IMPLEMENTING CURRICULUM CHANGE

WITHIN A STATE EDUCATION DEPARTMENT REGION

ANALYSIS AND CONCEPTUALIZATION

Volume I

by

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A dissertation

submitted in partial fulfilment

of the requirements for the degree of

Doctor of Philosophy in the School of Education

Murdoch University, Western Australia

November, 1986
THE MURDOCH UNIVERSITY
SCHOOL OF EDUCATION

The undersigned certify that they have read and recommend to the Murdoch University, for acceptance, a thesis entitled

Implementing Curriculum Change
Within a State Education Department Region
Analysis and Conceptualization

submitted by Bryan John Spencer Reid as partial fulfilment of the requirements for the degree of Doctor of Philosophy.

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ABSTRACT

The major aim of this study was to develop a conceptual model representing the implementation process of a curriculum change occurring in a State Education Department region. This development had its genesis in the now extensive body of literature related to the organizational phenomenon of planned change. Since its early development in the 1960's, the study of planned change occurring in organizations has grown in sophistication, encompassing a steadily evolving number of theoretical constructs. Such a construct, of recent origin, was that of perceiving implementation of the innovation as a discrete process within the total planned change process. Although still in its infancy, this concept has attracted a steadily growing body of research. The present study coordinated some of these findings to form the basis for a four-stage model representing the implementation process under a special set of circumstances.

The application of the model was tested under field conditions. A longitudinal case study design was adopted because this was ideally suited to test the assumption of implementation as a process. The design was divided into four sections: concepts related to the decision to change; concepts related to the effect the rationale for implementation had on teachers' behaviour; concepts related to the sequence of involvement of implementers; and finally, concepts related to the measurement
of the degree of implementation for teachers and pupils.

Field work was applied in a rural educational region of the State of Western Australia. This region was established in 1979 as part of an Australia-wide trend. It is well documented that at the commencement of the 1970's, Australian government-controlled education systems were highly centralized. By the beginning of the 1980's, all were facing major change, each incorporating some form of decentralization. In Western Australia, a shift in power from central authorities to Regional Superintendents occurred. With the increase in power, the Regions received more duties and became more complex organizations.

To meet the demand of testing a complex theoretical model in the intricate field setting of a State Education Department region, a wide range of data-gathering techniques was used. Questionnaires were employed, some specifically designed to suit this study and some selected from other research. The breadth and depth of the data collected was extended by the use of interviews, both focused and unstructured. Information from a wide variety of perspectives was gathered by using direct observation. This was applied to the testing of the theoretical model and also used to validate data drawn from other sources. Content analysis techniques were also used to triangulate the findings from questionnaire and interview techniques.

The findings of the analysis of the data, within a matrix of hypotheses and sub-hypotheses, provided powerful statistical evidence indicating that the innovation was judged as being
implemented by the teachers and the pupils. Data collected were also analysed as part of the research plan incorporating four major hypotheses and twenty six sub-sections. Each sub-section has been investigated empirically. This strategy was used to test the applicability of the conceptual model as a technique to represent the process of implementation followed by an innovation in Oral English introduced into a rural region of a State Education Department.

The model proved to be a very effective device, aiding in the comprehension of an implementation process that occurred under the particular conditions described in the thesis.
I declare that this thesis is my own account of my research and contains, as its main content, work which has not previously been submitted for a degree at any University.

BRYAN J. S. REID
ACKNOWLEDGEMENTS

This study extended over a five-year period. It involved hundreds of adults and thousands of children. Wherever I went, and with whomever I worked, I encountered cheerful co-operation. These people are too numerous to mention, but it is certain I owe them a debt of gratitude. One person stood out from this group as a teacher of great skill and a person with the highest ideals. Graham Baxter the developer of the Upper Great Southern Oral English Programme proved an inspiration to all those with whom he worked.

I wish to acknowledge the skilful educational leadership of my academic supervisor, Associate Professor Colin Marsh. He never tired of urging me to strive for higher achievement, yet knew instinctively when encouragement and support were needed. This study was repeatedly enriched by his knowledge of curriculum studies and his extensive personal contacts in institutes of higher learning around the world.

To Mrs Vi Barham I offer especial thanks. She showed endless patience typing this manuscript, never swerving in her determination to produce the highest level of quality. A scholar in her own right, she offered countless suggestions that improved the presentation of the thesis.

Finally, I wish to thank Monica, my wife, and my sons Simon and Matthew, for their genuine interest in my work, their warmth and encouragement. Thesis writing is a long, lonely process, which I would not have completed without the support of a loving family.

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CHAPTER ONE
CHAPTER I
THE NATURE OF THE PROBLEM

The process of implementation consequent of a top-down authoritarian decision to change is investigated in this study. Extensive reviews of the planned change process are available (Silberman, 1970; Fullan and Pomfret, 1977; and later large scale studies: Rand, 1978; Huberman and Miles, 1982, and Crandall, 1982). The findings of these reviews have directed the attention of some research in education to the process of implementation as a discrete area of study (Rogers, 1983; and Marsh, 1984). Some important factors conducive to effective implementation have been isolated, but the study of curriculum implementation is still in an incomplete and explanatory state (Marsh, 1984). As well as this more general reason of reducing the incompleteness of the study of implementation, there are a number of contextual factors that provide sound argument for the further investigation of the implementation process associated with a top-down curriculum change decision.

In the prevailing political climate of economic restraint, there are substantial pressures for the implementation of curriculum change being exerted on schools. Beare (1983) predicts that during the 1980's governments in all Australian states will be involved in the restructuring of state education departments. He argues that the Australian public are now more aware of political issues than ever before. They are more critical than they were ten
years ago. More Australian voters are young and they are better educated. Australians' traditional voting patterns have changed. Australian women, who traditionally have taken responsibility for children's education, have become more active in politics. Education has become politicized, and this trend is intensifying. Political demands that the school change its procedures are demonstrated by Federal governments who award grants, attached to which are strict guidelines, or State governments who legislate for change such as community participation.

Since the Beazley Report in 1984, Western Australian schools have had little choice but to consider the phenomenon of planned implementation of change, for it is urged on them through over one thousand five hundred written submissions from members of the public, parent groups, teachers, the academic fraternity and power elites from within the Education Department. Threatened with disruption to their established pattern of behaviour, schools may well ask such change-related questions as: "Are those critics motivated by idealism or self interest?" "Which stake-holders will gain, and which will lose?" "What role redefinition will be required, of whom, by whom, and in what order?" "What new management techniques will be required?" "What implementation processes will be employed to bring about these new expected changes in the behaviour pattern of teachers and pupils?" Such knowledge would be vital to their well-being, their efficiency, and perhaps their very existence.

There are other good reasons for seeking a deeper understanding of the phenomenon of planned implementation of change.
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There are other good reasons for seeking a deeper understanding of the phenomenon of planned implementation of change.
Schools are firmly embedded in the roots of the society of which they are a part, and it is difficult to imagine them being insulated from the effects of major social change, argues McKenzie (1983). Such changes are presently happening in Australia, claims Erikson (1980), to a degree that may change the traditional structure of education. He points to the growing pluralism within Australian society wherein some groups maintain as their right the very things that are anathema to other groups. An example demonstrating this is the teaching of religion in schools. Government schools accede to the argument that people have a right to a non-religious education; however, large groups of parents are withdrawing their children from government schools in order to place them into schools where religious education is part of the normal day's work. The State systems such as exist in Australia have some considerable difficulty accommodating these various alternatives and avoiding major disruption.

Disruption of the school in the immediate future may also come from the surge for egalitarianism perceived by Erikson (1980) to be a force in present-day Australian society. Egalitarianism will cause conflict because of a fundamental difference between the idealised version and the practical application. Many groups give adherance to the thought of everybody being equal. However, the very same groups fight tenaciously to preserve the advantages they have won. For example, it may be argued that middle class parents who have worked hard to provide money and support for their children are hopeful that this will give their children advantages in the future. They may become discontented and disruptive if moves are taken to ensure their children have no
more favourable attention than the children of parents who have not taken such precautions.

