motivation'. Information provided must be neither inadequate or erroneous. Only with this safe-guard can teacher-participation be provided for. Teachers can be told to participate in the innovation but consultation is preferable. Teachers may wish to be involved in the innovation because they perceive the change to be good educationally or because they see it as an opportunity for professional and career development. Alternatively, they may come to want the change because of the force of 'collegial pressure'.

John (1980) in 'Leadership in School' reflects on the dilemma

'There always seems to be either too much interfering with individual freedom which is seen as tyrannical; or not enough, so that anarchy and licence seem to leave us less protected than we think we have a right to be'

(John, 1980, p.1)

Any effective practice depends upon effective decision making which requires effective problem-solving. The change agent-innovator must remember that change

'.... is as much moral and ethical in nature as technical and organisational'

(Reid, 1978, p.10)

The innovator should also recognise that target users must not be reduced to the position where

' people are afraid to risk assertions or on the other hand to contest them'

(Reid, 1978. p.52)

The right to challenge is not the hall mark of being afraid to change.

Within any innovation John states that

'It has been said that the main task of leadership is the removal of uncertainty'

(John, 1980, p.148)

for the target users. This statement leads on to another factor of Rands implementation-success which is the provision of the right 'organisation situation'. Leadership in this conflict is over-all authority, not individual leadership. Teachers should have confidence in the organisers of the change.

Bringing about change in educational institutions involves different approaches and styles. Many authors have identified patterns of style and approach often deciding upon three main strands although there are no parallel groupings among the authors. Dalin (1978) states that change is a

process, systematic and multi-dimensional phenomenon. He maintains that many innovations are 'content oriented rather than process-oriented', which means that the innovators assume that if new goals are agreed upon in terms of curriculum they 'could develop 'superior' content and the system would respond positively' Dalin, (p.9).

Change takes place in a number of stages over a period of time in the process phenomenon. 'It can be evolutionary or revolutionary in nature involving individuals institutions and sub systems. It is partly determined by forces outside the control of educators or institutions within the system'. How successful the innovation is depends ' to some extent on systematic efforts within the system to manage the process of change' Dalin (p.23).

The systematic phenomenon Dalin likens to a 'chain reaction'. The individuals and organisations involved in the innovation ' are linked through formal and informal connections influenced by external forces'. How successful the innovation is, in this model, is determined largely by

'the relationships and strengths of these forces over time and the way the change process is managed to cope with the systematic and dynamic nature of the situation'

(Dalin, 1978, p.23)

Dalin states that the change process in the multi dimensional sense involves multi-disciplinary theories and hypotheses. The change process is seen as 'political', 'technical', 'organisational', as well as 'individual'.

'Only a process analysis that takes the characteristics of the innovation and the setting into account can grasp the full meaning of the process'

(Dalin, 1978, p.23)

1.6 Styles and Approaches of Change in Educational Organisations

Isaac maintains that there are people based, power based and gradualist patterns of approach to promoting innovation. The first aims to change organisations by changing the way in which people behave within them. The power based approach adapts power to so alter structures that responses have to change. The gradualist approach arranges change in a gradual way possibly by trial rather than a fixed plan. Isaac (op.cit.) argues that the last approach is probably closest to the way in which teachers actually work.

Havelock (1971) also proposed three models of change. The first, Research, Development and Dissemination applies to agencies of curriculum innovation which develop new curricular centrally.

A prime example could be the early work of the Schools Council. The initial costs of this model are high and it involves cost planning. The central agency then attempts to sell the message, materials and techniques to the teachers. Although the materials are developed and produced by specialists there is little involvement by teachers at the planning and development stage. It is assumed that schools are alike in their needs. Havelock feels that this model applies to materials but not to methods and organisation.

The Social Interaction Approach advocates the promotion of a network of social relationships amongst the adopters of the innovation. Informed personal contact is a vital part of their innovation adoption decisions. The collegial approach is encouraged. The media are used and courses arranged at which the group membership may talk together and to advisors. This method of disseminating information is thought to be flexible and natural. However, it affects only a few individuals within an organisation and the brief and intermittent contact with them allows little opportunity for reflection.

The Problem Solving model is invariably centred on an individual establishment and its particular needs. The problem is then diagnosed, which leads

to a search for solutions. In this model innovations are generated by the teachers who will be implementing them and, it is suggested therefore, that they will be more committed to their implementation. However, the quality of the innovation and teaching materials may be inferior to the first model. Also, the innovation may seem appropriate to the school's needs but could be unsound in educational theory and practice. It is also a very time consuming model for teacher participation. This model also pays more attention to innovatory procedures than the innovation itself and requires a problem solving staff monitoring their work, aware of need and willing to explore a range of issues and topics.

Chin and Benne (1969), in Nicholls (1983), Bolam (1974) and Dalin (1978), also identify three models of innovation strategies. An empirical rational model, a normative re-educative model and thirdly, a power-coercive model. The first is a problem solving model very close to Havelock's (op.cit.) first two models. It takes an optimistic view of man. Research is disseminated with the idea that people will innovate as soon as their understanding is altered. This is the most common strategy used. Therefore it is the task of the change agent in this model, to demonstrate the validity of the innovation in terms of increased benefits to be

gained by the participants if they adopt it. Frequently the difficulty of ensuring innovation is looked upon as a personal problem by participants. The systems analysis methods sometimes used to bring harmony to a system in discomfort tend to overlook re-distribution of power and the present structure is usually taken for granted, feels Dalin.

Applied research in the school itself links research and the systems approach. It assumes, though, that research is neutral and objective and that new knowledge will be utilized. But, ponders Dalin, (op.cit.) knowledge in the social sciences isn't always power, as we often know more than we can put into practice.

The normative re-educative model aims to change a cluster of attitudes in the school and to use the concern and expertise currently available on the staff by increasing the self-awareness of teachers and improving their inter-personal relationships. This model, states Nicholls (1983) acknowledges the clients value system and implies less manipulation from outside. Bolam (1974) says that the normative-reeducative strategies invariably involve a consultant-change agent who works in cooperation with a client system and uses behavioural skills.

Dalin (op.cit) says that it is an optimistic assumption that there is the possibility for meaningful change through individuals alone. He feels that one may end up only tinkering at the margins of the real issues as individuals basically accept the status quo and merely make superficial alterations. The danger, he sees, is that the change agent has no values of his own; that he makes explicit and no change in the power and power relations within the system may occur. Therefore, any changes may be only transitory.

The power-coercive model, which is a centre periphery or top down approach, seeks to change structure by rule and directive like that promoted by Isaac (op.cit.). Communication is one way. Practitioners are powerless. Though there is an emphasis on political economic, legal and administrative power rather than an information as power, appeal may be made to sentiment, moral power, guilt and shame.

One can promote power redistribution and conflict as a means of bringing about change. Reward and punishment for staff as well as students, all target users, using grants, salaries, implied passing over for promotion etc are used as powerful motivators. The danger, says Dalin (op.cit.), is that creativity from energy may be diverted into

conflict and empire building and may not alter the basic problems common to the individuals working within the client system. Coercively one may obtain materials, techniques or organisation into a school but be left with very real problems of actual implementation by the teacher in the classroom.

However, Hoyle and Bell (op.cit.) point out that although headteachers have a lot of power with respect to the overall strategy of educational provision and to the oversight of service delivery at the macroscopic level, teachers work in relatively private and fairly autonomous settings and (as Sieber (op.cit.) says) they are the key decision makers for what actually happens in the classroom. Therefore, how they act is critical.

Hoyle and Bell (1972) argue that development in the classroom necessitates development in the teacher. There can be no school development without staff development. Innovations will be employed successfully only when related realistically to the awareness of teachers to their relative objectives and needs.

Hurst (op.cit.) makes much the same point when he stresses the need to analyse the logic employed by those who will actually decide the response made to

a proposed change - the class teacher. Hurst says that implementation must be planned in a side swipe aimed at curriculum packages developed centrally, so that it responds to the decision being made by the target population. After piloting an innovation with a few and then disseminating views about it to the rest it is not enough to simply leave the clients to make up their own minds. Hurst advocates that the innovation and client system must monitor the way in which the innovation is accepted or rejected so that one can ascertain the criteria on which rejection or low levels of use are based and adjust the innovation where fruitful, feasible and cost effective.

The latter three models described here rarely exist in their pure forms. For instance as Bolam (1974) sites '.... innovations frequently involve changes in both curriculum and organisation; innovators frequently employ, for example, both power coercive and empirical rational strategies'. However, Bolam goes on to say that

'.... The problem of changing role relationships and attitudes have been generally underestimated when introducing, say, curriculum innovation and that, accordingly, normative re-educative strategies have rarely been used'

(Bolam, 1974, p.18)

1.7 Consultancy to Educational Organisation

Acknowledgement that teachers have such power to affect what happens in the classroom has led many to advocate the use of a consultant or team of consultants working alongside teachers in the schools to help them to participate in the management of their own and their service's development. Bell (1979) identifies two major schools of consultancy; the expert and the non-directive. These are called Task Consultancy and Process Consultancy respectively by Bolam (1975). Expert or Task Consultancy is the usual mode, feels Bell (op.cit.) and involves an outside agent in helping the school to achieve a specific task.

Non-directive or Process consultancy aids clients to develop problem solving and decision making procedures and is interested primarily in clearing the ground for change, improving communication, changing the basic values and attitudes of part or all of the clients, creating an ethos from which they can agree an area of need. They may then work together to achieve a particular end, better valuing their own and the contributions of what may now be an expert consultant.

The problem-solver model is described by Havelock as a single model but Bolam (1974) argues that it

really comprises three quite separate elements. He argues that there is a problem solving user element, a task consultant element and a process consultant element all of which are mainly relevant to a micro level of study of change at the user level. The first element is based upon empirical rational assumptions in which the user system employs a cyclic problem solving approach. The task consultant model is also an example of the empirical rational approach and describes the role of the outside change agent/consultant who works with the client system on a specific problem. The third element, the process consultant model, is based on normative re-educative principles. In this model the change agent/consultant has a non-directive role and works with the client system to aid its decision making and problem solving procedures.

Dalín (op.cit.) argues that task consultancy alone will not suffice as the model assumes that man is rational and that demonstrating systems of greater worth is in itself insufficient to guarantee implementation. Therefore, the vision of the restricted professional is invariably narrow. Many teachers do not normally involve themselves in discussion debate and the thinking necessary for re-education. Therefore, some involvement of process consultancy may be necessary. However, the

change agent consultant in this model only may be greeted by scepticism and resistance from the clients whose perception of need may be specific and task oriented. There is a case here for arguing that the consultant should enter the innovation on a task consultancy basis and gain credibility before developing the additional role of process consultant. Dalin (op.cit) suggests that different models of innovation strategy and of consultancy must be employed at different stages in the innovation process.

Bell (op.cit.) says that process consultancy is still rare in Britain and that what work there has been is hard to evaluate. He feels that the climate is not set for change and evaluation to be valued highly as there are only ministries for specific changes not for change per se. Case studies of task consultancy alone or with aspects of process consultancy are fairly common.

Isaac (1980) gives a comprehensive list. Case studies of power process consultancy are much rarer. Lennox, Flanagan and Meyes (1979) used a questionnaire survey with follow up sessions for discussion with a school staff to reduce a tense atmosphere. The Principal of the American school involved requested the consultancy as a result of

formal complaints made by many of his staff. This is an example of change arising from crisis.

Mearns (1982) gives a personal account of his attempts to foster personal development with individual teachers. However, it is salutary to note that he felt the need to downgrade himself to appear humble and modest in order to promote the teachers' self esteem.

Gray and Heller (op.cit.) and Bolam (op.cit.) say that the inspectorial model perceived as evaluative and judgemental is inappropriate as teachers can never feel at ease. Research model consultancy where researchers are distanced and more concerned with the success of the project than with the help provided to the individual school, is equally inappropriate. Such projects are never owned by the clients something they say is essential for effective problem solving. Most organisations, say Gray and Heller (op.cit.), avoid proper analysis and identification of problems and prefer a solution that does not have to be seriously applied and which is often irrelevant. That is, they suggest, 'normal pathology'. It is axiomatic that organisations do not willingly seek solutions to problems they have. They want to remain unchanged.

One reason is the discomfort and ambivalence which individuals experience in the face of real change and the personal anxiety felt if they admit to error or fault. There is a protective myth in organisational settings that key members are capable of perceiving true organisational problems and offering clear solutions if only they aren't thwarted by the obtuseness or intransigence of others. In reality, say Gray and Heller (op.cit.), key problems always centre around key individuals.

Having made their case for process consultancy, Gray and Heller (op.cit.) go on to explain that confidentiality is crucial. It is tempting for consultants to see senior staff as their chief clients and divulge information received from others. This is unacceptable. Unless consultants are perceived as independent and no ones informers, reconciliation and problem solving cannot be achieved.

Wenger (1979) found greater satisfaction amongst teachers exposed to collaborative consultation than to expert consultation. Inexperienced teachers did follow the recommendations from the collaborative consultants a little better. But experienced teachers were more generally set in their ways changing far less under either system.

Szmuk, Docherty and Ringress (1979) identify four dimensions of consultancy which comprised direct and indirect service to the clients. Using a questionnaire they found that teachers were not happy to have the last two dimensions which concerned teachers and school systems looked at. It would appear that it was acceptable to change the pupils but not the teacher or the school. The survey also showed that consultants were happier with the delivery of their service to the clients, than the clients.

1.8 The Concept of a Linkage Centre

The notion of flexibility for consultants working alongside teachers in schools has been pursued in other ways. Hoyle (1973) proposed a Linkage Centre which is an intermediate between schools and agencies of curriculum change. The Centre could offer Linkage, support consultancy and in-service training.

Linkage is the gathering and exhibiting of resources and research findings, national and local. Local schools with similar interests could develop links with each other to create a better awareness of what is going on and sharing ideas for mutual benefit. Ongoing support could be offered

to schools participating in a national project long after the project team had gone.

Hoyle (op.cit.) envisages Linkage Centres offering the services of collaborative consultants. Unlike Sieber (1976) who advocates fairly autonomous untied individuals, Hoyle (op.cit.) sees his consultants working from and under the direction of the Linkage Centre. He stresses that in an innovation it is crucial that consultants should be up to date with new techniques and ideas. He, therefore, suggests that the staff of the Linkage Centre should be changed regularly, using secondment of teachers and advisors.

Hoyle (1973) feels that schools should largely organise their own in-service training, but that the Linkage Centre could provide resources and additional expertise. In-service should be aimed at operating groups within the school; not at isolated individuals. He stresses that in-service training should be associated with a specific organisational goal. The in-service programme should also include workshops, visits to other establishments and assessment of research work made available to the clients.

1.9 Strategies of Innovation

Brown (1980) feels that there are a number of general principles of strategy which must be clearly understood if the innovation is not to founder. Firstly, the meaning of the innovation should be clear and understood by both the clients and the consultants. Any incompatibility of values and facets of teaching should be identified and minimised. The logistics of the new demands upon the clients must be prepared for and resources, both administrative and material etc, must be available. It is important one feels, to anticipate conflict between ideological and practical matters planning for the resolution of this. It should never be assumed that teachers already have the requisite skills and adequate in-service training must be provided.

Package solutions are sometimes offered to teachers. Ideas should be presented to something which require development by the school using its own initiative. The implications for the changes in the power structure of the school arising from the innovation should be clarified and the accompanying incentives, disincentives and power struggles predicted. It should never be assumed that fundamental changes in teaching will follow administrative change. Change which is superficial

is all too easy to achieve. Finally, say Brown (op.cit.), consultants must ensure that teachers can see some reward for changing their behaviour.

Georgiades and Phillimore (1975) offer guidelines and tactics to achieve two major strategic goals. Firstly, aim to gain influence based on the expertise and ability available not by exerting influence through authority or power. Secondly, maintain the team as a team and maintain high morale in the face of strong pressure.

To achieve these strategic goals they offer several tactics. They suggest that consultants follow the path of least organisational resistance and work with forces within the organisation which are supportive of change. Limited resources are weakened by attempts to mount full frontal attacks so don't engage in mass training. Managers of moralisms should aim to produce a self-sustaining team of workers who are self motivated. They should be encouraged to discuss strategy and doubts and celebrate successes.

Those clients who aren't making the right kind of progress or who find the innovation too stressful should be allowed to exit gracefully. Members should not work alone in highly stressful situations but be encouraged to work in pairs or

small groups for mutual learning and support. Locate key people in the organisation through which the consultancy team can work.

Change requires additional energy usually during the period of transition as performance worsens even after the most beneficial changes until everyone learns to make the change work to its potential, seeking out key personnel is subtle. Those at the top, say Georgiades and Phillimore (op. cit), may be too personally identified with the status quo. Often those just below the top echelon have less personal commitment to the present and a higher drive for achievement. However, they stress, it is necessary to gain permission from the top for the innovation to occur even if those at the top say they don't want to do anything differently.

1.10 The Role of the Consultant

Gray and Heller (op.cit) remind us that the method by which the consultants enter a school is crucial. Too often, they say, entry is negotiated vicariously or by proxy and then the consultant finds himself with the wrong client or an unexpected situation to resolve. Entry must be negotiated with the true client who must understand

that he and not others may need to be the focus of attention.

The same point is made by authors who do not share Gray and Heller's (op.cit.) psychoanalytical views. Golby and Fish (1980) suggest that while it is unnecessary to have a map of the road ahead before consultancy, what is needed to avoid communication problems is a clear specification of roles, rights and responsibilities on both sides. These fundamentals may need to be re-negotiated with the clients as it often becomes clear that the problems are rarely material ones but usually involve personal relations and individual competence.

Rosenfield (1980) points out that consultants should be aware that they may have to acknowledge that the original issue has grown beyond their original brief. They may then need to re-negotiate the contract with the clients or allow the original brief to continue to its natural conclusion and then negotiate a new contract pertaining to aspects drawn from it. Either way, says Rosenfield (op.cit.) it is of paramount importance that every one involved, the consultants and client systems, are absolutely aware of the extent and limitation of the project.

1.11 Change Agents and Innovation Strategies

Havelock (1969) in Bolam (1974) recognised that the change agent in an innovation may play several roles such as conveyor, consultant, trainer, leader, innovator, defender, knowledge builder, practitioner and user simultaneously or sequentially. Change agents may use Dalin's (1973) in Bolams (1974) concept of innovation strategy as 'all available procedures and techniques used by individuals and groups at different levels of the educational system to reach the desired objectives'. Bennis, Berne and Chins (1969) three innovation strategies - power coercive empirical-rational and normative re-educative - may also be adopted. They are rarely used in their pure form and, Bolam (1974) states, change agent-innovators frequently use both power-coercive and empirical rational strategies in innovations involving changes in both curriculum and organisation. The problems of role changing relationships and attitudes Bolam (1974) believes have not been clearly understood when introducing curriculum innovation and therefore normative re-educative strategies have been ignored.

Havelock (1969) explains knowledge diffusion and utilization through the formulation of four models. The first model, Research Development and Diffusion

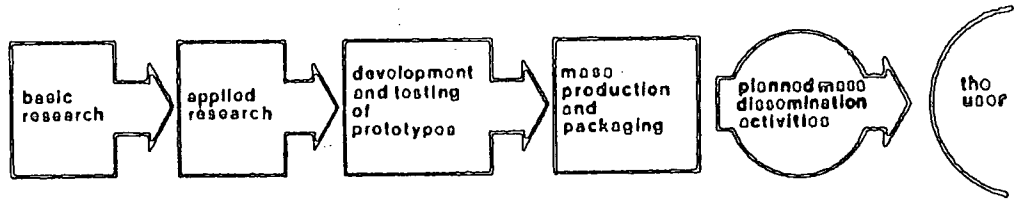
(Fig 5) is an empirical rational sequence of events. This model is used extensively in defence, advertising, agriculture, space, industry and education. Havelock (1969, op.cit.) lists the following assumptions which underpin the Research Development and Diffusion model.

- (i) Rational sequence in the evolution and application of innovation.
- (ii) Planning on a massive scale over a long time span.
- (iii) Division and coordination of labour to correspond with the rational sequence and planning.
- (iv) High capital development costs.

Applying these models one of the best examples would be the national impact of the Schools Council. (Walker, MacDonald, Elliott and Adelman (1976) Becher (1980) in Dockrell and Hamilton (1980) observes that 'In the Research Development and Diffusion model the external change agent is concerned mainly with the preparing and disseminating packaged solutions'

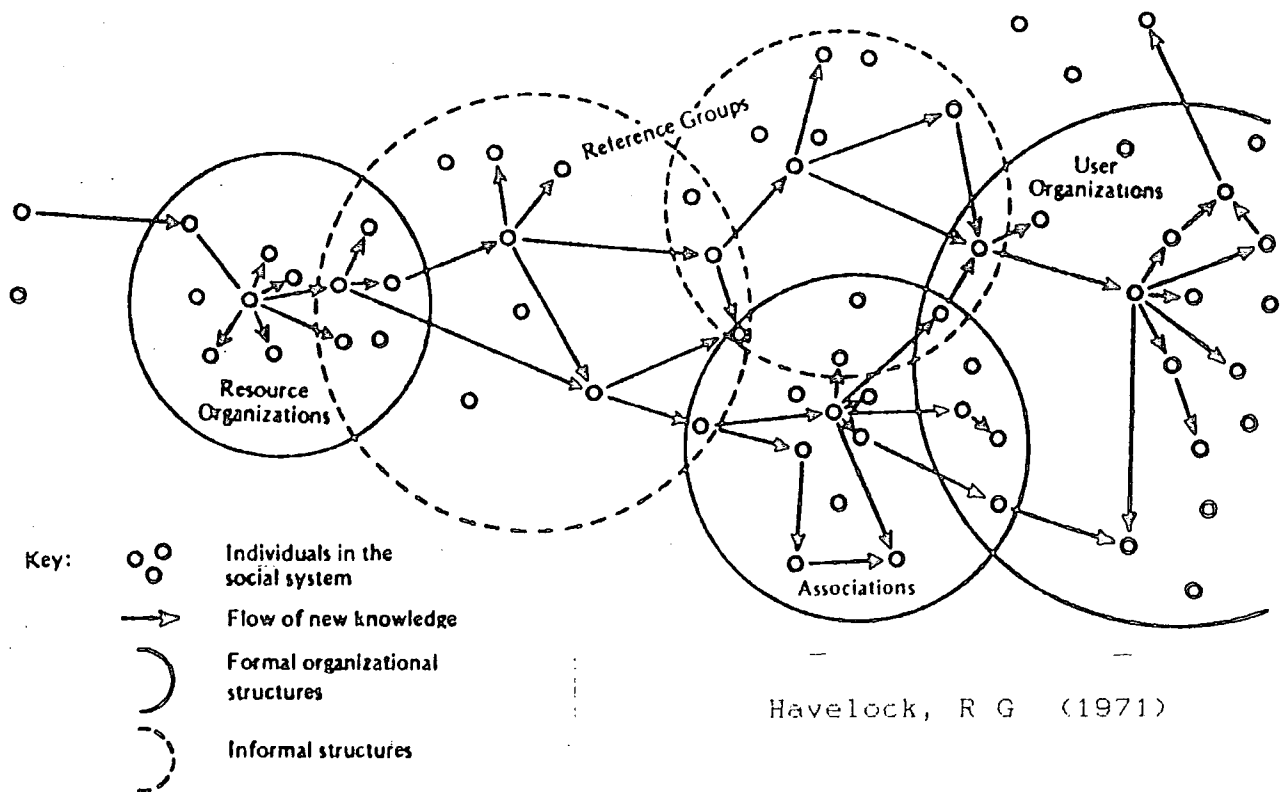
The distinctive features of the Social Interaction model (Fig 6) can be seen in most fields of human interaction and the evidence on which it is based comes from rural sociology. Its characteristics show that its users belong to a network of social relationships in which the place, central,

Fig 5 Research Development and Diffusion Model



Havelock, R G (1971)

Fig 6 Social Interaction Model



Havelock, R G (1971)

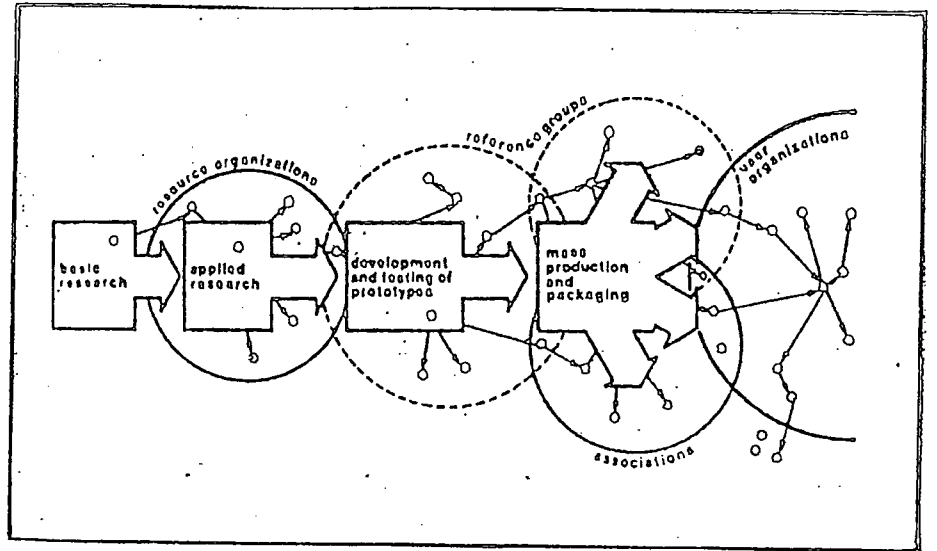
peripheral or isolated, of the user is a good indicator of his rate of acceptance of the innovation. Informal contacts are a vital part of the influence and adoption process. The group membership and reference group identification are a major predictor of individual adoption. The rate of diffusion through the social system follows a predictable 'S' curve pattern as it does in the Research Development and Diffusion model in a social context. (Fig 7).

The Social Interaction Model applied to education shows that the need for curriculum change has to be perceived by an interested and active group who disseminate ideas through networks created in an educational setting. Bolam (1974) points out that this model though categorised, perhaps, as an empirical rational process the users are more likely to be influenced by people whose judgements and opinions we respect and share. Bolam states that

'In de-centralised systems, this was until fairly recently (i.e. until about 1960 in the UK), the principal way in which knowledge about innovations in curriculum and pedagogy diffused through the system'.

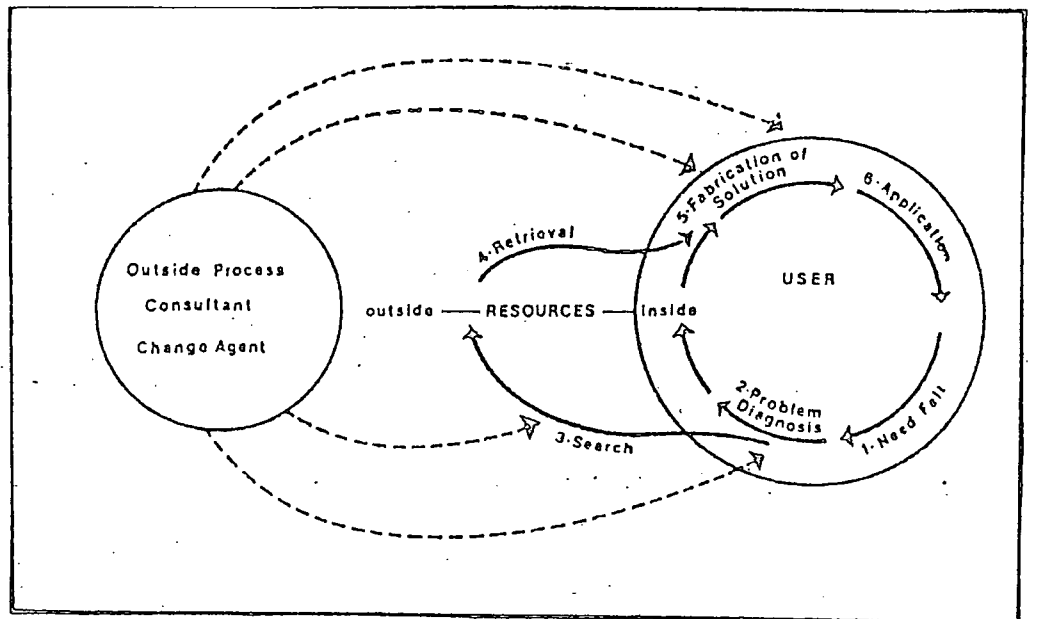
(Bolam, 1974, p.18)

Fig 7 Research, Development and Diffusion Model in a Social Context



Havelock, R G (1971)

Fig 8 The Problem Solving Model



Havelock, R G (1971)

Becher (1971) explains that in the social interaction model the change agent-innovator '.... concentrates on identifying and strengthening communication networks and promoting the exchange of ideas'.

Havelock's third model of development and dissemination the Problem Solving Model in which curriculum development can be typified (Fig 8) can be sub divided into a problem solving user model, a task consultant model and a process consultant model. The first sub model is cyclic and based upon empirical-rational aspects. The cyclic elements are user need, problem diagnosis, search, retrieval, fabrication of solution, application and evaluation.

The second sub model is also based on empirical-rational strategies and describes the role of the external change agent-innovator whose task it is to help the educational organisation with curriculum development, for example.

The third sub model is based upon normative re-educative assumptions. In this model the external change agent '.... acts as a resource consultant working in a non-directive relationship with his clients' Becher (1971).

The fourth of Havelocks knowledge diffusion models is termed the A Linkage View of Resource-User Problem Solving (Fig 9). It is an attempt to integrate the three preceding models. Bolam (1974) states that in this model Havelock is

'.... emphasising the need for linking procedures and agencies which both offer resources to the users and links them with more remote resource agencies. These resources could consist of curriculum materials from a central agency, consultancy, or information about other users with related experience or interests'.

(Bolam, 1974, p.19)

1.12 Resistance to Change

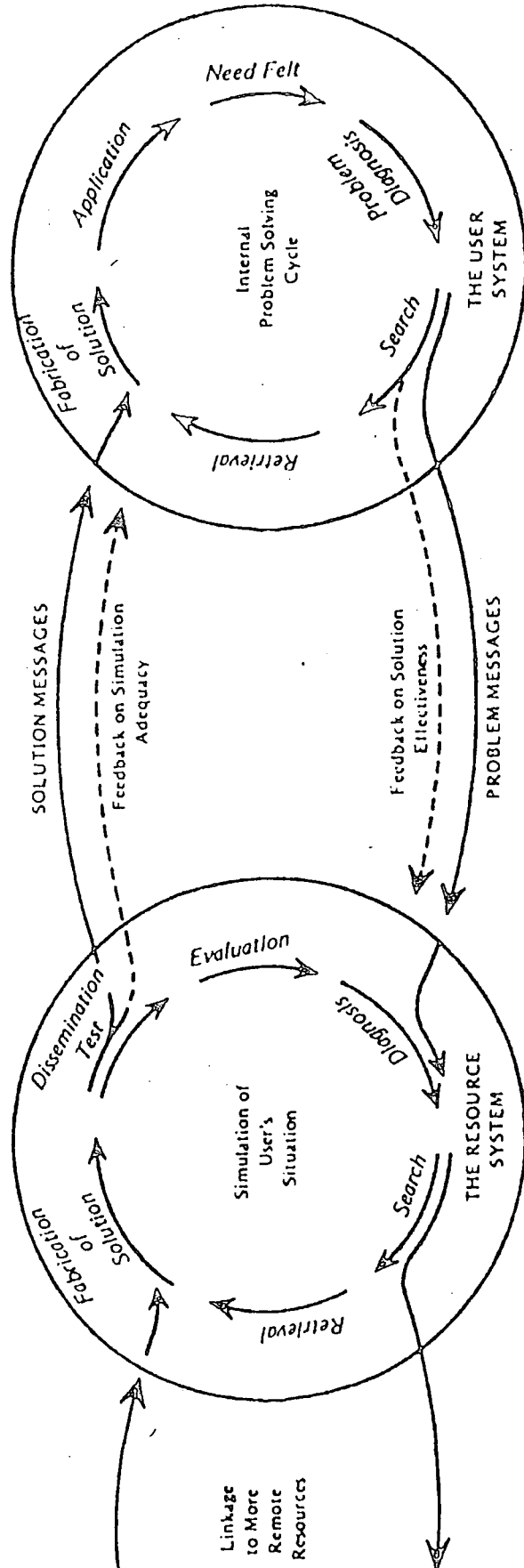
Piersel and Gutkin (1983) attempted a behavioural analysis of the problem of resistance to school-based consultation. These included types of resistance, their underlying causes, their likely form of manifestation and inferences about the likely state of mind of the subject are covered.

Gross, Giaquinta and Bernstein (1971) say that there is little research evidence to support the view that initial resistance to change is widespread and that the success or failure of innovation depends upon overcoming it. Nicholls (op.cit) concurs and states that

'It would be extremely naive to expect no resistance to proposed innovations'

(Nicholls, 1983, p.45)

Fig 9 A Linkage View of Resource User Problem Solving



She points out that resisters are often cast in the role of villains. Referring to Barnes (1967) in her research Nicholls (op.cit.) says that he argued that both advocacy of or resistance to change may be accompanied by rational or emotional behaviour. Rational resisters propound sound arguments for their opposition to an innovation. Havelock (op.cit.) supports Klein's (1967) concept of the rational resistor in the role of a defender. Klein is one of the few writers who sees positive elements of resistance. Klein feels that such defenders have an important part to play in the improvement of an innovation.

'In certain situations the participation of defenders in the change process may even lead to the development of more adequate plans and to the avoidance of some hitherto unforeseen consequence of the projected change'

(Klein, 1967, p.33)

If there is support for this view then it would be appropriate for innovators to take account of resistance rather than trying to overcome it.

However, this is an example of only one form of resistance. A number of writers have noted the facade phenomenon (e.g. Klein et al (1970), Smith and Klein (1971), and Esland (1972)). In this phenomenon the participants present an image to themselves and others which indicates that they

believe that the innovation is successful, whereas 'outside' observers note a different result.

Nicholls (op.cit.) points out there are numerous reasons for resistance by teachers. It can arise from misunderstanding, fear, ignorance, the burden of work associated with the innovation or, the need, occasionally, to 'opt out'. Resistance may be present but not expressed openly, Nicholls (op.cit.) and it may emerge at any or all stages of the innovation.

Innovators should take account of the extremely complex, sensitive nature and timing of resistance. Many authors felt that unless attention is paid to the causes of resistance the innovation is unlikely to be successfully implemented. If prepared, the would be innovator has a chance to design strategies to take account of the resistance.

1.13 Types and Stages of Innovation

While many authors concentrate upon the influencing and management of teachers, others turn their attention to the characteristics of the innovation itself. Prescott and Hoyle (1976) and Hoyle and Bell (op.cit.) note that change can have scale, degree rate, continuity and either linear or cyclical direction. (Appendix C) The different

weightings of a particular innovation on these factors can influence its chances of being adopted. A variety of forms of educational innovation are possible. Those involving teaching aids or materials are generally more readily adopted than modes of organisational or educational principles.

The process of innovation itself goes through four stages. The first is research or invention, next is development, then dissemination diffusion and demonstration and lastly adoption. Prescott and Hoyle (op.cit.) in setting out these stages are concerned with centrally produced curriculum innovations. In school centred innovation the stages might be identification and assessment of issues; discussion and consideration of possible routes to a solution; development of a particular idea and an initial trial possibly on a limited scale.

If real change is to occur it is crucial to ensure that new ways are built into a new pattern of working and that a regression to old ways does not occur. Prescott and Hoyle (op.cit.) first four stages are followed by the implementation of the innovation into a school and institutionalisation, which ensures that the innovation becomes a functional and relatively permanent part.

In Britain traditionally, the work of innovation agencies, has concentrated almost exclusively upon the first four stages of the innovation, the first three especially and the last two stages have yet to emerge. Too little planning and too few resources are put into them.

Walker, MacDonald, Elliott and Adelman (1976) stress that the regrading of centrally produced packages of materials limit their applicability in a particular school or classroom. Yet they agree, there is a dilemma. If the packages are flexible they run the risk that teachers 'knock off the corners to get the innovation through the doors of the school' and this may be done to such an extent that important educational principles, crucial to the innovation, are compromised.

Several authors considered the dissemination process in some detail. Hoyle and Bell (op.cit.) suggest that early adopters are likely to respond to more impersonal sources of information such as research reports, seminars and conferences. Late adopters are more influenced by the attitudes of their immediate peers.

In Havelock (op.cit.) social interaction model, the major difficulty with traditional forms of dissemination is that only brief contact without

demonstration is available to launch an idea and this offers relatively limited scope for reflection.

Rudduck (1980) proposes that greater attention be given to the process of induction for both teachers and pupils alike. Teachers, she feels, need a means of making informed judgements about the problems, benefits, demands and changes of lifestyle and culture involved in adopting an innovation and she therefore supports the sort of illuminative evaluation report advocated by Stake (1980). But pupils she says, are no less than teachers socialized into a culture and tradition of classroom activity and structure. Their definitions of the school and the classroom, she writes with feeling, can be powerful, conservative force in educational practice. She advocates that it could help to effectively introduce an innovation if pupils are helped to understand its nature too. It can't be done by illuminative research documents, she suggests and her own attempts to influence by way of seminars and conferences drew little response. She advocates modelling from peers already using the innovation. In practice this has been done by showing pupils and teachers films of classrooms using the new curriculum. An alternative culture was therefore legitimised for them and had a powerful influence.

Rudduck suggests that pupils were then more able to analyse its structure and move towards an exploration of the innovation. the pupils in this experiment were undergoing a trial and trials are often put forward as a means of offering teachers considerable information about an innovation. Hurst (op.cit.) points out that experimental adoption for a reduced time or on a reduced scale limits the risks but can also limit the potential gains suitable for trial. In education a new curriculum method may require a year's run and if it fails the loss or damage to students may be permanent, Davis (1983).

But while the technique of running a trial has its limitation it undoubtedly remains extremely powerful.

Before ever there can be dissemination and discussion of innovatory ideas, however, problems have to be identified or researched and possible solutions floated and developed. Braskamp, Brown and Newman (1978) discuss the credibility of an outside team working within the school. The message, they feel, is often seen the same but the bringer of it suffers more or less according to status.

Hoyle and McCormick (op.cit.) note the influence of the Hawthorne effect on the results obtained from the application of new ideas and techniques. This does not mean they say, that one shouldn't think that certain methods and messengers are not more effective than others, but it does mean that thought should be given to the ways in which teachers are encouraged to consider innovation.

Walker et al (op.cit.) remark how frequently project teams are comprised almost entirely of people working from colleges or universities. There is, they suggest, quite a gap between the world of academia and professional practice. Too often, academics make an assumption of the ascendancy of theory over practice, largely ignoring the way practice informs theory. The innovation product is often idealized by the team who see it as having been adulterated by the time it is implemented as a result of conservatism, ineptness and indifference. However, say Walker et al (op.cit.), it is clear that often in working alongside school staffs trade offs are negotiated along the way and what is implemented is closer to what was sold than is commonly realized. School staffs and project teams often operate under organisational conditions of conflict, paradox and constraint.

Jenkins (1976) (op.cit.) suggests that from the outset the project team and school need a core of shared assumptions of what he terms 'essential meanings' which have to be negotiated and transacted. He says that people tend to take the values of others as a frame of reference and curriculum innovation tends to manipulate this frame. Phenomenologists and interactionalists argue that it cannot be imposed as it is an organic process.