The march of technology provides a third factor in building up this picture of imminent school disruption. Schools are, by tradition, technically underdeveloped (Lortie, 1975). Writers such as Scriven (1984) point out the enormous range of development that has happened in this field. Already a machine has been produced that can read from the printed word and articulate a message; the pocket calculator, once the preserve of expensive computers, is now available to every child for a few dollars. Computers that react to the human voice have already been established. Writers such as Jones (1983) and Naisbitt (1982) have developed the concept of megatrends to explain the enormous impact that the march of technology will have on our society. Erikson (1980) rounds off his concern by pointing to the scourge of austerity. Schools have already fallen victim to those who wish to curtail the quantity of expenditure allocated to schools. Fiscal austerity may well continue and, in fact, intensify - and if it does, schools will be obliged to become more cost efficient, more flexible and more effective. Burgeoning research in the school effectiveness area tends to suggest that schools may neglect new knowledge only at their peril (Austin, 1979; Cooley, 1984).

The school effectiveness literature has shown ways in which schools can change and improve the service they offer their clients. Dependable research, such as that compiled by Cooley (1984), Goodlad (1981), and Tye and Tye (1984) now postulates with conviction major factors that contribute to an improvement in
school effectiveness. The research of these people is data-based, soundly structured, and well bedded in emerging theory. Among the most frequently mentioned is that of strong staff morale, defended by Hough (1984). Rutter (1979) and Brookover (1981) both cite the presence of positive school climate as a factor of the effective school. High expectations are also defended by Lopate (1969) and Miskel et al (1979). Austin (1979) supports Lopate's (1969) previous findings that positive community relations are an integral part of an effective school. Good open communications are cited by Austin and Brookover (1979), and appropriate courses are supported by Weber (1971). Even this small sample of literature clearly shows that quite erudite and specific directions have been given in the area of school effectiveness. Principals believe they should give this matter attention (Leithwood and Montgomery, 1984). This being the case, it would be irresponsible for schools not to ascertain their position with relation to these factors, then look for implementation methods that would help them adopt some relevant findings from this research. Effective teachers must seek to develop ever more adequate models to assist the comprehension of the interconnected forces, vectors and flows of which changing social conditions are composed.

Some schools or regions establish a reputation for being innovative, and this facilitates further implementation. Fullan (1982) found that when teachers work in a region that has a history of flexibility, ingenuity, and support for inventiveness, they are more likely to implement change effectively than teachers working in a region which has a history of rejecting innovation. There is a tendency for regions with such a reputation to be
the most successful in gaining higher status and funding. It follows that increased understanding of the implementation process has pragmatic advantages. The same might be said of curriculum development. Research is constantly contributing new knowledge to curriculum developers. This new knowledge finds its way into teachers' classrooms through a relatively restricted number of implementation strategies. Teachers appear to rely, for the most part, on their own experience and picking up practical ideas from teachers with whom they interact frequently (Huberman and Marsh, 1982). It would seem that the quality of service offered to children would improve with a better understanding of the implementation process and use of the array of implementation strategies available.

Further reasons for studying the phenomena of planned implementation of educational change are provided in the form of a growing need to establish a theory of implementation (Fullan 1981). This is largely due to an evolving body of research-based literature which indicates that decisions to innovate have frequently been followed by partial implementation, and in some cases no implementation at all (Leithwood, 1981). Reviews documenting this have been written by Silberman (1970), Fullan (1972) and Fullan and Pomfret (1977). A number of writers, notably Berman and McLaughlin (1976) and Fullan and Pomfret (1977) led the early enquiries into the implementation process itself. Although a growing body of research is becoming available, Leithwood (1981) claims that, as yet, no reliable, conceptual analysis of implementation has been defined, matched to research findings, and then been tested in the field.
Fullan and Pomfret (1977) point out that early researchers examined the decision to adopt and then analyzed the outcome, frequently assuming that the decision to adopt was sufficient proof of implementation. Some then made the quantum leap to explain many aspects of outcomes in terms of the type of decision-making techniques employed. The works of earlier writers such as Katz and Kahn (1966) are replete with concepts such as participation, decision ownership, laissez faire, democratic or autocratic decision-making. It would seem that they regarded implementation as the black box in the process of planned educational change. Should we not study implementation, however, argues Fullan and Pomfret (1977), we really do not know in detail exactly what was implemented.

It is erroneous to assume that the innovation designers' specification will be implemented in detail by all actual users, despite users' claims of full implementation. A classic example is the comparison analysis of child achievement in the skill subjects between those working in open areas and those working in conventional classrooms. Early research by Smith and Keith, (1971) assumed that because teachers and pupils were in open area classrooms, they were experiencing and implementing a different education to those who worked in conventional classrooms albeit open education. Later research showed them that teachers could, and would, apply conventional classroom practice to open areas, no matter how ill fitting. Without a careful analysis of how the innovation was implemented, researchers could easily be comparing the achievements of children being taught by very similar methods, the principal difference being only the small
modification to the building. Conclusions drawn from such data, therefore, may relate to an innovation bearing little resemblance to that described before implementation commenced. To sum up, much is already known about implementation (Fullan, 1982), but much more needs to be learnt before a fully comprehensive theory can evolve.

Preparatory to commencing the development of a conceptual model, it is necessary to define the meaning of the term 'implementation' as it applies in this study. The use of the term in educational change literature has become more common, and through this usage has come to encompass much more complex concepts. (Berman, 1981). Early users of the term, Fullan and Pomeroy (1977), regarded it as what the innovation consisted of in practice, what teachers were doing in classrooms. Berman and McLaughlin (1977) used the term to refer to what actually happens as an idea or product is translated into operating reality within an educational organization. In Leithwood's (1981) concept, implementation occurred when teachers commenced using the innovation. It was measured by comparing their actions and the actions of the children under their care with those the curriculum designer preferred them to use. As the implementation process unfolds, the gap between the specifications of the curriculum designer and the actions of the user is expected to decrease.

A key concept in this theoretical construct is the degree of specificity provided by the curriculum developer. Some curriculum topics lend themselves to very accurate and detailed descriptions of behavioural outcomes expected of both teacher action
and child attainment. Certain mathematics programmes provide an example. The goals are strongly supported by tradition, they are in the cognitive domain, and key performance indicators are easily judged. Fullan and Pomfret (1977) entitled this the fidelity approach. The complement to the fidelity approach is entitled mutual adaption. In this type of implementation strategy the innovation is specified in general terms only. The idea frequently starts at grass roots level, and as it unfolds and begins to change the behaviour of users, they in turn adapt it to suit the specific needs of the environment in which they find themselves. At the end of the process the innovation has changed, but so has the behaviour of the users. Each approach has advantages, depending upon situational variables.

In this study the fidelity approach to implementation is assumed. The innovation being implemented contains very detailed plans and specifications of the behaviour expected from teachers and pupils. Based on Leithwood's (1981) principle that implementation is concerned with people changing their behaviour, implementation in this thesis means the behaviour exhibited by teachers and pupils that coincides with the pattern of behaviour specified by the curriculum developer. The measurement of implementation means measuring the discrepancy between the actual classroom behaviour of teachers and pupils and that preferred by the curriculum developer.

An implementation process that commenced after a top-down authoritarian decision to implement had been made, will be investigated in this thesis. There are a number of reasons
supporting the selection of this type of implementation process. Marsh and Huberman (1984) argue there is ample research evidence in the literature to accept that in Western Europe, several states of the U.S.A. and state education systems in Australia, teachers are frequently subject to relatively prescriptive, top-down curriculum implementation strategies. In Australia this is so, despite moves towards administrative decentralization and regionalization (Beare, 1981; Skilbeck, 1983). It must be accepted that participation in decision-making is an important factor in persuading teachers to implement an innovation (Smith and Keith, 1971; Gross et al, 1971; Havelock, 1973; Crandall, 1982). Conversely, Marsh and Huberman (1984) point out that there are teachers who willingly implement innovations, the creation of which they had no part in at all. Their investigations isolated four ingredients, the presence of which they believe leads to successful implementation of an innovation. These are: administrative advocacy, high prescriptiveness, good administrative 'engineering' of the implementation, and strong back-up assistance. This investigation reported in this thesis has been designed to add to this list of ingredients. It will follow the Marsh and Huberman (1984) suggestion to vary their mix of these ingredients, seeking information that will help ensure innovations are implemented more successfully, and their use is more likely to be continued.

The top-down authoritarian decision was made in a rural region of the Western Australian Education Department. In 1979 this state education system was divided into thirteen regions, four principally encompassing schools from the Perth metropolitan area and the remaining nine encompassing schools from provincial
centres and small rural towns. The establishment of regions was part of an Australia-wide trend to shift authority from the central office to the office of the Regional Superintendent (Beare, 1981; Skilbeck, 1983). This thesis is designed to investigate the implementation process as it occurs in a rural region of Western Australia. It is also designed to provide information about the relationship between this newly acquired authority of the office of the Regional Superintendent and the implementation process under a peculiar set of circumstances.

Finally, a purpose of this thesis is to expand the understanding of the implementation process by developing a conceptual model capable of representing reality within certain constraints that will be fully documented. This model will be subjected to empirical research.

1.1 Design of the Thesis

In Chapter II, a conceptual model is developed to be used as a basis to facilitate further analysis of the implementation process. Major concepts will be reviewed from the perspective of a top-down authoritarian decision to change. These concepts will be traced through the writing of five prominent authors in their fields, and it will be shown that a four stage model can be established. The first concept, 'The Decision to Change', will encompass research in the area of the Regional Superintendent's power to make decisions, the extent to which teachers research the decision to change, the Regional Superintendent in the role of curriculum manager, and the Regional Superintendent in the role of entrepreneur.
The second concept, 'The Rationale for Implementation', has its genesis in the argument that in the final analysis, implementation is frustrated or facilitated by the actions of the classroom teacher. A necessary condition for successful implementation is the existence of a supporting rationale acceptable to classroom teachers. This aspect of the conceptual model will be divided into six major influential factors.

Part three of the conceptual model is devoted to the users; 'Sequence of Involvement'. From the literature it will be established that teachers respond to implementation at differing rates. The reasons for these differences are important to change agents as they clearly are an integral aspect of any strategy of planned change. Writers argue that such differences are explained partly by individual differences (Rogers and Shoemaker, 1971) and partly by organizational factors (Fullan, 1982). Particular factors that apply in this case study will be analysed under the headings 'Advocates' who operated as a Curriculum Manager's Committee at the regional level, 'Enthusiasts' who accepted responsibilities as Resource Teachers at the school level, the 'Majority' (classroom Teacher-users), and finally the 'Resisters'.

The final section of the analytical model will revolve around the relatively recently-defined concept of 'Measuring the Degree of Implementation'. Concepts developed by Hall et al. (1979) and Leithwood (1981) will be combined and extrapolated. The techniques used provide a baseline against which teacher and pupil behaviour can be compared. This creates a mastery approach and employs the concept that the degree of implementation can
be measured in terms of the discrepancy between behaviour at the baseline point and at any defined interval of time thereafter.

Chapter III will contain a research plan designed to field test the four-stage conceptual model. Generalized hypotheses will be drafted and then used as a basis to investigate each stage. Sub-hypotheses will be derived from each generalized hypothesis and used to provide a deeper analysis. The plan will indicate the points of application for the wide range of analysis of variance techniques to be employed. This plan will facilitate field testing of the conceptual model within the setting of a rural region of the Western Australian Education Department. In Chapter IV, the contextual factors pertinent to this study will be discussed. Comment on the concepts of centralization, decentralization and regionalization will be drawn from the literature. The trend towards regionalization in Australian education will be traced, culminating in a review of regionalization in the Western Australian context. Implications of regionalization in Western Australia for the four stages of the implementation model will be examined and reported.

A review of the instruments to be used for data-gathering in this study will be recorded in Chapter V. Each instrument will be described in detail to provide an indication of the degree of its standardization, reliability and validity. The instruments used will include a range of questionnaires, interviews (both focused and unstructured), formal and informal observation strategies and content analysis. A balance will be struck between the number of instruments to be designed specifically for this study
and those selected from previous research.

In Chapter VI, collected data will be analysed in relation to the first of the four sub-models of the Entrepreneurial Authority Decision Directive Model of Implementation, The Decision to Change. Major influential factors will be derived from Generalized Hypothesis No. 1 and used as a basis for drafting related sub-hypotheses. The chapter will conclude with a review of the findings to generate an argument for the acceptance or rejection of Generalized Hypothesis No. 1.

The second sub-model, The Rationale for Implementation, will be investigated through the field testing of Generalized Hypothesis No. 2. The results of this will be reported in Chapter VII. Major factors will be derived from the generalized hypothesis, each forming the basis of a sub-section. Data will be classified according to the sub-section to which it is most relevant, then deployed to form a co-ordinated argument. The trends will be drawn together in a final concluding section to reveal support for acceptance or rejection of Generalized Hypothesis No. 2.

In Chapter VIII collected data will be analysed in relation to the third of the four sub-models of the Entrepreneurial Authority Decision Directive Model of Implementation, The Sequence of Involvement. The generalized hypothesis developed in Chapter III will be tested by deriving sub-hypotheses and testing each of these. These findings will form the basis for a debate to accept or reject Generalized Hypothesis No. 3.
The concept, Measuring the Degree of Implementation, will be addressed in Chapter IX. It will be divided into two sections: teacher behaviour and pupil behaviour. Generalized hypotheses will be developed for each section. From these two, sub-hypotheses will be developed and tested. The findings will be co-ordinated into arguments and related to the relevant generalized hypothesis. The first section of the chapter will draw a conclusion on the acceptance or rejection of the generalized hypothesis related to teachers. The second section of the chapter will conclude with an argument supporting the acceptance or rejection of the generalized hypothesis related to pupils.

Finally, in Chapter X, a restatement of the problem will be made and related to the findings reported in Chapters VI, VII, VIII and IX. Conclusions will be drawn and used as a basis to develop the implication for further research.
CHAPTER II
THEORETICAL FRAMEWORK

Synopsis

The purpose of this chapter is to establish a theoretical model to explain planned change processes based on superordinate authority decision-making, and superordinate directive management. Major concepts to be incorporated into the model have been delineated within the introductory section and then assembled into a simplified schemata to illustrate how they relate to each other.

The evolution of the Entrepreneurial Authority Decision Directive Model of Implementation upon which this thesis is based has been traced from its genesis within the early work of writers such as Chin and Benne (1969) to the recent work of writers such as Leithwood (1981), selected concepts from each being co-ordinated into a unique model to serve a particular need. The model incorporates four major sub-models entitled The Decision to Change, The Rationale for Change, The Sequence of Involvement, and Measuring the Degree of Implementation for Teachers and Pupils. Each sub-model has been built up from key concepts developed by previous writers. From the pattern, thus developed, have been isolated the areas wherein this thesis will attempt to provide further knowledge.
2.1. Introduction

This thesis is an attempt to form an overarching model to account for the implementation of a change process for a particular situation. Findings from the research of various writers have been assembled in a specific configuration in a deliberate attempt to explain important factors active in the curriculum implementation change process. Major concepts have been subsumed from noted authors and then co-ordinated in a unique configuration. This model has been applied to an implementation process occurring in schools to validate the major concepts, and if possible, extend the conceptualization to form a model upon which a comprehensive analysis of a particular implementation process can be based.

The particular implementation process selected for observation commenced with the decision to implement a clearly defined innovation. It was made by a superordinate whose position incorporated sufficient legal authority to support such a decision. The innovation implemented was a very clearly defined programme in Oral English. From the perspective of the decision-maker, there were sound, logical, rational reasons for implementing this innovation. These reasons were apparently acceptable to a small sub-group of the teachers who were contacted, because they commenced implementation immediately and with enthusiasm. Despite this, other teachers varied the amount of the programme that was taught and how accurately the lesson instructions were followed. A sub-group openly resisted the programme, despite the legitimate
authority vested in the position of the superordinate. Among
the teachers made aware of the programme there was considerable
interest in the extent to which the programme was being implemented.
From the observations of this process a complex picture emerged.

This complexity has been experienced by other researchers.
Cannings (1983) claims that repeated studies on educational innova-
tions have revealed a wide disparity between the degree of
perceived implementation of the innovation by the designer and
that of the teacher implementing the new programme (Smith and
Keith, 1971; Rand Studies, 1978; Fullan and Pemfret, 1977; and
McLaughlin and Marsh, 1978). More recent studies - Zaltman
(1977), Datta (1980) and Crandall et al (1982) - have modified
this view; however, they do agree with Fullan (1982) when he
argues that more information is needed before change agents can
predict with confidence the degree of likely success of a particular
change process when applied to a known situation. The need
for this information is gradually being filled by researchers such as
Leithwood (1981, 1983). In this thesis an attempt is made
to reduce this complexity by establishing a model, the central
concept of which is 'top-down change'.