Because their grass roots were often in the classroom many project team members are torn between two images of themselves. The first is the grass roots ideology that they came from and the second is their perceived career. Cells within the project team and school form around different drummers or influential figures in a way quite unrelated to the structure of the innovation project. Team members may retreat or put personal loyalty above the ideals of the project in order to make life more socially comfortable for themselves.

Jenkins (op.cit.) offers some ironic metaphors for the way the 'actors' in the innovation construct essential meanings. In the 'Free Sample' metaphor the consultant is depicted as a representative peddling unsolicited goods. There are no obligations, therefore, on the school side and no

worry for the consultant concerning the use the innovation is put to. This can degenerate into suspicion of the innovation with it written off as 'Research' and at best only tolerated from politeness in a way that one might allow a salesman to exhibit or 'measure-up' for wares, but then send him away without an order.

In the 'Project as Theatre' metaphor the actors concentrate on visibility wearing gongs for past good practice and badges indicating future importance. The problem for the visitor consultant is that he may be classed as the ideal spectator rather than the co-producer. It is difficult in this situation to question and get others to question, the status quo.

The problems for the teacher from the school who, plays a major part in the development of an innovation is taken up by Shipman (1979) who cites Stonequists concept of the 'marginal man'. Such a teacher works on the fringe of the group comprising his school colleagues. He may suspected lack support and be seen as an alien lackey who receives and monopolizes resources. Shipman (op.cit.) suggests more support is needed for such teachers and promote the idea of support groups where teachers in similar positions could discuss their difficulties for mutual benefit.

Walker (1983) highlights the problems for the visiting consultant of being captured by an interest group and then becoming an object of suspicion or indifference to rival groups. However, mutual trust takes time to create. The dilemma of the consultant is that if he cannot become part of the situation under study he may fail to create the mutual trust necessary and some may then see him as having compromised the evaluation data.

Everhart (1977) points out the beneficial and counter productive tendencies which being a consultant 'friend' or 'stranger' to the system can have on the consultants receptivity to insight. The consultant needs psychological mobility in order to step in and out of the roles of people with different value systems.

Golby and Fish (op.cit.) are concerned for the credibility of any evaluation data and feel that consultants must maintain Outsider status and use it being sympathetically sceptical and asking, metaphorically, to be shown around the school so that the client is aware of the schools own imperfections.

Like Golby and Fish (op.cit.), Jones (1980) urges the need for clear jointly stated aims being made

contractually so that not only is the issue under discussion clear but the right of both clients and innovators regarding access to information, commitments to meetings feedback and the rights of withdrawal from the project or to request to look again at the contract are similarly clear.

1.14 The Costs and Rewards of Innovation

Given that the experience of school centred innovation can be so fraught, why do people become involved in it? Walker et al (op.cit.) provides, perhaps, the fullest treatment of this issue in the literature. What, they ask, do people stand to lose or gain? Their discussion points are relevant both to the client and the change agent. Headteachers may have gained that position because of a reputation as an innovator. Sometimes headteachers innovating may be seen by others as a Machiavellian ploy. Innovation can promote uncertainty and enlarge the Head's management power ruling, as it were, over chaos. But staff can play the power game too. For the route to promotion, self advertisement and reputation may be through espousal of some favoured innovation. This can be at the cost of dislike from other staff members and the danger of causing difficulties with the headteacher in taking on roles that are

traditionally his, for example selling the school and how go ahead it is.

Innovations threaten the power balance around the central values that are linked to identities and threaten to make taken-for-granted assumptions about the nature and value of education explicit, so creating new vulnerabilities, alliances and views as to what is possible.

Westbury (op.cit.) notes how change involves the dismantling of investments already made and as such is inevitably viewed with trepidation and suspicion by many because society often finds its common cultural meanings in the experiences that schools offer.

At a more mundane level, restriction in the provision of resources can put a gap between aspirations and reality, alienating the client from the vision of the Innovation.

Time can be a precious resource too and large unstable discussion groups meeting at difficult times may have insufficient time to discuss things adequately so that there is little or no chance for staff to acquire the skills necessary to cope with the stresses of innovation. Increased work loads may put staff under considerable pressure and there

may be losses from previous rates of efficiency prior to the appearance of any beneficial outcome (Rubins (op.cit.) Inverse Hawthorne Effect). Staff ambitious for promotion often think of moving out of the classroom into pastoral, financial, managerial and extra-curricula areas so asking them to put effort into classroom based innovation is contrary to their thinking. For some staff innovation may mean freedom from everyday chores and the chance to think and expand the mind, but to others it means bring isolation from colleagues, suspicion and unpopularity. Often such people become dependent upon the outsider - the change agent innovator.

Piersel and Gutkin (op.cit.) states that some teachers appear to enjoy talking about problems while actively avoiding the solutions. Having a severe problem can result in more reinforcement through attention and sympathy than the punishment meted out by the problem. This secondary gain, in psychoanalytic terms, is very different to cope with as clients in this position struggle to maintain their reinforcement and resist consultation.

Denying that a problem exists, ignoring the extent of it or spending as much time physically or mentally away from the problem as possible are

natural ways of dealing with stress and effective consultation precludes denying that a problem exists and so may arouse anxiety.

Observation of a teacher's lesson may also be very aversive if the teacher feels that the consultant's purpose for being there is to find out what is wrong. Traditionally children are 'blamed' for their own difficulties whereas many consultation models assume that the teacher is a crucial element of the child's educational environment, and therefore also a part of the child's problem.

Whilst many consultants would say that they take an equal share of responsibility for the outcome of an innovation, this sentiment may not be apparent to the client after an obvious failure.

New ideas, slowly assimilated create new orthodoxes and the motivations and politics may be more complicated than is at first apparent. The increased potential for teacher control of curriculum, welfare and general decision making in school is seen by many as vital for a truly professional stance, paradoxically means decreased individual autonomy at classroom level. Teachers are encouraged to enter into a functional interdependence in which their teaching comes under scrutiny of colleagues and puts a premium upon

informed professional debate. Teachers identified as outstanding by their superiors, said that they drew their satisfaction more from a personal response to pupils than to determining and achieving educational objectives.

'Our kindly old teacher nodding over the fire has visions of former students that dance in her head, not memories of last year's achievement test scores'

(Hoyle and McCormick, op.cit. p.53)

Many such valued teachers would perhaps lose a high degree of satisfaction when caught up in the strategies of innovation which involve collaborative enterprise. There is also a paradox that if teachers wish to resist some change then they must participate in the decision making process which means that individual teacher autonomy is being lessened and extended professionalism increased. However, the relative indifference of some valued teachers to group achievement is balanced by their considerable concern for individual achievement and progress. The question remains whether it is possible to replace some of these teachers' satisfactions with satisfactions deriving from the support of colleagues, the ability to control one's broader work situation and the opportunities for flexibility.

Frase, Hetzel and Grant (1982) record an attempt to foster excellent teaching practices through positive encouragement and reward. Heads of educational establishments were asked to suggest teachers who excelled in the classroom. These were checked out and many were rewarded with gifts of hard and software for use in the classroom and even by cash to be spent on instructional materials for personal use. Subsequently the commitment, energy and receptivity of these teachers to innovation was adjudged superior to that of a control group of equally excellent teachers who were not so rewarded.

Brown (op.cit.) summarises these issues in a table of possible costs and rewards. There is a need she says to maximise the balance on the positive side. Too often scant regard is paid to having a balance at all. (Appendix D).

Ironically, there may be every incentive for innovation agencies to heed Brown's words. Sir Keith Joseph, when he was Secretary of State for Education, 'clipped the wings' of the Schools Council. No doubt, his reasons were partly ideological, conservation and innovation making strange bed fellows perhaps. But the efforts made over the last two decades to introduce innovations into the classroom have seen less change in the

pattern of teaching than their proponent hoped for and spent money trying to effect.

Concerned that exposure to school centred innovation projects can have profound repercussions upon teachers long after the event. Golby and Fish (op.cit.) urge that all concerned should consider carefully the rights and responsibilities of consultants and clients. They offer a list of possibilities and suggest that agreed conditions should be put into an initial contract with the emphasis upon valuing human beings as opposed to only making them feel valued.

1.15 The Implementation and Institutionalisation Stages of Innovation

Many authors feel that the implementation and institutionalisation stages of innovation are crucial and have not received adequate attention. Rutherford (1979) referring particularly to criterion reference based curriculum innovation programmes, suggests that often the outcomes fall short of expectation due to the lack of the support system to assist teachers in depth with how to use and manage the new curriculum programme. The programme may offer materials but may not say how to organize time resources and the classroom

setting. Staff then try to adapt new approaches to fit their old teaching patterns.

Rudduck (op.cit.) points out that if an innovation affects only part of the teaching programme then intervening styles of work may have an inhibiting influence on both teachers and pupils, staff should be alerted to the needs of the innovation and supported in meeting these until institutionalisation is achieved. Rutherford (op.cit.) suggests that some staff may need regular support for more than two years if the innovation is particularly fundamental.

Many centrally coordinated projects says Williams (1974) see schools only become involved in them at the adoption stage, not in the creation stage. There is, therefore, less commitment and implementation is a much more difficult exercise. It needs, he feels, adequate time to attend workshops and to follow up initiatives therefore cover will be needed. This often necessitates outside funding. Shipman (op.cit.) suggests a means of demonstrating to the administrators responsible for funding that investment by staff is crucial and is a measureable factor influencing the take up of innovation. He suggests a number of measures of commitment such as preparing materials, rearranging timetables and attending meetings. Looking at

factors across a number of schools, he found that those putting most in tended still to be using the innovation more fully much later and those putting most in tended to get the most committed response from the project team itself. Hoyle and Bell (op.cit.) comment, however, that Shipman's data on implementation in the classroom relied on questionnaires, not on observation.

Shipman (op.cit.) noted that Local Education Authorities tended to view their support of an innovation as a way of keeping teachers on their toes, active and promoting their professional growth. They were far less interested in the innovation itself as a set of ideas for promoting the growth of children, their knowledge and abilities.

1.16 The Effectiveness of Consultancy to Educational Organisation

Medway (1979) pointed out that the evidence for effectiveness of school consultation was sometimes inconclusive because of all sorts of philosophical, methodological design and measurement problems, especially the lack of a systematic follow up. There is also a massive problem whether the consultant did what was expected by the client as the research is often written up only by the

consultant. Medway (op.cit.) concludes, however, that behavioural consultation models do appear fairly effective at least in their own terms, usually backed by a form of initial contract between school and consultant against which success or failure can be evaluated.

Fine, Grantham and Wright (1979) consider the characteristics and skills of the consultant that will enhance a working collaborative relationship with teachers. They warn that success is multi-faceted, situation specific and a value judgement. It is possible to cheat on success depending on how it is defined. It is best to have prior agreed terms as after the event it is all too easy to rationalize, limiting the criteria and so seeming successful. They go on to list several guidelines including the need for the consultant to look after himself in order to remain effective; to remember that the client has the problem not he; to be prepared to start from where the client is and to give up cherished beliefs about how it ought to be; to remember to draw on colleagues and to be prepared to return to an earlier phase if an impasse occurs.

Gray and Heller (op.cit.) feel that training is a pre-requisite for consultancy. They list four requirements for an educational consultant. First,

he must understand the ethos of the educational system. He must also understand the organisational theory and nature of management. He must understand how individuals cope with themselves in organisational settings and he must have counselling skills, be personable, appealing and sympathetic.

While Gray and Heller (op.cit.) envisage a consultant's trainings course, part time, over one or two years, involving workshops, discussions, lectures and role play, Ward and White (1978) feel that there is no substitute for training involving real life issues in schools. They do warn, however, against too close an adherence to the crisis theory of receptivity to innovation, holding it to be potentially dangerous for most professionals to condemn others working practices in too forthright a manner.

Sally Brown (op.cit.) argues that there should now be sufficient understanding of the key issues in the implementation of innovation in schools for failure to innovate to be explained no longer in terms of barriers being put up by the school staffs. It should rather be considered in terms of what the innovators did or did not do. 'There is no failure of learning, just failure of teaching'.

CHAPTER TWO THE RESEARCH PROCESS

2 The Research Process

2.1 Origins and Outlines of the Hartlepool Dockland Project

2.1.1 Education Support Grants

Circular 6/84 (D.E.S. 1984) invited local education authorities to apply for Education Support Grants (E.S.G.), in support of expenditure in the financial year 1985-86. The stated aim of the Education (Grants and Awards) Act 1984 embodied in circular 6/84 was,

'to encourage local education authorities to redeploy a limited amount of expenditure into activities which appear to the Secretary of State to be of particular importance'

(D.E.S., 1984, p.53)

The Education Support Grants Regulations 1984, listed ten, 'purposes for or in connection with which grants are payable'.

Section 5, sub section (b) and section 3 had particular significance to the Cleveland L.E.A.'s E.S.G. application namely Section 5 the development of:

A pilot project devised with the following objective :

- (b) to improve the quality of education provided in primary schools in urban areas'

(DES, 1984, p79)

The DES grants made available in 1985-86 to support this facet of the 1984 Act: 'Improving the Quality of Education in Urban Areas', aimed to support education authorities seeking,

'through enabling teams to assist the head and staff of selected urban primary schools in raising pupil performance by raising teacher expectations and improving their schools' organisation'.

(DES, 1984, p63)

Section 3 specified, 'the teaching of science as part of primary education' (ibid). Initially this proposal was embodied within Cleveland LEA's ESG application under section 5(b), above. However, Circular 5/85 issued by the DES on the 7th August, 1985, invited applications,

'from those local education authorities who had already accepted support for primary science for 1985-86, but now wish to bid for additional resources, either to expand the scale of their existing plans or to take in the technological dimension.'

(DES, 1985, p.40)

Primary Science and Technology emerged as the main thrusts of the Cleveland LEA's ESG project, explored below.

High on the list of DES priorities in the introduction of ESG projects was the establishment of a small programme, involving 'up to nine LEAs in different kinds of deprived urban areas' (DES, 1984, p.63). They further specified that 'each scheme should be directed at a single type of area' (ibid).

An additional DES priority, expressed in circular 6/84, was the expectation for "successful projects to have a strong element of self evaluation' which would 'involve comparisons between chosen schools and other schools serving similar deprived catchment areas'. (ibid)

The DES envisaged ESG projects commencing in September 1985 and 'producing results and an evaluation within about 2½ years'. Within the circular it was declared that no scheme would be selected which proposed funding beyond 5 years. Project budgets were 'likely to involve about £40,000 to £60,000 of expenditure in 1985-86, rising to £70,000 to £100,000 in 1986-87'. (DES, 1984, p.64)

Local Education Authorities making ESG applications were required to submit the following information:

- '(i) the number of schools with which the team or teams would work;
- (ii) the type of locality (e.g. inner city, old outer urban area, isolated housing estate) and measures of its deprivation;
- (iii) the authority's preliminary views on a local model for the scheme (including the make up of the teams, the objectives to which they would work and the possible use of teaching and other resources);
- (iv) the authority's policy for urban primary schools, including its policy to counteract the ill-effects of falling rolls'.

(DES, 1984, p.64)

Finally, Section F, sub section 26 of the proposal stipulated that applications were

'invited to cover the cost of the enabling team, and also costs arising from, for example, the temporary employment of one or more teachers to release staff for non-poolable short course in-service training or the one-off provision of additional materials or facilities ...'

(DES, 1984, p.64)

2.1.2 The Cleveland LEAs Response to Circular 6/84

The application for an Education Support Grant, submitted to the Department of Education and Science by the Cleveland LEA was accepted in

January, 1985. In response to the demand made in Circular 6/84 that,

'Education Support Grants should have an important contribution to make in promoting continuing improvements in the education service and in assisting local education authorities to respond to changing demands;

(DES, 1984), p.53)

Cleveland LEA specified the general aim of their application as the establishment of a project,

'to improve classroom effectiveness in a group of primary schools'

In accordance with the 1984 Education Act, Cleveland further identified primary schools located 'in a single type of area', an 'area of urban deprivation'. (DES, 1984, p.63). Six mainly Social Priority Area (S.P.A.) primary schools, catering for nursery to eleven year old pupils, were selected to participate in the project. These schools, situated in the dockland area of the town of Hartlepool in Northern Cleveland County, became the fieldwork domain of the Hartlepool Dockland Project, referred to in the work from this point as the H.D.P. The Dockland area of Hartlepool has undergone significant economic changes since its nineteenth century zenith. Declining prosperity has been

mirrored by the lowered social conditions, reflected in poor housing and public facilities which the mid twentieth century improvements had only partially overcome. Numerous public and privately sponsored initiatives have still left the dockland area with major socio-economic problems. The six primary schools selected for the H.D.P. lay close to one another in this zone of urban decay. Indeed, the common factor which dominated their selection was this presence within the uniformly blighted socio-economic zone.

2.1.3 The Proposal

To conform with another of Circular 6/84 directives, the Cleveland LEA chose six primary schools in the Grangetown/Eston area of Middlesbrough, a similar socio-economic area to

'involve comparisons between the chosen school, (H.D.P.), and other schools, (Control), serving similar deprived catchment areas'

(DES, 1984, p.63)

Details of the 'control' schools are not presented, for apart from early joint discussions between the headteachers of both groups of schools, H.D.P. and control, and the H.D.P. coordinator, and the preparation of an initial

statement outlining current circumstances, subsequent comparisons were discouraged by the LEA and, in consequence, were not pursued.

'The Authority's preliminary views on a local model for the scheme' (DES, 1984, p.64), is encompassed in a brief statement which required the project schools to

'review their present position, decide on medium term goals and by cooperative, interactive and collaborative means attempt to improve their classroom effectiveness'

(Cleveland LEA, 1985)

Particular attention was to be paid to,

'extending and deepening curriculum and classroom practice in language, drama, art, science and technology'

(ibid)

Basically, the proposal was for a three year action research project in which teachers and children would be immersed experientially. There were, however, other implications involving amongst them challenge to organisation and management; review and appraisal of teaching methods; groupings; curriculum development and evaluation.

The local education authority was also charged, by DES in Circular 6/84, to provide details of the 'enabling teams' who would 'assist the head and staff of the selected urban primary schools' (DES, 1984, p.63). To this effect Cleveland LEA, on the 6th March 1985, seconded a primary head teacher for three years to coordinate the Dockland Project to act as 'facilitator, enabler and catalyst'.

The annual funding of the project which was to cover the costs of 'the enabling team', supply cover and 'one-off provision of additional materials and facilities' (DES, 1984, p.64), including the equipment of the project base, was £30,000 in the first year rising to £42,750 in the second and third years.

2.1.4 The Hartlepool Dockland Schools and Centre

The schools which vary in terms of size, denomination and facilities are not identified, in an attempt to preserve confidentiality, but, with a lettered reference, are briefly described in chapter three to provide the specific context for the case studies.

The six schools chosen by Cleveland LEA for the E.S.G. programme displayed the following common factors.

They are:

- situated in an Educational Priority Area (E.P.A.), or have Social Priority Area status, (S.P.A.), or both;
- affected by falling rolls, (in all but one case);
- primary schools with nurseries;
- in areas of
 - urban deprivation
 - mainly rented/council accommodation
 - high unemployment.

The coordinator was based in the H.D.P. centre which was located in one of the project schools. Within the school building a self contained suite of rooms was converted to meet the needs of the H.D.P. participants. The suite comprised a large, airy and light L-shaped section, a separate office for the H.D.P. coordinator and 15 hour clerk, a discreet, but accessible resource

area, a cloakroom, toilets and a refreshment area.

The pleasant decor and the quality and range of furnishings and equipment provided a comfortable project centre with a flexibility of purpose as

- a workshop, with handtools, reprographic equipment and other appropriate resources readily accessible;
- a social base;
- a conference centre;
- an office;
- a confidential interview area;
- a group discussion area.

The changing role and flexible nature of the H.D.P. Centre is presented in appendix L 'Overview of the H.D.P. Network Development'.

2.2 A Case Study Rationale

Introduction

The Hartlepool Dockland Project, (H.D.P.), was primarily concerned with educational innovation. The methods of data collection employed in its case study were therefore required to appropriately handle issues and practices of

change and innovation. The case study model adopted for the H.D.P. recognised that, whilst the characteristics of both quantitative and qualitative styles of data collection were of value to the case, the latter more adequately catered for the size of case sample and could more effectively respond to change processes involving people and their interactions.

The H.D.P.'s qualitative data collection process, driven by the ESG-sponsored sample size, built in a response to the interactive changes involving school, LEA and Project personnel. Accepting that change is a sensitive process, the qualitative research style was able to respond to the need for sensitivity whilst promoting the uniqueness of each of the case sites. A range of overlapping qualitative research methods, within a three phase programme demonstrated progressive focussing, were utilised to record, monitor and subsequently aid the analysis of the Project's educational practices, changes and innovations.

The Hartlepool Dockland Project (H.D.P.) which extended over three years presented multi-disciplinary and interdisciplinary studies of several facets of the primary phase curriculum, (see 2.1) and a wide variety of staff development programmes. The H.D.P.'s brief addressed such

complex procedures as:

- assistance offered to practitioners in study of issues arising in their own practices;
- the development and transference of practical professional knowledge and experience;
- effective methodology for facilitating organisational development;
- the identification of techniques for disseminating ideas about good practice.

The actions necessitated the training of staff from the Project schools to act as training facilitators of school based change and development. Data bases of innovation and curriculum renewal were established and encouragement given to the development and evaluation of school focussed study.

2.2.1 Case Study and Action Research

This section seeks to present those characteristics of case study which best describe and support the research method used to explore, record and evaluate the H.D.P.. As such, the section provides an explanatory selection of overlapping research strategies which jointly explore and support the evolutionary action

research pattern of the project and the case study processes by which this pattern was recorded and evaluated.

In the first instance a method was required to test and improve educational practices. Teaching and learning needed a method by which teachers could explore and improve their practice. Similarly, emancipatory action research provided a method for 'exploring and improving the practices which constitute the curriculum'.

At the level of school organisation it provided 'a method for exploring and improving the practices which constitute school organisation'. Most significantly Carr and Kemmis saw emancipatory action research as presenting,

Criteria for the evaluation of practice in relation to communication, decision making and the work of education. It provides a means by which teachers can organise themselves as communities of enquirers organising their own enlightenment'

(W Carr and S Kemmis, 1986, p221)

2.2.2 Case Study Qualitative and Mixed Methodologies

'Case Study is subject to a variety of interpretations'

(W R Kenny & A O Grotelueschen, 1984, p37)

These researchers qualify their statement by reference to definitions emanating from Stake and Day, who presented a qualitative interpretation labelled as 'natural orientation (R E Stake and J A Day, 1978); House, who, in his 'transactional approach' interpretation suggested that case study was almost entirely qualitative in methodology and presentation' (E R House, 1980); and to Smith who described case study as 'coming to be known by such varied labels as educational ethnography, participant observation, qualitative observation and field study'. (L M Smith, 1979, p316).

Increasingly, the trend appears to be less towards over polarisation of the difference between the positivist 'agricultural botany' approach and the interpretative 'social anthropology' tradition, and more towards a combination of approach that integrate those elements of both paradigms as required by the needs of the research situation.

The parameters for case study proposed by Kenny and Groteleuschen would appear to provide a sufficiently flexible description and useful start point for the project research when they suggest that case study may be marked by the following

'data are qualitative; data are not manipulated; studies focus on single cases; ambiguity in observation and report is tolerated; holism is advocated; humanism is encouraged; and common and/or non-technical language is used'

(W R Kenny and A D Grotelueschen, 1984, p.38)

Adelman, Jenkins and Kemmis equally considered case study as a collective term. Their definition was adopted in 1976 by the Cambridge Conference on the topic

'Case study is an umbrella term for a family of research methods having in common the decision to focus an enquiry around an instance'

(C A Adelman, D Jenkins and S Kemmis, 1976, pp 140-141)

Nisbet (1984) refers to a range of compatible research styles rather than a clash or confrontation between contrasting styles pointing out that 'spectrum' is probably a better term to use than range, as a spectrum has no sharp boundaries and that white light results from the mixing of different frequencies.

Illuminative evaluators, such as Crossley and Vulliamy rely heavily upon a variety of techniques which include : direct observation, interviewing, questionnaires, documentary analysis, compilation of research diary etc. Similarly Kenny and Grotelueschen are supportive

of case study that is characterised in 'reassuringly negative terms' such as 'non-experimental, non-quantitative, non-positivistic' (W R Kenny and A D Grotelueschen, 1984, p 37). The use of qualitative data is valued by Miles and Huberman for its ability to 'preserve chronological flow, assess local causability and derive fruitful explanations' (M B Miles and A M Huberman, 1984, p15). The findings from qualitative studies have, what is described by Smith (1979), a quality of 'undeniability'.

This research method does not reject quantitative data but subordinates it within an approach that is broadly interpretative. The general research strategy is, therefore, both adaptive and eclectic with the decisions of methodology being resolved on its merits to the case in hand of the best available techniques. Such a view parallels Jenkins (1976) who stated that illuminative evaluation 'was not a standard methodological package', and that the methods of investigation were themselves situational. Here Patton (1980) anticipated that an evaluation design may call for 'multiple method or methodological mixes'. Patton argued that information that was most useful in a given situation should be identified then methods employed which best suited the production of the required information. This

raises the question as to how pre-structured a qualitative research design should be. Miles and Huberman's stance is that it should lie 'off-centre, toward the structured end' (ibid). They accept that this degree of structuring reflects a series of imponderables - time available; existing knowledge of the phenomena under study; available research instruments and the analysis to be fashioned. This contrasts Cronbach's wish to cater for 'an open-eyed, open-minded appreciation of the surprise nature deposits in the investigational net' (L Cronbach, 1975, p 125). Tightly coordinated designs may be criticised for being less site sensitive than looser frameworks but the latter, if it truly was receptive to local idiosyncrasies could produce a colossal data load.

This case study accepts Miles and Huberman's view that qualitative research is essentially an investigative process and that this process requires a sampling pattern that involves decisions, not only about which people to observe or interview, but also about settings, events and social processes. The H.D.P. case study supports the statement that:

'Qualitative studies call for continuous refocusing and redrawing of the parameters of the study during fieldwork, but some initial selection is required. The conceptual framework and research

questions determine the foci and boundaries within which samples are selected'.

(M B Miles and A M Huberman, 1984, p37)

The conceptual framework is described as the current version of the researcher's map of the territory being investigated. Such practice is not at variance with the principles propounded in the case study rationale where support of illuminative evaluation still involved structuring to provide both progressive focussing and methodological triangulation. Indeed, while it is grounded in the interpretive phenomenological tradition and relies heavily on qualitative data, illuminative evaluation does not reject quantitative data. The method is typically eclectic embracing a range of techniques that include; observation and interviewing; collection and analysis of questionnaire and test data. The framework which emerges from this thinking is supportive of Tamir's definition of evaluation.

'a systematic collection, analysis or reporting of information relating to a specific programme or curriculum innovation by structured and less structured approaches, using formal and informal means for the purpose of facilitating decision making.'

(P Tamir, 1985, p5)

2.2.3 Case Study as a Unique Instance

Deriving from the rationale explored above, the evaluative case study methodology adopted in this research accepts in its definition that,

'a case study is an umbrella term for a family of research methods having in common the decision to focus an inquiry round an instance.'

(C Adelman et al, 1977, p 139)

or more briefly, it is

'a systematic investigation of a specific instance'

(J Nisbet and J Watt, 1984, p 73)

The range of case study definitions draws attention to the term's ambiguity. Here, the definition is employed for an unique instance, as a site and also for a collection of sites. Its generalisability thus resides in the reader rather than the data.

2.2.4. Case Study, Naturalism, Description and Detail

Stenhouse wrote 'Curriculum study is case study' (1975, p2). A view that a curriculum operates within a specific context and, therefore, that studying the curriculum naturally entails

studying its context. Analysts of curriculum change have similarly called for in depth studies of the school milieu. In this context, Dalin maintains that it is necessary to understand the culture of the school in order to identify change strategies which will be successful in the task of renewing the educational system. (P Dalin, 1978, p 1). The unique nature, environmental controls and developmental programme of the H.D.P., presented above, has required the implementation of a research strategy which embraces this view, in the belief that the one may not be separated from the other without some significant loss of understanding of either.

Analytical approaches to case study require researchers who observe the characteristics of the individual setting, probe it deeply then analyse the 'multifarious phenomena that constitute the life cycle of the unit with a view to establishing generalisation' (L Cohen and L Manion, 1980, p 99). Spindler (1982) also believed that it was better to have in-depth, accurate knowledge of one setting rather than superficial, possibly skewed or misleading, information about isolated relationships in many settings. Such a methodology possesses the advantages of having :- data based on reality; the possibility of producing generalisations of

considerable subtlety; a variety of permitted interpretations in dealing with social situations; real world situations where results are ripe for application; results that are capable of being offered in accessible forms in terms of language and presentation.

2.2.5 Case Study and Validity - Triangulation and Progressive Focussing

'the use of two or more methods of data collection in the study of one aspect of human behaviour'

(L Cohen and L Manion, 1980, p 211)

Triangulation can extend to methods, time, space, samples, researchers and perspectives.

One of the two forms of methodological triangulation identified by Denzin (1970), namely, 'triangulation between methods' which involved the use of more than one method in the pursuit of a given objective, had special relevance to the H.D.P. case study.

The use of progressive focussing aimed at allaying suspicion that case study research is 'essentially conservative' (Walker, 1983). This case study has both guarded against describing 'reality in order to create it', and against

accepting that the implicit is made explicit, the intuitive is made self evident and the abstract is made concrete (R Walker, 1983, p 163). Extending as it does, through time, the case study builds through its use of complementary research strategies so denying Walker's 'photographic analogy' in which he describes case study as capturing an instant in time and space which then can be held against a moving, changing reality (ibid).

Illuminative evaluation proceeds by a technique of progressive focussing. In addition to cognitive achievements, such evaluation in the H.D.P. also needed to appraise competence in decision making, problem solving and the organisation of action. Such research demands required a whole range of methodology in order to portray the phenomena, viewing the developments from a number of angles to demonstrate methodological triangulation. The combination of methods never adequately solve the problem of rival causal factors. Equally, as single methods reveal different aspects of empirical reality, a range of inter-related methods of observation must be employed.

2.2.6 Case Study and Generalisability

The analytical approach to case study as a dominant feature was challenged by Stenhouse who distinguished between case study research and research conducted in samples. He described the latter as being concerned to establish by calculation the relationship between a sample studied and a target population to which the findings in the sample are to be generalised. Whereas, he viewed case study as exploring the relationship between cases that may superficially resemble a sample as essentially a matter of judgement. 'Judgement of cases cumulate into prudence'. (L Stenhouse, 1982, p1)

The cumulative action of case study and its domination of the research process remained a major feature of Stenhouse, when, in 1982, he wrote

'it is quite impossible to meet the demand for description except through detailed case studies, and when such case studies are undertaken they dominate the results based on sampling. It is the case study data rather than the sample data that come to form the basis of judgement'

(L Stenhouse, 1982, p 4)

The data collection process and progressive focussing pattern of the H.D.P. case study, in its essence, is supportive of this view.

Increasingly qualitative researchers are using multi site designs with multiple methods to increase generalisability. Stenhouse defines a multi site case study as one in which 'a number of cases are studied at the same time' (L. Stenhouse, 1982, p 7). Here Miles and Huberman, 1984, employ the term 'cross site analysis'. The need is to identify the processes and outcomes that occur across cases, or sites, and the ways in which they are modified or fashioned by the contextual variations. Such an approach requires care in the preservation of the "local web of causality" (Miles and Huberman, 1984, p 151). Noblit and Hare (1983) urge the development of a cross-site method of analysis that has 'a theory of social explanation' that both preserves uniqueness and entails comparison.

2.2.7 Case Study as Illuminative Evaluation

The pattern of research, that is employed within the H.D.P.'s case study is reminiscent of the illuminative evaluation approach of Parlett and Hamilton, (1976). Attention is drawn to the wider contexts in which educational programmes



function. In particular there is concern for description and interpretation rather than measurement and prediction. Illuminative evaluators support qualitative research tradition and champion,

'school based case study focussing upon description and interpretation of innovation in context'

(M Crossley and G Vulliamy, 1984, p 195)

The H.D.P. programme adopted much of Parlett and Hamilton's description of the aims of illuminative evaluation. Attention was paid to the ESG sponsored programme, how it operated and how it was influenced by the variety of school situations in which it took place. Note was taken of the views of participants, as they related to the project's advantages and disadvantages and how intellectual tasks and academic experiences were affected. Principally, the case study aimed to 'discover and document what it was like to be participating in the scheme' and 'to discern and discuss the innovation's most significant features recurring concomitants and critical processes' (M Parlett and D Hamilton, 1976, p 144). Indeed, the H.D.P. case study sought 'to address and illuminate a complex array of questions' (ibid).

The acceptance of case study as 'an umbrella term' (above) is not without merit, for in spite of complications raised by the hybrid definition there is value in overlap. Lying behind this confusion of alternative definitions and practice is a rich and varied array of insights that manifest themselves into models or paradigms of curriculum evaluation. The principles of illuminative evaluation are valued in this context. Not only does the illuminative evaluator become concerned to 'familiarize himself thoroughly with the day to day reality of the setting or settings he is studying', but also to 'isolate its significant features, delineate cycles of cause and effect, and comprehend relationships between beliefs and practices and between organisational patterns and the responses of individuals' (Parlett and Hamilton, 1972).

The pattern that characterizes illuminative evaluation is embodied in its three stages: investigators observe, enquire further and then seek to explain.

2.2.8 Audience of Case Study

Harlen, (1982), pointed out the need to identify the intended audience. The H.D.P. paid great

attention to the approaches for collaborative tasks and carefully attempted to cater for ethical and political considerations by planning and agreeing strategies for dissemination and reporting, believing that

'reporting of evaluations should be tailored to reach the different audiences who might benefit from the findings'.

(R Murphy and H Torrance, 1987, p 313)

In the identification of the various audiences; the project teachers; school administrative personnel; interested citizens and groups; other teachers; public agencies and funding organisations, care was taken to prioritise concern to the 'project' teachers who represented a special audience, being intimately involved with the project coordinator in the evaluation itself. As the collated data was a reflection of their response to the evaluation process as well as their performance in the programmes, their rights regarding its use have been respected.

2.3 Action Research

2.3.1 Illuminative Evaluation - the Unique Instance

The H.D.P. research programme, in essence, 'a process model', saw itself as interpretative

research in which the aim was to 'transform the consciousness of practitioners and, by so doing give them grounds upon which to decide how to change themselves' (W Carr and S Kemmis, 1986, p 219). The project programme displayed harmony with the levels of 'emancipatory action research' (ibid, p 221) propounded by Carr and Kemmis (described above).

The applicability of illuminative evaluation to the process model used in the multi-site H.D.P. case study was regarded as sufficient justification for having incorporated its aims at length, within the text (2.2.7, above).

The pattern of evaluation followed in the case study relates to the stages set down by Stake, evaluating what he describes as 'antecedent, transaction and outcome data' (R E Stake, 1967). Such an evolutionary plan of action encompassed planning, executing and achievement stages in order to determine the degree of congruency between the intended and observed antecedent data, between the intended transactions and observed transactions, and, ultimately, the intended outcomes with the observed outcomes. The H.D.P. evaluation took care, in each phase, to see how well intention matched outcome. The variations in response between the

representatives of the separate sites and within site were duly noted and the instruments of evaluation that provided progressive focussing overall, were constantly reviewed and applied according to the needs for further exploration or clarification. In this manner, whilst the case study pattern adopted heeded the advice of those researchers who's methods are presented above, the unique structure that emerged reflected the controls of the project - its multi-site distribution and above all the individuality of the participants.

2.3.2 The Issues of Bias, Triangulation and Validity

The very nature of the H.D.P. which was dependant upon the evolution of change, rather than the specification of educational goals necessitated the adoption of such case study strategy. The project set out to avoid narrowly studying stated objectives, so providing opportunity to accommodate unanticipated outcomes. This strategy further reduced the risk of researcher bias and strengthened evaluator objectivity through goal-free conditions and in so doing challenged the 'Three Good Reasons For Not Doing Case Studies in Curriculum Research' presented by Walker in 1983. The need to reduce the risk of researcher bias was of particular concern in this

study where the researcher was also the H.D.P. co-ordinator, and where there were inherent dangers involved in the use of convenience sampling techniques (below). Whilst largely accepting Walker's claim that case study is an intervention in the lives of others, care was taken in establishing the H.D.P. case study to avoid what he described as 'uncontrolled intervention'. Apart from paying attention to goal-free conditions outlined above, the project further attempted to guard against case study research that presented a biased view, by the use of a range of progressively focussing research strategies, which jointly demonstrated methodological triangulation. Indeed the H.D.P. formed a setting for research most suited to the instances quoted by Cohen and Manion as being appropriate to the 'multiple method approach', that is

'holistic view of educational outcomes is sought';

'a complex phenomena requires elucidation';

'different methods of teaching are to be evaluated';

'controversial aspect(s) of education need to be evaluated more fully'.

(L Cohen and L Manion, 1980, p214,215)

The design of the H.D.P. case study, to which this relates, is explored in section 3.1. Effectiveness of communication within the instruments was introduced through pilot testing and progressive attempts were made to assess their validity and reliability. Throughout, the case study aimed to demonstrate that,

'The qualities by which the practitioners would want their actions to be judged are those of efficiency and effectiveness'

(S Grundy, 1987, p 55)

In an educational project principally concerned with improving the primary curriculum in a range of subject areas, the H.D.P. case study was further in sympathy with Grundy, who proposed that, 'the focus of action in technically informed curriculum projects is the interpretation of ideas' (ibid). The project aimed to utilise these interpretations to generate developments by which the products of this process were improved. In many ways, it may be argued, that the success of the project was judged in terms of tangible products. The separate study programmes and practical studies workshops produced many pieces of work through which the developmental process could be observed and to which the implements of evaluation were gathered.

2.3.3 Progressive Focussing

The complex nature of the H.D.P., the unique role of its coordinator in the networking situation combined with the lengthy evolutionary period of its developmental programme demanded an amalgam of evaluatory techniques and a progressively focussing strategy that carefully related to the project's critical phase. Such practice needed to be ongoing rather than applied at the end of the programme. Clemson's advice was heeded.

'Evaluation is not, and cannot be an add-on-bit, it is the basis of development whether this be professional, personal, or curricular.'

(D Clemson, 1983, p 77)

2.3.4 Ethics and Case Study

The H.D.P. case study made several attempts to broaden its data gathering instrumental base as the curriculum projects evolved. The formative evaluation was carefully monitored with participants receiving feedback which in itself helped shape the course of the development. In the selection and development of each of the evaluation instruments care was taken to remain within the bounds of respect for the personal privacy of the participants and to operate non-disturbance techniques within the school

situation. These procedural matters took heed of Pring's stated dichotomy concerning ethics,

'the publics' and evaluators' rights to know and personal rights to privacy'

(R Pring, 1984, pp 38-39)

and embodied the five criteria he set out to reconcile this dichotomy. The H.D.P. evaluator presented statements as to the kinds of knowledge that were required; presented interim reports; operated meetings at which interim evaluatory statements were open to scrutiny; information and opinion was treated confidentially subject to clearance by participants; and those evaluated were provided with opportunity to scrutinize the interpretation of collected data.

As, in many instances, the H.D.P. co-ordinator acted as 'the honest broker' in facets of course evaluation, and as the largely 'captive audience' provided numerous opportunities for convenience sampling, this need to demonstrate openness in all forms of evaluation was paid careful attention.

2.3.5 Multi Method Approaches to Data Collection

The H.D.P. research pattern concerned with the evaluation of developments in six locations

required the use of a multi-site case study strategy to establish the range of generality. However, the case study makes no claim towards generalisation beyond the project, but, rather remains, in the matter of perspective as a local survey believing that comparable research needs to be conducted on a broader regional/national scale before extended generalisations emerge. In this context the H.D.P. case study pays attention to the evolution of the programme and employs a range of field study methods to trace and record the emerging data. As such, case study offers

'an emphasis on synthesis rather than analysis and a means of approaching hidden curriculum, in formal social structures and unintended consequences of action'

(R Walker, 1983, p 155)

Such methodology, in broad terms, aids the understanding of the process rather than the products of scientific enquiry.

The H.D.P. examined phenomena relating to six educational settings so necessitating a multi, or cross-site strategy. Stenhouse, 1982, accepted the authenticity of such a practice,

'a single case or group of cases studies at such depth as the evaluation of policy or practice will allow, (usually condensed fieldwork).'

(L Stenhouse, 1982, p 9)

2.3.6 Curriculum Building

Miles and Huberman value the formulation of research questions for making theoretical assumptions even more explicit than they may have been in the conceptual framework. Value was also attached to informing what is needed to be known most, or first. The H.D.P. case study addressed four fundamental questions as part of its approach to curriculum development:

- 1 What educational purposes ought a school try to attain?

- 2 What are the educational experiences that could be provided that may attain these purposes?

- 3 To what extent can the educational experiences be effectively organised?

- 4 How can it be determined if these purposes are being attained?

The questions, apart from providing a useful basis for the H.D.P. programme, were ultimately incorporated into its evaluatory process.

The H.D.P. research questions are incorporated within the main fieldwork/documentation instruments. Although, to a significant extent, the pattern of research was determined by its programme, the case study, presenting and summarizing those developments utilized sampling techniques for which the parameters were set by the framework and the research questions. The construction of a conceptual framework for the H.D.P. case study drew on Stenhouse's 'patterns of fieldwork,' namely

- a collecting or evoking of documents
- b observing
- c interviewing
- d measuring and collecting statistics

(L Stenhouse, 1982, p 15)

However, these categories were embellished in both detail of fieldwork practice and especially in repetitive chronological dimension. The techniques ultimately involved in the staged research were:

- (a) Collection of documentary and background information, inclusive of study committee minutes associated with the curriculum innovations.
- (b) Diary/log keeping.
- (c) Semi-structured interview surveys.
- (d) Participant observation schedules.
- (e) Photographic and audio video recordings.

and, in an attempt to reduce the danger of over-reliance on subjective judgements implicit in this methodology;

- (f) measuring and collecting of statistics testing attitudes of teacher participants to respective teaching methods and programme implementation through the use of questionnaires, nominal group technique and Dion survey.

Although wishing to present the case study as a continuous process and in agreement with Clemson's view that 'evaluation cannot be an add-on-bit', but rather 'it is the basis of development' (Clemson, 1983), the volume of work

proved it necessary to create a staged framework which took heed of Tamir's 'four stages' : 'initiation, planning, materials development and implementation' (P Tamir, 1985, p 5).

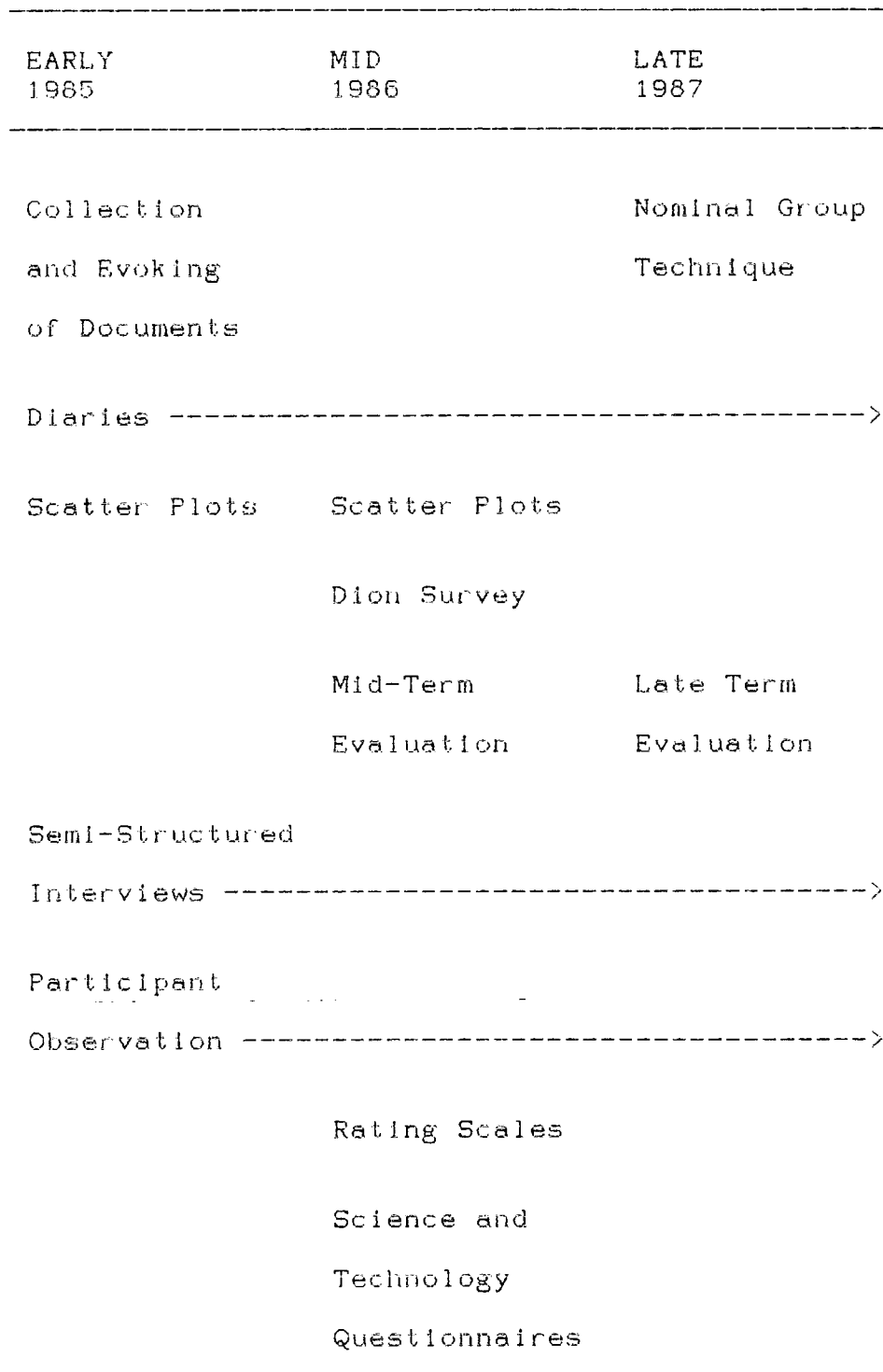
Tamir's stages, as well as facilitating planning, aimed to improve understanding by the reader. Similarly, House (1972) talking on the context of persuasion points out that,

'The producers of the data must assume some burden in seeing their information is properly understood. Simply wrapping up the baby warmly and leaving him on the doorstep at midnight does not absolve one of responsibility'.

(E R House. 1972. p 73)

An amalgam of Tamir's stages are embodied in the H.D.P. conceptual framework for which the matrix is presented below. (Fig 10) The adopted pattern emerged as : Introductory stage; developmental stage and culmination stage.

2.4 The H.D.P. Conceptual Framework (Diagram 10)



CHAPTER THREE - DATA PRESENTATION

3.1 An Introduction to Data Presentation

3.1.1 Data Reduction

An understanding of the problems facing researchers wishing to produce a useful case record, useful in the sense that it is accessible to critical assessment by other researchers, was provided by Lawrence Stenhouse (1977). Stenhouse differentiates between case 'representation' and 'presentation'. The former is described as data intended for use by researchers, whilst 'presentation' is defined as

'data organised in order to present to a reader an interpretation of its significance in relation to some topic, issue or problem'

(L Stenhouse, 1977, p33)

Case studies generate a considerable volume of material through the application of several research strategies in the search to establish methodological triangulation. Such case data requires selective editing and condensation to produce an edited primary source, a case record. An analytic survey, drawing together data from case records, may represent generalisations across cases which require presentation in a critically

organized fashion. The process of data reduction, which proceeds throughout the span of a qualitatively organized project, will focus, simplify and transform 'raw' field data and will itself become part of analysis.

3.1.2 Styles of Presentation : Narrative Text and Data Display

The most frequent form in which qualitative data has been displayed has been narrative text. Stenhouse describes narrative as having two strengths, 'it is simple and direct to read and it is subtle'. (L Stenhouse, 1982, p.24). Stenhouse's defence of the subtlety of narrative, due to its 'capacity to convey ambiguity concerning cause and effect' (1982, p.24) must be recognised and his attention to the requirement for ambiguity valued. By comparison Miles and Huberman not only find narrative too cumbersome, but, 'dispersed, sequential rather than simultaneous, poorly structured and extremely bulky' (Miles and Huberman, 1984, p.21). They further fear that, through the need to process large amounts of information, the qualitative researcher may accept hasty, partial, unfounded conclusions. To avoid narrative text overloading human information processing capabilities Miles and Huberman urge that,

'better displays are a major avenue to valid qualitative analysis',

(M B Miles and H M Huberman, 1984, p.21)

believing them to organize information in an immediately accessible and compact form. Here the diagrammatic or illustrative approaches are a form of presentation that do not necessarily mean quantification and are therefore suited to qualitative treatment. Attention, however, should focus upon the word 'better' in the preceding quotation. Complex illustrative or diagrammatic representations produce their own drawbacks which are further exaggerated where display is restricted to single colour, however coded. Here the unwary observer may be too readily tempted to establish incorrect relationships which in themselves may lead to incorrect conclusions.

The presentation of case study data should be seen as an integral part of the total case study process and, as such, will benefit from the honing that prudent data reduction process will provide. This process will tease out themes, provide summaries and produce clusters. The qualitative analyst may represent these patterns through the use of both narrative and display, but the preceding exploration of styles would recommend a more systematic, even list-like, use of narrative statements supported by limited self explanatory,

even simplistic, data displays enabling frameworks applied to quantitative data analysis to be applied in the qualitative domain. Such a format would have the merit of preserving the qualities of both approaches and may ably cater for the principles of illuminative evaluation.

3.1.3. Conclusion Drawing and Verification

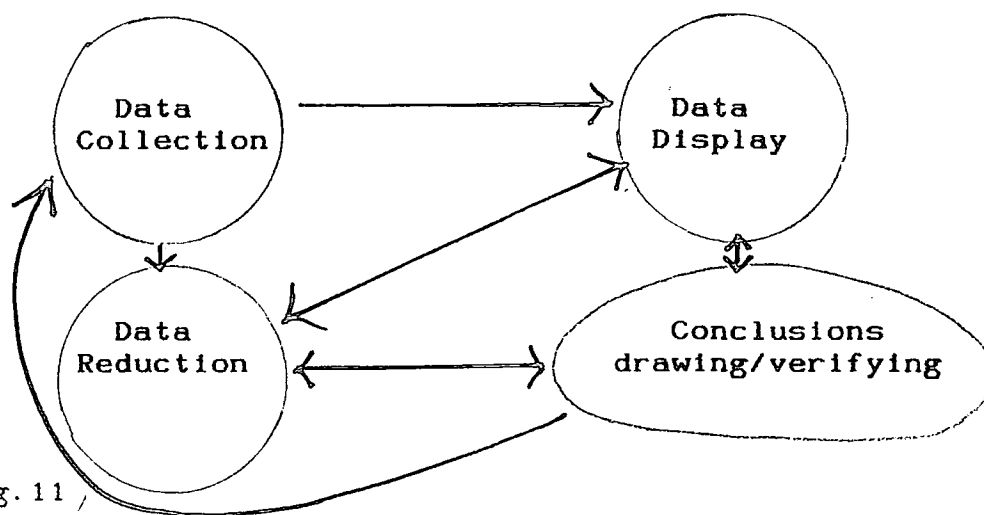


Fig. 11

Components of Data Analysis - Interactive Model

(M B Miles and A M Huberman, 1984, p.23)

The researcher normally begins with the area of data collection. A variety of data is collected eg. observations, interviews, extracts from documents and tape recordings. Thereafter, three concurrent flows of activity are involved in the analysis ie. data reduction, data display and conclusion drawing and verification. It is a

staged and integrative process model of data analysis.

The criterion of appropriacy of data presentation drives the format and analysis of the research process where the data analysis is appropriate to the instruments used to gather the data, the issues under investigation and the phase of operation of the project. At the outset a qualitative analysis attempts to: analyse meanings, note patterns or regularities; seeks explanations causal flows and possible configurations. Initially no attempt is made to formalise these patterns, but rather to maintain an openness of mind allowing issues of data reduction, of display and of conclusion drawing to inter-relate successfully as analysis proceeds. As such it is documented as a continuous process.

3.1.4 Factors influencing the H.D.P. data presentation format.

The matrix at the end of chapter two presents the phases of case study research utilised by the H.D.P. and indicates the instruments used in these phases. The data analysis is shown as being undertaken in relationship to three phases of the life of the Docklands Project - Early, Mid Term and Late. This programme is sensitive to the view

outlined in chapter one that innovation evolves over time, and also enables progressive focussing to be undertaken, recognising it to be a key feature of qualitative data analysis.

The dominant issues presented in chapters one and two set a context or analytical frame for approaching the particular data sets from the various instruments. The H.D.P. demonstrated a concern for change and innovation and as such required the components of data analysis to:- be aware of the allied concepts of innovation, development and renewal; take heed of chance and random events arising within and outside of the project; recognise essential tasks of management and the change agent. Similarly, care was required to accommodate factors influencing the implementation of the innovations:- H.D.P. attributes; implementation strategies; regional and school factors and extraneous factors that included leadership funding and resources. The format progressively examined schools as organisations, noting systems of leadership and collaborative practices and, as such, created a structure which aided the identification of problems. Use of progressive focussing defended the rights of the individuals and attempted to reduce bias, whilst supporting the principle of conceptual clarity by showing how the presentation of the case elaborated

the participants understanding of the innovation and its overall rationale. By dividing the data presentation into three phases, and by use of separate instruments required to demonstrate a variety of types of triangulation, it was possible to explore what should change and how to effect that change:- research or invention; development; dissemination/diffusion/demonstration; adoption. In this fashion the adopted phase sequence was able to address and illuminate a complex array of questions.

3.1.5 Implications of cross site analysis

The Dockland Project's six schools required in its final analysis, a cross site analysis. The instruments represented in the 'conceptual framework' relate to such an analysis, and are examined more fully below. In determining the pattern of presentation choice lay between presenting the data, case study by case study, or, instrument by instrument across studies. Analysis by the latter structure had the advantage of preserving the richness of each type of data across sites. Diary evidence, semi-structured interviews, participant observation etc., could each be successively presented from early to later stages. However, this pattern was rejected in the belief that it would lose the site specificity of the data

and would create enormous difficulties for cross site analysis. Following the separate instrument route would also lose the interrelationship of the data sets both for each site and for cross sites. The adopted pattern of the H.D.P. data presentation, having discounted the use of an instrument-based approach, explored the data case study by case study from an initial examination of school context and evidence from instruments; through a 'dovetailed' analysis i.e. the inter-relationship of salient features arising from the separate instruments, of single site issues to cross site analysis of the 'dovetailed' issues for each of its three phases.

Diagram to show the H.D.P.'s data presentation format for its early phase

4. Dovetailed Issues

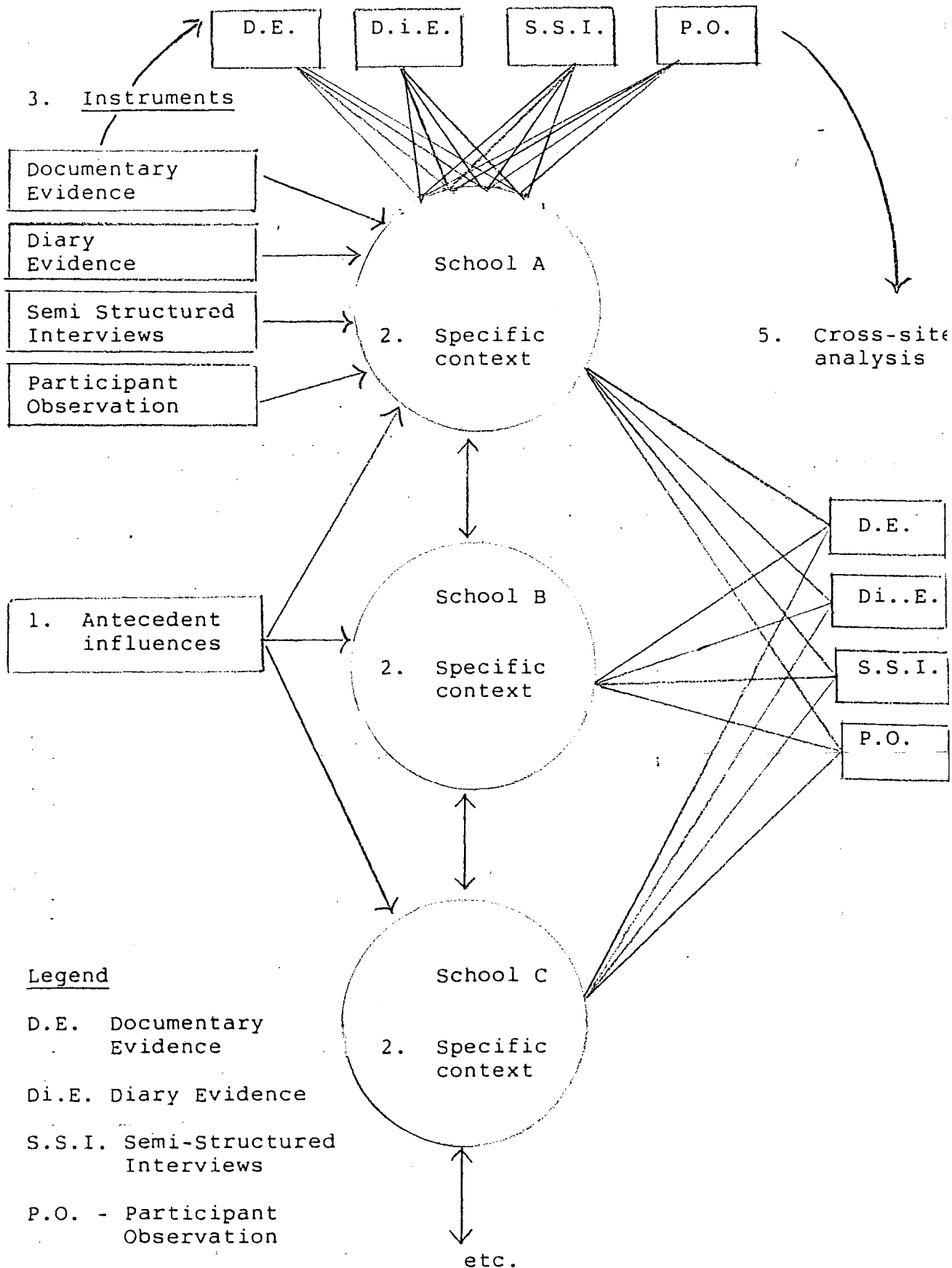


Fig. 12

3.2 The Early Phase of the Dockland Project

'Take no notice of the harvest but only of the sowing' (T S Eliot)

3.2.1 Antecedent influences

The final fate of an innovation is, to some extent, dependent upon the characteristics of the main components before the innovation process begins. 'Therefore', states Bolam (1974), 'it is necessary to have a clear understanding of the antecedent characteristics of the innovation, innovating and innovator systems'. He also points out that the change agent's relationship to the user system, in this instance the Project Coordinator's relationship to the H.D.P., is very important, especially if the change agent is also a member of that user system.

1984 - Educational Support Grant (E.S.G.) - circular 6/84 issued.

1985 - January. Cleveland LEA's response to Circular 6/84 accepted by the D.E.S.

- Six, mainly Social Priority Area, primary schools selected.

- Programme identified needs in language, drama, art, science and technology.

- March. Appointment of Headteacher - coordinator.

- Preliminary meetings of Project head teachers, LEA representatives with Coordinator.

- June. Networking courses for H.D.P. teachers; Language and drama; Art and Craft; Science and Technology.

- September. H.D.P. Coordinator in post.

3.2.2 General context across the H.D.P. Schools

The six Cleveland schools selected for the E.S.G. funded 'Dockland Project' are located in close proximity to one another in the former dockland area of the town of Hartlepool. Within this settlements' urban zones the dockland has undoubtedly suffered most from changing economic fortune. In common with other shipbuilding and repairing areas nationwide, the dockland of Hartlepool has lost its industrial base. Financial reinvestment on the necessary industrial diversification for an economic recovery has been

both difficult to attract and slow to implement. Consequently, the once proud buildings of the dockland have fallen into disrepair allowing low-grade, and, too frequently, temporary, alternative uses to be made of them. Slum clearance that followed in the late 1940's to 1960's has, in itself, created its own problems as rows of drab, look-a-like semi-detached buildings have replaced the decayed core of the area. Until recently, without an economic stimulus the dockland has been left as a mixture of industrial and warehouse relics submerged in a monotonous, post-war council sponsored development which to its essence is characterless.

The schools themselves have been greatly influenced by the declining prosperity of the area. High unemployment has, amongst other things, resulted in school amalgamations, falling rolls, lack of parental sponsorship for new equipment, fluctuations in attendance following seasonal patterns of parental work and the home absence of fathers working on distant projects. The school buildings echo the somewhat hasty approach of the slum clearance programme, for, whilst being the products of the 1950 - 1960's, the majority of the cellular buildings lack the imagination and flexibility of the modern school. Whilst not reflecting the work that takes place within them,

the majority of the school buildings form part of an uninspiring environment, the research for which lies outside the scope of this case study.

'Improving the quality of education provided in primary schools in urban areas', the very essence of the H.D.P., was used as the title for an introductory conference held on June 4th, 1985. the conference addressed four major questions:-

- What seems important as major factors in improving the effectiveness of classroom performance?
- What should we pay attention to when considering how to make teacher style more effective?
- What needs to go on in the classroom?
- How can children's attitudes and expectation be strengthened?

3.2.3 The Specific Context of the Project School

The schools are not identified in an attempt to preserve confidentiality, but with lettered reference, are briefly described below:-

3.2.3.1 School A, which reopened in 1985, had moved a short distance from its original Victorian two storey building. The school has 416 Primary pupils, a 39 place nursery and a staff complement of 18.8. The extensive single storey building is an open plan structure serving an area of mainly public housing and is designated a school of social priority. A 'new' schools' allowance made new furnishings and a good range of resources and equipment available. Unlike others in the area the school had not suffered from falling rolls but had, in fact, a lengthy pupil waiting list.

3.2.3.2 School B has a staff of five, including a teaching head. The single storey structure was built in the 1950's to a traditional classroom based design. Falling rolls reduced pressure on accommodation of primary pupils and allowed the introduction of a 26 place nursery in 1985. There are 83 primary pupils within the building which is not generally well resourced or equipped. The pupils come from a wide area and reflect a variety of socio-economic backgrounds. The school stands amidst semi-detached and terraced council housing built in the 1950's and 60's.

3.2.3.3 School C was formed by the amalgamation of a nursery, an infant and a junior school between 1980 and 1982. The three buildings are separate. Two are 100 yards apart whilst the nursery is one mile distant. The catchment area is public housing with a high percentage of one parent families and senior citizens as tenants. There is a staff complement of 17 with 350 primary pupils and a 26 place nursery. The single storey structures built in the 1980's are of traditional cellular design. Even though the school has a separate library, it is not otherwise well resourced or furnished.

3.2.3.4 School D is a small two storey classroom based structure built in 1957. The number on roll is 122 primary pupils and in addition there is a 26 place nursery. The staffing establishment is 6.6 which includes a teaching head. The pupils are drawn from a wide area, consequently, there is a mixed intake in socio-economic terms. The school is situated in the older part of the town and stands amid council flats and old terraced housing. It is subject to frequent vandalism.

3.2.3.5 School E was formed in 1981 by the amalgamation of an infant, a junior and a nursery school. The extensive single storey classroom-based primary buildings are 100 yards apart. The 39

place nursery is a separate entity one mile distant. The school is well resourced with a wide range of equipment, materials and textbooks. The catchment area is a mixture of new council housing and well established public and private terraced and semi-detached houses. The staff complement is 16.

3.2.3.6 School F was created by the amalgamation of a primary and a nursery school in 1980. The single storey cellular buildings are in close proximity, but remain separate establishments. Due to severe falling rolls the large school accommodates only 84 primary pupils and 18 nursery children. There is high unemployment and frequent vandalism in the catchment area of council houses and flats. The school had a high number of pupils moving in and out over short periods of time. Due to falling rolls a Mother and toddler group and day-time adult courses, organised by the local technical college, occupy part of the premises. The H.D.P. Centre is also located within the school in a specially converted suite. The staff complement is 5.

Apart from their position within the dockland area schools B and F were included in the project to exemplify 'The authority's policy for urban primary

school, including its policy to counteract the ill-effects of falling rolls' (D.E.S. 1984, p.64).

3.2.4 Specific School Data - School A

The early phase of data analysis relates to the collection of documentary evidence; the compilation of diary entries; the use of semi-structured interviewing procedures; and evidence gained from participant observation techniques in and from the Dockland Schools. Each instrument was associated with the demands of curriculum building identified in 2.3.6 (above), and clothed the fundamental questions set out in that section, briefly: educational purposes; educational experiences provided; organisational effectiveness and determination of attainment levels. However, no attempt was made to restrict issues to those derived from a previously set analytical frame, but rather presented specific issues that arose in response to the reading of data from each instrument.

3.2.4.1 Documentary Evidence

The majority of documentary evidence was derived from each schools' baseline statement which, prepared during the H.D.P.'s early phase addressed the question of 'Where are we now? '.

Particular emphasis was placed upon the designated curricular areas in order to determine goals and areas of need. In association with other evoked documents these statements raised three main questions relating to the H.D.P. innovation;

- how are we organised?
- what is the focus of change?
- what are the main critical issues to have arisen so far?

For School A, in its early phase the following analysis resulted:-

- Recent transition from an old to new building produced some organisational difficulties accentuated by the programme.
- Resource bases in some curricular areas required strengthening.
- Need to introduce new group and individual work strategies identified.
- Emphasis placed on creative language work.

- Aesthetic education and personal development emerged as priorities in art education.
- Identification of an increased desire to teach science.
- Expectation of initiating individualised practical work in developing concepts, especially for slow learners and under achievers.
- Increased cooperation between staff benefitting pupils.

3.2.4.2 Diary Evidence

Throughout the life of the Project a diary was kept of the experience of managing the programme. This diary incorporated details of courses, conferences, network meetings, LEA and HMI meetings and school and centre-based issues.

The issues analysis provided an interpretive aide memoire paralleling participant observation deliberations to provide overlapping case evidence. When subjected to an issues analysis involving a critical examination of organisational matters, the focus of change and

main items for review for School A in the early phase, the following analysis resulted:-

- Belief that the Project submission had been too hastily submitted to the D.E.S.
- Headteacher had not seen a copy of the original submission.
- Headteacher had had no part in the negotiations to participate but had felt obliged to take part.
- Headteacher was resentful of the appointment of another local headteacher to act as Coordinator.
- Staff felt aggrieved that they had not been consulted.
- 'Too little lead-in time' had been available to communicate and disseminate project background information.
- Staff felt change being forced upon them in a period of great change and were unreceptive because of the current problems caused by teacher sanctions.

- Curriculum courses well received.

3.2.4.3 Semi-Structured Interviews

A limited number of participants from each school were interviewed in each phase of the Project:- The semi-structured format (see appendix E) used the research questions described above, as its bases. An analysis of the early phase of interviewing of School A staff revealed:

- Announcement of the Project by the headteacher at a staff meeting.
- Little description of the Project was given.
- Emphasis placed on securing resources.
- Excitement over proposed developments, but annoyance at lack of involvement at the planning stage and personal worry over the impact on teaching roles.
- Lack of understanding of the Project's aims and objectives related directly to a poor initial examination of issues and head teacher's antagonistic attitude.

- Aims and objectives better understood following participation in curriculum courses and discussions with H.D.P. Coordinator.
- Unwillingness of staff to participate in developmental work, particularly at a time of considerable change and disruption to teaching programme caused by teacher sanctions.
- Divisions within the staff.
- Undemocratic attitude of headteacher coupled with an unwillingness to delegate.
- Networking courses in language and drama, art and craft and science and technology well received/enhanced teacher skill, enthusiasm and competence.
- Courses had increased the awareness of teachers' strengths and weaknesses.
- Divided opinion over the value of the H.D.P. as a whole.
- Principal positive change factors had been the teacher 'swop' programme and the

enthusiasm of course leaders and the Project Coordinator.

- Negative change factors related to an initial misunderstanding of the purpose of the H.D.P. and the headteacher's unsupportive stance.

3.2.4.4 Participant Observation

The H.D.P.'s Coordinator's role included participation in curriculum courses at the Dockland Centre, school based practical studies workshops and observation/practical involvement in school based teaching sequences. The participant observation analyses are based upon this regular practice. Observation at School A, in the early phase, revealed:-

- A strong willed, independent headteacher had a reserved attitude towards the implementation of the H.D.P. and had accepted the Project only by the promise of a significant resource input;
- the school staff were uninformed and had not been consulted about any aspect of the Project. Having been directed to

participate in the H.D.P., the staff were resentful, afraid and under stress;

- the school building whilst modern and open plan in design lacked the basic tools, materials, apparatus, water and power points for the development of the Science and Technology facets of the programme;
- staff had some experience of working collaboratively, but this required greater development with attention to role clarification, planning techniques and improving problem solving skills;
- evidence of good but badly co-ordinated practice. Poor dissemination of ideas across the school;
- some evidence of subject chauvinism and worry about sharing expertise which may lead to loss of influence;
- lack of confidence over coping with the proposed changes;
- reserved attitude towards the H.D.P. Coordinator, uncertainty over the Coordinator's role and level of authority;

- coordinators 'right of entry' to the school and individual areas challenged;

- fear of failure.

3.2.5 School B - Specific Data

3.2.5.1 Documentary Evidence

School B's 'baseline statement' revealed:

- A mixture of class, group and individual tuition within a physically cellular school structure;

- a simple form of integrated day in operation;

- the language policy of the school was designed to improve talking and listening, reading and writing and drama;

- art and craft was usually part of an integrated curriculum;

- science scheme utilised 'Learning through Science', McDonald Education (1981) which emphasises the need for first hand experiences;

- technology was mainly seen as construction employing a variety of kits.

In response to the Project's early phase, School B had identified the following needs for change in the specified curricular area:-

- the formulation of a strategy and corporate staff agreement for language and drama;
- the requirement of help from Inset and drama enthusiasts;
- increasing the number of taught elements and the provision of a wider range of materials in art and craft;
- greater involvement of teachers in all aspects of craft and design from ordering of materials to display;
- the need to formulate a structured school policy for science and technology;
- the need to build up science and technology resources.

3.2.5.2 Diary Evidence

This small school, with a teaching head, in the early phase demonstrated the following:

- staff fearful; did not wish to be involved;
- feared comparison with other Project schools;
- resentful at lack of consultation prior to the 'imposition' of the Project;
- pleasant cooperative headteacher, nevertheless feared that the Project was 'a form of appraisal'.

The early Project programme had focussed change on:-

- the lack of basic resources generally, but especially in science and technology;
- the introduction of revised teaching strategies in all of the specified curricular areas;

- collaborative teaching practice and sharing of expertise;
- improvement of school wide display techniques.

3.2.5.3 Semi-structured interviews

The following responses are to be read in conjunction with appendix E.

- The Project was announced by the headteacher at a formal staff meeting.
- Staff indicated that with 'free choice' they would not have become involved fearing 'improvement of quality of teaching' meant 'staff appraisal'. they felt under considerable pressure to accept.
- Recognition of the value of additional resources for the specified curricular areas.

The Project's aims and objectives were not understood at the outset due to a total lack of documentation, the head's outline sketch of what was involved and the failure to mention the

timescale and aims of the programme. Understanding grew as a result of participation in study and teacher exchange days and through the presentation of the LEA's E.S.G. submission by the Coordinator. Staff declared concern for their roles and feared being watched, having previously operated in a quiet, cellular situation.

Perception of the H.D.P. changed as more information became available through a regular Project newsletter, but largely as a result of the Coordinator's informal visits, which made it less threatening.

The major problem that arose over the implementation of the Project related to time and organisational skill. The staff had not previously compiled a base line statement and were unsure about its content and structure. The problem was alleviated by the headteacher's fashioning of the response and by the Coordinators emphasis on collaboration; recognition of the value of courses being resourced; availability of support and the development of a network of expertise. In particular, staff welcomed news that courses would be organised to specifically cater for the needs they had identified.

The study days and teacher exchange visits were declared by the teachers to be of interest and value. The Coordinator's visits included time to answer questions, give information and calm fears, particularly by emphasising that there could be no course until the base line statement had been produced and analysed in order to identify needs.

The project's progress and value was described by the teachers as 'interesting, too good to be true and still worrying'. Still seen as 'an appraisal mechanism causing us to be compared with others'. The principal surprise had been staff recognition that they had not really known one another professionally and even in phase one had learnt to cooperate more.

The main facilitators of change in phase one were declared as:-

- provision of supply cover to facilitate visits;
- not having to pre-test children as previously feared;
- creative curricular areas involved rather than testing of academic standards;

- outside help. Coordinator proved to be helpful, taught alongside staff, funded materials in the specified curricular areas and
- provided the impetus for curriculum and professional development.

The main barriers to change had been:-

- staff fear of addressing 'that' type of change;
- feeling of isolation (the schools nature and location was different from the others);
- headteachers initial worry about addressing the Project and his lack of confidence spread fear.

3.2.5.4 Participant Observation

The combination of participant observation practices in the several locations utilised by School B in the H.D.P. early phase revealed:-

- a pleasant, cooperative headteacher was at the outset reticent to participate in the Project fearing comparative analysis;
- the headteacher had shared the limited preliminary information of the Project with the staff, but a general lack of confidence initially accentuated their fears;
- resentment by the headteacher of the 'privileged' position of two of the other Project headteachers viz a viz the LEA's advisory service;
- the school's traditional sets of material were out of date; old desks produced inflexible classroom structures; there was a lack of basic resources for science and technology eg water and electricity points. The Project was identified as 'a means of rectifying this situation'.
- staff quickly recognised the value of collaborative practice having identified a lack of a common knowledge base;
- a will to clarify school priorities within the specified curricular areas;

- a recognition of problems within the present curriculum which indicated a need for change;

- an eventual willingness to establish good working relationships with the H.D.P. coordinator and study group tutors and an eagerness to involve its coordinator in the development of the school's response to the Project programme.

3.2.6 School C - Specific Data

3.2.6.1 Documentary Evidence

An analysis of School C's early phase documentation showed:-

- a school created by a double phase of amalgamation which had left a mile apart split site situation. The separated buildings had 'placed constraints on the concept of Primary Education, especially when 'the majority of staff had taught the same age group for many years'.

The prime objectives emerging from exposure to the H.D.P. were to:-

- create documents;

- help to extend an understanding of and respect for a whole school teaching philosophy;

- develop the social skills of pupils;

- endeavour to work in greater educational depth;

- the Project accentuated the need for centralisation of resources and a management scheme for the resource base;

- a Curriculum Document for school governors in response to H.D.P. initiatives expressed intent to develop a greater interest and confidence in science and in craft, design and technology;

- a disinclination to explore a new concept of drama;

- stated aims for the pupils to 'find satisfaction and a sense of achievement to enable each child to realise their true potential'. The staff looked to the Project to achieve these aims.

3.2.6.2 Diary Evidence

School C's early phase of the H.D.P. was positively promoted by the head teacher who :-

- through a professional, positive and honest attitude convinced staff of the Project's value;
- was prepared to be wholeheartedly involved;
- supported fearful staff unused to working together across the primary range;
- identified the value to the school of the resources and funding proposed by the H.D.P.

Early change strategies included:-

- the build-up of resources and facilities for science and technology;
- dissemination of information and ideas between staff following exchange visits and introductory courses;

- identification of teaching team's personal strengths and weaknesses;
- an examination of the traditional organisation of the school.

The promotion of change benefitted from:-

- the supportive and positive attitude of the head and senior staff;
- an appropriate climate for change within the school;
- the establishment of good working relationships with the H.D.P. personnel;
- use of the H.D.P. Coordinator in school-based work;
- good communications at all levels.

3.2.6.3 **Semi-structured interviews**

To be considered in conjunction with appendix E.

The headteacher of School C convened a special staff meeting to introduce the H.D.P. The lack of information was raised but the little that

had been issued was fully shared with the staff. Some disquiet was expressed over the 'special treatment' being afforded to two of the Project heads by the LEA's 'link' adviser.

The Project received the heads full support in the belief that:-

- there were more advantages than disadvantages in participating;
- interesting areas of science and technology lying outside of the normal brief would be examined;
- resources were to be made available.

In spite of the Project's positive promotion its aims and objectives were not made clear until:-

- staff meetings examined information from study days;
- colleagues disseminated information following exchange days;
- talks about 'something imposed from outside' created staff cohesion and

lessened stress which improved staff attitudes.

The problems of implementing the H.D.P.:-

- initially seen as a punitive measure were better accepted once it was recognised that staff would evaluate their own institutions work;
- difficulties were encountered in assembling staff for dissemination sessions in such a dispersed school and during a time of teacher sanctions;
- preparation of the base line statement and its assembly into a developmental order was time consuming and delayed the school response to early H.D.P. initiatives.

Study days and exchange visits were described as highlights of the early phase, as they created a dialogue and developed a support network.

Interview participants described the Project as making good progress and suggested the reasons for this as being:-

- positive attitude of headteacher;

- dissemination of new material ideas;
- positive use of ideas from the study days and visits;
- reinforcement of the head's view by the Coordinator and vice versa.

Some concern was voiced over:-

- the extension of the school day to accommodate the project;
- difficulties encountered in disseminating ideas;
- uncertainty of Projects eventual outcome.

3.2.6.4 Participant Observation

The Coordinators participation in School C's developmental programme, school and centre-based teaching revealed:-

- a hard working headteacher positively promoting the H.D.P.;
- a staff who felt deeply involved and who were well motivated;

- quick and efficient dissemination of ideas from the study and exchange days;
- development of open management meetings;
- centralisation and up-grading of resources;
- attention to a whole school philosophy through the identification of new approaches to science and technology teaching;
- staff willingness to evaluate and share ideas;
- an appropriate climate for change within a school struggling to overcome the effects of its split-site location;
- cross-fertilization of ideas between school and H.D.P. personnel;
- acceptance of the Project Coordinator as a working colleague.

3.2.7 School D - Specific Data

3.2.7.1 Documentary Evidence

School D's early phase documentation revealed:-

- a two storey, cellular building located in the old part of Hartlepool regularly subjected to vandalism;
- pupils drawn from a wide area giving the school a mixed intake in socio-economic terms;
- staff working in traditional, classroom-based styles;
- a recently appointed headteacher endeavouring to change established methods and attitudes;
- a range of self help schemes that had provided resources and improved interior decoration and facilities.