2.2 A Four-stage Model of Implementation

Many people have ideological problems accepting the 'top-
down' autocratic directive strategies, and consequently are tempted
to concentrate on 'grass roots' democratic, participative, collabora-

tive strategies. In juxtaposition to this school of thought
there are writers cautioning against accepting 'grass roots' based
authority vested in the position of the superordinate. Among the teachers made aware of the programme there was considerable interest in the extent to which the programme was being implemented. From the observations of this process a complex picture emerged.

This complexity has been experienced by other researchers. Cannings (1983) claims that repeated studies on educational innovations have revealed a wide disparity between the degree of perceived implementation of the innovation by the designer and that of the teacher implementing the new programme (Smith and Keith, 1971; Rand Studies, 1978; Fullan and Pomfret, 1977; and McLaughlin and Marsh, 1978). More recent studies - Zaltman (1977), Datta (1980) and Crandall et al (1982) - have modified this view; however, they do agree with Fullan (1982) when he argues that more information is needed before change agents can predict with confidence the degree of likely success of a particular change process when applied to a known situation. The need for this information is gradually being filled by researchers such as Leithwood (1981, 1983). In this thesis an attempt is made to reduce this complexity by establishing a model, the central concept of which is 'top-down change'.

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Many people have ideological problems accepting the 'top-down' autocratic directive strategies, and consequently are tempted to concentrate on 'grass roots' democratic, participative, collaborative strategies. In juxtaposition to this school of thought there are writers cautioning against accepting 'grass roots' based
change processes as the only successful strategies (Marsh and Huberman, 1984; and Common, 1983). Syllabus freedom, expounds Barcan (1979), certainly contributed to the establishment of improved courses in some cases; he claims it also led to worse. He argues that school freedom of choice was supported extensively by central curriculum authorities. Datta (1980), reviewing an extensive array of data gathered by the 'Federal Programs Supporting Educational Change' from two hundred and ninety three projects, concluded that dynamic change was achieved by projects which varied across the total spectrum of directedness.

Louis (1980) and her colleagues also supported a noumenon that within curriculum change there is a place for the directive approach. She claims high installation rates for innovations disseminated through state facilitator networks. She also claims an increasing number of teachers, when exposed to an innovation, seek evidence of success in another place before they are prepared to accept its local adoption.

Conceptual work in the area of 'top-down' change strategy has been carried out by Chin and Benne (1969), the 'Power-Coercive' strategy; Rogers and Shoemaker (1971), 'The Authority Innovation Decision Making System'; Havelock (1971), 'The Research Development and Dissemination Model'; Schon (1973), 'The Centre Periphery Model'; and Leithwood (1981) compiled 'The Growth System Action Model'. Within these conceptual analyses there may be common themes, the tracing of which could contribute to the development of an overarching model. A classificatory framework, based on the stages in the implementation process
observed in this study, will be used to sort the common themes exposed by a review of the writings of these authors. In the first stages observed in this study, The Decision to Change was made; The Rationale for Implementation was prepared as the second stage. In the third stage, The Sequence of Involvement of teachers became apparent; and finally, teachers became interested in Measuring the Degree of Implementation. A brief overview of the results of this sorting process is illustrated in Figure 2.01.

The conceptual model upon which this thesis is based evolved from the common themes evident in the analysis illustrated in Figure 2.01. In addition, concepts from other writers have been incorporated. The concept of the Regional Superintendent as Entrepreneur has been adapted from the work of House (1974) and Peters and Waterman (1982). From Fullan (1982) came the concept that the innovation being implemented must be the appropriate one for all the people concerned. The level of teacher concern raised by the proposed change is a concept subsumed from Hall et al (1975). Arguments advanced by Scheirer and Rezmovic (1983) support the inclusion of the Leithwood (1981) concept of a measurement of pupil growth; the Hall et al (1975) concept 'Level of Use' has been incorporated as a measurement of degree of implementation, and finally the quality of the implementation concept included is that proposed by Hall et al (1979). A brief overview of the model is reproduced in Figure 2.02.

This thesis will seek to extend the early concepts delineated by the above-mentioned writers through a synthesis of the findings
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<tbody>
<tr>
<td>I. The Decision to Change.</td>
<td>POWER COERCIVE</td>
<td>AUTORITY INNOVATION</td>
<td>RESEARCH DEVELOPMENT</td>
<td>CENTRE PERIPHERY</td>
<td>GROWTH SYSTEMS</td>
<td>ECLECTIC</td>
</tr>
<tr>
<td></td>
<td>Decisions made by</td>
<td>DISSEMINATION SYSTEM</td>
<td>AND DIFFUSION</td>
<td>Decision made at</td>
<td>ACTION</td>
<td>Refer to Figure 2.02</td>
</tr>
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<td></td>
<td>superordinate who</td>
<td>Decision-making group</td>
<td>Autocratic decision</td>
<td>centre based on</td>
<td>Curriculum managers</td>
<td>Refer to Figure 2.02</td>
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<td></td>
<td>then generates</td>
<td>emerges - separates</td>
<td>central authority</td>
<td>legitimate power.</td>
<td>decide because they</td>
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<td></td>
<td>sufficient power to</td>
<td>from implementing</td>
<td>post decision</td>
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<td>have the legitimate</td>
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<td></td>
<td>enforce decision.</td>
<td>group.</td>
<td>research.</td>
<td></td>
<td>authority and access</td>
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<tr>
<td>II. Rationale for Change.</td>
<td>No rationale was</td>
<td>Knowledge and persuasion</td>
<td>A rational sequence</td>
<td>Post decision</td>
<td>Post decision</td>
<td>Refer to Figure 2.02</td>
</tr>
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<td></td>
<td>developed. Compliance</td>
<td>group generate reasons.</td>
<td>is established,</td>
<td>research.</td>
<td>research.</td>
<td>Refer to Figure 2.02</td>
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<td></td>
<td>was achieved through</td>
<td>therefore acceptance</td>
<td>therefore acceptance</td>
<td>Develop</td>
<td>Curriculum</td>
<td>Refer to Figure 2.02</td>
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<td></td>
<td>coercion.</td>
<td>is self evident.</td>
<td>is self evident.</td>
<td>stable message.</td>
<td>Developers.</td>
<td>Refer to Figure 2.02</td>
</tr>
<tr>
<td>III. Sequence of Involvement.</td>
<td>All followers are</td>
<td>Early adopters. Majority.</td>
<td>All followers</td>
<td>Field officers</td>
<td>Curriculum Manager.</td>
<td>Refer to Figure 2.02</td>
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<td></td>
<td>treated the same.</td>
<td>Laggards.</td>
<td>assumed to be the</td>
<td>and users who</td>
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<td>A resister group is</td>
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<td>identified.</td>
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<td>physically and</td>
<td>to a wide range of</td>
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<td>who are distant</td>
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<td>socially. Resisters.</td>
<td>reduction.</td>
<td>Refer to Figure 2.02</td>
</tr>
<tr>
<td>IV A. Measuring Degree of Implementation.</td>
<td>Teacher Change</td>
<td>No mention.</td>
<td>No mention.</td>
<td>No mention.</td>
<td>2nd order goal.</td>
<td>Refer to Figure 2.02</td>
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<td>IV B. Pupil Change</td>
<td>No mention.</td>
<td>No mention.</td>
<td>No mention.</td>
<td>No mention.</td>
<td>1st order goal.</td>
<td>Refer to Figure 2.02</td>
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</tbody>
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Figure 2.02 Major section of the Entrepreneurial Authority Decision Directive Model of Implementation.
of recent writings. At the conclusion of this section the various factors of an authority directive decision to change will be coordinated into an overarching model. This model will aim to simulate a view of reality from the perspective of a change manager implementing an innovation within the Entrepreneurial Authority Decision Directive Approach model. The evaluation of each of the four sub-sections of the model will be traced commencing with The Decision to Change.