The early phase of the Project focussed attention on:-

- the need to continue and partially redefine the objectives of the established curriculum development programme;
- increasing resources, particularly for the designated curricular areas;
- the need for awareness and co-ordination of the work of others;
- the need for a more flexible approach to drama and its use as a stimulus for research into other areas;
- acquiring a higher profile for science - stimulating displays/whole school projects;
- improving staff confidence in teaching science and technology;
- greater co-ordination and staff agreement on ways to assess and monitor scientific progress;
- using C.D.T. to apply and investigate scientific principles;

- improving the displays of children's work with greater emphasis on three dimensional objects and a wider range of materials.

3.2.7.2 Diary Evidence

In School D the early phase of the H.D.P. received strong support from the headteacher who:-

- identified a positive developmental route;
- supported network building;
- overcame the resentment of some well-established staff, who feared implied criticism of their teaching, by positive, team building actions;
- opened the way for experiential learning style;
- welcomed assistance from the H.D.P. and involved it within the curriculum development programme.

The school staff were initially both resentful and fearful of the Project, becoming deskilled, but once this attitude had been moderated by the

head's support, encouragement and promise of resources, they:-

- identified the need for cooperative teaching strategies;
- participated to good effect in open management meetings;
- established good working relationships with the H.D.P. Coordinator and visiting tutors;
- fostered an appropriate climate of change within the school.

3.2.7.3 **Semi-Structured Interviews**

To be read in conjunction with appendix E. The headteacher of school D had announced the H.D.P. at a staff meeting and, whilst disappointed at the lack of information, had supported 'the initiative'. The headteacher had expressed doubts regarding the impartiality of the LEA's 'link adviser', who had strong connections with two of the Project heads who were former members of his staff, when he had been a local headteacher. School D's headteacher declared that these heads were always advised in advance

of the others and that they flaunted this privilege at head's meetings. Bad feeling accentuated resentment of the Project as a whole.

The Project's aim and objectives had not been understood, indeed there was a belief that, like the rest of the documentation, they did not exist.

Perceptions of the aims and objectives changed due to the positive approaches of the headteacher and the frank attitude and supportive role of the Project Coordinator.

Implementation of the Project had caused staff fear of:-

- assessment of teaching performance;
- increased time consumption due to more work in more areas;
- the unknown strategies required especially in science and technology;
- working cooperatively;
- not getting ones own way.

Exchange visits and study days that revealed other teachers having similar problems, aspirations and fears, created a concern to share. Dissemination of information at this stage, left some staff finding it difficult to accept that 'we had all been in the same school for some time'.

Whilst uncertain of the overall direction of the Project interviewees were surprised that it was 'better than we expected', and concerned that, 'it might not be so'.

The headteacher and Project Coordinator were declared as the principal facilitators of change so far. Visits and study days had proved of value.

Having to learn to work together, changing teaching styles and learning how to use different materials in subject areas not previously addressed, had been the main barriers to change.

3.2.7.4 Participant Observation

Operating within School D and alongside its staff on study days, highlighted the initial resentment of feeling obliged to participate in

a Project for which they had not seen any documentation, and for which there had been no consultation. Due to the headteacher's vision, perseverance, optimism and hard work, the resentment gradually ebbed to be replaced by a more positive attitude and cooperation in which:-

- headteacher and staff emphasized the importance of their shared philosophy in establishing successful cooperation;
- evidence arose of a heightened awareness of feelings of belonging and lessened feelings of marginality;
- teaching strategies were, even at the early stage, being modified, adapted and re-defined;
- learning from first hand experiences was increasing;
- a wide selection of required resources had been identified.

3.2.8 School E - Specific Data

3.2.8.1 Documentary Evidence

The school with a role of 380 pupils had been created by the amalgamation of nursery, infant and junior schools in 1981. Following amalgamation efforts had been made to coordinate teaching and administrative strategies and to improve staff liaison.

The base-line statement declared a lack of rigid adherence to one style of teaching or organisational pattern, and a willingness to adapt/modify styles to incorporate new resources.

The documentation produced for the Project indicated a movement towards a cooperative/team approach to accommodate planned activities in the specified curricular areas.

The baseline statement further recommended:-

- opportunities for staff to examine a variety of teaching styles;

- in-service training to develop a flexible approach to teaching styles and patterns of classroom organisation;
- an examination of the contributions children make to learning in order to ascertain the appropriate style for the teacher;
- further centralisation and development of resources to improve availability, staff awareness and retrieval;
- development of small group teaching practices;
- in-service training in evaluation, record-keeping, science and skills teaching.

In direct response to the Project curriculum Programme School E recommended:-

- placing importance on the skills of language - vocabulary, syntax and punctuation;
- planning and organising more extensive structured reading resources to ensure

continued development of reading skills throughout the primary age range;

- emphasis on the use of story; writing in narrative and reportage styles; opportunities to communicate orally; a structured approach to handwriting skills; careful mounting and display of children's work;
- an examination of more comprehensive and accurate methods of evaluation and record keeping;
- the integration of art and craft into other curricular areas with more emphasis on 3D work and the extension of use of more exciting techniques and range of materials;
- a programme of in-service to build staff confidence in teaching of structured guidelines to ensure a developmental programme of science throughout the school.

3.2.8.2 Diary Evidence

Data gathered and recorded in diary style from School E during the early phase of the Project emphasizes Trethowan's view that,

The first stage in any improvement programme is the recognition that the problem exists'

(D Trethowan, 1987, p.87)

School E's headteacher declared at the outset that there was no need for a Project Coordinator and that the schools were capable of preparing their own developmental programme. This stance caused:-

- staff to present a guarded attitude to Project proposals;
- staff to keep the Project Coordinator at a distance;
- staff to avoid or devalue working with the other schools;
- the creation of a superior attitude towards the Project by the staff who only put into practice what the headteacher sanctioned;

- personality conflicts.

The headteacher openly admitted that he had been persuaded to join the Project by the promise of 'substantial' resources and wished to proceed, without any participation in the H.D.P., along his own developmental path. Attempts to involve the school more fully in the programme were blocked, often by the use of unprofessional means including the head's threat, and use, of the intervention power of the LEA's link adviser for the Project, to whom he had been formally a deputy.

3.2.8.3 **Semi-Structured Interviews**

To be read in conjunction with appendix E.

The headteacher of School E had announced the H.D.P. at a special staff meeting. The staff were advised that its impact would be slight as 'their practice already surpassed Project expectations'. Participation in the Project had been necessitated by the promise of extra resources.

The Project's aims had been unclear and no details had been given as to how it was to be implemented.

Perception of the H.D.P. aims and objectives had remained unclear and discussions amongst the staff revealed their disinclination to become too involved.

Implementation of the Project had been impaired by the lack of clarity of the general and specific purposes of the innovation, which was highlighted by the total lack of documentation. Teacher's sanctions at this stage were a further drawback to progress.

Exchange visits had been useful in revealing problems facing the other project schools, but study days had little to offer that was new.

The interviewee's view was that little had happened or was happening in the H.D.P.

Asking about the principal facilitators of change, the interviewer was referred to the schools base-line statement which focussed on the staff's:- open mindedness; readiness to try new ideas; willingness to cooperate with colleagues; readiness to evaluate and critically appraise their own work.

The main barrier to change in the early phase was described as a lack of clarity in what was expected of the staff.

3.2.8.4 Participant Observation

Observation and involvement in school and Project Centre-based activities revealed:-

- a strong-willed, autocratic and often dogmatic headteacher demonstrating, at best, a negative attitude towards Project proposals, but occasionally being unhelpful and antagonistic towards its Coordinator;
- a sober, hard-working school staff who mainly responded to the headteacher's prompts and who subsequently appeared aloof and superior to the Project;
- a reasonably resourced school, with excellent display facilities and techniques, a declared policy for curriculum, resource and staff development, which, in reality largely operated in a traditional stereotyped style within an inflexible cellular

structure and subject to an imposed staff 'direction policy';

- that the nursery staff working at such a distance from the main school site received no written information and were not involved in any staff discussions by the Headteacher. The only information they received about the H.D.P. was given by the Project Coordinator during weekly visits;

- that many staff felt threatened and uneasy by the presence of the Project Coordinator in their classrooms. They were unused to working with other teachers. The headteacher preferred the Project Coordinator to talk with him about issues and developments rather than to the staff. He invariably accompanied the Coordinator on her visits to classrooms;

- traditional class, subject teaching in the junior phase. More flexibility of teaching approach in early years practice. Excellent integrated programme of experiential learning in the nursery.

3.2.9 School F - Specific Data

3.2.9.1 Documentary Evidence

Documentary evidence gathered from School F drew attention to the school environment as being a cause of organisational problems and a difficulty in endeavouring to maintain academic standards:-

- unemployment is well above the national average - the ratio of paid to free school meals being 1:14;
- relatively high movements of children. This problem is accentuated by the presence of a Women's Aid Hostel and a Hostel for problem families in the school's catchment area.

School F's base-line document expressed the view:-

'it is unfortunate that there is no other school in the Project of a similar size to ourselves with a catchment area akin to ours'.

The school's curriculum laid emphasis on:-

- a task-setting curriculum, particularly related to reading, written work and mathematics;
- fostering a sense of well-being and self-esteem of the children through the development of physical efficiency;
- moral development and aesthetic awareness.

Anticipating the needs of the Dockland Project the school aimed to:-

- increase the breadth of the curriculum;
- foster a more positive approach to learning;
- increase the use of local resources particularly the schools immediate environment, in a subject integrative approach to the Project's designated curricular areas.

3.2.9.2 **Diary Evidence**

Schools F's early phases of the Dockland Project was impaired by its headteacher's attitude of non-committal.

The head:-

- appeared to be uncomfortable in the presence of the other Project headteachers and, in preference, worked in isolation;
- was unclear about the Project's aims and had not been involved in the negotiations leading to its implementation;
- felt pushed into the Project and unable to persuade the staff of its value;
- was resentful of the special relationships that existed between two of the Dockland heads and their former colleague, the LEA's link advisor to the H.D.P.

The staff:-

- were resentful of being involved and some became aggressive;
- wanted nothing to do with the Project, except to be given the resources they wanted, not necessarily those that were appropriate;

- excluded the Project Coordinator from their staffroom and were unwilling to discuss or provide evidence of the Project's work;

- taught to a rigid timetable, working with whole classes on separate subject areas. There was little evidence of integrated, cross-curricular practice or children working in groups, as pairs or as individuals on a variety of topics. There was very little evidence of practical work.

The school:-

- had shrunk from a large, category 6, to a roll of 84, and operated in a cellular system;

- facilities reflected a lack of understanding of the needs of a Social Priority Area School and were epitomised by sets of old books;

- lacked evidence of visual display providing a bright, educational stimulus.

The Project:-

- had been badly presented to the staff;
- had become a unifying focus for staff discontent.

3.2.9.3 Semi-Structured Interviews

To be read in conjunction with appendix E.

The H.D.P. was introduced to the staff of School F at a staff meeting. The initial reaction was hostile as staff members feared the imposition of teacher appraisal and were annoyed at not being involved in the Project negotiations prior to implementation.

The aims and objectives of the H.D.P. were described as neither being documented nor explained thoroughly at the commencement of the Project, therefore, were not understood.

Various interpretations of the Project, however, created resentment amongst the staff.

Perceptions of the Project's aims had changed little in spite of participation in exchange visits and study programmes.

Implementation of the Project had been, and was, continuing to face the problem of clarity of direction.

To a large extent exchange had further fuelled worries about review, appraisal and evaluation. The study programme had helped an understanding of the Project's concern with process.

The interviewee indicated that the majority of school F's staff had declined involvement with the programme but had 'grudgingly agreed to sample those facets of the work which were of personal interest'.

The Coordinator was seen as the main facilitator of change, but not always change for the better.

Lack of managerial concern - from D.E.S. and LEA through the headteacher was described as a barrier to change and the development of an uncooperative staff response.

3.2.9.4 Participant Observation

Morale in School F was not high, partly due to the social and environmental problems outlined above, partly the result of weak leadership and partly due to the presence of two long-serving

members of staff who were unprepared to accept any form, or level, of change and who, from the outset, demonstrated antagonism towards the Project and its Coordinator. Stress and anxiety symptoms were in evidence and these, alongside the antagonism, were translated into the teaching situation forming a further deterrent to the pupils' education. The headteacher contributed much to the school's general malaise showing passive rejection to projected developments and withholding help for school-based work.

Resources within the school reflected the lack of an orderly approach. These varied from the old and obsolete to computer assisted learning packages which, like the poor display techniques, were not properly integrated into learning sequences.

Information for exchange visits and study programmes was not disseminated and little to no evidence of their usefulness appeared in the school. The Coordinator's offers of help were refused.

3.3 Within Site Analysis

Dovetailing of data drawn from the specific data sources, presented above, is briefly explored below in order to establish general issues and cross-data patterns. Context charts are presented for the Project's early phase for each school in order to highlight principal issues. These charts were introduced in an 'attempt to impart factor analysis and pathway analysis from quantitative data analysis into the qualitative domain', (K Morrison, 1988. p.63), and to demonstrate the 'considerable overlap rather than polarity that exists between quantitative and qualitative data treatment' (ibid).

3.3.1 Dovetailed Issues in School A:

The initial phase of the H.D.P. had lacked:-

- headteacher's participation in negotiations;
- documentation;
- staff consultation;
- understanding of its aims and objectives;
- school-based resources for curricular initiatives.

Progress had been hampered by:-

- headteacher's unhelpful attitude;
- lack of consultation;
- staff resentment, fear of appraisal/failure;
- reserved attitude towards H.D.P. Coordinators.

Limited change had been facilitated by:

- the promise of resources;
- the study courses and exchange visits;
- a heightened awareness of individual staff qualities and weaknesses.

SCHOOL A
CONTEXT CHART - EARLY PHASE

Legend

- + = Strong factor
- ++ = Very strong factor

Factors Facilitating Change

nature of the innovation	+
staff support for change	+
increased cooperation between staff	+
external resource support	++
willingness to initiate practical teaching - science	+
exchange visits	++
study courses	++
H.D.P. Coordinator	+
<u>Factors Impeding Change</u>	
time	++
timing of the innovations (sanctions)	++
headteacher's attitude	++
lack of consultation	++
logistical problems of change	+
staff divisions	+
staff perception of the H.D.P.	+

Typology of Management

Undemocratic school leadership.
Lack of care and concern in establishing consensus of staff.
School leadership subservience to LEA Project link adviser

Outcomes

H.D.P. Coordinator prepares innovation and supporting material
Lack of support for change from people in power.

Effects

Innovation's progress being restricted
headteacher/staff divide widening
intervention by LEA.

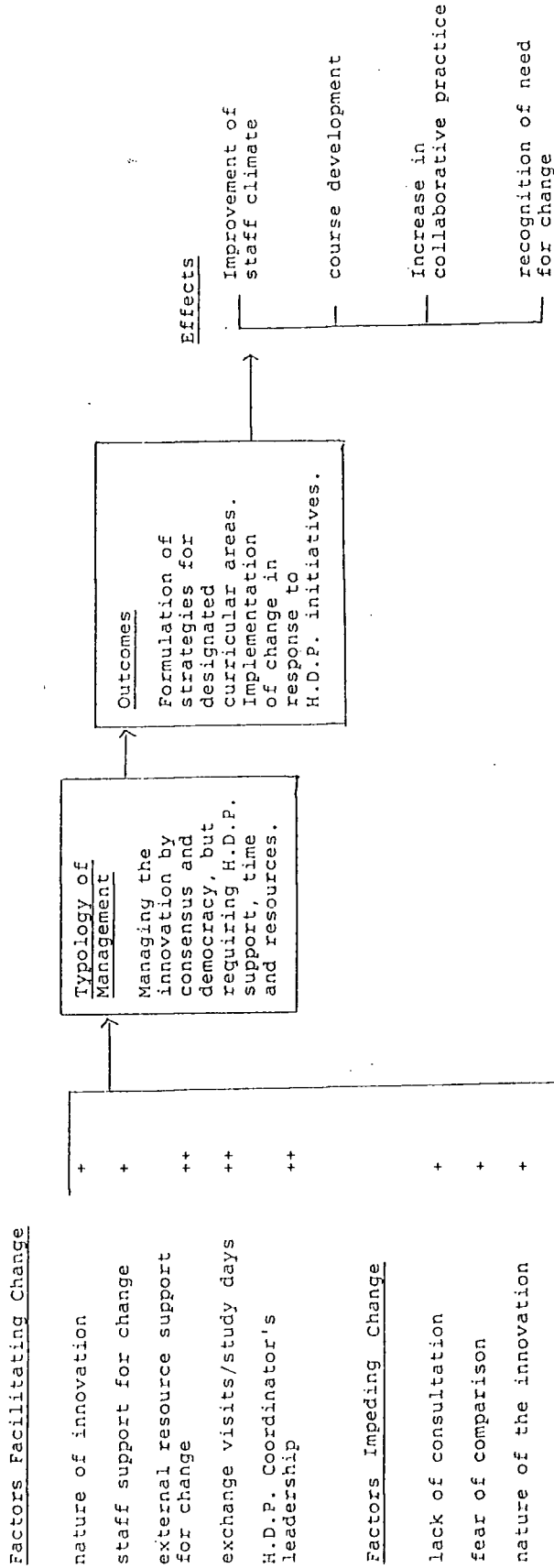
3.3.2 Dovetailed Issues in School B

The initial phase of this school culminated in staff acceptance of the need for change; recognition of the value of the Project's curricular programme; introduction of collaborative teaching practices and the establishment of good working relationships with the H.D.P. Coordinator.

The slow progress of change, in this phase reflected:-

- an initial lack of understanding of the H.D.P. through an inadequacy of proper communication and documentation;
- resentment at the head's level through lack of negotiation, and at staff level through lack of consultation;
- fear both of being involved in staff appraisal and of being compared with the other Project schools;
- a school wide lack of confidence.

SCHOOL B
CONTEXT CHART - EARLY PHASE



Legend
+ = Strong factor
++ = Very strong factor

Fig. 14

3.3.3 Dovetailed Issues in School C

In a school struggling to overcome problems of a split-site situation the H.D.P. could easily have become another resented imposition. However, details from the early phase of the H.D.P. reveal positive changes due to:-

- positive promotion by the headteacher;
- staff conviction of the Project's value;
- formulation of an information dissemination policy;
- up-grading and centralisation of resources;
- a good, school staff headteacher, H.D.P. Coordinator liaison - self support system;
- exchange visits and study days emphasizing curricular areas.

SCHOOL C
CONTEXT CHART - EARLY PHASE

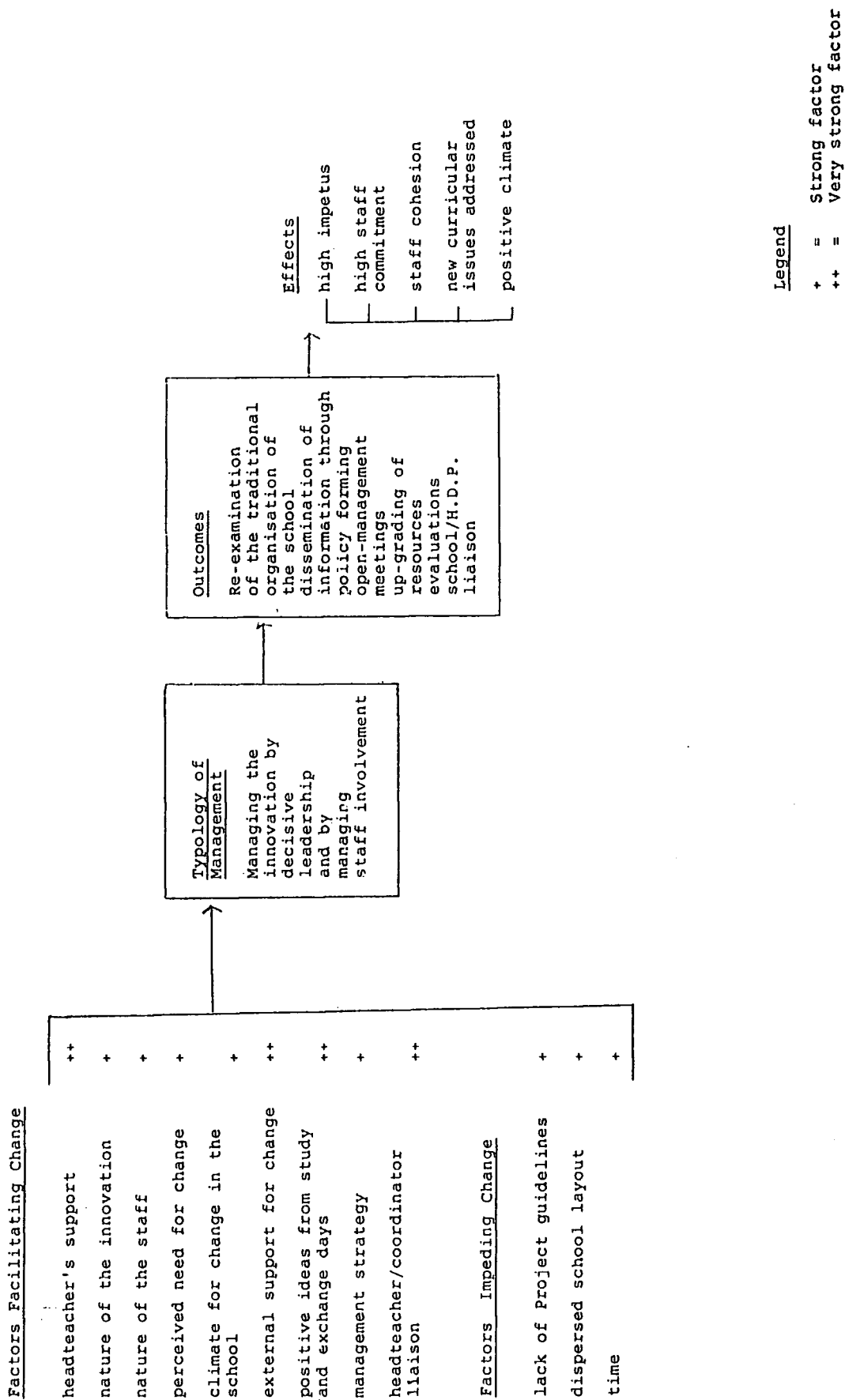


Fig. 15

3.3.4 Dovetailed Issues in School D

The early phase of the H.D.P. in School D was typified by:-

- initial resentment of an imposed innovation, lack of consultation and regret that two Project headteachers had been afforded privileged treatment and information by the LEA Project link adviser.
- a highly committed headteacher endeavouring to change established methods and attitudes;
- a school staff overcoming their initial fear of appraisal and increasing their knowledge of one another's strengths and weaknesses as part of a planned programme of change;
- the development of positive strategies for science and technology teaching;
- the establishment of open-management and good dissemination procedures following highly prized study days;
- the support for network building embracing the Project schools and involving its coordinator as a collaborative change agent.

SCHOOL D
CONTEXT CHART - EARLY PHASE

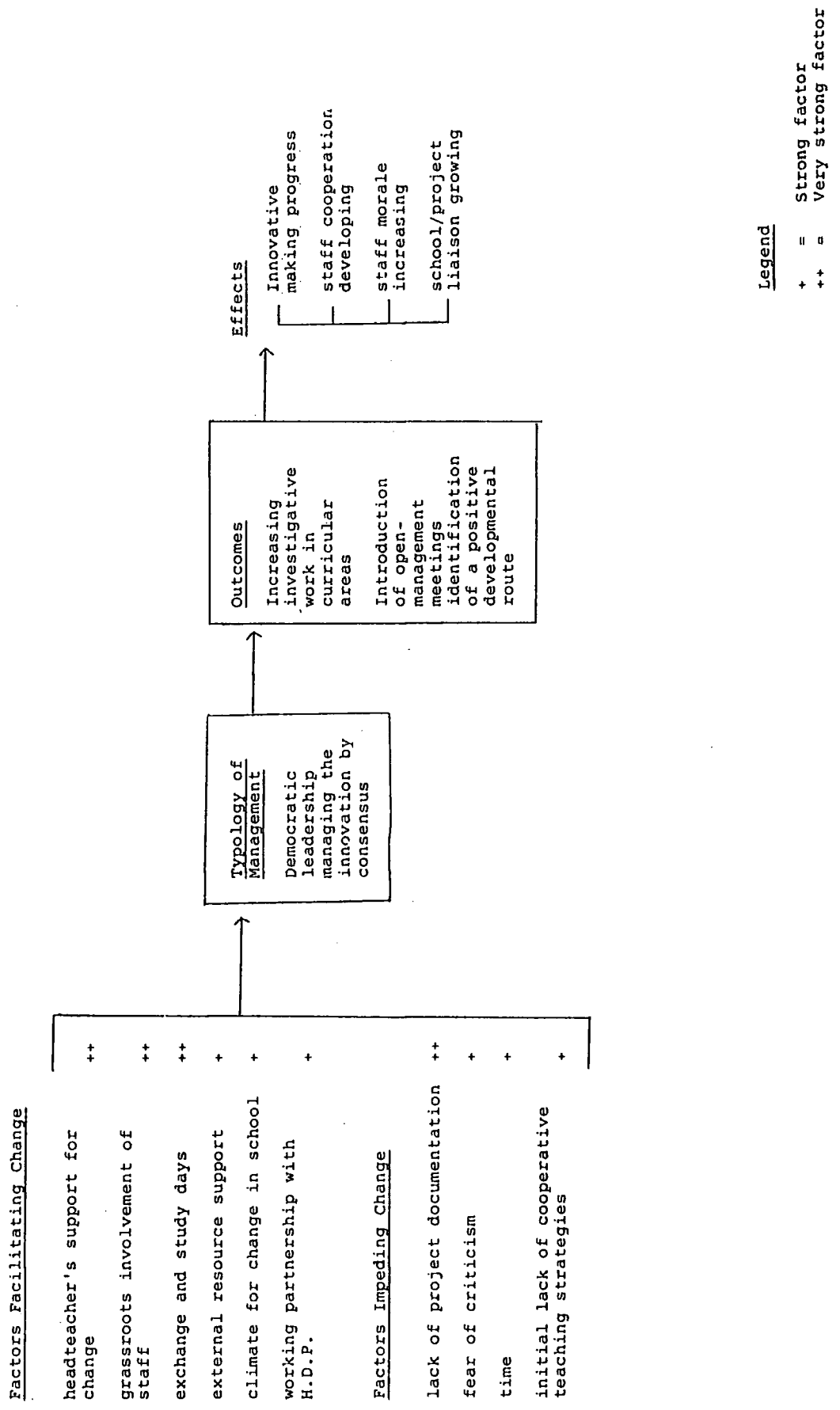


Fig. 16

3.3.5 Dovetailed Issues in School E

Evidence from School E, in the early phase, is reminiscent of the definition of both the 'rational adopter' and the 'pragmatic sceptic' (Doyle and Ponder, 1976). ie the headteacher of School E :-

- declared a highly formalized rational model of how change ought to be accomplished;
- described the work in his school in individualistic terms, emphasizing the uniqueness of each classroom situation;
- expressed a concern for immediate contingencies and consequences, rather than long-term goals;
- was orientated towards concrete procedures for dealing with classroom contingencies, rather than with abstract and general principles.

Such a policy, whilst at variance with the declared teaching strategies expounded in the baseline statement, produced a barrier to change. At the commencement of the Project school E's headteacher had:-

- denied the need for help from another headteacher;

- emphasized the schools own developmental programme to the virtual exclusion of H.D.P. initiatives;
- declared that participation in the H.D.P. was to secure resources;
- restricted staff participation in the H.D.P. to that which he sanctioned;
- limited cooperation with other H.D.P. schools and the H.D.P. Coordinator;
- restricted access to the school for other participants;
- used former professional relationships with the LEA's Project link adviser to block H.D.P. proposed initiatives.

SCHOOL E
CONTEXT CHART - EARLY PHASE

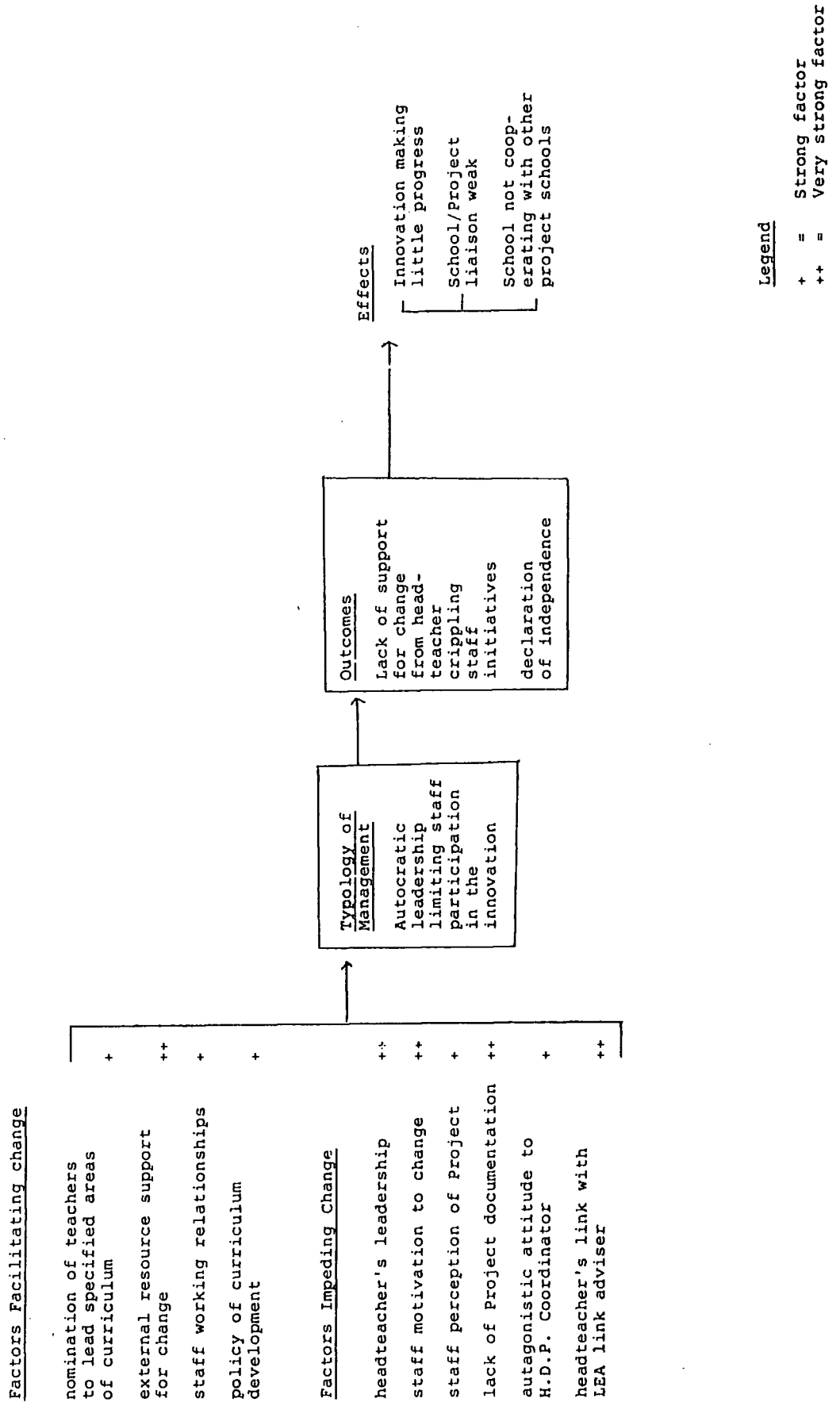


Fig. 17

3.3.6 Dovetailed Issues in School F

In spite of being the smallest Project school, School F presented the greatest number of problems to the H.D.P. Coordinator, in the earliest phase, and erected the most barriers to change. The headteacher and staff were resentful at 'having to participate' in the Project and were actively engaged in often aggressive attempts to sabotage its progress. The data collection programme identified:-

- a poorly led, poorly resourced school badly equipped to cater for the needs of its Social Priority Status;
- low school morale reflecting weak leadership, falling school roll stress and health problems and the presence of a 'stone-age obstructionist' (Doyle and Ponder, 1976);
- deliberate attempts to misinterpret the H.D.P. innovation and to misinterpret its initiatives during informal information dissemination;
- absenteeism for study days and a total lack of evidence in school display etc., of having participated in any aspect of the study programme.

SCHOOL F
CONTEXT CHART - EARLY PHASE

Factors Facilitating Change

external resource support for change	+
size of classes/number of pupils	+
exchange visits and study days	+
<u>Factors Impeding Change</u>	
headteacher's leadership	++
staff motivation to change	++
staff perception of the project	++
staff health/stress factor	++
staff cooperation	++
position of leader of change	++

Typology of Management
Vaccinating leadership attitudes to change

Outcomes
Lack of support for change of all levels.
empty promises

Effects

Innovation making no apparent progress

Increased hostility from school staff to project coordinator

absenteeism from study days

lack of dissemination of ideas from visits and study days.

Legend

+ = Strong factor
++ = Very strong factor

3.4 Cross Site Analysis

Here consideration of the various specific data sources is used to establish general issues or cross data patterns. Examination of the 'sites' refers to the instruments used for data collection, (Miles and Huberman, (1984)) as well as to the six schools featuring in the Dockland Project.

The early phase of the H.D.P. is shown to have been primarily concerned with:-

- problems of communication;
- administrative details;
- creation of baseline statements;
- establishment of school links;
- introduction of curricular programmes.

A major influence on the programme had been the six headteachers of the Project schools and their various attitudes toward the H.D.P. Coordinator. Analysis of the early phase data in this context revealed:-

- the LEA submission to the D.E.S. had been hastily prepared;
- a total lack of negotiation between the LEA and headteachers;
- headteachers had not seen a copy of the submission;
- headteachers had only received verbal information;
- all the Project headteachers reported feeling 'morally obligated' to participate;
- that there was resentment amongst other headteachers that two of the Project heads had been deputy headteachers to the Project Link Adviser, who had made them party to extra information, or informed them prior to the rest;
- the majority of headteachers feared inter-school comparison and were suspicious of staff appraisal;
- a general desire by headteachers to avail themselves of the resources provided by the Project.

Most significantly the headteachers were resentful of the appointment of another local headteacher to act as Project Coordinator. Statements made at headteacher - Coordinator meetings and in personal school based conversations indicated that the Project headteachers would have preferred either an LEA adviser to organise courses, or a team of Scale 3 teachers whom they could 'instruct'.

The six Project headteachers initial reaction to the Project is presented below, using categories derived from Bales, (1970, 'Responses in Negotiation'.

- HT School A Shows antagonism, deflates others status, defends and asserts self
(Negative reaction category)
- HT School B Shows tension, asks for help
(Negative reaction category)
- HT School C Asks for suggestions, direction, possible ways of action, shows solidarity, raised others status, gives help
(Positive reaction category)
- HT School D Asks for orientation, information, repetition, confirmation, shows solidarity, raises others status, gives

help

(Positive reaction category)

HT School E Shows antagonism, deflates others status,
defends and asserts self

(Negative reaction category)

HT School F Disagrees, shows passive rejection,
formality, withholds help

(Negative reaction category)

Teachers in the H.D.P. school generally felt aggrieved at not being consulted in advance of the commencement of the Project and resented the lack of time in which to implement it, the poor level of background information. Analysis of the data shows the Project audience were:-

- unclear about the aims and objectives of the Project and were not briefed as to its implementation;
- not part of the negotiation;
- in a state of change and were largely unreceptive due to the current problems of teacher's sanctions, implications of teacher appraisal, curriculum matters discussion papers and related INSET programmes;

- variously influenced by their headteacher's attitude/advice towards the Project and its coordination.

Fig 19

SCATTERPLOT COMPARISON OF INITIAL PROJECTS PLANNING OUTCOMES

PROGRESS THROUGH THE PLANNING STEPS

		Poor	Fair	Good	
'Ownership of E.S.G. Project'	High				
	Medium		School C School D	(2)	(2)
	Low	School A School B School F (3)	School E	(1)	(4)
			(3)	(3)	

Analysis of the cross site data would identify a number of positive factors which were initiated and developed during the early phase. These included:-

- completion and publishing baseline policies; (6-0)
- positive reactions to exchange visits; (5-1)
- identification of personal teaching strengths and weaknesses; (4-2)

- attendances on curriculum development courses and the subsequent school application of course strategies and skills; (4-2)
- establishment of an inter-Project schools dialogue; (4-2)
- restructuring of staff meetings to cater for the Project's new demands; (3-3)
- large take-up of course related resources; (6-0)
- effective use of E.S.G. funded supply cover; (6-0)
- integration of the Project Coordinator into school based activities; (4-2)
- centralisation of resources to cope with Project demands, particularly in Science and Technology; (4-2)
- development of science teaching; (5-2)
- focussing attention on school-wide display techniques (4-2)
- introduction of designing and making activities; (5-1)

- development of experiential learning activities;

(3-3)

The numerical notation that follows the statements, presented above, is, as follows:

The first figure in brackets represents the number of Project schools identifying positive factors.

The second figure in brackets represents the number of school identifying negative factors.

3.5 The Mid Term Phase of the Dockland Project

The diary of events for this phase is presented in Appendix L.

3.5.1 Introduction

The cycle of analysis established in 3.2 to 3.4 is repeated for this section, with the addition that the setting of the general context will derive both from a reading of data of the mid term period and from data derived from the early phase. This procedure is adopted in order to achieve progressive focussing.

3.5.2 Methodology

The attempt is being made in this round of the evaluation to broaden the data gathering base. The Early Phase has identified the need to view the innovation as concerning people and processes as well as the substantive context of the Project's programme. To enable this view to be implemented requires the application of a range of data gathering methods, some of which remain the same as in phase one, and some represent an increase on instruments employed in that round. The data gathering instruments used in the mid term phase are:-

- diary evidence (as in phase one);
- semi-structured interviews with Project members (as in phase one); the interview schedule is reproduced in Appendix E;
- participant observation (as in phase one);
- the introduction of new instruments;
- the Dion questionnaire administered to Project schools staff - the questionnaire is reproduced in Appendix F.

The Dion questionnaire (Diagnosis of Individual and Organisational Needs for Staff Development and In Service Training in Schools and Colleges) (Elliott-Kemp and Williams, 1980).

DION questionnaires were distributed amongst the project schools and whilst personal anonymity was guaranteed, returns were related to the participating school.

The analysis of the DION questionnaires uses computed scores from grouped data as a basis for interpretation and to further the process of concurrent validity.

Questionnaires were issued to H.D.P. teachers to ascertain their reactions to, and actions flowing from, the science and technology modules/workshops. Whilst completed questionnaires are identified by school, individuals anonymity was protected. The questionnaire format and answers are reproduced in the appendices and the analysis is presented in the within site evaluation in support of facets of the semi-structured interviews.

The use of a variety of data gathering instruments reflects both an attempt to serve concurrent validity and to tap a wider field of concern than in phase one, notably the climate of the Project schools and the perceptions and concerns of their members.

Care has been taken to avoid the needless repetition of material found in the early phase and to this end the school specific data is often presented in summary form only.

3.5.3 Specific School Data - School A

3.5.3.1 Diary Evidence

The issues analysis procedure adopted for this instrument is essentially brief as the substantive detail revealed by the aide memoire

forms the basis of the participant observation record presented in the later section. Here, the analysis, as previous, focussed upon organisational matters, focus of change and main items for review which showed for School A:-

- the headteacher remained resentful of the appointment of another local headteacher to act as Project Coordinator;
- the headteacher had instructed the Deputy Head to function as the school's liaison officer for all Project matters;
- the Deputy Head had undertaken the control of staff meetings for all items pertaining to the Project;
- three Scale 2 teachers had been designated to take responsibility for each of the Project curriculum areas - Language/Drama; Science and Technology; Art and Display;
- regular meetings now took place between School A's Deputy Head and the Project Coordinator;
- participation in the curriculum courses was evenly shared by the members of staff.

These courses continued to be well received, dissemination of information took place and new strategies emanating from the courses were gradually introduced in the school;

- the H.D.P. Coordinator was now welcomed into the school by staff and regularly worked with nursery and reception teachers and children in designing and making activities.

3.5.3.2 **Semi-Structured Interviews**

Respondents were asked to reflect upon the Project's programme in semi-structured interviews. The interview schedule, which is presented as Appendix E, was basically the same as that used in the evaluation of phase one with the exclusion of questions 1 and 2 which were no longer relevant. Analysis of the science and technology questionnaires complement the interview survey. This retrospective look at the Project was aimed at identifying highlights - both positive and negative.

The analysis of the interview responses should be read in conjunction with the schedule.

Respondents revealed:

- a better understanding of the aims and objectives of the Project which they equated with improved liaison between the school staff and the H.D.P. Centre; school wide dissemination of information; provision of useful documentation relating to the Project programme;
- the unwillingness of staff to participate in developmental work during a period of great change, and Teacher's Union sanctions, was still cited as hampering the implementation of Project work;
- satisfaction with Designing and Making; Drama, Photogram and Science workshops. The timing of the workshops is outlined in the H.D.P. 'Overview' appendix whilst the courses are analysed later in this section through the employment of questionnaires;
- an improved attitude of staff toward the Project reflected the influence of the Deputy Headteacher in his role to oversee Project initiatives and the effect of the newly created Scale Posts in its curriculum areas. Respondents reported a

lessening of stress and the creation of more 'enjoyable circumstances'. Ownership of the Project had been generally accepted by the school;

- with the benefit of hindsight the value of the exchange visits and introductory curriculum courses were singled out as being effective facilitators of change. The improved climate for change created by the revised staff organisation pertaining to the Project was also highlighted;
- resentment at the increasing time involved in H.D.P. work and the continued fear of appraisal remained as major barriers to change.

3.5.3.3 Participant Observation

Improved communication between School A and the H.D.P. resulted from the headteacher's decision to place the Project's work under the control of the Deputy Head, and indeed, relieved from this pressure of an over-burdened itinerary the headteacher's attitude towards the Coordinator mellowed. The changed circumstances enabled the H.D.P. to effect more frequent and effective access to the school and to create team teaching

and self-help situations. The increased opportunity to observe noted:-

- a considerable improvement in staff attitude and confidence toward the Project, a higher level of involvement and better coordinated practice;
- the maximum number of places allocated for curriculum workshops were taken up by staff from school A who proved enthusiastic participants;
- good dissemination of information and ideas was effected by course participants on return to school in a carefully planned series of workshops;
- an improvement in the quality and extent of display work mounted both at school and the H.D.P. Centre;
- an increase in team teaching and the organisation of topics of a terms duration for whole year groups;
- less stress and more enjoyment amongst participants.

3.5.3.4 Science and Technology Questionnaires

The analysis of the questionnaires should be read in conjunction with the statistical summary and questionnaire format presented in the appendices: G, H, J and K.

School A participants in the Primary Science module expressed general satisfaction with the workshop. Other than a non-committal response concerning the module's documentation, course members were in agreement as to: the value of the introduction of the module; the usefulness of the course activities; the excellence of the resources gained for school use. The nature and quality of course dissemination was recorded as effective and personal satisfaction in practical accomplishments noted as course strengths. The variety of course member's previous experience and the apparent greater facility of male teachers in science workshops were recorded as weaknesses. Respondents did not record any problems relating to resources, school based workshops or dissemination of ideas in school. A supportive additional comment was provided by School A who indicated the interest this work had created for their pupils.

The technology questionnaires were even more supportive than science in School A where the majority of respondents agreed that the module had been effectively introduced and had found other specified aspects to be very useful. Dissemination had been by staff meeting and associated work. The 'professional' help proffered by the H.D.P. was welcomed and the lone criticism concerned the lack of available time and the failure of the course to adequately introduce small group teaching techniques.

3.5.3.5 The DION Questionnaire

The climate of each of the participating Project schools was registered using the DION questionnaire results. In the Mid Term Phase of the H.D.P. the DION questionnaire was used as the evaluation moved from the largely qualitative approach of the Early Phase to a mixed methodological approach which attempted to link data derived from both qualitative and quantitative domains. The mixed method approach is in harmony with the work of Huberman and Miles (1984) who state that the researcher can combine data in an attempt to construct validity to the issues and factors emerging. The DION questionnaire was used only to highlight areas of focus in the climate of each of the Project

schools. Sixty six negative statements are responded to in the questionnaire. The collated results yield data under eleven column headings, (A through K), that indicate the issues within the school which may need addressing.

The meanings of these headings are shown below:-

Column	Meaning of the heading
A	Relationship with the environment
B	Staff selection
C	Structures and Roles
D	Leadership of Staff
E	Creativity and Innovation
F	Resource (Acquisition and Usage)
G	Problem Solving Capacity
H	Teamwork amongst Staff
I	Motivation of Staff
J	Aims (Clarity and Consensus)
K	Staff Development

School A: The DION Questionnaire

The following information should be read in conjunction with (3.5.2) and Appendix F.

Only 31.9 per cent of the staff of School A responded to the DION questionnaire as by the Mid

Phase the headteacher of School A had designated certain staff to have responsibility for H.D.P. curricular and Project management initiatives. Therefore only the designated personnel responded to the DION questionnaire.

Interpreting Table One : total scores for all respondents from School A presented by column heading.

	A	B	C	D	E	F	G	H	I	J	K
person a	3	1	5	5	0	4	4	0	5	5	3
b	3	1	4	6	1	3	3	3	4	6	3
c	3	1	4	6	2	4	4	6	6	4	4
d	2	0	2	4	3	2	0	4	3	1	3
e	1	1	3	5	4	4	5	5	4	4	4
f	2	2	4	6	5	5	5	6	6	5	5

Results indicate a similarity of scores in columns A, C, F, I and K. Columns G, H and J have one unusually low score present. These maverick scores or outliers, though noted, should not be allowed to skew the general analysis. Nevertheless, the outliers should not be discounted for, as Miles and Huberman (1984), point out, there are usually exceptions to any given finding and there is a temptation to explain them away or ignore them. But, they state,

'...the outlier is your friend. A good look at the exceptions, or the ends of a distribution, can test and strengthen the basic finding. It not only tests the generality of the finding, but protects against self-selecting biases'.

(Miles and Huberman, 1984. p.237)

In this and subsequent analyses of the DION questionnaire results, the outlier score will be circled.

The scores for School A in Table one indicate generally a similarity of perception of the climate of the school and thus a factor for setting the ground for the Hartlepool Dockland Programme.

Interpreting Table Two: Percentage of answers which are affirmative of problems in the climate of School A, presented by column headings.

Column % of affirmative answers

A	38
B	16
C	61
D	88
E	41
F	61
G	58
H	66
I	77

J	69
K	61

Identified as relatively strong problems are:

- Structure and roles
- Leadership of staff
- Resources (acquisition and usage)
- Teamwork
- Motivation of Staff
- Aims (clarity and consensus)
- Staff Development

There is a notable high registering of leadership of the staff. There are no low registered percentage scores which indicate that generally there are problems in the climate and management of school A. These factors could have an adverse effect upon the success of the H.D.P. Project as both nomothetic and idiographic problems have been highlighted as significant elements in the climate of the school. Structure and roles and leadership of staff are nomothetic concerns whilst motivation of staff and staff development reflect idiographic problems.

Interpreting table three: total scores for each of the sixty six headings presented by column heading

A	B	C	D	E	F	G	H	I	J	K
0	0	6	6	2	6	5	3	2	4	0
1	0	1	5	2	1	5	4	6	5	1
3	1	0	6	1	5	5	4	6	4	5
0	0	5	6	3	6	4	5	4	1	5
4	0	4	4	2	0	0	4	6	5	5
6	5	6	5	5	4	2	4	4	6	6

Each column is made up of six question statements to which responses are made. i.e. 6 statements x 11 columns = 66 statements. Question numbers run from left to right in each line, therefore, the first line covers questions 1 to 11, line 2 covers questions 12 to 22, and so on. As each question is isolated in this format it is possible to identify particularly distorting or emphasised questions. In the grid the questions which appear to distort the general pattern of responses for each column i.e. those questions about which staff of School A feel particularly strongly are as follows:-

question 9 - (commitment by staff to the school is not as high as it should be);

question 11 - (new staff don't settle down as quickly as they ought to);

question 14 - (some important tasks don't get carried out because it seems to be nobody's job to do them);

question 17 - (we don't make the best use of books or equipment we have got);

question 22 - (there is no systematic approach to our in-service training needs);

question 25 - (staff sometimes find that they are duplicating each others work);

question 43 - (staff do not practise the values that they preach in the way they behave at school);

question 50 - (compared with other schools we are very short of books or equipment);

question 51 - (other schools with similar problems to ours seem to cope much better);

question 56 - (we don't concern ourselves enough with the community in which the school is situated);

question 57 - (as far as promotion is concerned good internal candidates are passed over in favour of outsiders);

question 60 - (we rarely examine our existing practices to see if they could be improved);

question 62 - (we don't seem to learn from our experience in dealing with the school's problems);

There are a significant number of distorting questions in the DION responses reported here. They represent 19.7 per cent of the total question statements. Therefore, the credence of the DION Questionnaire results for School A must be called into question.

3.5.4 Specific School Data - School B

3.5.4.1 Diary Evidence

Diary evidence record a considerable number of visits by the H.D.P. Coordinator to School B during the mid-phase which involved:-

- discussing with the headteacher

- working alongside teachers in their classrooms
- participation in staff meetings in items pertaining to the H.D.P.

Further records note:-

- the establishment of a workshop in an open area outside of the classrooms;
- the redeployment and sharing of resources;
- a school-wide introduction to science teaching following Project guidelines;
- an introduction to designing and making activities by the fourth year junior teacher;
- good participation in dissemination of knowledge and practices and expressed enjoyment of the curriculum workshops.

3.5.4.2 **Semi-Structured Interviews**

Respondents in School B were less fearful, more relaxed and cooperative than in the early phase. Their responses to the schedule revealed:-

- a clearer understanding of the aims and objectives of the Project which they attributed to the documentation provided by the H.D.P. Coordinator, participation in the curriculum workshops and, in particular, the attention paid to course evaluation following the workshops in which course participants were afforded good opportunity to contribute;

- the small size of the school and a consequent lack of resources, particularly for science and technology, emerged as principal problems facing the implementation of the Project. The continued fear of staff appraisal and lack of confidence in teaching in the 'new' curricular areas remained as barriers to progress, although a willingness to 'have a go' had replaced an earlier apathy;

- good reception of the curriculum workshops. The staff had spent time in the dissemination of ideas from the courses and had painstakingly examined equipment catalogues before ordering resources via the H.D.P. to develop their resource base for science and technology;

- continued belief that the Project was of value coupled to a reduced view that 'it was too good to be true'. Respondents showed enthusiasm for many of the developments and regarded the provision of resources, willingness of the staff to adopt new practices, support and participation of the headteacher and H.D.P. Coordinator as the main facilitators of change;

- the small number of staff, the time and frequency of involvement in the Project work were proffered as the main barriers to change.

3.5.4.3 Participant Observation

School B's headteacher continued to require reassurance concerning his school's role in the H.D.P. The head regularly sought advice from the Project Coordinator and only appeared comfortable when discussing Project initiatives with the Project Coordinator and the headteachers from schools D and C. The head's lack of confidence had lessened since phase one and through the sharing of all H.D.P. information with all staff at specially arranged

meetings, to which the Project Coordinator was invited, progress was evident.

In particular:-

- teachers worked more cooperatively and their advance planning was both positive and effective;
- the out of date 'traditional' sets of materials were being replaced with carefully selected Project sponsored equipment;
- science teaching had been introduced throughout the school;
- dissemination of ideas from curriculum workshops was carefully organised and evidence of work emanating from the courses was apparent throughout the classrooms;
- school wide display work reflected the staff's more positive attitude to the Project and also revealed raised standards.

3.5.4.4 Science and Technology Questionnaires

Respondents from School B for both the science and technology components recorded supportive comments (see appendix J). Strong agreement and very useful comments were recorded for each aspect of the work for which response was requested. Disseminating of course information had taken place but it was only recorded as having used discussion techniques. The value of the 'confidence gaining' practical activities were highlighted, particularly as they provided opportunities for classroom based work and were supported by a wealth of resources. An inability for the school to adequately resource themselves for whole school project work was proffered as the sole problem facing school implementation.

3.5.4.5 (School B) The DION Questionnaire

The following information should be read in conjunction with (3.5.2) and (Appendix F). 60 per cent of the staff of School B responded to the DION Questionnaire.

Interpreting Table One. Total scores for all respondents from School B presented by column heading

	A	B	C	D	E	F	G	H	I	J	K
person a	1	2	5	3	6	6	5	1	2	3	3
b	2	0	6	3	6	5	5	1	3	3	4
c	3	1	5	4	6	4	6	0	2	4	4

Results show an even distribution of scores overall. This indicates, generally, a similarity of perception of the climate of School B and, therefore, is a factor favourable for setting the ground for the Hartlepool Dockland Programme.

Interpreting Table Two: Percentage of answers which are affirmative of problems in the climate of School B presented by column headings.

Column % of affirmative answers

A	33
B	16
C	88
D	55
E	100
F	83
G	88
H	11
I	38

J	55
K	61

Identified as relatively strong problems are:

Structure and Roles
Creativity and Innovation
Resources (Acquiring and Usage)
Problem Solving Capacity

There are two low registered percentage scores:

Staff Selection
Teamwork among Staff

Seven column headings have scores which go above 50% which does not augur well for the success of the innovation. The high rating of key areas of innovation - creativity and innovation; problem solving capacity - arguably point to problematic introduction of the H.D.P. to School B.

Interpreting Table three: total scores for each of the sixty six headings presented by column headings.

A	B	C	D	E	F	G	H	I	J	K
0	1	3	3	3	3	2	0	0	2	0
2	0	2	3	3	3	3	0	0	3	1
3	1	2	3	3	2	3	0	0	3	2
1	1	3	1	3	3	3	0	3	0	3
0	0	3	0	3	3	3	2	1	1	2
0	0	3	0	3	1	2	0	3	1	3

each column is made up of six question statements to which responses are made: 6 statements x 11 columns = 66 statements. Question numbers run from left to right in each line, therefore, the first line covers questions 1 to 11, line 2 covers questions 12 to 22, and so on. As each question is isolated in this format it is possible to identify particularly distorting or emphasised questions. In the grid the questions which appear to distort the general pattern of responses for each column i.e. Those questions about which the staff of School B feel particularly strongly are as follows:-

question 11 - (new staff don't settle down as quickly as they ought to);

question 23 - (we don't make the best use of resources available outside the organisation);

question 52 - (common tasks and problems are not tackled together).

The scores in Table three are generally low which is indicative of a good climate within School B.

There appear to be very few distorting question responses noted here, less than 5 per cent. Therefore, credence can be placed in the results of that questionnaire.

3.5.5 Specific School Data - School C

3.5.5.1 Diary Evidence

School C continued the active support of the H.D.P. throughout the mid phase that had been evidenced in the early phase. In particular the headteacher's enthusiasm and positive attitude promoted:-

- the coordination of the whole school approach to the H.D.P. by the designation of three staff to organise and develop the three curricular areas;
- the maximum take up of places on every curriculum workshop;

- a programme of dissemination after each workshop led by the course participants;
- the creation of a staffroom area designated for all Project documentation;
- the establishment of a good communication system between the main school blocks and distant nursery to ensure Project documentation was fairly and simultaneously distributed.

3.5.5.2 **Semi-Structured Interviews**

The headteacher of School C's continued, positive support for the H.D.P., and the staffs' conviction of its value is evidenced from the respondents' views. Namely:-

- meetings of staff from the physically separated buildings had focussed upon the H.D.P.'s aims and objectives, and following exploratory discussions with the Coordinator, these had not only become better understood but had been introduced into the School's own schemes of work for the specific curricular areas;

- respondents declared a lack of problems during the implementation of this phase of the Project, but rather a feeling of satisfaction in the way new ideas/techniques were being introduced, and enthusiasm for this work by both staff and pupils;

- the science and technology workshops had been highly successful and dissemination of their content led to a range of school-based activities;

- the headteacher's enthusiasm and 'quiet efficiency'; the competency and hard working approaches of the workshop leaders; and the high profile and level of school-based collaboration of the Project Coordinator were presented as the main facilitators of change;

- no major barriers to change were recognised, although respondents believed that there was insufficient time available to do justice to all of the Project initiatives;

- interference by School E's headteacher and LEA link advisor was noted.

3.5.5.3 Participant Observation

Phase two provided a good opportunity for the H.D.P. coordinator to witness developments in this school. The headteacher and staff encouraged the Coordinator to join staff meetings/informal discussions; work in the nursery and infant areas with teachers and pupils, covering language, science and technology teaching. The high level of involvement revealed:-

- a whole staff commitment to the H.D.P. programme;
- school ownership of the Project accepted;
- a careful ordering of relevant resources in the 'new' curricular areas;
- the designation of three teachers to coordinate the Project curricular areas;
- a sophisticated programme of dissemination following Project workshops led by course members;

- the storage of H.D.P. information sheets and resources in a central area and obvious staff usage of these resources;
- increased attention to display and presentation throughout the school coordinated by the headteacher;
- evidence of the impact of the H.D.P. on the nature and quality of the pupils' work.

3.5.5.4 Science and Technology Questionnaires

All members of School C's staff had been present at both the science and technology workshops. Their responses to the questionnaire revealed a very high level of support for the two modules, (see appendices J and K), and in particular the practical activities during the workshops and the level and quality of the Project resources were accorded as being 'very useful'. The level of school interaction and teacher cooperation were seen as strong aspects of the course whilst the technology visit to Beamish Museum had proved a decisive factor in their promotion. The lack of time to pursue course-related and school-based activities had proved problematic, but the overall belief was that the transfer of

ideas to the classroom had been beneficial to both staff and pupils.

3.5.5.5 (School C) The DION Questionnaire

The following information should be read in conjunction with (3.5.2) and (Appendix F). 29.4 per cent of the staff of School C responded to the DION questionnaire.

Interpreting Table One: total scores for all respondents from School C presented by column heading:

	A	B	C	D	E	F	G	H	I	J	K
person a	0	1	2	0	5	5	2	0	1	2	3
b	0	2	0	0	1	1	0	0	0	0	0
c	1	1	1	0	6	3	0	1	0	0	1
d	1	2	1	0	3	2	0	1	2	1	2
e	0	3	1	0	3	3	2	0	1	0	1

Results show low scores for columns A, D and H which indicates that the critical factors which contribute to the success of the innovation in the climate of School C are not perceived as major problems. In columns E and F the scores tend to be polarised. The staff of School C

agree on the perception of the climate, which would appear to be propitious for innovation.

Interpreting Table two: percentage of answers which are affirmative of problems in the climate of school C, presented by column headings

Column	% of affirmative answers
A	6
B	30
C	16
D	0
E	60
F	46
G	13
H	6
I	13
J	10
K	23

Only one percentage score is registered above 50% and only two above 30%.

Therefore the two relatively strong problems identified are:

- Creativity and Innovation
- Resources (Acquiring and Usage)

The latter lies outside the control of School C.

There is noticeably low registering of:

- Relationships with the Environment
- Structure and Roles
- Leadership of Staff
- Problem Solving Capacity
- Teamwork among Staff
- Motivation of Staff
- Aims (clarity and consensus)
- Staff Development

The results indicate that in the critical factors which contribute to the success of the innovation in the climate of School C there is a very strong potential for the innovation to succeed. The very low scores on leadership, teamwork and staff motivation and development point to the management of the innovation as being favourable to the success of the H.D.P. in School C.

Interpreting Table three: total scores for each of the sixty six headings presented by column headings:

A	B	C	D	E	F	G	H	I	J	K
0	1	2	0	4	0	0	0	1	2	0
0	3	0	0	4	3	1	1	0	1	0
1	0	2	0	2	3	1	1	0	0	3
0	5	0	0	3	1	2	0	2	0	3
0	0	0	0	3	5	0	0	1	0	1
1	0	1	0	2	2	0	0	0	0	0

Each column is made up of six question statements to which responses are made: i.e. 6 statements x 11 columns = 66 statements. Question numbers run from left to right, therefore, the first line cover questions 1 to 11, the second line covers questions 12 to 22, and so on.

As each question is isolated in this format it is possible to identify particularly distorting or emphasised questions. In the grid the questions which appear to distort the general pattern of responses for each column i.e. those questions about which the staff of School C feel particularly strongly are:

question 10 - (we are not clear about what we are trying to do in our school);

question 35 - (we don't seem to be able to attract the best kind of persons to the school);

question 42 - (I don't have as much chance to be creative as I would like);

question 50 - (compared with other similar schools we are very short of books and/or equipment and materials).

There appear to be very few distorting question responses noted here, just 6 per cent. therefore, credence can be placed in the results of the questionnaire.

3.5.6 Specific School Data - School D

In all aspects of the H.D.P. in its mid phase the headteacher and staff of School D were supportive and their developmental programme most effective. Early resentment at the lack of consultation, the lack of documentation and the fear of appraisal had disappeared within the early phase. The consequent lessening of stress during phase two saw the development of team spirit and a heightening of good humour.

3.5.6.1 **Diary Evidence**

Notations show:-

- frequent involvement of the Coordinator in classroom-based activities;
- maximum places taken by School D's staff for all Project workshops;
- carefully planned dissemination of the workshops by course members;
- reorganisation of classroom layout and management to reflect a more integrated approach to learning and teaching;
- attention to detail in science, technology curriculum development and to display in general.

3.5.6.2 **Semi-Structured Interviews**

Participation in the H.D.P. workshops combined with the numerous staff meetings, which were attended by the Coordinator, had clarified the aims and objectives of the Project during phase two.

The belief of the headteacher and staff of this school that they were sharing a common aim with the personnel of the H.D.P. had eliminated feelings of resentment expressed during phase one.

Implementation of the Project had eased staff fears and had promoted a positive team spirit. Fears of assessment of performance had subsequently subsided, whilst the acceptance of new strategies in teaching science and technology had been well received. Respondents presented time involved with Project work as the only problem associated with its implementation.

Respondents spoke with enthusiasm about the H.D.P. networking courses and workshops and were eager to relate the effect those strategies had on the practices now evolving in the school. A further positive factor they noted was the back up provided by the H.D.P., for school-based activities relating to the courses and to the range of resources proffered in support of science and technology.

Generally, respondents expressed surprise at their welcome of deepening involvement in the Project and the successful impact they believed it was making on their pupil's work. Increased

knowledge of each others teaching strengths was cited as a major reason for the 'vibrant team spirit' that had evolved. The simple approaches used by the H.D.P. to the technical aspects of science and technology were welcomed.

The level of collaboration between the school and the H.D.P. was declared as the principal motivation to change. Effective methods in the teaching of science and technology; resources provided by the H.D.P. and dissemination of information about the H.D.P. to neighbouring secondary schools and the involvement of their personnel were also quoted as factors effecting change. No barriers were mentioned.

3.5.6.3 Participant Observation

School D mirrored School C in the level of school based participation involving the H.D.P. coordinator. Similarly, the headteacher and staff were as equally supportive of the Project as their School C colleagues. In particular:-

- the Project Coordinator was afforded unconditional entry to the school and was welcomed/encouraged to participate in teaching, to all age ranges, of curricular

relating to the Project. Entry to the school extended to its staff meetings;

- staff of School D were: eager to participate in all Project workshops; willing to organise thorough dissemination sessions; prepared to introduce the 'new' technology and ideas into their classroom; happy to work collaboratively, their early fears of loss of subject superiority having been replaced by a strengthening team spirit and good humour;

- organisational changes maximising the use of resources, developing science and technology innovations and effecting a school-wide improvement in display and presentation of work related to H.D.P. initiatives;

- negative attitudes, interference by the headteacher of School E, were reported, but caused no damage to the Project which was efficiently led by the headteacher and firmly supported by the staff of School D who accepted ownership of the programme.

3.5.6.4 Science and Technology Questionnaires

Analysis of the questionnaires for both modules reveal strong support for both modules (see appendices J and K). The initial group of closed questions record gradations from disagreement to strong agreement or useful to very useful categories. Effective school-wide dissemination had resulted from scheduled 'special' staff meetings and/or staff discussions. Workshop strengths were noted as staff collaboration, problem solving activities and the use of normal working hours. The majority of respondents had found no weak aspects in either of the modules although one believed that there was a lack of 'really new' ideas in the primary science workshop, had found difficulty in acquiring and housing resources specified by the H.D.P. and had experienced some apathy amongst colleagues with whom she had wished to share experiences. Use of the 'big brother' video camera, as named by the staff, during the science workshop had not been welcome. Respondents generally recorded the good receipt of course strategies by their pupils.

3.5.6.5 (School D) The DION questionnaire

The following information should be read in conjunction with (3.5.2) and (Appendix F). 45.5 per cent of the staff of School D responded to the DION questionnaire.

Interpreting Table One: Total scores for all respondents from School D presented by column heading:

	A	B	C	D	E	F	G	H	I	J	K
person a	0	1	0	0	0	2	0	1	2	0	3
b	0	2	0	0	1	2	0	0	0	0	3
c	1	0	0	1	1	2	1	2	0	1	1

Results indicate an even distribution of scores apart from columns I and K which tend to be polarised. This would indicate a similarity of perception of the climate of School D which is a factor favourable for setting the ground for the H.D.P.

Interpreting Table two: Percentage of answers which are affirmative of problems in the climate of School D, presented by column headings

Column	% of affirmative answers
A	5
B	16
C	0
D	5
E	11
F	33
G	5
H	16
I	11
J	5
K	38

No percentage score is evident above 40 per cent. Therefore, there are no relatively strong problems identified by the respondents. The low problem rating of key areas of innovation indicate that the management of the innovation is very favourable for the success of the H.D.P.

Interpreting Table three : total scores for each of the sixty six headings presented by column heading:-

A	B	C	D	E	F	G	H	I	J	K
0	0	0	0	1	1	0	0	0	0	0
0	0	0	0	0	0	0	1	0	0	0
1	2	0	0	0	0	1	0	0	0	2
0	0	0	0	1	0	0	1	1	1	3
0	0	0	1	0	3	0	0	0	0	0
0	1	0	0	0	2	0	1	1	0	2

Each column is made up of six question statements to which responses are made: i.e. 6 statements x 11 columns = 66 statements. Question numbers run from left to right, therefore, the first line covers questions 1 to 11, the second line covers questions 12 to 22, and so on. As each question is isolated in this format it is possible to identify particularly distorted or emphasised questions. In the grid the questions which appear to distort the general pattern of response for each column i.e. those questions about which the staff of School D feel particularly strongly are:-

question 24 - (In promotion situations the best candidate is not always selected);

question 44 - (there are areas in the curriculum where our teaching methods or subject knowledge are not up to date);

question 50 - (Compared with other similar schools we are very short of books and/or equipment and materials).

The scores in Table 3 are generally low which is indicative of a good climate within School D.

There appear to be very few distorting question responses noted here, just 4.5 per cent. Therefore, credence can be placed in the results of the DION questionnaire.

3.5.7 Specific School Data - School E

During phase two the impact of the Project on School E diminished and relationships between the School headteacher and the H.D.P. Coordinator deteriorated.

3.5.7.1 Diary Evidence

- The headteacher issued polite, but firm, instructions to the H.D.P. Coordinator not to participate in collaborative teaching within the main school although he was prepared to allow the Coordinator access and teaching opportunities in the mile distant nursery school;

- the headteacher informed the H.D.P. Coordinator of his staffs lack of intent to work with other Project schools and of his belief that the networking courses were irrelevant for his school and staff;

- nursery school staff showed enthusiasm for the Project but were not invited by the headteacher to participate in membership of any of its courses or workshops;

- School E's staff failure to occupy the total allocation of places on H.D.P. courses;

- dissemination of H.D.P. courses detail was arbitrary and no school-based workshops were organised for this purpose with a consequent lack of input upon the pupils' work;

- display and presentation of work, whilst excellent, was organised and mounted by the headteacher only, mainly in public areas, and did not address the H.D.P. initiatives;

- two teachers approached the H.D.P. Coordinator in phase two without the

sanction of the headteacher, for advice and practical help which was given at the H.D.P. Centre.

3.5.7.2 Semi Structured Interviews

The staff of School E were generally uneasy in the Coordinators presence and there was a general lack of conversation. Respondents, who grudgingly participated in short interviews indicated that:-

- their perceptions of the H.D.P's aims and objectives remained unclear and they continued to decline total involvement;
- the problem associated with the implementation of the Project were mainly the result of 'the incompatibility' of the school and the H.D.P.'s philosophies. Respondents declined the invitation to elaborate this response;
- the workshops had had a patchy reception providing some content and methodology of value, but largely being regarded as inferior to current school practice;

- the Project was described by one respondent as being 'totally irrelevant to the school' and that participation had only carried on to 'ensure a continued supply of H.D.P. sponsored resources';
- no change in School E could be directly attributed to the H.D.P. as the school had 'elected to follow its own programme';
- the respondents declined to examine the main barriers to change believing that their earlier responses made this question irrelevant.

3.5.7.3 Participant Observation

Observation and restricted involvement in School E coupled to a reflection on H.D.P. Centre-based activities by the staff of that School revealed a continued:-

- antagonism by the headteacher toward the Project Coordinator and his frequent involvement of the LEA's Project Link Adviser, his former headteacher, to intercede on his behalf;

- demands by the headteacher to provide Project resources without school involvement in the workshops;
- response by the staff to the head teacher's promptings to remain aloof/superior to the Project;
- use of traditional/stereotype styles of operation and a retention of an inflexible cellular structure with a subsequent lack of collaboration/team teaching;
- lack of development in science and technology that was school wide but rather a retention of subject elitism amongst staff.

By contrast nursery staff welcomed the Project's concepts and its Coordinator. Through individual questioning and informal meetings these ideas were disseminated and subsequently implemented.

3.5.7.4 Science and Technology Questionnaires

Two science questionnaires and three technology questionnaires were returned by respondents from School E. The responses, which are largely

supportive, are, as a result of the low return atypical of the majority view of the H.D.P. held by its staff as revealed by preceding instruments. The headteacher of School E directed his staff not to participate in the compilation of responses to the questionnaire and involved the LEA Link Adviser in his attempted veto.

The questionnaires that were returned show:-

- an almost uniform record of agreement or usefulness of specified course facets/resources (see Appendices J and K);
- a lack of an organised course dissemination programme or staff meetings but rather dissemination through personal discussion;
- the relevancy of work to a wide age range and the practical approaches as being the strongest aspects of the modules;
- follow-up work was least effective through insufficient time, lack of total school involvement and a lack of resources;

- a request for larger schools to be allocated more course places and to be resourced according to roll numbers.

3.5.7.5 (School E) The DION Questionnaire

The following information should be read in conjunction with (3.5.2) and (Appendix F)

37.5 per cent of the staff of School E responded to the DION Questionnaire.

Interpreting Table One: Total scores for all respondents from School A presented by column heading:

	A	B	C	D	E	F	G	H	I	J	K
person a	0	0	2	0	0	1	1	0	1	0	1
b	2	0	3	3	1	1	2	4	4	2	4
c	1	0	0	0	1	1	1	0	0	0	1
d	1	0	2	4	2	1	2	3	3	4	4
e	1	0	3	1	4	1	1	3	2	1	4
f	1	1	1	1	2	1	1	0	0	1	0

The results show a low scoring consistency in columns A, B, F and G. Column K and H tend to be polarised. In columns E and J there is one unusually high score registered. The results do

not indicate an even distribution of scores but would tend to suggest that the setting is receptive for curriculum innovation if they are taken in conjunction with Table two. It indicates that because there are low percentage scores overall there are few problems with the climate of School E.

Interpreting Table two: Percentage of answers which are affirmative of problems in the climate of School A, presented by column headings:

Column % of affirmative answers

A	16
B	2
C	30
D	25
E	27
F	16
G	22
H	27
I	27
J	22
K	38

Only one percentage score is registered above 30 per cent which signifies that the only relatively strong problem in School E is:

Staff Development

There is a notable low registering of:

Relationships with the Environment

Staff Selection

Resources (Acquiring and Usage)

The results indicate that in the critical factors which contribute to the successful implementation of the innovation in the climate of School E there is a very strong potential for it to succeed. The low scores on leadership, creativity and innovation, problem solving capacity, teamwork among staff and motivation of staff point to the management of the innovation being favourable to the success of the H.D.P. in School E.

Interpreting Table three: Total scores for each of the sixty six headings presented by column headings:

A	B	C	D	E	F	G	H	I	J	K
0	0	2	2	4	0	2	2	2	1	2
0	1	0	0	0	0	0	0	2	1	1
3	0	2	1	0	0	4	2	0	2	2
0	0	1	3	2	1	2	2	3	1	5
1	0	1	1	2	1	0	2	3	0	1
2	0	5	2	2	4	0	2	0	3	3

Each column is made up of six question statements to which responses are made: i.e. 6 statements x 11 columns = 66 statements. Question numbers run from left to right, therefore, the first line covers question 1 to 11, line two covers questions 12 to 22, and so on. As each question is isolated in this format it is possible to identify particularly distorting or emphasised questions. In the grid the questions which appear to distort the general pattern of responses for each column is i.e. those questions about which the staff of School E feel particularly strongly are:

question 5 - (some parts of the school seem to be very short of creative ideas);

question 29 - (we never seem to get together to consider fully the different possible solutions to our problems);

question 44 - (there are areas in the curriculum where our teaching methods or subject knowledge are not up to date);

question 58 - (the organisation of the school sometimes gets in the way of educational purposes);

question 61 - (we don't achieve as much as we could with the power that we have);

There appear to be few distorting question responses noted here, just 7.6 per cent. Therefore, credence can be placed in the results of the questionnaire.

3.5.8 Specific School Data - School F

3.5.8.1 Diary Evidence

'To do research one needs both people who will offer support and people who will challenge and confront; it helps if these relationships are clearly negotiable.'

(P Reason and J Rowan (ed), 1981)

Throughout the mid phase the headteacher and staff of School F were unprepared to enter into any form of negotiation concerning the implementation of the H.D.P. Diary records show:-

- the headteacher indicated that he did not wish the H.D.P. Coordinator to work in the classrooms except to replace the classteacher as supply cover;

- the headteacher remained ill at ease in the presence of the other H.D.P. heads with a consequent lack of self esteem that ultimately hardened his resolve to disassociate himself from the Project;

- the teachers declared their unwillingness to work with the Coordinator in their classroom, and further expressed their continuing intent of not being involved in the Project, other than to acquire its resources;

- staff attendace on the workshops was spasmodic and no evidence appeared of dissemination of information to other colleagues, or of its impact on the pupils' work;

- the Coordinator continued to be barred from their staffroom and was excluded from all staff meetings.

3.5.8.2 Semi-Structured Interviews

None of the members of this school staff were willing to participate in the interview exercise during the H.D.P. mid phase.

3.5.8.3 Participant Observation

The problems of morale described in phase one, (3.2.9.4), remained. The headteacher's discussions with the H.D.P. coordinator were numerous and were usually spent recounting insurmountable problems. Both he and his staff continued to feel that they were under undue pressure to participate. The headteacher was a willing partner to conversations with the headteacher of School E and was prepared to heed his advice and feared the intervention of the LEA's Link Adviser. The head and staff were even more tense and had become more isolated from the Project.

There was no evidence of Project workshop new skills and techniques being tried out in school and in any case the staff of School F were poor course attendants. The headteacher, who was the most frequent course participant did not disseminate the information or skills.

No drama or designing and making took place during the mid phase. Very little science teaching was introduced and what did was not executed in the manner advocated by the Project workshops.

Resources within the school continued to lack organisation and the new equipment/materials deriving from the H.D.P. either gathered dust in the staffroom, were used incorrectly or 'lost'.

The teachers did not get on well together and, in spite of small staff numbers, would not work together as a team or on a shared topic.

3.5.8.4 Science and Technology Questionnaires

The science questionnaires returned by School F respondents were quite supportive of most of the two modules. Workshops were well received in terms of their introduction, activities and resources for schools. Documentation was recorded as useful/very useful, although, interestingly, one respondent whilst recording a useful grading for technology documentation, printed alongside this section - 'but have not seen them personally'. Dissemination to colleagues comments ranged from: 'no'; 'to a lesser extent' (?); 'no - but with colleagues on

the course - yes' (?). Practical activities were universally welcomed and noted as the strongest aspects of the modules, especially for the 'moral support' these proffered to teachers admitting to a lack of scientific and technological back-ground.

Weaknesses of the courses, expressed by one respondent were:-

- video sequences showed very different teaching situations to those experienced in School F;
- too short a notice of forthcoming workshops;
- a 'lack of dissemination; lack of collaboration' and school based work restricted to the respondents class.

3.5.8.5 (School F) The DION Questionnaire

The following information should be read in conjunction with (3.5.2) and (Appendix F) 60 per cent of the staff of School F responded to the DION questionnaire.

Interpreting Table one: Total scores for all respondents from School F presented by column heading.

	A	B	C	D	E	F	G	H	I	J	K
person a	5	5	4	5	6	5	5	6	6	5	4
b	3	3	0	0	2	2	3	5	4	4	3
c	6	1	5	5	6	4	6	5	5	5	4

Results indicate high scores generally. Columns B, C, D, E, F and G tend to be polarised. This would indicate a disparity of perception of the climate of the school amongst the staff of School F and, taken in conjunction with Table two, which presents high percentage scores in the totalled columns it would appear that the climate is not propitious for innovation.

Interpreting Table two: Percentage of answers which are affirmative of problems in the climate of School F, presented by column headings

Column	% of affirmative answers
A	77
B	50
C	50
D	55

E	77
F	61
G	77
H	88
I	83
J	77
K	61

There are no low registered percentage scores indicating that generally there are problems in the climate of School F. All eleven column headings are above 50 per cent and do not augur well for the success of the innovation. Interpreting Table three: Total scores for each of the sixty six headings presented by column headings.

A	B	C	D	E	F	G	H	I	J	K
2	1	2	2	2	0	2	2	2	2	1
2	0	2	2	2	2	2	2	2	3	0
2	2	0	2	2	3	3	3	3	3	2
3	3	2	2	2	2	3	3	3	2	3
3	1	2	0	3	1	3	3	3	1	2
2	2	1	2	3	3	1	3	2	3	3

Each column is made up of six question statements to which responses are made: i.e. 6 statements

11 columns = 66 statements. Question numbers run from left to right, therefore, the first line covers questions 1 to 11, the second line covers questions 12 to 22, and so on. As each question is isolated in this format it is possible to identify, particularly distorting or emphasised questions. In the grid the questions which appear to distort the general pattern of responses for each column are i.e. those questions about which the staff of School F feel particularly strong are:

question 6 - (compared with other schools we are very short of space);

question 22 - (there is no systematic approach to our in-service training or staff development);

question 25 - (staff sometimes find that they are duplicating each others work);

question 35 - (we don't seem to be able to attract the best kind of persons to the school);

question 48 - (those in leadership roles do not always get full support from those under them).