2.21 Section One: The Decision to Change

The first section of Figure 2.01 deals with the decision to change. Through an examination of this concept represented in the writings of the authors listed, an attempt has been made to trace its evolution. Historical information thus gained has been used as a basis to extend each concept, aimed at making it appropriate to the specific situation under review. Figure 2.03 shows how each writer makes a contribution to the evolution of the Entrepreneurial Authority Decision Directive Model of Implementation. It also shows the concepts that have been selected from the work of each author and added together, starting with the one concept of power selected from Chin and Senne (1969). Two concepts were selected from Rogers and Shoemaker (1971): power and the decision-making group; three concepts were selected from the work of Havelock (1971) and added to the paradigm. This process was followed for each of the five authors until the sub-model of the Entrepreneurial Authority Decision Directive model had been built up.
<table>
<thead>
<tr>
<th>Author</th>
<th>Major Influential Factors</th>
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<tbody>
<tr>
<td>Chin and Benne (1969)</td>
<td>Power</td>
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<td>Rogers and Shoemaker</td>
<td>Power</td>
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<td>(1971)</td>
<td>Decision Making Group</td>
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<td>Havelock (1971)</td>
<td>Power</td>
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<td></td>
<td>Decision Making Group</td>
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<td>Research</td>
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<td>Schon (1975)</td>
<td>Power</td>
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<td>Centre</td>
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<td>Linkage and Manager</td>
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<td>Leithwood (1981)</td>
<td>Power</td>
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<td>Research</td>
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<td>Manager</td>
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<td>This Thesis</td>
<td>Regional Superintendent power</td>
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<td></td>
<td>Teacher pre-decision research</td>
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<td></td>
<td>Regional Superintendent as Manager</td>
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<td></td>
<td>Regional Superintendent as Entrepreneur</td>
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Figure 2.03  The evolution of the sub-model of the Entrepreneurial Authority Decision Directive Model of Implementation, The Decision to Change.
Chin and Benne (1969)

The first part in any change process must be the decision to change, whether that decision be overt or covert. Chin and Benne (1969) use this initial decision as a basis for their classification of types of change process models. Their 'power-coercive' model is based on the assumption that some person or group of persons has sufficient power to make someone else change their position. Chin and Benne (1969) wisely point out that power is present in any interaction between people; it is, however, the locus of that power which varies, and such variation forms the basis of their conceptualization. Power, they argue, may come mainly from knowledge, with rational people accepting the authority of 'men who know' over men who don't. Again, it may come from non-cognitive determinants exercised in mutual processes of persuasion based on the co-operation of all related parties. It may also come through coercion.

Power coercive approaches to effecting change as classified by Chin and Benne (1969) are those processes in which change agents tend to emphasize the use of economic and political sanctions to support their power. They also include the quasi-political phenomenon of moral power, invoking feelings of guilt and shame. Change agents define objectives, frequently without consulting target groups, then either use accumulated power or try to marshall sufficient political and economic power to overwhelm opposition. When those opposed to change resort to power-coercive methods to counter the efforts of change agents, conflict ensues and resisters are created. Resisters organize discontent, hoping
to add to their number and gain power outside the system, worker strikes being an example. Chin and Benne (1969) claim that the power-coercive strategies are more widespread than we might be prepared to admit; they don't give any measure of this estimate, but they do outline three gross strategies that have a familiar sound.

Strategies of non-violence, of which Ghandi was perhaps the most famous exponent, and Martin Luther King the most well-known recent user, drew their power by invoking feelings of guilt and shame in the dominant group. Beginning demoralization was then compounded with economic sanctions made possible by the growing number of adherents. Should the number reach a critical mass, then the quantum leap to power outside the system was made. Some environmental protection groups have recently achieved this.

Government instrumentalities such as education have frequently experienced change through legislative or judicial power. Such decisions carry the imprimatur of the ballot box, hence political and economic sanctions can be directed against opposers. Chin and Benne (1969) point to such decisions as the school de-segregation decision of the United States Supreme Court. They go on to argue that the power of such judgements frequently terminates at the decision to adopt stage, and requires re-educative strategies to assist changees to assimilate the new conduct, new knowledge, new skills, new attitudes, and new value orientations which the change will require.
Finally, Chin and Benne (1969) outline the strategy of reconstituting or manipulating power elites. They refer to the claims by some observers that all communities, large or small, contain groups of people who have achieved positions of influence and are frequently referred to for decisions. Chin and Benne (1969) point out that revolutionaries such as Marx suggest societal change can be commenced by removing established power elites and replacing them with people holding different values. It would seem likely that institutionalization of change would require re-educative strategies. All three methods can be found in education, but education has frequently used the less traumatic strategy of attempting to manipulate the political process through sublimated power.

Chin and Benne (1969) put major emphasis on the decision to adopt a change as a basis for their classification of a change strategy as power-coercive: indeed, they refer frequently to a re-educative strategy as a necessary follow-up once the decision to adopt has been made.

Power is the common link between the conceptual frameworks propounded by the five authors under review, as illustrated by Figure 2.03. This further supports the contention that power be accepted as a major factor in the model adopted by this thesis.
Rogers and Shoemaker (1971) in their 'Authority Innovation 
Decision-making' model provide a conceptualization that takes 
the Chin and Benne (1969) thesis a step further. Commencing 
with the decision to 'adopt', they define this as a decision forced 
on an individual by someone in a superordinate position. Princip-
al characteristics of the authority decisions are the degree of 
influence the organization exercises over an individual member's 
decision to adopt, or his lack of option to resist; the hierarchical 
nature of the system in which the authority innovation decisions 
are found and that within such a system authority decisions are 
the most common. A clear distinction is made by Rogers and 
Shoemaker (1971) between this decision to adopt and the consequent 
strategy to implement. They then go on to divide the members 
of the organization into a decision-making group and an implemen-
tation group. They conceive the decision-making group to be 
superordinates.

From the Rogers and Shoemaker (1971) conceptualization, 
the Authority Innovation Decision change process can be conceived 
as containing five inter-related functions. The authority person 
or group must have knowledge of the innovation and a belief 
in the need for change. They must be able to evaluate the innov-
ation and have the opportunity and facility for persuasion. 
During function number three, the authority unit accepts or rejects 
the decision to adopt. Superordinates are primarily concerned 
with these three functions which form a sub-group involved in 
the Decision to Implement Phase of the change process.
The Decision to Implement Phase, which is made up of the final two functions, primarily concerns the subordinates. Within this sub-set the authority unit communicates with the adoption units, who then take action towards the implementation of the decision to adopt. None of these functions is mutually exclusive, but together form an inter-related conceptual framework.

Rogers and Shoemaker (1971) point out that they intend their conceptual framework to apply to formal organizations, hence they must provide a definition of a formal organization. They have chosen to adopt the Blau and Scott (1964) definition which states that an organization is consciously created by a set of people prepared to forego a degree of their individual freedom in order to create an entity designed to accomplish defined goals and expectations. Such goals are predetermined and sought by members who are organized according to a formulated set of rules. They go on to argue that being in an organization adds new determinants to an individual’s behaviour patterns pertinent to planned change strategy. Further support for this view is provided by Katz and Kahn (1966:391):

The behaviour of people in organizations is still the behaviour of individuals but it has a different set of determinants than behaviour outside organizational roles. Modifications in organizational behaviour must be brought about in a different manner.

By merging the ideas of Rogers and Shoemaker (1971) with the Chin and Benne (1969) power-coercive conceptualization, we devolve an authority model commencing with a power-coercive decision made by a superordinate group, implemented by subord-
inates and this process is divided into five functions: knowledge, persuasion, decision, communication and action.

| Power       | Decision Making Group |

These common themes may be linked to concepts developed by Havelock (1971).

Havelock (1971)

The paradigm can be extended by reference to that aspect of the work done by Havelock (1971) and co-ordinated under the title of 'Research Development and Diffusion' as one of three models he describes in his publications. By assuming rationality on the part of those involved in the change process, Havelock (1971) assumes the existence of a set of a series of events in the creation, osmosis and application of an innovation which are related to each other in a rational, developmental way. Extension of the Rogers and Shoemaker (1971) conceptualization occurs when he goes on to argue that the rise in technology grants central decision-makers access to, and facility with, research and development. This implies that in a top-down change strategy, the decision to change may be autocratic but not capricious. It must be well judged and founded on research.

Knowledge is power and Havelock (1971) assumes the knowing group to be the decision-makers. The research-based decision is followed by trialling. He then assumes a rather passive group
of implementers. Havelock's (1971) equivalent stage to persuasion is the attractive packaging of the innovation, which he then perceives as being implemented by a planned mass dissemination activity, directed at his passive implementers or users. From this generic concept or orientation, as he titles it, Havelock (1971) derives seven strategies and six tactics.