There appear to be few distorting question responses noted here just 7.5 per cent. Therefore, credence can be placed in the results of the questionnaire.

The scores in Table three are low which is usually indicative of a good climate within a school. However, these scores should be cross-referenced with the other results in the DION questionnaire for School F, and also those gathered by the other instruments which counter this result.

3.6 Within Site Analysis - Mid Phase

3.6.1 Dovetailed Issues in School A

Significant changes had been introduced in School A by the end of the mid phase of the evaluation.

In particular:-

- the headteacher had delegated the control of all school-based Project work to the deputy head and had created Scale posts for the teachers coordinating the specified curricular areas;
- cooperation between the School and the H.D.P. Coordinator had considerably improved and

cooperative teaching involving the staff and H.D.P. personnel had been introduced and had improved practice;

- the time involved in participating in the innovation, and its timing, in a period of teacher sanctions, continued to be criticized, but generally the teachers' attitudes towards the Project had improved;
- the school's climate was less stressful and participants recorded some enjoyment in being part of the programme.

SCHOOL A

CONTEXT CHART - MID PHASE

Legend

- + = Strong factor
- ++ = very strong factor

Items inside brackets indicate strength of the factor in round one of the evaluation; if a bracketed part is empty then in round one it was recognised though not a strong factor.

Factors Facilitating Change

nature of the innovation	+ (+)
staff support for change	++ (+)
increased cooperation between staff	++ (+)
external resource support	++ (**)
study courses	++ (**)
Schools Project leadership structure	++
HDP Coordinator	+ (+)
designation of responsibility posts	++
<u>Factors Impeding Change</u>	
time	++ (**)
timing of the innovation (sanctions)	++ (**)
headteacher's attitude	+ (**)
logistical problems of change	(+)

Typology of Management

Delegated leadership structure
Deputy Head to Project Head to
Continued, but decreasing
Sub-survience to
LEA link adviser
of Project
slowly growing.

Outcomes

Improved Cooperation between staff and HDP
Co-ordinator Support for change

EFFECTS

Innovation making progress
headteacher/staff/co-ordinator divide lessened
intervention by LEA reduced.

Fig. 20

3.6.2 Dovetailed Issues in School B

The early progress of change in this school in the early round of evaluation, noted in 3.3.2, continued throughout the mid phase. Such progress may be attributed to:-

- a continued, but declining fear of teacher appraisal;
- poor, but improving, resources particularly in the scientific and technological sphere;
- the school cellular structure and small staff numbers which were difficult to tailor to the demands of the Project;
- lack of, but improving, level of school organisation.

Credit for the progress which had occurred could be attributed to:-

- improved collaboration between staff;
- impact of the curriculum workshops;
- effective dissemination programme;

- good working relationships with the H.D.P. Coordinator which included a significant level of school-based cooperation.

SCHOOL B

CONTEXT CHART - MID PHRASE

Legend

+ = Strong factor
 ++ = Very strong factor

Items inside brackets indicate strength of the factor in round one of the evaluation; if a bracketed part is empty then in round one it was recongised though not a strong factor.

Factors Facilitating Change

nature of the innovation	++ (+)
staff support for change	+ (+)
external resource support for change	++ (++)
curriculum workshops	++
headteachers support	+
HDP Coordinators leadership	++ (++)

Factors Impeding Change

fear of comparison	+ (+)
nature of innovation	+ (+)
schools lack of facilities	+ (+)
school's cellular structure	+ (+)
time	+ (++)
lack of organisational skill	+ (+)

Typology of Management
 Continued management by consensus and democracy with improving collaboration between staff and HDP
 Emergence of headteacher in a more valuable leadership role.

Outcomes
 Implementation of strategies for Project curricular areas, and positive responses to HDP sponsored changes.

Effects

- Increase in team teaching
- revision of resources
- development of science and technology programme
- increased display of HDP's influence and staffs acceptance of the projects ownership

3.6.3 Dovetailed Issues in School C

Good progress had been made in this school in introducing policies of change effecting the development of the curriculum, introduction of new teaching strategies and pupils work.

This progress reflected:-

- the quality of the headteacher's leadership and conviction of the Project's value;
- acceptance by the staff of ownership of the Project;
- the increasing level of sophistication of the information dissemination format;
- maximum attendance on Project curriculum workshops and staff willingness to implement ideas derived from the workshops;
- a high level of cooperation between the headteacher, staff and H.D.P. personnel;
- the friendly school atmosphere and general good humour of the staff.

SCHOOL C

CONTEXT CHART - MID PHASE

Legend

- + = Strong factor
- ++ = Very strong factor

Items inside brackets indicate strength of the factor in round one of the evaluation; if a bracketed part is empty then in round one it was recongised though not a strong factor.

Factors Facilitating Change

headteacher's support	++	(++)
nature of the innovation	++	(+)
nature of the staff	++	(+)
willingness to change	++	
external support for change	++	(++)
positive ideas from workshops	++	
management strategies	+	(+)
headteacher/coordinator liaison	++	(++)
dissemination programme	+	
resource re-organisation	+	

Factors Impeding Change

dispersed school lay-out		(+)
interference by School E's headteacher/LEA adviser	+	
time	+	(+)

Typology of Management

Managing the Innovation by decisive leadership, staff involvement and close cooperation with HDP personnel. the project accepted.

Outcomes

Establishment of team teaching and the address of specified Project curricular areas. Continued up-grading of resources. Evaluation exercises.

Effects

high impetus
high staff commitment and collaboration
successful curriculum development
School/HDP partnership.

3.6.4 Dovetailed Issues in School D

Morale in School D throughout the mid phase was high and implementation was effectively promoted and maintained. The initial fear of teacher appraisal and general lack of confidence amongst staff had been replaced with a general acceptance of ownership of the Project, and the belief that they gained kudos by being participants. The principal factors facilitating this change were:-

- a carefully organised programme of change orchestrated by the headteacher closely supported by the Project Coordinator;
- maximum attendance on the project workshops followed by a carefully organised dissemination programme;
- involvement of the total staff through continued open-management practices;
- willingness of the staff to be involved in the 'new' ideas for science and technology and to adopt team teaching strategies;
- careful ordering and centralisation of resources.

SCHOOL D
CONTEXT CHART - MID PHASE

Legend

+ = Strong factor
++ = Very strong factor

Items inside brackets indicate strength of the factor in round one of the evaluation; if a bracketed part is empty then in round one it was recongised though not a strong factor.

Factors Facilitating Change

headteacher's support for change	++ (++)
grassroots involvement of staff	++ (++)
curriculum workshops	++
external resource support	+ (+)
climate for change in school	++ (+)
working partnership with HDP	++ (+)

Factors Impending Change

time	+ (+)
fear of criticism	+ (+)
attempted interference from School E	+ (+)

Typology of Management
Democratic leadership managing to be innovation by consensus. Welcoming collaboration from the HDP and other Project Schools. Staff ownership of the Project accepted.

Outcomes
Development in specified curricular areas
School-based Project management efficiency how high

Effects
Innovation making good progress
Staff involvement and cooperation high
School/HDP liaison successful.

Fig. 23

3.6.5 Dovetailed Issues in School E

Pragmatic scepticism continued to dominate the thinking of School E's headteacher and those members of the staff who opted or were coerced into following his lead. The innovation's slow progress in this school was attributed to:-

- the headteachers continued unwillingness to cooperate with the Project Coordinator and his prompting of the staff to remain aloof from its programme;
- the continued adherence by the staff to traditional and stereotypic modes of practice;
- a continued presence of subject elitism at the expense of team teaching and collaborative practice;
- spasmodic workshop attendance and lack of dissemination programme.

The results of the DION Survey were in some instances at variance with the findings yielded by the other instruments. Belief in the authenticity yielded by the analysis of those other instruments was possibly influenced by the recognition of the normal stance of the identified DION participants

in School E and their sense of loyalty to the school.

In School E's distant nursery premises a more amenable atmosphere to change was developed and a supportive staff promoted H.D.P. curricular changes. Here collaborative practices utilised the services of the H.D.P. personnel and its resources.

SCHOOL E
CONTEXT CHART - MID PHASE

Legend

- + = Strong factor
- ++ = Very strong factor

Items inside brackets indicate strength of the factor in round one of the evaluation; if a bracketed part is empty then in round one it was recongised though not a strong factor.

Factors Facilitating Change

teacher led curricular areas	(+)
external resource support for change	++ (++)
staff support for change in nursery area	++
planning meetings between Project Coordinator and individual members of staff	+
existing policies for curriculum development	(+)
<u>Factors Impeding Change</u>	
headteacher's leadership	++ (++)
headteacher's antagonism towards HDP	++
Staff's motivation to change in relationship to HDP initiatives	+
headteacher's link with LEA Project Adviser	++ (++)

Typology of Management

Autocratic leadership limiting staff participation in the innovation, undermining its initiatives and prohibiting its school application

Outcomes

Continued policy of independency. Confrontation between headteacher and HDP Coordinator. Some fragmentation of staff loyalty.

Effects

- Innovation making very slow progress
- school/HDP liaison further weakened
- school operating separately from other Project schools
- Attempts to alienate goodwill of other H.T.'s

Fig. 24

3.6.6 Dovetailed Issues in School F

School F continued to present the greatest number of problems to the H.D.P. Coordinator and the most barriers to change in the mid phase of the evaluation. The characteristics of the school remained:-

- poorly led, poorly resourced; low morale.

Very little evidence of change existed, or indeed of the existence of the H.D.P. This may be attributed to:-

- vacillating, yet dangerous, leadership which often deliberately mislead the staff of the school or adopted the attitude of non-participation;
- an unwillingness, or inability, of the staff to collaborate in any style or manner;
- evidence of considerable tension within the staff and a high level of stress-related illness and, therefore, frequent staff absences;
- poor attendance at H.D.P. workshops and little endeavour to disseminate course ideas and information;

- continued, and increased, hostility shown to the Project Coordinator. Refusal to accept Coordinator's help or to allow participation in classroom-based activities;

- willingness to accumulate H.D.P.-funded resources, but not to use them.

SCHOOL F

CONTEXT CHART - MID PHASE

Legend

- + = Strong factor
- ++ = Very strong factor

Items inside brackets indicate strength of the factor in round one of the evaluation; if a bracketed part is empty then in round one it was recongised though not a strong factor.

Factors Facilitating Change

external resource support for change	+	(+)
size of classes/number of pupils	+	(+)
curriculum workshops		
frequency of Coordinator visits		
location of HDP centre		
<u>Factors Impeding Change</u>		
headteacher's leadership	++	(++)
staff motivation to change	++	(++)
staff health/stress factor	++	(++)
staff cooperation	++	(++)
poor attendance at workshops	+	
lack of dissemination policy/programme	+	
loss/misuse/theft of Project sponsored equipment	+	
interference by head of School E/LEA Link Adviser	+	

Typology of Management

Vacillating, but mainly weak, leadership.
Lack of delegation.
Non-participator policy.

Outcomes

little support for change - no formal project staff meetings nor dissemination of project workshop ideas / materials / documentation.

Effects

- Innovation making no apparent progress
- continued absenteeism from Project workshop
- Increased staff hostility toward HDP Coordinator

Fig. 25

3.7 Cross Site Analysis - Mid Term Phase

In this, the second, cross site analysis an attempt is being made to draw from the site specific data a range of factors which appear to be operating in the evolution of the innovation in general.

Evaluation of the mid term phase of the H.D.P. shows that whilst the Project schools continued to variously reflect both autocratic and participative styles of management, traditional and progressive teaching methods, pupil groupings and staff deployment, the ownership of the Project had been accepted by the majority. Most teachers felt that there was kudos associated with membership of the Project which was seen, by the majority, as a special and significant educational development. Headteachers, or their delegates, in conjunction with the H.D.P. Coordinator had made teachers aware that their participation, ideas and evaluations were greatly valued.

Generally, the Project teachers were more relaxed, receptive and less aggressive than during the early phase of the evaluation. School F continued to demonstrate its problems and elsewhere extant, but diminishing, record of fear and stress concerning new initiatives and the use of new resources, techniques and methods were evident.

Greater commitment, enthusiasm, participation and development of specialist expertise was witnessed in four of the schools during the Project mid phase. The well received curriculum workshops/modules produced increased staff involvement, which extended to the non-teaching professional activities. Classroom activities were no longer seen in isolation or limited to the immediate in time and space. There was a greater awareness and an attempt to see teaching as a rational activity rather than, or, not just as, an intuitive one. A greater commitment was given to the use of first hand experiences and problem-solving techniques, which were often cross curricular by design.

The mid phase of the H.D.P. saw a noticeable development in the teachers' receptivity and openness to new ideas and other teachers and pupils views. Headteachers or delegates, of four project schools nurtured this process and valued the development. School E and School F for different reasons became less receptive and more isolated.

Amongst the schools there was an acceptance of agreed rhetoric concerning collaboration, but the practice was at various stages of development which related to where the teachers and schools were in their professional development.

The on-going value of the Project headteachers and Coordinator giving time and support for Project teachers, to articulate their concerns, ideas and evaluations of the Project facets, emerged as a telling factor. Here again, School E and F were shown to lack collaborative/supportive practice.

The Project had introduced many teachers to the philosophy, skills, knowledge, concepts and practice associated with primary science and technology. The curriculum diet of the majority of Project schools had shown evidence of a developing skills-orientated approach.

The benefits of the availability of finance for teacher release/supply cover could not be too highly commended. At a time of great educational unrest and sanctions the teacher release facility had allowed and encouraged school-based, school time workshops, school team support networks to develop and seminars to disseminate and evaluate Project initiatives.

Evaluation of the mid-term H.D.P. revealed that dissemination of course information in the majority of the school was effective and took a variety of forms:-

- school based workshops;
- seminar group;
- team teaching;
- paired sharing activities;
- team and staff formal and informal meetings;
- exchange of teacher expertise between different pupil groups.

The level of dissemination effectiveness again reflected the leadership of the school commitment to the Project.

SCATTERPLOT COMPARISON OF THE H.D.P.'S MID TERM PLANNING OUTCOMES

Fig 26 PROGRESS THROUGH THE MID-TERM IMPLEMENTATION

		Poor	Fair	Good	
OWNERSHIP OF THE E.S.G. PROJECT	High			School C School D (2)	(2)
	Medium		School B (1)	School A (1)	(2)
	Low	School F (1)	School E (1)		(2)
		(1)	(2)	(3)	

The matrix (Fig. 26) is a representation of the way in which the issues have been progressively focussed and show the positions of the Project schools relative to their acceptance of the ownership of the H.D.P.

3.8 The Late Period of the Dockland Project

3.8.1 Introduction

The cycle of analysis established in 3.2 - 3.7 is repeated for this section; with the addition that the setting of a general context will derive both from a reading of empirical data of this late period and from data derived from the early and mid phase. The procedure ensured that further progressive focussing will take place and that the cycle of analysis, typifying an action research model, is maintained.

3.8.2 Methodology

Pursuing the process established in the earlier round, an attempt is being made in the final phase of the evaluation to further broaden the data gathering base. The continuing concern of the innovation with people and processes, as well as the Project's programme, has necessitated the use of a range of data gathering methods that include those initiated in round one, and continued in the mid-phase, and an additional instrument. The data gathering instruments used in the H.D.P.'s late phase are:-

- diary evidence (as in earlier phases);

- semi-structured interviews with Project members (as in earlier phases);
- participant observation (as in earlier phases);
- the introduction of a new instrument - Nominal Group Technique - a group evaluation procedure administered to Project Schools staff and used in support of the cross site analysis.

The attempt to serve concurrent validity and to continue to explore the climate of the Project schools and the perceptions and concerns of their members, necessitated both retaining existing instruments and increasing their range.

Care continues to be exercised in the avoidance of needless repetition of material presented in earlier rounds and again, to this end, school specific data is largely presented in summary form.

3.8.3 Specific School Data - School A

3.8.3.1 Diary Evidence

The analysis of diary evidence continued to follow the pattern adopted in the earlier rounds by focussing on organisational matters, the

focii of change and the principal items for review. These showed for School A:-

- the continued promotion of H.D.P. activities by the school's deputy headteacher and by the Scale 2 teachers delegated responsibility for its main curricular areas;
- curriculum leaders had developed confidence to lead colleagues in school and Project-based work. Whole school topic work had functioned during each term which had required cooperation, collaborative planning and teaching, documentation, assessment and recording;
- good, evenly shared, participation in Project workshops;
- invitations to the school's teachers to participate as leaders in LEA workshops as a result of their involvement in the Project;
- children had been involved in the planning and evaluation of topics;

- parents had been actively involved in the school programme;
- there had been an increased use of science and technology support teachers and other professional experts within the school.

3.8.3.2 **Semi-Structured Interviews**

The semi-structured interview schedule employed in the earlier phases, see appendix E, was re-introduced in the late phase. Here, partly to avoid repetition and partly to make best use of the limited opportunities that arose in which to interview participants, attention focussed on questions 4 to 8 inclusive. The analysis of the interview responses, which should be read in conjunction with the schedule, showed that:

- the school had developed its own managerial structure to facilitate the introduction and development of all Project matters. Respondents consequently emphasised the effectiveness of this organisation and the subsequent absence of significant problems affecting the H.D.P.;
- the workshops were again described as highlights of the Project. Of these the

problem solving computer activities and the Primary Science workshop on 'Air' received supportive review;

- The visit of the E.S.G.s H.M.I. had accentuated the national status of the Project in teachers' eyes and had further promoted a belief in the kudos associated with participation in the scheme;
- the project was described as 'going well' and 'effecting good collaboration between staff, improving the work of the pupils and involving the cooperation of parents';
- the H.D.P. Coordinator had been identified as a member of the school's team and, whilst the school now boasted ownership of the innovation, the Coordinator was recognised as a welcome partner;
- lack of time, alone, was noted as a barrier to implementating the Project's programme of change.

3.8.3.3 Participant Observation

Factors identified in the mid phase of the evaluation were still largely true with increased strength being given to:

- staff support for and organisation of change;
- the nature of the innovation;
- involvement of pupils in Project planning and evaluation;
- parental support for Project initiatives, particularly in science and technology.

Identification with the Project and participation in its programme of dissemination and implementation was now being quoted as a positive factor in staff promotion. 'Kudos' mentioned in the mid phase developed into concrete evidence in the final phase as teachers from School A gained successful promotions within and beyond the LEA. Evidence of a firming partnership between members of staff and the Project Coordinator came in the form of reference requests and through lengthy professional discussions.

Course/workshop participation, dissemination and resourcing had now formed into a business-like process in which School A's staff were willing and effective partners, and to which the Project Coordinator's contributions were welcomed.

A significant change within the late phase was the concern shown by the school for effective evaluation of its school based work which was related to a competent record-keeping process.

3.8.4 Specific School Data - School B

3.8.4.1 Diary Evidence

Evidence from School B's late phase reveals an accelerated programme of change. In particular:-

- the change in the organisational management of classrooms allowed team teaching;
- whole school themes were adopted, planned and executed by collaborative staff involvement;

- there was a move away from theoretical and written formal work and towards practical activities;
- resources were centralised and a practical work area established facilitating development in science and technology;
- display was given high priority providing a clean bright welcoming school environment.

Staff continued to give full support to workshops and took care to disseminate information and share ideas through a structured feed-back process. The staffroom atmosphere, increasingly relaxed and friendly, nevertheless reflected endeavour and professionalism.

3.8.4.2 **Semi-Structured Interviews**

Respondents from School B had appeared eager to participate in the interview programme and spoke of the changes occurring within the school with pride. Their responses to the schedule highlighted:-

- an acceptance of ownership of the innovation by all members of staff and the

development of a planned long-term programme of change aimed at 'introducing' team teaching and employing whole school themes and centralised resources;

- a positive attitude toward improving the school's ethos both by effecting physical changes to structure and decor and by introducing teachers' collaborative practices;
- the late phase as being the most positive response to the H.D.P. initiatives in which earlier fears and tensions had largely disappeared to be replaced by activity and involvement which in itself created pride of ownership.

Respondents revealed evidence of staff apprehension in advance of the H.M.I. visit, but described the visit itself as a 'non-event'. Within the late phase a programme of workshops, 'display techniques' and 'problem solving computer activities' received good mention. It was noted that these workshops had responded to school needs and had catered for a full range of age and abilities of the pupils, and in this way belief that the Project was achieving its goals.

The main facilitators of change were described as:-

- staff support for change;
- school leadership support for change;
- the nature of the innovation;
- school-based participation of the H.D.P. Coordinator.

Barriers to change were described as few and decreasing with the exception of the increasing time involvement necessitated by the Project and some interference from the headteacher of School E.

3.8.4.3 Participant Observation

Factors identified in round two were still very largely true, with increased strength being given to both internal and external pressures for change. This pressure came from: a headteacher who had gained in confidence as the Project evolved; the unification of staff interests and enhanced morale which created a school-wide climate for change; the need to present a good school image and evidence of

progress within the Project to H.M.I. and other visitors to the H.D.P.; the continued prompting of the H.D.P. Coordinator and the gradual withdrawal of leadership support which necessitated school acceptance of ownership of the programme; the need to address Project evaluation.

In particular, observations in School B showed:-

- an increase in headteacher initiated activities, including responsibility for dissemination and school-based implementation of work schedules;
- the development of team-teaching strategies;
- curriculum emphasis switched from traditional patterns of work towards a more practical bias;
- a continuing emergence of science and technology with a related up-grading of resources;
- evidence of staff and pupil enjoyment, and progress, in Project related workshop activities;

- school-wide display of Project related work in which attention focussed upon a balance of good record keeping and the enhancement of the school environment.

3.8.5 Specific School Data - School C

3.8.5.1 Diary Evidence

Organisational matters in School C, pertaining to the H.D.P., remained as effective as noted in earlier rounds. The headteacher continued to provide strong support for the Project, encouraged staff initiatives within its curricular areas and undertook leadership roles in programme dissemination and course evaluation. Specific organisational developments in the late phase included:-

- the creation of a cohesive collaboration process that facilitated clear staff unification amongst personnel drawn from physically separated buildings;
- the re-design of the library area to provide a resource base for teachers and pupils;

- the coordination of a self help programme, involving teacher and parents, to improve the school's environment by improved display, attention to in-school paintwork and the construction of shelves for science and technology resources and display boards.

The principal changes recorded in School C, for its late phase, are:-

- teachers appointed as curriculum leaders, had developed the confidence and expertise to organise and present workshops for their school colleagues;
- whole-school projects had been developed which required collaborative planning and teaching, documentation, assessment and recording;
- an integrated day teaching system and team planning programme had been introduced for both upper and lower age range pupils;
- attention had been paid to course evaluation.

3.8.5.2 Semi-Structured Interviews

Responses indicated that factors that had been identified by round two were still largely true, with increased strength being given to:-

- headteacher democratic support for change and willingness to delegate facets of the Project curriculum development to a range of staff;
- the nature of the innovation;
- staff support for change, the staff were eager to become involved in the designated curricular areas and to accept ownership of the Project;
- the involvement of parents and pupils.

Problems relating to these changes were described as organisational, but respondents insisted that this was 'not only well in hand, but had in itself created greater staff cohesion and conviction of the H.D.P.'s value and kudos to be gained by association';

Apart from school-based reorganisations of staff teams, teaching programmes and resource re-

distribution, respondents felt that the following late phase Project activities had aided their personal development and benefitted their pupils:-

- workshops in problem solving computer aided activities;
- primary science 'Air'; and 'approaches to reading';
- the evaluation seminar 'Primary Technology'.

The H.M.I. visit to the Project, whilst noted was described as 'an interesting event which was, nevertheless, only another busy day in a very busy term'.

Respondents were adamant that the Project was going well and achieving its goals and identified the strengths of the headteacher, staff and H.D.P. Coordinator team as continuing to be the facilitators of change. The development of pupils' work reflected a more practical approach to activities, particularly in science and technology, as pupils took more responsibility for their own learning and

resources. This progression was also proferred as evidence of the Projects positive influence.

The intermittent, yet nevertheless annoying, interference of School E's headteacher was noted by respondents who were particularly worried by his threats to involve the LEA's Link Adviser in proposals that ran counter to H.D.P. initiatives. The fear of 'reprisal' however, had largely been tempered by the promotion of staff who were recognised as supporters of the H.D.P.

3.8.5.3 Participant Observation

The H.D.P. Coordinator continued to benefit from the many opportunities created by the headteacher and staff of School C during the late phase of the Project, to participate in school-based activities. The facility was further enhanced by the continued high level of support for H.D.P. workshop seminars and meetings given by the head and staff. Observations show that the programme of change and demonstration of good practice, recorded in earlier rounds, had continued. Greater attention was now being focussed upon:-

- curriculum development and course evaluation;
- teacher led initiatives;
- integrated day teaching system for upper and lower schools;
- staff development programmes.

Staff, parent, pupil and Coordinator involvement in School C was being carefully and effectively organised by the industrious headteacher.

The involvement of parents had enabled small group work to extend into neighbouring local environments and had provided valuable improvements to the schools appearance, and increased shelving and display facilities.

A more systematic programme of recording and evaluating childrens' progress had been instituted. Science and technology initiatives continued to receive attention within a well-balanced curriculum. Careful purchase of resources supported these developments.

The staff of school C had fully accepted ownership of the Project and made regular

suggestions as to workshop content, supplied evidence of work carried out in school, were regular contributors to the Project monthly newsletter, led facets of Centre-based seminars and made positive requests for help in review evaluation and appraisal procedures.

3.8.6 Specific School Data - School D

3.8.6.1 Diary Evidence

The progress outlined in the mid phase evaluation continued to operate in School D. In particular, team spirit had grown into a high level of collaboration that extended into most facets of the school's work. Diary entries show:-

- carefully organised staff meetings in which a systematic analysis of Project initiatives was executed by course participants;
- the development of an integrated day teaching system;
- science and technology teaching occurring in all age ranges with an emphasis on practical work;

- teacher curriculum leaders having developed the confidence and expertise to organise and present school-based workshops;
- the presentation of display evidence using a range of media, showing work pertaining to the H.D.P. on a school-wide basis;
- the establishment of evaluation initiatives incorporating a programme of record-keeping;
- continued careful purchasing of H.D.P. sponsored resources for the practical subjects area fitting into an equally careful centralisation of resources policy, organised and maintained by the school staff;
- evidence, through the childrens' work of the nature, scope and progress effected by Project initiatives.

3.8.6.2 **Semi-Structured Interviews**

Staff resentment at being involved in the Project, declared in round one of the evaluation, that had evaporated by the mid phase

to be replaced by a feeling of partnership had, by the late phase developed into a pride of ownership attitude in which respondents proudly described their progress and capably sketched future intentions.

In a school which was competently carrying out major change in its teaching strategies and to the curricular programme, few problems apart from the constraint of time, were recorded by respondents.

Whilst H.D.P. workshops continued to be well received, the primary science and problem-solving computer assisted activities being especially mentioned, respondents were now keen to reflect on school-based developments particularly their movement towards course evaluation. The visit of the E.S.G. H.M.I. and the compilation of an evaluation report had provided a sufficient stimulus for the establishment of a teacher group to prepare a school policy for recording and evaluating pupil progress. Science and technology remained the principal focii of change and more sophisticated resourcing of these practical activities had reflected in the school-wide displays which frequently used three-dimensional design formats for whole-school projects. School-wide aims and

objectives had been formulated by the staff for the Project in its late phase and these, respondents believed, were being achieved.

The provision of supply cover and resources, the effective collaboration between school staff and staff of the H.D.P., the quiet, efficient and encouraging support of both headteacher and Coordinator were offered as the principal facilitators of change. Attempted interference by the headteacher of School E in the inter-school response to the H.D.P. and the apparent inability of representatives from School F to offer either positive or systematic support to the Project were noted, but not offered as serious barriers to change at the individual school level.

3.8.6.3 Participant Observation

School D, in the late phase, displayed much evidence of a happy, enthusiastic, highly motivated group of teachers who reacted positively to effective school leadership and who welcomed the collaborative support provided by the H.D.P. In particular:-

- the work of pupils reflected the implementation of initiatives from Project

workshops and the teachers attention to practical work in science and technology within a whole-school curriculum policy;

- a carefully defined and coordinated policy of record keeping had been instituted;
- attention was paid to programme evaluation, for which school documentation had been produced;
- teachers appeared bouyant and associated the Project with the growth of personal kudos for which they quoted instances of staff advancement including one appointment to headteacher grade;
- within the school environment there was much evidence of the care paid by the school to Project initiatives which in themselves, whilst indicators of content, reflected attention to enhancement of classrooms and work areas in particular, and to the whole school image;
- pupils received the new practical initiatives enthusiastically and participated in the evaluation of these initiatives;

- parents had been involved in school improvements associated with Project demands and had aided course-related field exercises, the Home-School Reading programme and attended workshops presented by the staff and pupils in the designated curricular areas;

- the staff of School D appeared not to be deterred by unprofessional comments presented by both the head and some staff of School E and were prepared to tolerate the intermittent participation of staff from School F.

3.8.7 Specific School Data - School E

3.8.7.1 Diary Evidence

The strained working relationship between the headteacher of School E and the H.D.P. Coordinator described in the mid term evaluation, (3.5.7), had worsened during the final phase of the Project. Instructions had been issued by the headteacher to the staff of School E to restrict Project work to that which was positively related to the school needs. The headteacher stated that his staff may well experience 'innovation overload' because of the

pressure of work from school and LEA initiatives other than the H.D.P. The Coordinator was informed, by telephone, that School E would not liaise with other schools and H.D.P. Project personnel would not be given permission to work within the school, although, as in the previous phase this prohibition did not extend to the separate nursery provision. Excluded from proper channels of communication the H.D.P.'s work with School E was seriously restricted:-

- Workshop places were not totally filled by the school staff;
- Individual teachers had sought the Coordinator's participation within their classroom, but not as a structured part of of the schools involvement in the Project;
- There was little evidence in school of pupils work emanating from Project initiatives apart from the increase in their resources which the school continued to request;
- Science and technology continued to operate as the domain of subject specialists with a minimum of teacher

collaboration and a lack of resource centralisation;

- Display, as recorded previously, continued to be well organised by the headteacher and to provide a good visual introduction to the school in public areas. The quality of display was less effective elsewhere and rarely incorporated aspects of the Project's work;

- Nursery staff participated in the Project in isolation from their school colleagues. The H.D.P. Coordinator continued to visit this separate block and participated in teaching and programme dissemination.

3.8.7.2 Semi-Structured Interviews

Various claiming that, views had not changed from the mid phase, pressure of work prohibited participation, or 'fearful of headteacher disapproval', several course members from School E declined to participate in the short interview session. The one respondent taking part indicated that:-

- the staff of School E had discussed the current activities of the Project and

continued to support their headteacher's view that they 'were not appropriate for their school';

- workshops had been quite useful, but were not identified as being sequential or systematic and thus provided no difference to INSET courses and were less tailored to school needs than training days;
- change occurring within the school during this phase could not be directly attributed to the H.D.P., but rather to planning organised and introduced by the school itself;
- some facets of science and technology had been introduced by a Project participant and the equipment obtained from the H.D.P. had been of value. As a facilitator of change in these subject areas, the respondent paid respect to the member of staffs existing knowledge and his ability to 'customise' the Project's work in order to fit the school's programme;
- discussing facilitators and barriers to change in School E lay largely outside of the H.D.P.'s 'zone of influence'.

3.8.7.3 Participant Observation

The strained relationships between the H.D.P. Coordinator and the headteacher of School E, previously presented, restricted the former's ability to participate in all but peripheral school-based activities. Observations recorded below relate mainly to H.D.P. Centre workshops/seminars and to visits to School E's nursery block.

These show:-

- individual participants developing confidence in the prescribed Project curricular areas leading to the initiation of facets of this work in school;
- a continued demand for resources without participation which, when met with a negative response, led to further antagonism between headteacher and Coordinator and the heads involvement of the LEA's Link Adviser in support of this stance;
- continued employment of traditional teaching methods, which excluded collaborative-team teaching, and operated

in separate classrooms to a fixed timetable and maintained subject elitism;

- a nursery staff, operating independently from the remainder of the school, involved in all aspects of the Project which in this phase had lain emphasis on course evaluation.

3.8.8 Specific School Data - School F

'Organisations are dynamically conservative; that is to say, they fight like mad to remain the same. Only when an organisation can't repel, ignore, contain or transform the threat does it respond'

(Schon D A, 1983)

3.8.8.1 Diary Evidence

Changes were introduced into School F in the late phase which had appeared unlikely from the evidence emerging in earlier phases. The motivation for change came from two sources, leadership fear and leadership changes. The headteacher of School F, aware of the H.M.I. visit to the school, had become fearful of the exposure of the school's poor response to H.D.P. initiatives. This led to limited attempts to 'dress the school' with appropriate, Project focussed displays and to introduce some work in

science and technology. In spite of this display of support for the H.D.P. the headteacher's initiatives were met with staff hostility. However, within the late phase the school's deputy headteacher was granted early retirement on the grounds of ill health. The successor to this post was an industrious teacher from School A who, having passed through the initial phase of resentment and uncertainty over the H.D.P. at that school had emerged as one of its active converts. The effects of these two developments had been:-

- the introduction of sporadic use of practical science and technology work in most classrooms, coinciding with the H.M.I. visitation;
- improvement of Project focussed display work in public areas of the school, all of which had been arranged by the deputy headteacher;
- improved attendance on H.D.P. workshops;
- dissemination of expertise and information from workshops by the deputy headteacher, to whom the headteacher delegated Project

matters - the first such occurrence in School F;

- a general improvement in display and art features in the upper school area reflecting the deputy headteacher's influence;
- the introduction of parental involvement in school-based social events and in art and craft, outside visits and home reading programmes organized by the deputy headteacher;
- evidence of use of H.D.P. sponsored resources and a more careful approach to the ordering of the resources under the control of the deputy head.

3.8.8.2 **Semi-Structured Interviews**

The information in this section is based upon a single interview with the deputy headteacher of School F, all other members of staff having refused to participate. It is accepted that in consequence of the limited sample and the declared interest of the respondent, the evidence may not be generalised.

The respondent presented much evidence of the problems facing the implementation of the Project. In particular:-

- the staffs unwillingness to discuss initiatives;
- the poor attendance by staff on the earlier H.D.P. workshops which had resulted in the failure to build a platform for change;
- the unwillingness of staff to permit either the deputy headteacher or Project Coordinator to work within their classrooms;
- the failure of staff to share expertise and resources, or to work collaboratively;
- the evidence of stress, tension, unhappiness amongst staff who, when asked/obliged to participate in the Project, frequently resorted to antagonistic and occasionally violent behaviour.

The respondent had found the workshops helpful and was particularly satisfied with those

featuring primary science and problem solving activities. Due to the problems existing within the school, the respondents view was that the Project had made little impact in the past and that by increasing staff stress was possibly causing harm. Concern was expressed about the effect lowering staff morale was having on the pupils. The respondent declared an intention to facilitate change, but described the need for caution and gradualness.

3.8.8.3 Participant Observation

Banned from the staffroom, prohibited from working in the classrooms and frequently subjected to verbal abuse and threatening behaviour the H.D.P. Coordinator's observations of School F, in the late phase, revealed that:-

- the problems of morale and unwillingness to work as a team, described in earlier phases, remained;
- the headteacher remained unsupportive of Project initiative and had welcomed the opportunity to delegate these duties to the newly appointed deputy head;

- artificial and temporary responses to Project workshops had coincided with the E.S.G. Project H.M.I. visit;

- increased attendance at Project workshops was largely due to the deputy head's participation;

- attempts to disseminate workshop information by the deputy head was largely met by a mixture of disinterest and antagonism;

- An improvement in teaching method, width and depth of curricular initiatives, within the upper school led by the deputy head, included the introduction of science and technology practical work;

- a more efficient selection of resources for the Project had been organised by the deputy head.

3.9 Within Site Analysis - Late Phase

3.9.1 Dovetailed Issues in School A

The significant level of change reported in the mid phase evaluation had continued throughout the late phase with increased strength being given to:-

- the development of the deputy headteacher's Project leadership role;
- staff support for change, further strengthened;
- the nature of the innovation, particularly the attention given to evaluation;
- closer cooperation between the school and H.D.P. personnel.

Attendance at Project workshops, good dissemination of information, development in science/technology practical teaching had been maintained and in some cases strengthened in round three. Evidence had been gained of the positive influence of the Project innovations on pupil's work.

The emergence of the Scale post curriculum leaders, appointed in mid phase, (3.6.1), as confident support and development tutors promoting change,

leading school based seminars and organising resources for their colleagues in the Project curricular areas, was the most important development in School A during the late phase. The combination of confident staff support for change and the enhanced leadership stature of the deputy head facilitated the acceptance of staff ownership of the Project.

The continuing pace of change, which in phase three had quickened, accentuated the time demands made by the H.D.P. and had been the lonely factor noted as hindering projected changes.

SCHOOL A

Context Chart - Late Phase

Legend
 + = strong factor
 ++ = very strong factor
 () = strength of the factor in round one of the evaluation
 [] = strength of the factor in round two of the evaluation
 n.b. = if a bracketed part is empty then in that round(s) it was recognised though not a strong factor

Factors Facilitating Change

	<u>Phase</u> → Late → Early → Mid		
nature of the innovation	++	(+)	[+]
staff support for change	++	(+)	[++]
level of staff collaboration	++	(+)	[++]
external resource support	++	(++)	[++]
study courses/workshops	++	(++)	[++]
schools leadership structure	++	(+)	[++]
HDP Coordinator	+		[+]
<u>Factors Impeding Change</u>			
time	++	(++)	[++]
timing of the innovation (sanctions)	+	(++)	[++]
headteacher's attitude		(++)	[+]
logistical problems of change			[+]

Typology of Management
 Delegated management: (deputy head and curriculum post holders); managing the innovation by decisive leadership and by managing staff involvement

Outcomes
 good collaboration - staff/HDP personnel
 grassroots curriculum development
 starting more practical work
 staff discussions, seminars, workshops
 introduction of course evaluation

Effects

- high impetus
- high staff commitment
- course development
- staff cohesion
- innovation making progress
- positive climate

Fig. 27

3.9.2 Dovetailed Issues in School B

Rounds one and two of the evaluation had revealed a slow pace of change occurring for this school. Within the late phase the pace of change had increased largely due to:

- the virtual cessation of fear of teacher appraisal and the belief that inter-school comparison would not be effected;
- improved organisational management that had largely overcome the constraints of the school's cellular structure;
- increased staff collaboration relating to whole school thematic approach as that focussed upon the specified curricular areas;
- planned attention to the improvement of the school's climate for change.

Particularly effective in the late phase, had been the school's acceptance of ownership of the Project which resulted from the growing belief that:-

- the proposed changes were relevant to the school as a whole;

- benefits would accrue for both pupils and staff;
- the changes were feasible in terms of required resources, and time available.

The headteacher of School B, never to be a dynamic force for change, had grown in leadership stature as the Project proceeded with the support of the school and H.D.P. staff and through effective dissemination of information and strategies from the well-received Project workshops. The headteacher had created purposeful, whole-school activities that were clearly linked to the change goals and priorities.