Conceptually this argument is attractive because it is logical, sequential and elegant. Researchers working in schools, however, experience difficulties because schools contain people who don't always behave logically; hence, when the Havelock model is used to explain school organizational behaviour, some inconsistency occurs. Further, it may also be argued that behaviour exhibited by members of an organization undergoing change may not always accord with one of Havelock's (1971) particular discrete states. There also seems to be some indication that members of an organization may accelerate through more than one stage, perhaps later to regress.

In the building up of the theoretical constructs of this thesis, Havelock (1971) presents two useful concepts: change occurs in stages, and the decision to commence a change within an organization must be preceded by research.

<table>
<thead>
<tr>
<th>Power</th>
<th>Decision making group</th>
<th>Research</th>
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Schon (1973)

At this point it is relevant to add the concept of linkage
to the evolving conceptual analysis. This idea was briefly addressed by Havelock (1971). He drew attention to the practice, found in some change processes, of an organization reacting to an innovation by retaining an outside resource person. The role of this person is to co-ordinate a search and retrieval system of needed knowledge and forge a link between such a data base and the potential user.

The resource person and the user then must build valid models to explain the behaviour of each, and contribute to the establishment of an empathetic relationship. Reciprocal feedback networks would reinforce this relationship, facilitate collaboration, increase relevance, heighten trust, and cause the establishment of a rational sequential system through which the innovation may pass efficiently. Linkage is extended exponentially to encompass needed personnel, resources and knowledge to be gained from systems surrounding the change process system.

The concept of linkage can be further elaborated by reference to the Schon (1973) treatise of the centre-periphery model, illustrated in Figure 2.04. The centre-periphery model assumes that when an idea becomes a definable reality it spreads through various forms of human interaction as the knowledge of the benefits it can bestow becomes apparent. Here the emphasis is on communication of knowledge rather than the decision of a superordinate to impose his/her will on a subordinate. The idea moves outward from a central point, travelling along defined paths much like the spokes of a wheel. As the idea permeates the organization, the centre assumes a directive role managing training
After Schon, 1973

Figure 2.04 The Centre Periphery Model.
of personnel, provision of resources and distribution of rewards and punishments. Other writers have adapted concepts similar to those used by Schon (1973) to make them more relevant to the field of education.

A similar exposition of the centre periphery model more closely related to education has been developed by Pederson (1970), the rationale for which he has transposed into a mathematical formula. His formula assumes that decision-making power resides with central office personnel, the authority for which, he argues, rests heavily on the relative isolation of the classroom teacher. In the development of his formula, Pederson (1970) claims central authorities have far greater access to outside contacts than classroom teachers. They generate, consequently, greater expertise, more resources, more effective outward bound communication, and more efficient staff training. To these might be added the interference by central authorities in the pupil management practices employed by the classroom teacher. Through techniques such as legislation, central authorities define the limits of teachers' authority and exert very real power over teachers' selection of instructional practices. The banning of corporal punishment, for example, prevents teachers from using methods reliant on physical coercion. Central authority thus intrudes on the teacher-pupil relationship, a very sensitive area for the classroom teacher (Lortie, 1975).

Returning to the work of Schon (1973), it is pertinent to note that Centre control techniques may be loosely classified into two categories. The Centre may travel to meet those it wishes
to influence (some evangelical religious groups provide an example), or it may attempt to attract those it proposes to convert. As examples, Schon (1973) points to powerful nations such as the U.S.A., U.S.S.R. or Britain who host numerous citizens of technologically under-developed countries.

Although the structure of large-scale organizations would obviously vary, Schon (1973) argues that the central tenet of his argument can be generalized. Central authorities see themselves in a decision-making situation, controlling their environment by manipulating branch offices at the periphery of the organization's sphere of influence. The major function of the branches is perceived to be receiving instructions from the central authorities and implementing them. A major role of the central authorities is to be the guardian of pre-established doctrine and methodology. It is they who select operating territories and deploy agents in the field. Central authorities attempt to maintain a dominant position in the organization by acting as the developer for new methods of operating as the referent for methods increasing the efficiency of established practice. Close liaison between field agents and central authorities is fostered by personal communication and the bestowing of privileges, such as transfer to a preferred location, or promotion. Schon's (1973) theory postulated that through a network of communication points, the central authorities can monitor progress, influence decisions, supervise performance and generally enforce their decisions. The Centre becomes the decision-making group, and a new concept of linkage can be added to the model being developed in this thesis.
Leithwood (1981)

Theory building, for Leithwood (1981), was much more specifically top-down or change agent directed than the theories postulated by the writers already reviewed in this chapter. He focused more sharply on power, seeking its loci. As he began to develop his argument Leithwood (1981) noted that during the 1970's a growing body of research-based literature indicated that decisions to innovate were frequently followed by partial implementation, and in some cases no implementation at all (Smith and Keith, 1971; House, 1974; and Berman and McLaughlin, 1976). A number of writers, notably Fullan and Pomfret (1977) and Berman (1981), led inquiries into the implementation process itself, a growing body of research becoming available. Leithwood (1981) claimed, however, that as yet no writer had been able to define a reliable implementation strategy, match this with relevant research findings, then test its validity in the field. Leithwood (1981) proposed his own theory which had sound management as its central tenet. This theory attempted to explain implementation from the perspective of the change agent or curriculum manager. Leithwood (1981) went on to argue that his theory could be used by educationalists at all levels – teacher, principal or superintendent. It permitted an organization to define its goals and then establish an environment in which individuals could grow as they accumulated the skills they need to achieve these goals. This theory contained three main concepts: Growth, System, and Action.
To explain his concept of 'Growth', Leithwood (1981) begins from the point of defining implementation as a reduction of the gap between the present behaviour of the pupil and the preferred behaviour. This is a significant statement on two counts: it introduces the notion of some person or group defining the ultimate goals of the innovation, thereby becoming managerial and directive; perhaps more importantly, it puts the emphasis of the implementation strategy on student change as the top priority goal. Teacher change becomes important only to the degree that it contributes to the overall goal of pupil change. Few research studies have included measurement of pupil performance in their analysis of strategies of planned educational change (Fullan, 1982; Scheirer, 1983). Leithwood (1981) refers to the work of Fullan and Pomfret (1977), Leithwood et al (1976) and Berman and McLaughlin (1976) to establish the thesis that this gap reduction is a process occurring over time, thus supporting the concept of stages of change postulated by earlier writers.

Leithwood's (1981) concept of 'Growth' incorporates the aims of the innovation, operationalized in terms of human behaviour. This behaviour frequently becomes increasingly complex in order to meet requirements laid down in a detailed plan. If the organization is to achieve this 'growth', an implementation strategy must be established. Roles and role relationships within the implementation strategy will change as the implementation plan unfolds. The strategy's major goal is facilitating pupil growth in the direction defined by the innovation as preferred pupil behaviour. The concept of managing the implementation strategy can be combined with Schon's (1973) linkage concept. For the
purposes of the conceptual model developed for this study, the two concepts will be combined and entitled 'Curriculum Manager'. This, then, lends further support to the evolving model of:

| Power | Research | Curriculum Manager |

Further Exploration Attempted in this Study

Seeking to extend the presently evolving model, this thesis incorporates within the synthesis of power, research and curriculum manager, the concept of entrepreneur. Power, research and management tend to suggest a rational sequence of factors that must conclude in change. Fullan and Pomfret (1977) found little evidence to support this conclusion. Few of the high profile innovations such as 'New Maths', 'New Science', 'Open Education' or 'Multiculturalism', implemented with central office power, accompanied by research and planned management strategy, were implemented to the satisfaction of the innovation's designer. It seems that other ingredients were missing. Perhaps the most significant of these was the subtle and abstract concept of entrepreneurship. To pursue the elaboration of the model upon which this thesis is based, it is necessary to develop the concept of entrepreneurship in conjunction with the superintendent.

The Superintendent as Entrepreneur.

The concept of the superintendent as entrepreneur embodies a number of key elements, the portent of which is underscored by Fullan (1982). According to him, the superintendent,
or chief district administrator, was more important for setting
the tone and expectations of the pattern of change than any other
factor. Further support for this argument is forthcoming from

A group of these key elements pertain to the entrepreneur
as an individual and are addressed below, while others pertain
to the organization in which they operate and will be discussed
in a later section of the chapter.