SCHOOL B

Context Chart - Late Phase

Legend
 + = Strong factor
 +- = very strong factor
 () = strength of the factor in round one of the evaluation
 [] = strength of the factor in round two of the evaluation
 n.b. = if a bracketed part is empty then in that round(s) it was recognised though not a strong factor

Factors Facilitating Change

Phase	Late	Early	Mid
nature of the innovation	++	(+)	[++]
staff support for change	++	(+)	[+]
external resource support	++	(++)	[++]
curriculum workshops	++	()	[++]
headteacher support	+		[+]
HDP Coordinator	+	(++)	[++]
<u>Factors Impeding Change</u>			
fear of teacher appraisal/ comparison		(+)	[+]
nature of the innovation	+	(+)	[+]
school's lack of facilities/cellular structure		(+)	[+]
time		(++)	[+]
interference from another Dockland School	++		[+]
involvement of HMI	+		[+]

Typology of Management

strengthened democratic leadership carefully establishing consensus on staff

Outcomes

good collaboration within the staff and with the HDP
 grassroots curriculum development
 introduction of whole-school themes
 realisation of long term nature of change
 increase in practical workshops

Effects

increase in the rate of change
 innovation making progress
 staff accepting ownership of the innovation
 long term time scale of the innovation recognised
 improved school climate

Fig. 28

3.9.3 Dovetailed Issues in School C

An examination of data gathered over the three phases of the evaluation for School C reveals a number of consistent factors, each of which facilitated change:-

- the unswerving support of the headteacher for the H.D.P.;
- strong, effective, democratic school leadership which promoted and coordinated staff support for the Project;
- effective ordering and use of the E.S.G. sponsored resources, including teacher supply cover for H.D.P. initiatives.

The high quality of work and introduction of change evidenced throughout the earlier phase of the evaluation continued in the late phase. The principal feature of this evidence was the level of increased sophistication rather than additional innovation:-

- H.D.P. initiatives had become task-specific i.e. the activities had been clearly identified rather than broadly generalised, and the

responsibility for carrying them out had been unambiguously assigned;

- initiatives had become temporal i.e. target dates had been specified and achievement monitored;
- whole school themes demonstrated subject integration;
- initiatives recognised cost-effectiveness in terms of the investment of both time and people;
- above all, initiatives were carefully organised to produce purposeful activities clearly linked to the change goals and priorities.

Through the recognition of the benefits that had occurred, and were continuing to build for both staff and pupils by their participation in the Project, and by attention to strengthened levels of staff and interschool/H.D.P. collaboration, School C had welcomed the acceptance of Project ownership and had developed a quality and clarity of vision regarding the future of the innovation. Change in School C undoubtedly benefitted from the good humoured atmosphere existing within the hard-working staff.

SCHOOL C

Context Chart - Late Phase

Legend
 + = strong factor
 ++ = very strong factor
 () = strength of the factor in round one of the evaluation
 [] = strength of the factor in round two of the evaluation
 n.b.= if a bracketed part is empty then in that round(s) it was recognised though not a strong factor

Factors Facilitating Change

Phase	Late	Early	Mid
headteacher's support/ leadership	++	(++)	[++]
nature of the innovation	++	(+)	[++]
staff support for change	++	(+)	[++]
external support for change	++	(++)	[++]
positive ideas from workshops	++	()	[++]
headteacher/coordinator liaison	+	[+]	[+]
dissemination seminars	+	[+]	[+]
resource reorganisation	+	(+)	[+]
management strategies	++	(+)	[+]

Typology of Management
 Managing the innovation by example and decisive leadership and democratic dissemination of HDP materials

Factors Impeding Change

dispersed school layout	++	(+)	[]
time		(+)	[+]
interference from School E's headteacher/ LEA Link:Adviser	+		[+]

Outcomes
 effective team teaching
 increasing practical work
 use of assessment procedures
 grassroots curriculum development
 increased involvement of pupils and parents

Effects

high staff commitment and collaboration
 evidence of benefits to pupils
 school adoption of ownership of the Project
 innovation making progress
 pleasant school climate

Fig. 29

3.9.4 Dovetailed Issues in School D

The clear message emerging from consideration of the three phases of the evaluation for School D was that the innovation was very much on course. In each round evidence had accrued of:

- the positive effect of strong, yet democratic leadership provided by the headteacher;
- effective support for the Project and full involvement in its programme from the staff of School D;
- a high level of collaboration between school and H.D.P. personnel.

The management of the innovation, operating on a variety of fronts and in a variety of contexts, had an impact on many rather than a few endeavours and as such displayed the characteristics of successful and radical curriculum change. Namely:-

- proposed and applied changes had been identified as relevant to the school as a whole;
- benefits accruing to both pupils and staff had been registered;

- the character of the changes and their implications appeared to be understood by all of the participants;
- the feasibility of the changes in terms of resources and their availability had been taken into account.

The climate for change in School D, already very supportive by the mid phase evaluation was positively buoyant in the late phase. Staff of the school had:

- accepted full ownership of the Project;
- welcomed cooperation from, and collaboration with, other schools and the H.D.P.;
- welcomed parents to participate in Project related school work;
- promoted physical and decorative changes to the school to promote its environmental impact and to reflect evidence of the Project's impact;
- provided the impetus for course evaluation, the creation of sophisticated recording procedures and effective programmes of course dissemination.

Staff cohesion and commitment combined with effective leadership and the will to cooperate with Project colleagues and H.D.P. personnel produced a high impetus for change in this school.

SCH001.D

Context Chart - Late Phase

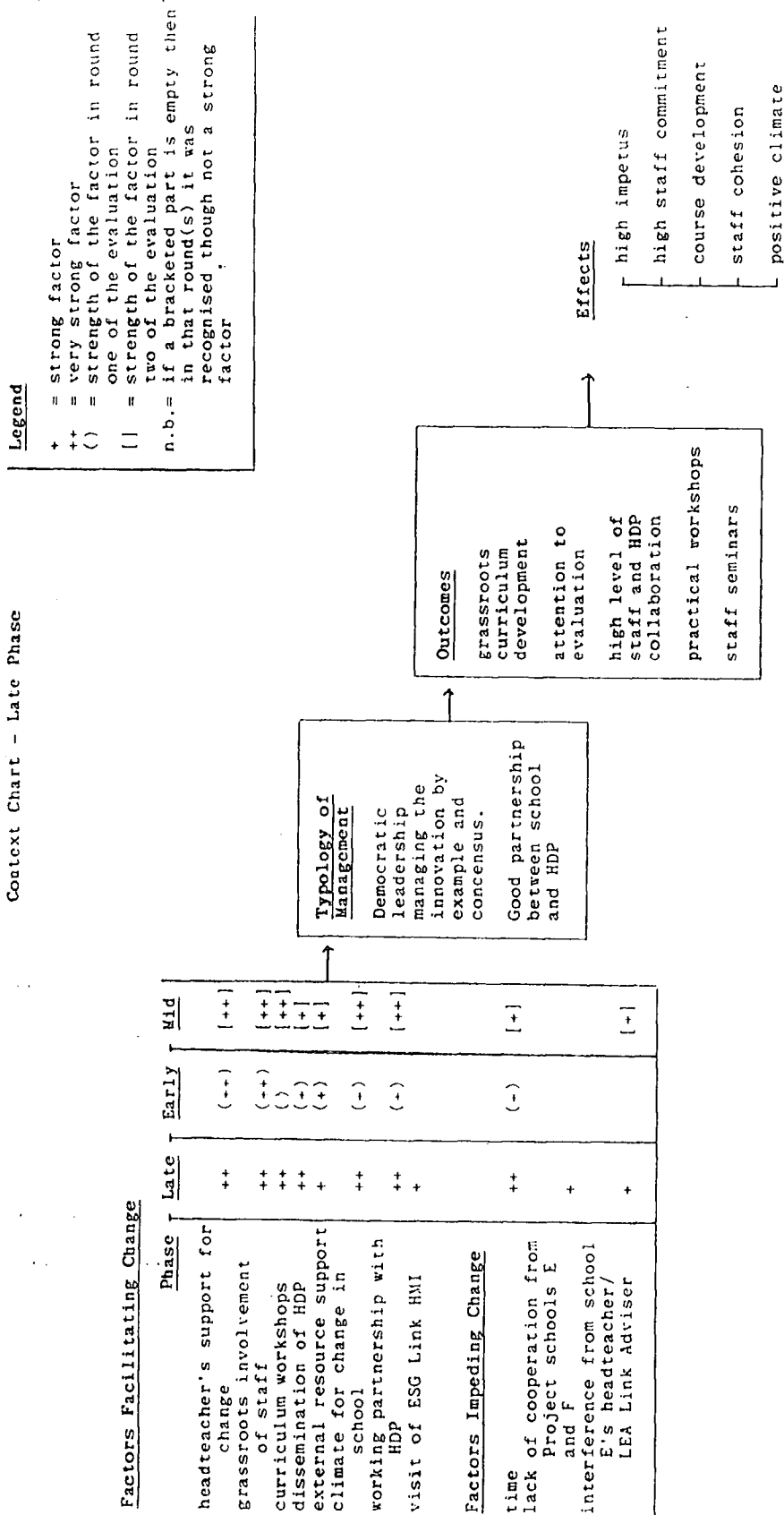


Fig. 30

3.9.5 Dovetailed Issues in School E

The Project had continued to meet with resistance in this school. The negative factors that had been identified in earlier rounds as impeding change had become more acute by the late phase. In particular:

- school leadership actively worked against H.D.P. initiatives through a policy of non-participation in workshops, non-collaboration with other Project schools and the H.D.P. and no cooperation with the Project Coordinator;
- the headteacher continued to openly display hostility towards Project initiatives and antagonism towards the Coordinator;
- staff commitment to the Project had further diminished although individual teachers, especially the nursery staff, gave it support.

In consequence of these factors:-

- school leadership of the initiative;
- creativity and innovation;
- teamwork and motivation of the staff;

- relevance of proposed changes;

- impetus for change;

had been lowly recorded through the separate instruments and showed no positive support for the Dockland Project, but had rather led to a policy of separation in which initiatives had foundered and old practices had been further strengthened.

SCHOOL: F

Context Chart - Late Phase

Legend

- + = strong factor
- ++ = very strong factor
- () = strength of the factor in round one of the evaluation
- [] = strength of the factor in round two of the evaluation
- n.b. = if a bracketed part is empty then in that round(s) it was recognised though not a strong factor

Factors Facilitating Change

Phase	Late	Early	Mid
teacher led curricular areas	+		[+]
individual teacher initiatives	+		
science and technology workshops			
planning meetings between HDP Coordinator and individuals	+	()	[+]
existing policies for curriculum development		(+)	[]
kudos associated with HDP membership			
nursery staff support for change	+		
<u>Factors Impeding Change</u>			
headteacher's leadership	++	(++)	[++]
headteacher's antagonism towards the HDP	++	()	[++]
staff motivation to change in relationship to HDP initiatives	+	(++)	[+]
headteacher's link with LEA Project Adviser	++	(++)	[++]

Typology of Management
 autocratic leadership stifling staff initiatives and limiting participation in the innovation

Outcomes
 lack of support for change from school leadership
 policy of independent action
 confrontation

Effects

- innovation not being properly addressed - low impetus
- staff divisions into factions
- low staff commitment/morale
- lack of progress
- negative school climate

Fig. 31

3.9.6 Dovetailed Issues in School F

The H.D.P. sponsored changes introduced into School F during the late phase reveal a combination of artificial and genuine causes. The visit of the E.S.G. link H.M.I. and the School's need to provide documentary evidence of Project initiatives caused artificial and somewhat clumsy responses:

- display work was improved in public areas;
- science and technology teaching was briefly introduced to coincide with the visit;
- equipment gathered throughout the Project became more evident, if not properly introduced into teaching;
- past H.D.P. documentation was requested and examined prior to the construction of a staff document.

The newly appointed deputy headteacher to whom leadership of the Project in School F was delegated, did, by contrast, make serious efforts to counter staff malaise and H.D.P. stagnation. Through her efforts in the late phase:-

- attempts were made to disseminate Project information;
- practical workshops in science and technology were introduced in the upper school;
- improved displays featured H.D.P. work in the deputy heads room and immediate area;
- parents were involved in initiatives.

Continued resistance from the staff, stress and ill health, vacillating, yet nevertheless influential - headteacher participation and interference by School E's headteacher, which added to the confusion, largely reduced the deputy headteacher's efforts, and thus the Project's impact to the confines of her classroom.

SCHOOL. F

Context Chart - Late Phase

Legend
 + = strong factor
 ++ = very strong factor
 () = strength of the factor in round one of the evaluation
 [] = strength of the factor in round two of the evaluation
 n.b. = if a bracketed part is empty then in that round(s) it was recognised though not a strong factor

Factors Facilitating Change

Phase	Late	Early	Mid
external resource support	+	(+)	[+]
size of classes/number of pupils	+	(+)	[+]
curriculum workshops	+	()	[]
frequency of Coordinator visits	++	()	[]
location of HDP Centre	++	()	[]
deputy head's leadership	++	()	[]
deputy head's support for change	++	()	[]
visit of ESG Link HMI	+	()	[]
Factors Impeding Change			
headteacher's leadership/support for change	+	(++)	[++]
staff motivation to change	+	(++)	[++]
staff health/stress factor	++	(++)	[++]
staff collaboration	+	(++)	[++]
proximity to HDP centre	+	()	[]
lack of dissemination policy	+	()	[]
poor attendance at workshops	+	()	[]
interference of School E's head and LIA	+	()	[]
Link adviser	+	()	[]

Typology of Management
 HDP leadership passed to newly appointed deputy headteacher
 Attempts at democratic leadership spurned by staff and not supported by headteacher

Outcomes
 individual initiatives
 lack of collaboration
 absenteeism
 confrontation

Effects
 innovation making little progress
 staff divisions into factions
 low staff morale
 poor school climate
 innovation dependent upon individual initiative

Fig. 32

3.10 Cross Site Analysis - Late Term Phase

The late term cross site analysis is a perpetuation of the attempts established in earlier rounds of the evaluation to draw from the site specific data those factors which appear to be operating within the innovation in general, to see if general patterns of development and causes have emerged. To support the analysis and to demonstrate congruency with findings derived from the other evaluation instruments a group evaluation procedure, Nominal Group Technique, that followed practices established by Delbecq Van de Ven and Gustafson (1975), and refined by O'Neil (1981), was used with fourteen network members attending a Project evaluation meeting. The composition of the meeting was representative of all the Project Schools. Participants considered two questions;

- "What, in your experience, are the main barriers to change in the H.D.P. presently existing"?

- "What, in your experience, have been the main facilitators of change for the H.D.P. so far"?

The following lists, (which are incorporated in the main text in order to emphasise comparisons/contrasts with data gathered by the recurrent data collection instruments), are a record of the issues

identified with the number of votes cast in the process of prioritising items:

What in your Experience are the Main Barriers to Change Presently Existing?

	Votes Cast
1. Headteacher's lack of support	5
2. Headteacher's discrimination against H.D.P. initiatives	3
3. Lack of confidence to cope with proposed changes	3
4. The nature of the Projects initiatives	
5. Limited experience of staff in curriculum development	13
6. Uncertain goodwill of staff	7
7. Difficulties caused by preparing for change whilst maintaining the existing system	11
8. Domineering staff with negative attitudes	4
9. Lack of time for staff involvement	45
10. School based Project leadership power struggles	2
11. Subject chauvinism	9
12. Fear of teacher appraisal	9
13. Uncertainty of parent attitude towards change	
14. Staff unwillingness to accept need for change	7
15. Incompatibility of proposed change with school's development plan	6
16. Worry over loss of influence caused by sharing	

	expertise	
17.	Change indigestion	8
18.	Impact and impositions of teacher union sanctions	
19.	Pressure of other initiatives	2
20.	Fear of failure	3
21.	Lack of inter-school liaison	
22.	The traditional organisation of the school	4
23.	Inter-school rivalry/fear of comparison	1
24.	Project schools lack of technological and scientific backgrounds	7
25.	Unhappiness of staff performing in unfamiliar school-based practical workshops.	

		140

What In Your Experience Have Been the Main Facilitators of Change so Far?

		Votes Cast
1.	Headteacher's support for change	16
2.	Good working relationship with the H.D.P.	16
3.	Nature of the H.D.P. innovations	10
4.	Staff's motivation to change	13
5.	External resource support for change	15
6.	An appropriate climate for change in school	4
7.	Good communications at all levels	
8.	H.D.P. expertise and interest	15

9.	Regular time-tabled meetings for information dissemination	
10.	Appointment of school based curriculum leaders	2
11.	Desire by staff to respond to changed pupil needs	
12.	Development of open management meetings	
13.	Outside influences - H.M.I. and the LEA	5
14.	Honesty and trust amongst school staff and H.D.P. personnel	10
15.	Staff willingness to evaluate and share ideas	
16.	Problems with existing curriculum indicating need for change	
17.	Staff and pupil reception of science and technology strategies	8
18.	Staff collaboration	10
19.	Team teaching	5
20.	Goodwill	3
21.	Kudos gained by participation in the H.D.P.	8

		140

The fourteen N.G.T. participants had each recorded ten votes on the basis of four votes for their first choice, three for the second, two for the third and one for the fourth, in the compilation of the list of priorities. When interpreting the responses certain limitations should be borne in mind. Some items reflected the management of change situation of particular members of the network and this did not necessarily coincide with

the general roles of participants. Whilst there were representatives from each of the Project schools present at the N.G.T. meeting, the membership, which consisted of three representatives from each of Schools A, D and E; two from each of Schools B and C and one from School F, was not only unequal it was also not in proportion to total staff numbers. Finally no Project school headteachers participated in the N.G.T. exercise. With these provisos in mind the principal results from the procedure identify as 'the main barriers to change presently existing';

- the lack of time for staff involvement;
- limited experience of staff in curriculum development;
- difficulties caused by preparing for change whilst maintaining the existing system;
- fear of teacher appraisal.

It is of value to note the similarity this procedure produced with the principal barriers to change detected by the use of the other evaluation instruments; the participants acknowledgement of their lack of expertise in curriculum development

and their desire to protect current practices whilst participating in a programme of change.

The 'main facilitators of change so far' that received the N.G.T. participants main support were:

- headteacher's support for change;
- good working relationships with the H.D.P.;
- external resource support for change;
- H.D.P. expertise and interest.

These again largely mirrored the evidence gathered by the other evaluation instruments, described above. The partnership between the schools and the H.D.P., well featured in these returns, received further support from the second placed 'group' of votes i.e.

- nature of the H.D.P. innovation;
- honesty and trust amongst school staff and H.D.P. personnel;
- staff collaboration.

The late term phase analysis in general, for the six Project schools, identified the following features:

- the pace of progress and the positive influence of the Project in the schools was linked to the degree and quality of support given by the headteacher;
- the nature of the H.D.P.'s support had varied according to the needs of the schools and of individual teachers;
- curriculum workshops and school-based work involving the H.D.P. had assisted class teachers to improve and use more flexible approaches to teaching and achieve a balance of whole class, individual and group work;
- improvements in styles of teaching and learning, initiated or supported by the Project had taken place in many schools and benefitted the work of the children. Parental awareness and perceptions of the H.D.P. had risen;
- most of the Project schools showed close associations between standards achieved and the efficiency of planning, preparation and evaluation of the work. These elements had been

subject to the amount of time available and the quality of cooperation among the head, the H.D.P. personnel and the class teacher. The quality of the H.D.P. team was recognised as a crucial factor in establishing mutual trust and confidence;

- in-service training had provided support and an initial impetus for school initiatives and, whatever form it had taken, its impact had been most marked when the whole staff of the school had been involved through collaborative practice and where cooperation with the H.D.P. had become a regular occurrence;
- INSET had generally been most successful in schools which had procedures for disseminating the content and outcomes of the H.D.P.;
- the Project had made positive impact on curricular organisation and teaching methods, particularly in practical science and technology;
- resources provided by the H.D.P., including supply cover for course participation, remained a positive facilitator of change;

- the more progressive schools had accepted ownership of the Project and become increasingly concerned with course evaluation.

CHAPTER FOUR GENERAL CONCLUSION, SUMMARY AND
RECOMMENDATIONS

4.1 Introduction

The attempts at progressive focussing that have climaxed in the cross-site analysis, located at the end of each phase of the evaluation, have provided interim summaries which preclude the need for presentation of an additional analysis of the substantive detail of the innovation. The aim of this concluding section, therefore, is to provide a comment on the general thrust of the work, in terms of both the study of an innovation and its principal characteristics, and to present some balanced conclusions.

Throughout the phased evaluation attention has concentrated on those aspects which Paisey (1982) described as being 'deliberately introduced by management in response to or in anticipation of, perceived change' and whose purpose was, 'to reconstitute, renew and re-energise the organisation in relation to its objectives' (see 1.1 above, Paisey, 1983, p.180). Emphasis has been placed on process within the learning milieu rather than the outcomes, and upon the climate for change within the Project Schools.

The pattern of presentation adopted in the summary follows that set out by Morrison (1986), which identified the factors necessary for successful curriculum change: the nature of the innovation, the leadership, the participants and the innovating institution.

4.2 The Nature of the Innovation

The aims of the Urban Primary Education Support Grant were both general and specific and merit re-emphasis:

- to raise pupils' performance;
- to raise teachers' expectations;
- to improve the organisation and management of schools;
- to improve the curriculum;
- to involve parents in the work of the school;
- to explore other policies that might lead to the schools' improvement.

Cleveland LEA further elaborated DES directives by expressing their aim to improve classroom

effectiveness by cooperative interactive and collaborative means with emphasis being placed on extending classroom practice in language, drama, art, science and technology.

The process of innovation, described in 1.13 above as passing through four stages, did not initially operate smoothly or systematically. The bid by Cleveland LEA for the Educational Support Grant had minimal documentation and even this was not made available to Project Schools or the Coordinator with the consequent misunderstanding of aims and objectives. The 'invention' stage was further troubled by its 'false start' in which the Project commenced in advance of the Coordinator's appointment and was poorly structured, poorly presented and inadequately represented to the teaching staffs. The major problems facing the implementation of the innovation, described in phase one of the evaluation, highlight this 'false start' and the suspicion and hostility this created with staff of the Project Schools. One result of the lack of preparation was the lengthy settling down period in which the Project teams' activities were fragmented. The innovation's development stage, whilst bridging the three phases of the H.D.P., was more effective from the mid phase when participants began to savour the programme of practically orientated workshops and to operate

more collaboratively. At this stage the emphasis of the Project became more closely focussed on, and provided resources for, science and technology initiatives. Within the mid phase, and extending into the late phase, there was evidence of increased concern for, and participation in, staff dissemination of the H.D.P. initiatives. This positive action related closely to an improved climate for change in most of the Project Schools and a high level of teacher cooperation through the introduction of team teaching strategies. By the late phase the evaluation recorded acceptance of ownership of the Project, by two thirds of the Schools, an adoption of its policies and development of evaluation procedures. The final stage of the process of innovation was further marked by increased participation of parents in school activities, and pupils in H.D.P. associated work. By the completion of the late phase evidence had been gathered that would suggest that in four of the Project Schools, new methods and organisational strategies had been built into a pattern of working ensuring that a regression into old ways would not occur.

4.3 Leadership of the Innovation

The pace of progress and the positive influence of the Project in all of the H.D.P. Schools was

clearly linked to the degree and quality of support given by each headteacher. In the schools which had sustained an enthusiasm and commitment for the Project the head invariably had a clear vision of how the H.D.P. could support the school's development. In the more successful Dockland Schools the heads had not only drawn on the Project to support short term objectives, but also to assist the implementation of more long term aims which extended beyond the life of the H.D.P. Two of the Project headteachers had provided support for the H.D.P. from its inception through clear decisive yet democratic leadership. One headteacher, over awed by the innovation, grew in leadership stature, both in terms of activating school initiatives and participation in headteacher meetings, as the programme unfolded and the fear of comparison diminished. Another headteacher had designated a member of staff to be responsible for the coordination of all Project matters and others delegated leadership of curricular areas. Such delegation had proved effective and, once freed from this management responsibility, these headteachers proved more responsive partners to H.D.P. initiatives and were able to offer judgements about priorities and emphases in the context of whole school development.

In two of the Project schools too little headteacher support had been given to the H.D.P. team/coordinator and to the teachers engaged in the programme. One head actively discriminated against Project initiatives and the Coordinator encountered resentment bordering on hostility and personal abuse. The choice of Project schools, which had not been impartial, rather reflected personal ties between some heads and the LEA's Link Adviser, and was largely to blame for these tensions. Two Project headteachers had strong personal links with the Adviser through previous professional association. These headteachers were often informed of H.D.P. developments in advance of other heads, and in particular, one headteacher frequently used this prior knowledge to create dissent, and involved the LEA adviser in support of his views.

Although the demands of the Project initiatives had been well managed in most schools others had been less successful and had found the pace of change too rapid. Where full cooperation of the headteacher had not occurred the impact of the Project, in their school, had not reached its potential. This is reflected in the school context charts presented for each of the phases in chapter 3.

4.4 The H.D.P. Participants

The Project teachers generally had shown a high level of commitment, perseverance, patience and integrity. The value of their contribution had not rested in them having any special expertise, but rather on their positiveness, willingness to share and build relationships within and between schools. Participants were all drawn from urban primary schools whose day to day demands were already emotionally draining and strength sapping. Apart from the 'false start' to the H.D.P. and the general resentment at being 'targetted' Project teachers had adapted to the needs for change. Trethowan (1987) uses the word 'target' to cover terms such as aim, direction, purpose, objective, plan or goal, and suggests that teachers will commit themselves more strongly to targets which they themselves have helped to suggest, define and set and over which they have control. The notion of deskilling and reskilling which the innovation had entailed was not seen as a problem by most staff who accepted the need for change and viewed the introduced changes as an improvement on previous practice, particularly where the improved breadth of the curriculum had enabled children to engage in science activities previously denied to them.

Improvement in styles of teaching and learning, either initiated or supported on the Project, had taken place in many of the schools and had benefitted the work of the pupils. The provision of tools, supply cover and material resources by the H.D.P. had matched the schools' curricular needs and had aided the introduction of teaching and learning methods which encouraged children's decision making and enhanced their sense of responsibility with a resultant improvement in behaviour.

Inset had generally been most successful in schools that had formalised procedures for disseminating the content and outcomes of the H.D.P. workshops to the whole staff. At a practical level the staff of schools found it easier to support one another and to report back to colleagues when more than one teacher had attended a course. Exchange visits to see other Project teachers at work had played a part in encouraging experiences about good practice and standards to be exchanged, compared and contrasted.

4.5 **The Innovating Institution**

The H.D.P. had supported six urban primary schools in the dockland area of Hartlepool. The Project Coordinator, a seconded headteacher, was the only

member of the 'enabling' team although support was enlisted for leadership of curricular innovation from LEA advisory staff, H E institutions and subject specialists.

In the majority of the schools the Coordinator assisted classteachers to improve or use more flexible approaches to teaching and learning. Working alongside staff in all but two of the Project schools, actively participating in the H.D.P. focussed staff meetings and providing liaison links with other school and LEA organisations the Coordinator had become identified with facilitator change and as a crucial factor in establishing mutual trust and confidence.

The efficacy of H.D.P. planning, preparation and evaluation of work showed close association with standards achieved. These elements had been influenced by the amount of time available, the quality of cooperation among the head, the class teachers and the Project Coordinator. The successful development of expertise and skills of the schools' own curricular consultants, part of the H.D.P. Brief, had led to the promotion of some school staff and a belief that through association with the Project, participants had gained personal kudos. The H.D.P. had stimulated curricular development by encouraging a balance of teaching

approaches and by extending practice in the ESG specified curricular areas. The programme had sought to achieve this through:

- the use of the local environment and visits further afield for cross curricular study;
- an increase of practical work in science and in technology;
- more emphasis on investigation, research and the solving of problems;
- greater use of computer assisted learning programmes;
- increased attention to aesthetic areas of the curriculum such as drama, art and general display of work.

In the majority of Project schools these aspects had led to more thorough planning and challenging, relevant tasks that had engaged the pupils in worthwhile first hand experience.

The H.D.P. Schools had been provided directly with extra science and technology equipment by the Project. This provision, aiming to match the schools' curricular needs, had nevertheless been

restricted to those initiatives which demonstrated cooperation between school and the H.D.P. The provision of supply cover for teacher participants funded by the ESG, had facilitated both course attendance and dissemination.

The Project had provided the LEA with useful experiences and information about ways of improving the work of inner-urban schools whilst recognising that innovations in social systems do not have the same effects for all. H.M.I. expressed the view that the Project had demonstrated the value of sustained support for the schools' teachers and pupils by H.D.P. personnel.

Even with the most supportive of the Project schools the H.D.P. Coordinator had found the introduction of change a slow process, and working in the range of schools had needed to respond to different expectations, needs and circumstances necessitating approaches that were both flexible and adaptable. The effectiveness of the Coordinator's work had been, to a large extent, dependent upon the commitment and investment of those with whom the work had been done. The preparation of schools receiving sustained support was identified as an important pre-requisite for a projects early success. Careful preparation also bore fruit in the form of grassroots development of

staff involvement and ultimate ownership of the Project.

4.6 Critical Analysis of the Research Methodology

The methodology adopted by the Dockland Project was not seen as evaluation by an expert nor as an evaluation by objectives, but was rather an attempt to portray a process as it had happened. The aim was to shed some light on the H.D.P. as a strategy of in-service education and not to simply correlate a battery of statistics.

At the commencement of the research a decision was taken to create an account that would be 'accessible and free from gratuitous theorizing' and which would 'respect the integrity of those who helped whilst confirming my own'. (M Porter, 1984. p.150). In this context there was initial fear that difficulties may be encountered by a long term Coordinator/researcher, being too personally involved in the Project. Aware of the limitations imposed by time and circumstance an attempt was made to produce an overall picture of the Project by progressively gathering evidence in such a way as to make it 'accessible to subsequent critical assessment, to internal and external criticism and to triangulation'. (L Stenhouse, 1979) p.9)

The H.D.P. case record produced an infinite wealth of experiences and of necessity, selections were made which in terms of choice and interpretation, attempted to be both fair and rational. Initial decisions reveal flirtation with qualitative approaches to educational evaluation which, reflecting and stimulating the challenge to quantitative research, had developed a distinctive style of case-study as a mode of disciplined inquiry. The work of Stake (1967) relating to 'responsive evaluation' and 'portrayal', and that of Parlett and Hamilton, (1972), on 'illuminative evaluation' in particular, drew attention to possible failings in traditional curriculum evaluation styles. It was at this stage in the design of the research paradigm that the advice proffered by Miles and Huberman, 1984, in their work, 'Qualitative Data Analysis', began to be appreciated, particularly to the H.D.P. which could benefit from the use of 'well-grounded, rich descriptions and explanations of processes, occurring in local contexts'. (M B Miles and A M Huberman, 1984, p.15). However, acceptance of advice still left the problem of either adopting and operating from a theory driven paradigm or, alternatively, developing a grounded theory that would appropriately cater for the unique descriptions and processes of the Dockland Project. The theory driven paradigm approach was rejected in

favour of a progressively focussing process that would operate in three phases. Within the successive phases attempts were made to explore the climate of the Project schools and to serve concurrent validity. The pattern of analysis that was established in phase one of the process, was repeated in the subsequent rounds where, additionally, the setting of the general context was cumulatively derived from a reading of empirical data emerging from the successive phases and by within and cross-site analysis. The Project's chronological flow was preserved by the use of qualitative data which was also responsive to individual school contexts. Valuable guidance was drawn from Parlett and Hamilton's 'Evaluation as Illumination, 1972, which in its premise that 'the task is to provide a comprehensive understanding of the complex reality surrounding the program', in short to "illuminate", (M Parlett and D Hamilton, 1972, p.30), acknowledge that it becomes 'imperative to study an innovation through the medium of its performance and to adopt a research style and methodology that is appropriate' (ibid, p.31).

Data emanating from the project quickly mounted up to quite alarming proportions and it rapidly became apparent that orderly compilation incorporating triangulation, and a degree of formalization in the

analysis process were required. Continuing courtship of Miles and Huberman yielded purposeful advice

'We are committed to clarity in qualitative analysis procedures, a commitment that requires a good deal of explicit structure in our approach to inquiry'

(M B Miles and A M Huberman, 1984, p.20)

At this point in the study it was necessary to differentiate between the roles of in-service coordinator and researcher. This called for a clarification of the focus of the study and an identification of its specific objectives. Miles and Huberman displayed the wares of the suitor, that appeared to both champion the style of qualitative approaches to educational evaluation, and promise to match the needs of the H.D.P. A marriage of the H.D.P. issues to the Miles and Huberman mode and structure of evaluation followed. Within a qualitative data case-study framework research instruments were designed to be employed in the collection of Project data. These followed the guidance that, 'instruments should derive from the properties of the setting, and from the ways its actors construe them' (ibid, p. 27). The honeymoon period saw a tightening of the study's structural design, by the creation of a conceptual framework (see Chapter 2) that divided the

evaluation into the three phases described above. The aim of this procedure was to conserve the data gathering base from cycle to cycle, to successively broaden this base by the introduction of the new methods to the later cycles and, through comparative analysis of their findings, enable progressive focussing to be undertaken. The process was also sensitive to the view outlined in chapter one that innovations evolve over time and the cycle of analysis, typifying an action research model, is maintained. In accordance with Miles and Huberman the broadening of the data gathering base 'emerged empirically from the field in the course of the study' (ibid, p. 27).

Thoroughness and explicitness of approach to the complexities of a project embracing the staff and pupils of six primary schools, LEA and H.D.P. personnel, was further clarified by Miles and Huberman's definition of analysis which they perceived as consisting of three concurrent flows of activity: 'data reduction, data display, and conclusion drawing verification' (ibid, p.21). Subjecting the raw data, gathered by the H.D.P. instruments, to data reduction facilitated the process of selection, focus, simplification, abstraction and transformation of what could have otherwise been an overwhelming amount of material. This selection of data display is to the

qualitative evaluator what multivariate analysis is to the quantitative evaluator. Miles and Huberman define data display as 'an organisational assembly of information that permits conclusion drawing and action taking' (ibid, p.27). Later in their work Miles and Huberman declare that the idea of display is central in their thinking and further define 'display', as meaning 'a spatial format' that 'presents information systematically to the user', (ibid, p.79). Their insistence that narrative text was a weak and cumbersome form of display caused the first signs of disharmony within the 'marriage'. The H.D.P. was principally concerned with people and processes where the subtlety of narrative, which is described by Stenhouse, 1982, as having the 'capacity to convey ambiguity concerning cause and effect', (L Stenhouse, 1982, p.24), is valued. Contrary to the view of Miles and Huberman diagrammatic treatment of qualitative data may be seen as complex and hard to analyse. Also such treatment loses sensitivity through its requirements to look for simplistic cause and effect relationships. Attempts were made to construct various causal networks, but the multiplicity of their lines created great difficulty for interpretation and would suggest that it is this problem which causes data display to break down unless it is restricted to relatively simple forms. In many ways this variance of

approach to that of Miles and Huberman must assume some significance for, as explained above, they had declared that display, as a spatial format, was central to their thinking. By contrast, the H.D.P. evaluation mainly relied upon narrative and was supported by diagrams only where such treatment retained clarity in both presentation and interpretation. This challenge to Miles and Huberman necessitated the development of the grounded theory outlined above, which was capable of both nurturing progressive focussing and maintaining sensitivity in the analysis of the complexities of Project school climate.

The early, mid and late phase cycles of analysis were each concluded by cross-site analysis, in the pattern of Miles and Huberman. The dovetailing of data drawn from the various specific data sources, aimed to establish any over arching, general issues or cross-data patterns which had emerged and related to Miles and Huberman's notion of cross-site data in which 'sites' are referred to in a variety of ways. In this manner concurrent validity, established in the research, is being observed. However, the experience of working through the paradigm, in 'data reduction', caused data to be so reduced as to become naive and lose the sensitivity which is the hallmark of qualitative data analysis. In retrospect the

process may best be described as a useful tool, as a set of instruments, but no more.

Separation from the Miles and Huberman model, in which display is 'central' and cross-site analysis figures significantly, begs the question with what do we replace it? Perhaps, if curriculum evaluation recognises the complexity of innovation then replacement is not the answer, but rather there is a need for modification by a multi or between method approach in which the researcher may produce triangulation between methods which involve the use of more than one method in pursuit of a given objective. Such procedures would employ a pattern of triangulation as described by Denzin, 1970, as theoretical triangulation in which the research 'draws upon alternative or competing theories' in preference to 'utilising one viewpoint only' (N K Denzin, 1970). In such a procedure the researcher may identify certain issues from contrasting paradigms, and ignore others. Similarly, the researcher may show a preference for certain kinds of analysis, explanation and theory that best meet the needs of the study and which best portray the characteristics of the various stages of evaluation. In this fashion an evaluation would utilise the strengths of a paradigm where it meets its needs, but may elsewhere require alternative provision. The

amalgam of such provisions so producing the method that may better maintain the unique nature of the innovation.

With hindsight many flaws may be identified in the H.D.P. research methodology. A multi or between method format that extended beyond the limited introduction of qualitative data in the H.D.P. would have been beneficial. The overall structure of the Project that owes its form to Miles and Huberman, and is embellished by Parlett and Hamilton would, however, remain. Owing much to illuminative evaluation this research, in a scientific sense, cannot be objective although it has its own criterial of validity based on sensitivity, depth and candour. Concurrent validity evolved as a product of triangulation which employed instruments in the manner described above.

Thus, from these perspectives and the experience gained in the Project evaluation the following list of recommendations are presented for future consideration.

4.7 Implications and Recommendations

4.7.1 For Substantive Areas of Innovation

4.7.1.1 An evaluation programme should be carefully structured to allow leaders to offer clear direction. This necessitates a deliberate approach towards decision making to incorporate a blend of committee, seminar and workshop operations.

4.7.1.2 Attention should be especially given to initial negotiations in order to establish a cooperative /democratic relationship between the evaluator and staff participants. It is important to recognise that credibility, acceptance and influence have to be earned and not just assumed.

4.7.1.3 Avoid negotiating entry vicariously as it could lead to working with the wrong people. Negotiate with the 'real' client who may not be the organisation's leader, nominee or senior member of staff.

4.7.1.4 Negotiations should extend beyond the Project's aims and time scale to include the means of systematic collection and dissemination of

information and data, and the form and accessibility of the evaluation.

4.7.1.5 Look for signs of resistance and try to design strategies to overcome this while it is still emerging.

4.7.1.6 Implementation is a crucial phase of an innovation in which problems threatening its viability may arise. After adoption there is a likely possibility that a period of confusion will ensue during which participants may feel deskilled. An analysis of the duration and level of support is needed, and good aims and objectives should be established, at an early stage to guide future action.

4.7.1.7 There is a need for understanding by all of the innovation's fundamental principles which may require early informal in-service education. The evaluator should not take it for granted that participants have the skills necessary for the adoption of new techniques and should be prepared to provide training and support.

4.7.1.8 Adoption should wait on understanding. To help to ensure understanding throughout the project and satisfy the various audiences a number of

reports should be targetted at the several groups.

4.7.1.9 Superficial change is easily promoted. In this context beware of the 'rational adopters' and 'pragmatic sceptics' more than the 'stone-age obstructionists', (Doyle and Ponder, 1976), who are more readily identifiable. What should occupy the central attention of the evaluator, and prospective change-agent, is change that lasts beyond the life of the Project and enhances childrens' education but this lies outside of the brief of the case-study.