One area that has not received a great deal of analysis
within the literature is the concept of power perceived as being
in the hands of the entrepreneur. Some writers, notably Peters
and Waterman (1982) conceive the successful entrepreneur as an
individual who gets things done. They associated the entrepreneur
with power and the ability to gain a clear understanding of the
locus of power; and to use this to generate further power when
necessary.

Unsuccessful entrepreneurs seem to misplace the locus of
power in education and may underestimate teacher power. They
tend to regard teachers as technicians and innovation consumers;
witness to this is the dearth of writings within the ambit of
planned change dealing with the place of pupil behaviour. Many
projects are conceived as answers to a problem perceived by the
central office hierarchy. Teachers are considered part of the
problem and solutions frequently perceive teachers as powerless,
having no legitimate claim to authority, hence available to be
changed by fiat. Frequently central office change agents have
failed to differentiate between teachers, assigning them to inservice
courses in an ad hoc manner to meet administrative and geograph-
ical expediencies. A uniform curriculum administered by a uniform
teaching force seems to be the hidden curriculum. Teachers sit
side by side at inservice courses receiving the same input,
regardless of experience, ability, interest or philosophy.

It may very well be that teachers view power in a totally
different way. They may perceive the classroom as the locus
of teacher power. Within the classroom, all the children refer
directly to them for academic, and frequently for emotional,
sustenance. Children abdicate power to the teacher who makes
classroom rules and enforces them. Indeed, successful teachers
control their classrooms, often insulating them from outside inter-
ference so that children may work at learning undisturbed. A
professional ethos has developed which emphasises the autonomous
dimension of teaching and causes supervision to be superficial
and infrequent.

There are clear contradictions here; the central office change
agent and the teacher can easily become protagonists over who
will dictate the nature of classroom behaviour. Should the teacher
demur, a power play is invoked and implementation will proceed
or stagnate, depending on who can maintain sufficient power
to prevail. Arguably, a change agent must understand power
in this particular setting if the implementation of the innovation
he supports is to proceed.
To understand the concept of power as it is applied in this sense, it is necessary to conceive power as a constituent of all social situations (Russell, 1973). People must be present and one must attempt to influence the behaviour of another (Nyberg, 1983). Consent is necessary for the manifestation of power. It is this third facet that reveals a potent factor in the quest for establishing why the implementation process at times is not completed. Central office change agents may assume teachers to be powerless, hence believe they will welcome the innovation, and therefore willingly submit to reorganization and training so the innovation can be implemented as intended.

Some teachers, however, who have autonomy, see little gain in changing classroom behaviour that is at present very rewarding to them. Being relatively unsupervised, they can agree to the innovation while outside the classroom, then refuse implementation once inside the room. The argument seems to turn on either the change agent being able to accumulate sufficient power to overwhelm the teacher, within the sanctuary of their own room, or becoming so persuasive that teachers willingly consent to abdication of their within-classroom power and follow the entrepreneur as their leader.

The Leadership Component.

Superintendents are apparent and visible leaders, backed by well defined legitimate power. They are legitimately required to use this ascribed power to define current practice and maintain organizational integrity. Entrepreneurial leaders, conversely,
are interested in changing organizations and can claim this as a legitimate function of leadership (Brache, 1983). They are involved in articulating goals for the future, then making the decisions that they believe will lead to the accomplishment of those goals. It is this 'guess the future' that adds the risk factor to the concept of the 'Superintendent as Entrepreneur'.

The risk factor may be exacerbated if the entrepreneur has insufficient legal authority (ascribed power) to support the range of decision-making required to make the implementation strategy work. Even if he/she has been granted full autonomy, a rare occurrence in any organization, the entrepreneur needs to win the loyalty of the members with whom he must work. The risk factor can be reduced if members of the organization are prepared to grant the entrepreneur achieved leadership authority. Beare (1982) drew a link between the leader's need to achieve status and the public image he/she presents. Public image is related to public esteem, public support, political support, financial support, and finally, government priority. Entrepreneurs who create a successful public image frequently gain access to achieved power, which gives them more authority than the power ascribed to them in a legal sense. This power and the consequent ability to 'get things done' increases the number of people willing to grant the entrepreneur power over them. Power, the risk taking, frequently on behalf of others in the organization, and the resulting organizational change, often involves the entrepreneur in decisions based on values. These decisions bring him/her into contact with the values accepted by individuals in the organization itself and the surrounding environment. Because of his/her
central position in the organization, the values of the entrepreneur may become subtly externalized, contributing to the legitimacy, credibility and even charisma of his/her position (Hodgkinson, 1978).

**The Ideas Champion**

The idea of combining the medieval concept of a 'champion', one who fought the cause of another, with that of entrepreneurial change agent, is discussed by Schon (1973) in some detail. He argued that each new idea was adopted by some ardent supporter or champion, or it withered away to die. No ordinary involvement, he claimed, could generate the energy required to cope with the apathy and resistance at times encountered (Cannings, 1983). Champions of innovations must display perseverance and courage 'above the call of duty'.

An interesting dimension to this concept of entrepreneurship was added by Theodore Levitt (1981) who drew a distinction between creativity and innovation. To him, creativity was the dreaming up of new ideas which may be quite different to the 'getting of those things done'. He went on to claim that there was no shortage of creative people and 'good ideas' in business, though there was a distinct shortage of innovators, those people who have the know-how, energy, daring and staying power to get ideas accepted, then to see them to fruition. Peters and Waterman (1982) conceived ideas champions, or entrepreneurs, not as blue sky dreamers or intellectual giants, but pragmatists. They were atypical leaders who embodied some galvanizing force, some energizer driving them to 'get things done'.
Peters and Waterman (1982) have gathered case study data to support their argument. After reviewing fifty successful and unsuccessful new product introductions in the U.S.A., one factor was found to mark every failure: the absence of a volunteer champion. When reviewing their data gathered in Japan, they managed to assemble corroborating evidence. Peters and Waterman (1982) in another study, stated that of fifteen successful cases out of twenty-four, fourteen involved a clearly identified champion, while of the nine failures, just three were champion-led. This concept of entrepreneurship was central to the polemic of superordinates as change agents. There was good evidence, then, to suggest that champion-led change processes were successful, though not always, and therein lies the risk. Entrepreneurs must be risk takers (Kingston, 1977).

The Personal Ambition Component

The concept developed by Carlson (1972) of 'place bound' and 'career bound' superintendents was a useful basis for seeking factors that predicted which superintendent would become an entrepreneur. He found career bound superintendents to have more liberal and progressive ideas on education than their place bound counterparts. In Carlson's (1972) sample, they were twice as likely to adopt innovations and were chosen by school boards who were openly dissatisfied with the previous superintendent and seeking change. Generally they had higher social status among their peers, sought social contact with other superintendents, attended more meetings, and were three times as likely to be consulted by fellow superintendants as their place bound counter-
House (1974) argued that the greater emphasis placed on promotion by the career bound superintendent meant he had a greater need to innovate, thus maintain and extend his reputation. His migratory habits facilitated reputation spreading; they also provided him with a social setting in which he was not well known and had few reciprocal obligations. He was less predictable than his place bound counterpart, therefore more difficult to frustrate. Supporting evidence may be found in the work of Becker (1981) who found that chief administrators in Local Health Departments innovated to add to their personal prestige. Carlson (1972) and later Campbell (1977) found that superintendents tended to be more innovative when they believed they had secure tenure and firm control of their district. Coleman (1982) found that superintendents with a successful record of innovation had a reputation for being highly energetic; their role had to encompass the facets of ideas carrier, catalyst and gate keeper. Entrepreneurs were more successful resource gatherers and more able to gain support from superiors (Peters and Waterman, 1982).

Carlson (1972) noted from his research that the administrator entrepreneur could be clearly distinguished from his more cautious counterpart. Entrepreneurs gained access to resources they needed to promote development of their project. This idea was extended to include the gaining of support from superiors by Peters and Waterman (1982). Being self confident about being able to influence his own future, the entrepreneur believed that opportunities existed for his own rapid upward mobility. He was thus
more likely to use his power and influence to promote change, especially when it was clear that the programme would be successful (Carlson, 1972.)