4.7.2 For Evaluator

4.7.2.1 Evaluators should receive training in the art of research and evaluation to afford a degree of objectivity, impartiality and independence. As Projects can have impacts on working and personal life beyond the span of the Project it is important for all to maintain a propriety of conduct.

4.7.2.2 Evaluators should work within the bounds of their influence and minimize attempts to introduce change administrative directives.

- 4.7.2.3 Whilst it is important to quickly establish good working relationships with participants, particularly within their setting, it is equally important to Project leaders to retain a degree of independence, a professional distance from staff.
- 4.7.2.4 The cultivation of interests of particular staff, whilst sometimes necessary, should not cause the evaluator to be drawn into cliques or lead to collusion. Working alone can make the evaluator especially susceptible to staff politics.
- 4.7.2.5 Curriculum evaluation has a subjective nature and requires a variety of measures to assess the various forms of programmes. Within these measures recognise that evaluation, being partial in its choice of data for presentation, requires the independent views of as many as possible of the participants. Multiple perspectives will facilitate the illumination of the complexity and perceived status of the Project.

4.8 Future Research

4.8.1 Methodology

Having worked through the H.D.P. evaluation has heightened the belief that what would be advocated, for future research methodology, is not the slavish adherence to a pre-designed paradigm. Equally it would not be a fully emancipated 'pick and mix' approach. Rather the favoured ground-based method would largely owe its origins to a single theory base, yet, through its freedom to utilise relevant facets of others, would be better equipped to represent the unique nature of the innovation and portray its nuances during the evolution of its several stages.

4.8.2 Substantive Areas

The ESG programme, being specific in its aims, highlighted the areas of study undertaken by the H.D.P. which subsequently became the focii of the evaluation. However, many developments lay close to the innovation and would beg future examination. In particular extended research could consider:

- the H.D.P. schools' reactions to the implementation of Key Stages 1 and 2 of the

National Curriculum in its specified curriculum areas of Science and Technology;

- the ability of the H.D.P. schools to continue to operate in collaboration, to best utilise available resources, in the light of the April 1990 introduction of LMS, (Local Management of Schools);
- the primary/secondary interface between the H.D.P. feeder schools and their attendant secondary schools to demonstrate continuity and progression in science and technology teaching.

4.9 General Conclusions

The research findings of this evaluation, whilst based on a range of perspectives and related literature, have included personal understanding and interpretations of 'curriculum evaluation'. To that effect, the recommendations listed above are based on the experience gained during the course of the Dockland Project. Paradoxically, as the research methodology encompasses much of illuminative evaluation the research is not, in a scientific sense, totally objective. Whilst its validity is defensible, and meets the requirements of external criticism, the major claim of the research is that it provides a perspective towards

further understanding of the complexities of curriculum evaluation.

Both the research methodology and strategy of this work could no doubt have been improved. Personal understanding and interpretation could have related to other 'accessible and well-cited sources', (Stenhouse, 1978), as alternatives to those presented in the evaluation. However, at the commencement of the work decisions were taken which were based on limited understanding and experience of both curriculum research and evaluation. The evaluation of the Hartlepool Dockland Project provided a valuable opportunity to learn about curriculum evaluation whilst, at the same time, activating the realisation that there is a great deal more to learn about this process than can be understood in one research project.

Appendix A

The Factors Necessary for Successful Curriculum Change

- (a) **The nature of the innovation** (Dalin 1978:ch. 2; Nicholls 1983:23-27):

the origin of the demand for the innovation;
the complexity and manageability of a large scale innovation;
the communicability of the innovation to its recipients;
the clarity of the expression of the innovation, its intelligibility;
the acceptability of the innovation to recipients, in terms of the consonance of its aims with the existing aims of the school and means of achieving the aims;
the ability of the innovation to solve a perceived curriculum problem in the school;
the anticipated rate of change;
the degree of change - fundamental to superficial (Hoyle 1976:27), replacement to improvement.

- (b) **The nature of the leadership of the innovation** (Waters 1983:79-80):

the degree of power and authority of the leader;
the degree of the leaders's legitimacy and credibility, which is achievable by dint of: involvement in professional activities; expertise - subject knowledge and successful pedagogy; enthusiasm; effort sensitivity to staff and pupils' needs, interests and aptitudes; sound interpersonal relationships.

- (c) **The nature of the participants in the innovation** (Dalin 1978:ch, 2; Nicholls 1983:ch. 4)

their involvement in, and ownership of, the innovation;
their commitment;
their interest;
their cohesiveness;
their shared values and co-operation;
the strength of the staff's morale;
the presence of adequate incentives and support for necessary risk taking;
their willingness to face the deskilling factor of the innovation (Nisbet 1975:11).

(d) **The nature of the innovating institution** (Nicholls 1983:ch. 6):

its open and utilized channels of communication;
the existence of shared decision making;
respect of individual staff autonomy and
professionalism;
the adequate provision of resources of time and
money;
administrative support;
its receptivity to change;
its state of organizational health (Miles 1965:
172-173;
the sharing of leadership roles.

Morrison (1986)
(pp.178-179)

Appendix B

TEACHERS PERCEPTIONS OF CHANGE

	Radical	Conservative
Optimistic	1	2
Pessimistic	3	4

Type 1 The optimistic radical may be defined as someone who approves of fundamental change and is likely to perceive current changes as being rapid, large-scale, fundamental, revolutionary and linear.

Type 2 The optimistic conservative may be defined as someone who tends to disapprove of fundamental change and perceives current changes in education as largely superficial and cyclical, leaving the essential functions of education untouched.

Type 3 The pessimistic conservative may be defined as someone who disapproves of educational changes but perceives the changes which are occurring as being large-scale, fundamental and revolutionary.

These categories are obviously an oversimplification of people's perspectives, but they do serve to indicate that one has to consider not only the *facts* of change but also the interpretation of these facts according to ideology.

HOYLE AND BELL (1972)

Appendix C

The Dimensions of Change

Hoyle and Bell (1972) attempt a simple classification of the dimensions of change in relation to the curriculum which are not exhaustive nor independent of each other which is shown below:-

Dimension	Range
Rate	rapid slow
Scale	large small
Degree	fundamental superficial
Continuity	revolutionary evolutionary
Direction	linear cyclical

Appendix D

TABLE 1

Examples of possible 'costs' and 'rewards' to teachers arising from the implementation of innovation.

COSTS	REWARDS
1. Time demanded	1. More stimulating/interesting teaching
2. Need to learn new skills, acquire new knowledge	2. Improved discipline among pupils
3. Prepare new materials	3. More time allocated for planning lessons
4. Adopt unfamiliar patterns of teaching	4. More resources made available
5. Reorganisation of administrative structures	5. More status/recognition for 'innovative' teachers
6. Threat to autonomy	6. More active part in decision-making
7. Subject expertise undermined	7. More money
8. Unwanted collaboration with other teachers	8. Promotion
9. Change in power structure among teachers, teacher/pupils	

Brown (1980)

APPENDIX E

Semi-Structured Interview Schedule

1. How did you first learn of the Hartlepool Dockland Project?
(hopes/fears; challenge?).
2. Did you understand the aims and objectives of the Project prior to/at the commencement of the programme?
(effect on your role?).
3. Have your perceptions of the HDP's aims and objectives changed?
(or in process of changing?).
4. What problems have occurred in implementing the Project?
(how have they been addressed/overcome?).
5. What has been happening in the Project?
(why has it been happening that way?).
6. How well do you think the Project is going?
(achieving its goals, living up to expectations, surprises?).
7. What have been the main facilitators of change so far?
(why?).
8. What have been the main barriers to change so far?
(why?).

Appendix F

The DION Questionnaire

The climate of the school was registered by using the DION questionnaire results. Sixty six negative statements are responded to and the results collated to yield data under eleven headings (A to K inclusive). The meaning of each heading is shown below:-

- A - Relationship with the environment.
- B - Staff selection.
- C - Structures and roles.
- D - Leadership of staff.
- E - Creativity and innovation.
- F - Resources (Acquisition and usage).
- G - Problem solving capacity.
- H - Teamwork amongst staff.
- I - Motivation of staff.
- J - Aims (Clarity and consensus).
- K - Staff development.

The results of the DION questionnaire are presented in three ways; table one presents the total scores for each heading person by person; table two converts aggregated scores for all respondents into percentage responses which are affirmative of questionnaire statements for each heading; and table three indicates the total score for each of the sixty six statements which allows particularly distorting or emphasised statements to be identified. The higher the score or percentage the more the factor is seen to be a problem within the school and conversely the lower the score or percentage the less it is seen to be a problem within school.

Appendix F: The DION questionnaire

Diagnosing Individual and Organisational Needs (DION) for
Staff Development in Colleges

DION is an inventory containing sixty-six statements which might apply to your college. Look at each one in turn and decide whether you think it is basically true or not.

A grid sheet is provided for you to record your views, so that as you work through the sixty-six statements in the inventory you mark an X on the appropriate square of the grid if you feel a statement is broadly true about your college.

(If the statement is not largely true make no mark in the square).

Don't spend too long in pondering each of the statements: a few seconds should suffice.

Before a staff group completes the DION grid it should decide whether to consider the sixty-six items in relation to:

- a) the college as a whole,
- b) a specific department,
- c) a specific work group.

An accurate picture can only be obtained if you are honest about your perceptions.

When the grid has been completed we shall interpret the results, and consider in-service training and development priorities within the college and how these development needs may be met.

1. On the whole we don't have sufficient contact with industry and other organisations which take our students.
2. We don't get the quality of new staff that we need.
3. Staff are not aware of how their contribution fits into the total organisation.
4. The way staff are managed does not bring out the best in them.
5. Some parts of the College/department seem to be very short of creative ideas.
6. Compared with other Colleges/departments we are very short of space.
7. Those who run the College/department do not seem to be aware of our real problems.
8. Staff don't work well together.
9. Commitment by staff to the College/department is not as high as it should be.
10. We are not clear about what we are trying to do in our College/department.
11. New staff don't settle down as quickly as they ought to do.
12. Students leave us inadequately prepared for the next stage of their lives.
13. The expertise of newly appointed staff is not up to the standard that we used to have.
14. Some important tasks don't get carried out because it seems to be nobody's job to do them.
15. There is not the right amount of control from those in leadership positions.
16. You would have to look very hard to find anything really innovative here.

17. We don't make the best use of the books and/or equipment we have got.
18. We put more effort into trying to cover up our problems rather than trying to solve them.
19. There is often a lack of trust and support between colleagues.
20. Staff do not get as much appreciation as they deserve.
21. There is disagreement about the aims of the College/department.
22. There is no systematic approach to our in-service training or staff development.
23. We don't make the best use of resources available outside the organisation.
24. In promotion situations the best candidate is not always selected.
25. Staff sometimes find that they are duplicating each others work.
26. There is a lack of trust in the leadership of the organisation.
27. Most good ideas seem to wither away rather than get used here.
28. We don't seem to have the power to achieve what we want to achieve.
29. We never seem to get together to consider fully the different possible solutions to our problems.
30. We don't have enough team spirit.
31. People here find their work a burden rather than enjoyable.
32. The most important aspects of the College/department do not receive our greatest efforts.
33. People are expected to carry out leadership tasks without adequate training.

34. We don't have a good image in the local community.
35. We don't seem to be able to attract the best kind of persons to the organisation.
36. Different jobs and tasks in the College/department are not properly co-ordinated.
37. There is an element of selfishness in the way that staff are managed.
38. We are not creative enough in our teaching techniques and methods.
39. Space is used inefficiently here.
40. We seem to have some perennial problems that nobody seems to be able to deal with.
41. There is too much destructive conflict between individuals or groups.
42. I don't have as much chance to be creative as I would like.
43. Staff do not practise the values that they preach in the way they behave.
44. There are areas in the curriculum where our teaching methods or subject knowledge are not up to date.
45. There is not enough co-ordination and/or continuity between us and our client organisations and the organisations our students come from.
46. Methods of staff selection are inadequate and/or inefficient.
47. I am not really clear as to exactly what my job should involve.
48. Those in leadership roles do not always get full support from those under them.
49. Innovations don't seem to have any lasting impact here.

50. Compared with other similar Colleges/departments we are very short of books and/or equipment and materials.
51. Other Colleges/departments with similar problems to ours seem to cope much better.
52. Common tasks and problems are not tackled together.
53. Staff do not receive rewards adequate to their efforts.
54. The aims of the College/department tend to be unrealistic.
55. There are no clear successors to people with key knowledge or skills in the organisation.
56. We don't concern ourselves enough with the environment in which we are situated.
57. As far as promotion is concerned good internal candidates are passed over in favour of outsiders.
58. The organisation of the College/department sometimes gets in the way of educational purposes.
59. There is not enough consideration shown for the needs and feelings of staff.
60. We rarely re-examine our existing practices to see if they could be improved.
61. We don't achieve as much as we could with the power that we have.
62. We don't seem to learn from our experience in dealing with our problems.
63. Colleagues often don't feel able to talk freely with each other.
64. There is not enough challenge or stimulation in my work.
65. Staff are not involved enough in influencing the direction which the College/department takes.
66. Staff with potential are not encouraged and/or developed as well as they might be.

KEY TO THE DION GRID SHEET

Column	Issues within the School:
A	Relationship with the Environment
B	Staff Selection
C	Structure and Roles
D	Leadership of Staff
E	Creativity and Innovation
F	Resources (Acquiring and Usage)
G	Problem Solving Capacity
H	Teamwork among Staff
I	Motivation of Staff
J	Aims (clarity and consensus)
K	Staff Development

HARTLEPOOL DOCKLAND PROJECT 1985 - 1988

Appendix G.

EVALUATION QUESTIONNAIRE

MODULE : PRIMARY TECHNOLOGY: DESIGNING AND MAKING

Please help to evaluate the modules activities by providing feedback.

Indicate your responses to the statements 1 to 4 inclusive by placing a cross on the scales provided.

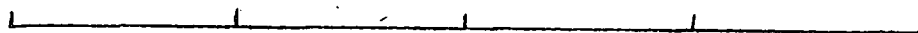
1. The introduction to the module gave a clear idea of the day's purposes

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
-------------------	-------	---------------------------------	----------	----------------------



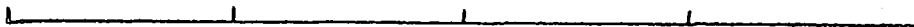
2. The day's activities were

Very Useful	Useful	Neither Useful or Unhelpful	Unhelpful	Very Unhelpful
----------------	--------	-----------------------------------	-----------	-------------------



3. The module's documentation for school dissemination was

Very Useful	Useful	Neither Useful or Unhelpful	Unhelpful	Very Unhelpful
----------------	--------	-----------------------------------	-----------	-------------------



4. The module's resources for school use have been

Very Useful	Useful	Neither Useful or Unhelpful	Unhelpful	Very Unhelpful
----------------	--------	-----------------------------------	-----------	-------------------



5. How have you attempted to disseminate the module information to your colleagues?

6. What did you think was the strongest aspect(s) of the module?

7. *Why was this? Give reasons for your answer to No. 6.*

8. *What was the weakest aspect(s) of the module?*

9. *Why was this? Give reasons for your answer to No. 8.*

10. *What problems, if any, did you experience with the following :-*
 - (a) *Resources*

 - (b) *School based workshops*

 - (c) *Dissemination in Schools*

 - (d) *Implementing the module in your school*

 - (e) *Other? Please specify.*

11. How might the inservice course day's activities have been improved?

12. Have you any other comments you wish to add?

Thank you for your response. After collation and analysis the questionnaire results will be used to evaluate the module.

An early return of the questionnaire to the Hartlepool Dockland Project Co-ordinator, Mrs. Eve Walton, would be appreciated.

EVE WALTON
Hartlepool Dockland Project Centre,
C/o Ward Jackson Primary School,
Clark Street,
Hartlepool.

Cleveland TS24 TLE

CLEVELAND COUNTY INTERNAL MAILING SYSTEM VAN DELIVERY
CODE -

A54.

Appendix H

EVALUATION QUESTIONNAIRE

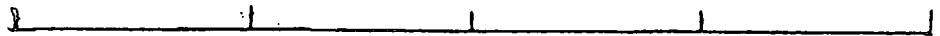
MODULE : PRIMARY SCIENCE

Please help to evaluate the modules activities by providing feedback.

Indicate your responses to the statements 1 to 4 inclusive by placing a cross on the scales provided.

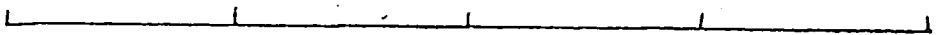
- 1. The introduction to the module gave a clear idea of the day's purposes

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
----------------	-------	---------------------------	----------	-------------------



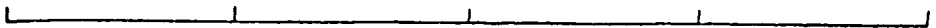
- 2. The day's activities were

Very Useful	Useful	Neither Useful or Unhelpful	Unhelpful	Very Unhelpful
-------------	--------	-----------------------------	-----------	----------------



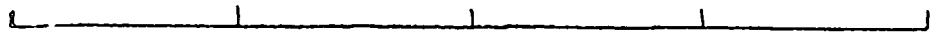
- 3. The module's documentation for school dissemination was

Very Useful	Useful	Neither Useful or Unhelpful	Unhelpful	Very Unhelpful
-------------	--------	-----------------------------	-----------	----------------



- 4. The module's resources for school use have been

Very Useful	Useful	Neither Useful or Unhelpful	Unhelpful	Very Unhelpful
-------------	--------	-----------------------------	-----------	----------------



- 5. How have you attempted to disseminate the module information to your colleagues?

- 6. What did you think was the strongest aspect(s) of the module?

7. *Why was this? Give reasons for your answer to No. 6.*

8. *What was the weakest aspect(s) of the module?*

9. *Why was this? Give reasons for your answer to No. 8.*

10. *What problems, if any, did you experience with the following :-*
 - (a) *Resources*

 - (b) *School based workshops*

 - (c) *Dissemination in Schools*

 - (d) *Implementing the module in your school*

 - (e) *Other? Please specify.*

11. How might the inservice course day's activities have been improved?

12. Have you any other comments you wish to add?

Thank you for your response. After collation and analysis the questionnaire results will be used to evaluate the module.

An early return of the questionnaire to the Hartlepool Dockland Project Co-ordinator, Mrs. Eve Walton, would be appreciated.

EVE WALTON
Hartlepool Dockland Project Centre,
C/o Ward Jackson Primary School,
Clark Street,
Hartlepool.

Cleveland TS24 7LE

CLEVELAND COUNTY INTERNAL MAILING SYSTEM VAN DELIVERY
CODE -

A54.

Appendix J

HARTLEPOOL DOCKLAND PROJECT 1985 - 1988

EVALUATION QUESTIONNAIRE - PRIMARY SCIENCE MODULE
ANALYSIS

Returns from participating Project schools

School A : n = 6	School D : n = 6
School B : n = 2	School E : n = 2
School C : n = 3	School F : n = 2

Responses to statements 1 to 4

Indicate your responses to the statements 1 to 4 inclusive by placing a cross on the scales provided.

1. The introduction to the module gave a clear idea of the day's purposes

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
School A	4	4			
School B	2				
School C		3			
School D	3	3			
School E		2			
School F		2			

2. The day's activities were

	Very Useful	Useful	Neither Useful or Unhelpful	Unhelpful	Very Unhelpful
School A	4	2			
School B	2				
School C	3				
School D	2	4			
School E		2			
School F	1	1			

Primary Science Questionnaire continued

3. The module's documentation for school dissemination was

	Very Useful	Useful	Neither Useful or Unhelpful	Unhelpful	Very Unhelpful
School A		2	4		
School B	2				
School C	2	1			
School D	2	4			
School E		2			
School F	2				

4. The module's resources for school use have been

	Very Useful	Useful	Neither Useful or Unhelpful	Unhelpful	Very Unhelpful
School A	3	3			
School B	1	1			
School C	2	1			
School D	2	4			
School E		2			
School F	3				

Responses to Questions 5 to 12 inclusive are incorporated in the text. (Sections 3.5.34/44/54/64/74 and 84).

Appendix K

HARTLEPOOL DOCKLAND PROJECT 1985-1988

EVALUATION QUESTIONNAIRE - PRIMARY TECHNOLOGY MODULE ANALYSIS

Returns from Participating Project schools

School A : n = 8 School D : n = 6
School B : n = 2 School E : n = 3
School C : n = 3 School F : n = 2

Responses to statements 1 to 4

Indicate your responses to the statements 1 to 4 inclusive by placing a cross on the scales provided.

1. The introduction to the module gave a clear idea of the day's purposes

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
School A	6	2			
School B	2				
School C	3				
School D	4	2			
School E	1	2			
School F	1	1			

2. The day's activities were

	Very Useful	Useful	Neither Useful or Unhelpful	Unhelpful	Very Unhelpful
School A	5	3			
School B	2				
School C	3				
School D	3	3			
School E	2	1			
School F	2				

Primary technology questionnaire continued

3. The module's documentation for school dissemination was

	Very Useful	Useful	Neither Useful or Unhelpful	Unhelpful	Very Unhelpful
School A		3	5		
School B	1	1			
School C	2	1			
School D	3	3			
School E	1	2			
School F	1	1			

4. The module's resources for school use have been

	Very Useful	Useful	Neither Useful or Unhelpful	Unhelpful	Very Unhelpful
School A	7	1			
School B	1	1			
School C	3				
School D	2	4			
School E	1	2			
School F	2				

Responses to Questions 5 to 12 inclusive are incorporated in the text (sections 3.5.34/44/54/64/74 and 84)

Appendix L

Overview of the Hartlepool Dockland Project Network Development

- March 1985 Appointment of Headteacher Coordinator
- Initial Meeting of H.D.P. and 'Control' School headteachers, LEA Senior Primary Officer and Advisers. Invite Participation in E.S.G. project.
- First meeting of H.D.P. and Control headteachers, LEA Primary Administrative Officer and Advisers with H.D.P. Coordinator.
- June 1985 Introductory Conference for H.D.P. and Control School headteachers, LEA Primary Advisers and H.D.P. Coordinator. Preliminary issues identified.
- July 1985 Networking Courses for teachers from H.D.P. and Control Schools -
Language and Drama.
Art and Craft.
Science and Technology
- September 1985 H.D.P. Coordinator in post.
- Multi-view exchange visits between control and project school teachers.
- October 1985 Conference of project and control school headteachers, LEA Primary Advisers and H.D.P. Coordinator.
- Dissemination of multi-view visits.
- December 1985 Baseline Statements produced by schools sent to D.E.S. for HMI responsible for ESG category (F) projects.
- January 1986 First workshop for project schools only. 'Designing and Making'.
- February 1986 First Project Newsletter/diary to all project school teachers.
- Review/Planning Meeting - project headteachers and Coordinator.
- March 1986 Drama Workshop
- Photogram workshop
- Lego Technic workshop
- Project Newsletter/Diary to schools

- April 1986 Thematic Progression in Primary Science Seminar project headteachers.
Designing and Making Course evaluation seminar -
- May 1986 Thematic Progression in Primary Science Workshop
H.M.I. visit to H.D.P.
Drama Workshop evaluation seminar
- June 1986 Meetings with Comprehensive schools from project school clusters - Dissemination of project information, invitations to courses.
Language Workshop.
Art in the Built Environment Workshop
Primary Science : Theme Water
HMI visit to H.D.P.
- July 1986 Review and Planning Meeting - project headteachers and Coordinator.
HMI visit to H.D.P.
Report to HMI at D.E.S., London, by H.D.P. Coordinator.
Project Newsletter/Diary to schools
- September 1986 Dissemination Meetings : Report to HMI and subsequent information.
Civic Centre Exhibition "Sea Festival" theme - 2/D and 2D project school work.
Primary Science seminar and workshop. 'Electricity' - project headteachers.
- October 1986 Primary Science Workshop "Electricity" - H.D.P. teachers.
- November 1986 Field visit to Beamish Open Air Museum.
- December 1986 Primary Technology Workshop Theme "Beamish".
- January 1987 Project Newsletter/Diary
Review and Planning Meeting - project headteachers and Coordinator.
Mid-Term Evaluation Document.

- February 1987 Workshop - Real Books Approach to Reading.
Theme-based drama seminar
- March 1987 Workshops "Approaches to Reading".

Evaluatory seminar - Primary Technology

Coordinator's visit to Sunderland LEA ESG
Category (F) project.

HMI visit to project.

Workshop: 'Display Techniques'
- April 1987 Review and Planning meeting - Project
headteachers and Coordinator.
- May 1987 Workshops - Weaving.
- Primary Science 'Air' theme.
- Problem-Solving Computer activities.

Project headteachers meeting with Learning
Support Services (Cleveland Co.)

Workshop 'Display Techniques'.

Project Newsletter/Diary.
- June 1987 HMI visit.

Illustrated Lecture: Childrens' Literature

Workshops : Screen Printing.

Problem Solving Computer Activities
- July 1987 Review and Planning Meeting - headteachers
and Coordinator - Final Report

LIST OF REFERENCES

- ADELMAN, C, (1976) Rethinking Case Cambridge J
JENKINS, D and Study notes from Ed 6,
KEMMIS, S the Second Cambridge Michaelmas
Conference. 76
- BALES, R F (1970) Personality - Holt,
Interpersonal Rinehart
Behaviour and Winston
- BECHER, R A (1980) Research into Hodder and
Practice in DOCKRELL, Stoughton
W B and HAMILTON, D
(eds). Rethinking
Educational
Research
- BELASCO and (1976) in BOLAM, R and PRATT, S. The
ALUTTO Management of Innovation in Schools
p.8. Open University Press
- BELL, I A (1979) A Discussion of some of the
Implications of Using Consultants
in School British Educational
Research Journal. Vol. 5 No 1.
- BENNE, K D (1976) General Strategies Holt,
and CHIN, R for Effecting Change Rinehart
in Human Systems and Winston
- BENNIS, W G, (1969) The Planning of Holt,
BENNE, K D Change Rinehart
and CHIN, R and Winston
(eds) 2nd Edition
- BOLAM, R (1974) Planned Educational School of
Change : Theory and Education
Practice Research Unit
Univ. of
Bristol
- BOLAM , R (1975) The Management of Educational
Change towards a Conceptual
Framework in HARRIS, A et al
Curriculum Innovation. Croom Helm
- BRASKAMP, L A (1978) The Credibility of a Local
BROWN, R O Educational Program Evaluation
and NEWMAN Report. Author, Source and Client
D L, Audience Characteristics. American
Educational Research Journal
Vol.15 No 3
- BROWN, S (1980) Key Issues in the Implementation of
Innovations in Schools. Curriculum
Vol. 1. No 1

- CARR, W and (1986) Becoming Critical The Falmer
KEMMIS, S Education, Knowledge Press
and Action Research
- CLEMSON, D (1983) Zen and the Art and Evaluation.
Insight 6 (2)
- COHEN, L and (1980) Research Methods Croom Helm
MANION, L in Education
- COHEN, L and (1985) Research Methods in Croom
MANION, L Education 2nd Edition Helm
- CRONBACH, L J (1975) Beyond the Two American
Disciplines of Psychology
Scientific Psychology 30, 2
- CROSSLEY, M (1984) Case-Study Research Methods and
and Comparative Education in:
VULLIAMY, G Comparative Education. Vol 20. No 2
- DALIN, P (1978) Limits to Educational Macmillan
Change Press Ltd
- DELBECQ, A L, (1975) Group Techniques for Scott
VAN de VEN, Programme Planning : Foresman
A H, and A Guide to Nominal
GUSTAFSON, and Delphi Processes
D H
- DENZIN, N K (1970) The Research Act in The
Sociology : A Butterworth
Theoretical Intro- Group
duction to Sociological
Method
- D.E.S. (1984) Circulars and Administrative
Memoranda : Circular No 6/84
Education Support Grants H.M.S.O.
- D.E.S. (1985) Circulars and Administrative
Memoranda : Circular No 5/85
Education Support Grants H.M.S.O.
- DOCKRELL, W B (1980) Rethinking Hodder and
and Educational Research Stoughton
HAMILTON, D
(eds)
- DOYLE, W and (1976) The Practicality Mimco
PONDER, C A Ethic in Teacher
Decision Making N Texas State
Univ.
Research
Paper
- ELLIOTT-KEMP, (1980) The DION handbook Sheffield
J and Polytechnic
WILLIAMS, G L

- ESLAND, G (1972) Innovation in the School in P Seaman, G Esland and B Cosin Innovation and Ideology Open University Course E282. O U Press
- EVERARD, K B (1985) Effective School Harper Rowe
and MORRIS, G Management
- EVERHART, R B (1977) Between Stranger and Friend : Some Consequences of Long Term Fieldwork in Schools. American Education Research Journal Vol. 14 No. 1
- FINE, M J, (1979) Personal Variables that Facilitate or Impede Consultation. Psychology in the Schools Vol. 16. No. 4
GRANTHAM, V L
and WRIGHT, J G
- FRASE, L E, (1982) Promoting Instructional Excellence through a Teacher Reward System. Herzberg's Theory Applied. Planning and Changing Vol. 13
HETZEL, R W No.2
and GRANT, R T
- FULLAN, M (1985) Change Processes and Strategies at Local Level (ed. ver.) in Elementary School Journal
- FULLAN, M (1982) The Meaning of Educational Change Teachers College Press. University of Columbia
- GEORGIADES, (1975) The Myth of the Hero - Innovator and Alternative Strategies for Organisational change in Behaviour Modification with the Severely Retarded (ed) Kiernan, C C and Woodford F P. Assoc of Scientific Publishers
N J and
PHILLIMORE, L
- GOLBY, M and (1980) School-focused INSET : Clients and Consultants British Journal of Inservice Education Vol. 6 No. 2
FISH, M A
- GRAY, H and (1982) Helping Schools Change. School Organisation Vol. 2 No. 4
HELLER, H
- GROSS, N, (1971) Implementing Organisational Innovation Harper and Row
GIACQUINTA, J B and
BERNSTEIN, M
- GRUNDY. S (1987) Curriculum Product or Praxis Falmer Press

- HARGREAVES, A (1982) The Rhetoric of School Centred Innovation. Journal of Curriculum Studies Vol. 14 No. 3
- HARLEN, W (1982) The Role of Evaluation in Teaching in A Lewy and D Nvo (Eds) Evaluation Roles in Education Gordon and Breach
- HAVELOCK. R G (1971) The Utilization of Educational Research and Development British Journal of Educational Technology Vol. 2 No. 2
- HERRIOTT, R E (1979) The Dynamics of Planned Educational Change McCutchan
and GROSS, N
- HOUSE, E R (1972) The Conscience of Educational Evaluation Teachers College Record, 73, 3
- HOUSE, E R (1980) Evaluating with Validity Sage Publications
- HOYLE, E (1973) Strategies of Curriculum change in WATKINS, K (ed) In-Service Training : Structure and Content Ward Lock Educational
- HOYLE, E and (1972) Problems of Curriculum Innovation O.U. Press
BELL, R
- HOYLE, E and (1976) Innovation. The School and the Teacher (II) O.U. Press
McCORMICK, R
- HOYLE, E and (1973) The White Paper and In-Service Education, Secondary Education Vol 3 No 2
TAYLOR, P
- HURST, P (1979) Appraisal Criteria and the Acceptance of Innovations. Educational Studies Vol 5 No.2
- ISAAC, J (1980) A review of the Literature and Debates in the field of Change in Educational Organisations. British Educational Research Journal Vol. 6 No. 1
- JENKINS, D (1976) Curriculum Evaluation O U Press
- JOHN, D (1980) Leadership in Schools Heinemann

- JONES, J A G (1980) An in-School Approach to In-Service Training. Curriculum 1 No.1.
- KENNY, W R (1984) Making the Case for Case-Study. in and GROTELUESCHEN, A D Journal of Curriculum Studies. Vol 16, No.1.
- KLEIN, (1969) in BOLAM, R (1974) Planned Educational change : Theory and Practice School of Education Research Unit, University of Bristol
- LENNOX, F, (1979) Organisational Consultation to FLANAGAN, D Facilitate Communication within a and MEYERS, J School Staff. Psychology in the Schools Vol. 16 No.4
- LEWIS, J (1982) Helping School Change. Education for Development Vol. 7 No. 2
- MACDONALD, B (1971) Curriculum Research and Development and RUDDICK, J Projects : Barriers to Success. British Journal of Educational Psychology Vol. 41 No. 2
- MATHIAS, A (1983) Decisive Factors in Curriculum and RUTHERFORD, D Innovation. A Case Study. Studies in Higher Education Vol. 8 No. 1
- McLAUGHLIN, (1978) Staff Development and School M W and Changes in Teachers College Record MARSH, D D Vol. 80 No 1
- MEARNS, D J (1982) A Person Centred Approach to Educational Research and Development : an explanatory paper. Educational Change and Development Vol. 4 No. 1
- MEDWAY, F J (1979) How Effective is a School Consultant? A Review of Recent Research. Journal of School Psychology Vol. 17 No 3
- MILES, M B (1984) Qualitative Data Sage and HUBERMAN, A M Analysis Publications
- MILSTEIN in (1982) The Management of Falmer Press GRAY, H L Educational (ed) Institutions
- MORRISON, K (1986) Primary School Subject Specialists as Agents of School Based Curriculum change. School Organisation Vol. 6 No. 2

- MORRISON, K (1988) An Evaluation of a Science Innovation in Seven Durham County Schools. Round Two School of Education Durham University
- MURPHY, R and TORRANCE, H (1987) Evaluating Education (eds) Harper Row and Open University
- NICHOLLS, A (1983) Managing Educational Innovations Unwin Educational Books
- NISBET, J (1974) Educational Research: the State of the Art. Proceedings of the Inaugural Meeting of the British Educational Research Association Univ. of Birmingham
- NISBET, J and WATT, J (1984) Case-Study in BELL, J. et al (eds), 1984, Conducting Small-Scale Investigations in Educational Management. Jarper Educ. Series
- NOBLIT, G W and HARE, R D (1983) Meta-ethnography : Issues in the Synthesis and Replication of Qualitative Research Paper presented - American Educational Research Association
- O'NEIL, M (1981) Nominal Group Technique. An Evaluation Data Collection Process Evaluation Newsletter 5
- PAISEY, A (1982) Change and Innovation in Schools in School Organisation Vol. 2 No. 2 Methuen
- PARLETT, M and HAMILTON, D (1972) Evaluation as Illumination : A New Approach to the Study of Innovatory Programs. Occasional Paper No. 9 Centre for Research in the Educational Sciences. Univ. of Edinburgh
- PARLETT, M and HAMILTON, D (1976) Evaluation as Illumination in D A TAWNEY (ed) Curriculum Evaluation Today : Trends and Implications Macmillan
- PATTON, M Q (1980) Qualitative Evaluation Methods Sage Publications
- PIERSEL, W C and GUTKIN, T B (1983) Resistance to School Based Consultation. A Behavioural Analysis of the Problem. Psychology in the Schools Vol.20

- PORTER, M (1984) in The Research Process in Educational Settings : 10 Case Studies Burgess R G, Falmer Press
- PRESCOTT, W (1976) Innovation : Problems and Possibilities O U Press
and HOYLE, E
- PRING, R (1984) The Problems of Confidentiality in Evaluating the Curriculum in the Eighties SKILBECK, M (ed) Hodder and Stoughton
- REASON, P (1981) Human Inquiry : A Source Book of New Paradigm Research Wiley
and ROWAN, P
- REID, W A (1978) Thinking about the Curriculum Routledge and Kegan Paul
- ROSENFELD, S (1980) Consultation in a Teacher Center : A Network Model. Journal of School Psychology Vol. 18 No. 1
- RUBIN, I (1969) A Study of Teacher Re-training Santa Barbara Univ. of California Center for Coordinated Education
- RUDDUCK, J (1979) A Study in the Dissemination of Action Research : Final Report. Norwich Centre for Applied Research in Education
and
STENHOUSE, L
- RUDDUCK, J (1980) Insights Into the Process of Dissemination. British Educational Research Journal Vol. 6 No.2
- RUTHERFORD, (1979) Criterion-Referenced Programmes. The Missing Element. Journal of Curriculum Studies Vol 11 No. 1
W L
- SCHON, D A (1971) Beyond the Stable State Temple Smith
- SCHON, D A (1983) The Reflective Practitioner Temple Smith
- SHIPMAN, M (1979) In-School Evaluation Heinemann
- SIEBER, S D (1976) The Organisational Dilemma of Educational Change Models : Toward a Solution : Interchange Vol 7 No. 2

- SIMON, B (1976) Theoretical Perspectives of the P.G.C.E. Course. British Journal of Teacher Education Vol. 2 No.1.
- SMITH, L M (1979) An Evolving Logic of Participant Observation Education Ethnography and other Case-Studies. Review of Research in Education 6 F E Peacock, Illinois
- SPINDLER, G (1982) Doing the Ethnography of Schooling Holt, Rinehart and Winston
(ed)
- STAKE, R E (1967) The Countenance of Educational Evaluation in Teachers College Record, 68
- STAKE, R E (1978) Research Methods Used. In Stake, R E and Easley, J A (eds) Case Studies in Science Education. Booklet 0, Center for Instructional Research and Curriculum Evaluation, University of Illinois.
and DAY, J A
- STENHOUSE, L (1975) An Introduction to Curriculum Research and Development. Heinemann
- STENHOUSE, L (1977) Case Study and Case Records : Towards a Contemporary History of Education Unpublished paper
- STENHOUSE, L (1979) The Study of Samples and the Study of Cases. Presidential Address to the Annual Conference of the British Educational Research Association, Sept. 1979. Unpublished.
- STENHOUSE, L (1982) Case-Study in Educational Research and Evaluation Unpublished paper
- SZMUK, M I C, (1979) Behavioural Objectives for Psychological Consultation in the School as Evaluated by Teachers and School Psychologists. Psychology in the Schools. Vol. 16 No.1
DOCHERTY, E M
and RINGNESS
T A
- TAMIR, P (1985) The Role of Evaluators in Curriculum Development Croom Helm Ltd
- THEODOSSIN, E (1983) Theoretical Perspectives on the Management of Planned Educational

Change. British Educational Research Journal Vol. 9 No. 1

- TRETHOWAN, D (1987) Appraisal and Target Setting Harper and Row Ltd
- WALKER, R (1983) Three Good Reasons for not doing Case-Studies in Curriculum Research. in Journal of Curriculum Studies. Vol 15, No 2.
- WALKER, R, MacDONALD, B, ELLIOTT, J and ADELMAN, C (1976) Innovation, the School and the Teacher (I) The Open University Press
- WARD, J and WHITE, R (1978) The Educational Psychologist as Change Agent : Implications for Training. Division of Educational and Child Psychology Occasional Papers Vol. 1 No.1
- WEBSTER. J R (1976) Curriculum change and Crisis. British Journal of Educational Studies Vol. 24 No. 3
- WENGER, R D (1979) Response to Collaborative Consultation. Psychology in the Schools Vol. 16 No.1
- WESTBURY, I (1980) Schooling as an Agency of Education : Some Implications for Curriculum Theory, in DOCKRELL, W B and HAMILTON, D (eds) Rethinking Educational Research. Hodder and Stoughton
- WILLIAMS, V (1974) The Management of Innovation. A consideration of Implementation. Journal of Applied Educational Studies. Vol. 3 No. 2
- YOUNG, J H (1979) Teacher Participation in Decision Making. Curriculum Inquiry Vol. 19 No. 2