Personal Characteristics

It is imperative for superintendents accepting the role of entrepreneurial leaders to be determined competitors and persistent innovators in the face of repeated failure. Campbell (1977) found that they frequently pursued a course of action of an atypical nature and drew the derision of more conservative colleagues. His survey revealed that they must be oblivious to personal criticism, sympathetic and sensitive to the people with whom they work. An important factor contributing to this sensitivity appeared to be that frequently they are people who have risen through the ranks and know schools very well. During their careers they have filled the positions of teacher, deputy principal and principal before becoming a superintendent. They were geographically mobile, had gained high status academic qualifications, and were keenly interested in changing the organization of which they were part. Characteristically they attempted to engineer change by creating an organizational relationship of mutual stimulation and elevation (Burns, 1983).

The Entrepreneur and the Organization

Organizations needed structure, rules, procedures and predictability if they were to achieve their major goals, argued Peters and Waterman (1982). The concept of entrepreneur is the very antithesis of this, embodying such factors as the ability of a member
to make a decision without reference to a superordinate, the opportunity for a member to take risks on the organization's behalf, according members the facility to commit resources, giving them power to move quickly, and providing them with an opportunity to think laterally. Can these two concepts exist in the same organization in juxtaposition?

Peters and Waterman (1982), studying excellent organizations, observed many large-scale organizations commenced as small, personal, flexible organizations that were quick to accommodate personal initiative. They argued that these very characteristics that were so supportive to the entrepreneur were chiefly responsible for the organization growing from small to large scale. During their study of excellent large-scale businesses, they observed that a common factor from all the case studies was their ability to foster successful innovations. Their analysis of many case studies of successful innovations indicated that a 'fired up champion' was essential to successful innovation. This led them to the conclusion that successful organizations could not only tolerate an entrepreneur but would need one if innovation were to succeed.

From this conclusion they analysed case study data, seeking the conditions that promoted entrepreneurial behaviour. Their findings indicated that excellent organizations supported entrepreneurs with small quantities of resources, some local decision-making power, they facilitated intense informal communication, dispensed with burdensome planning and paper work, and promoted the organization's reputation for being innovative.
In some cases changes in educational organizations have caused the superintendent to adopt an entrepreneurial approach. Goldhammer (1977), in his survey, found that many United States superintendents believed they had relinquished much of their educational role in favour of the entrepreneurial skills such as conflict resolution, financial management, and resource acquisition. Conversely, many educational organizations were experiencing difficulty in tolerating the 'maverick' type behaviour of entrepreneurs working at an organizational level lower than that of the superintendent. Declining enrolments, financial constraints and more articulate and intransigent parent and teacher groups, argued Campbell (1977), have created tension in the organization, thus reducing flexibility.

These findings relate to superintendents from Canada and the United States of America. The roles adopted by such people differ in a material sense from the roles adopted by regional superintendents in Western Australia. They do, however, provide a useful framework, in the absence of research into Western Australian schools, for an examination of the entrepreneurial aspect of the role played by the Regional Superintendent in this case study.

<table>
<thead>
<tr>
<th>Power</th>
<th>Research</th>
<th>Curriculum Manager</th>
<th>Regional Superintendent</th>
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</table>

As the role of the regional superintendent, to the writer's knowledge, has not been linked directly to implementation studies, it was discussed in some length as part of Section I, The Decision
to Change. It is now necessary to discuss the second component, the rationale behind the decision to change.

**Section Two**

2.22 **Section Two: The Rationale for Implementation**

The model of implementation that has been developed in this thesis contains four sub-models, the second of which is titled *The Rationale for Implementation*. This sub-model evolved from the work of the writers listed in Figure 2.05. This figure also shows the major concepts selected from the work of each writer and those being developed in this thesis. In this section of the thesis, there is an introduction, then each of the six parts listed in Figure 2.05 has been further developed.

Any study of implementation of a planned change in education is essentially a study of people. The prime target of the change is the relationship between teacher and pupil; implementation aims to change the latter by altering the behaviour of the former and forging a changed relationship. In the final analysis, therefore, real power in implementation of educational change belongs with the classroom teacher. This puts especial emphasis on the rationale as an instrument of communication. If, after the regional superintendent has made his/her decision to commence the implementation process, teachers are to make the decision to accept implementation within their classroom, then the quality of that decision will be related to the quantity and quality of the relevant information they possess. The concept
<table>
<thead>
<tr>
<th>Author</th>
<th>Major Influential Factors</th>
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</thead>
<tbody>
<tr>
<td>Chin and Benne (1969)</td>
<td>No rationale</td>
</tr>
<tr>
<td>Rogers and Shoemaker (1971)</td>
<td>Post decision persuasion group</td>
</tr>
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<td>Havelock (1971)</td>
<td>Implied need for a rationale</td>
</tr>
<tr>
<td>Schon (1973)</td>
<td>Implied need for a rationale</td>
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<tr>
<td>Leithwood (1981)</td>
<td>Implied need for a rationale</td>
</tr>
<tr>
<td>This thesis</td>
<td>Indication that child learning will improve. The importance of the subject to teachers</td>
</tr>
</tbody>
</table>

Figure 2.05 The evolution of the sub-model of the Entrepreneurial Authority Decision Directive Model of Implementation: The Rationale for Implementation.
of a rationale has been perceived by the writers listed in Figure 2.05 from a variety of perspectives which will now be discussed.

Chin and Benne (1969)

Chin and Benne (1969) made no direct reference to a rationale for implementation. In essence, they have based their power-coercive concept on a classification of the ingredients of the power which were used to cause movement in the various change strategies. Their major emphasis was at the point where power was generated and applied, and they tended to argue that reason and justification proceeded rather than preceded the decision to change. They spoke of a power-coercive decision followed by a normative re-educative process. Their argument involved compliance and its relationship to more or less power, it involved plans, leadership and direction. The concept of testing for the appropriateness of decision was not mentioned in their treatise. Indeed the conclusion, that they saw power-coercive decisions based largely on faith, is strengthened by their allusion to Mahatma Ghandi and Martin Luther King as examples of non violent power-coercive methods.

Further support for their thesis was drawn from Marx by Chin and Benne (1969). Concepts propounded by Marx, they claimed, strengthened the assumption that social restructuring can only occur through power-coercive strategies. First the decision, made by a minority who believe, then the majority are forced to follow for their own good. Even nox-Marxists frequently argue that democratic normative re-educative change methods have
a place only after the power-coercive decisions have been made.

No rationale

Rogers and Shoemaker (1971)

Rogers and Shoemaker (1971) also made no direct reference to a rationale. In their conceptual model authority innovation decisions were those forced upon an individual or organization by a superordinate who had accumulated sufficient power. Individuals, then, were not free to exercise choice. Decision-makers gained knowledge of the change they wished to implement, but Rogers and Shoemaker (1971) made no mention of appraising the appropriateness of the change plan selected by the decision-making group, though they did postulate the formation of a persuasion group selected to justify the proposed change. They implied that a rationale was developed and used, but made no specific reference to it.

No rationale

Havelock (1971)

Havelock (1971), in his R.D. and D. model, suggested that once an authority centre had made a decision to react to an innovation, research processes of some type were invoked. These processes had as their high priority aim the provision of information to justify the decision and upon which a rationale may have been based.
Havelock (1971) implied the need for a rationale by arguing that when a solution to an expressed need was developed and this solution moved towards acceptance and adoption, some type of persuasive mechanism was at work. He listed specific factors that should become part of a rationale for this persuasion, such as genuine diagnosis of client needs, an expressed sincere desire to accommodate such needs, and the building of a long term authentic relationship with the client.

| Implied need for a rationale | Awareness of client needs |

Schon (1973)

Conceptualising undertaken by Schon (1973) adds to the presently evolving paradigm. From his centre periphery model it may be postulated that a decision-making central body implements its plans through a network of branch officers. This implies an accompanying effective communication system. He also makes explicit that officers from the central body must have a clearly detailed plan of intent, accompanied by feedback loops that monitor performance. A stable message is essential. Should the centre's plan be obscure, then this clearly will be an impediment to the accuracy with which it will be interpreted by branch officers. These officers will then tend to improvise, gaining autonomy and leading away from the authority decision-making model of planned change.

A diffusion dilemma exists for the officers of the central body because of their tendency to attempt the increase of the
geographical area of its influence, thus extending its lines of communication. The effectiveness of the diffusion system may be inversely proportional to the distance from the centre to the periphery; however, the more stable the message the greater the likelihood of communication effectiveness. To the developing paradigm may now be added the Development of a Stable Message.

| Implied need for a rationale | Awareness of client needs | Development of a stable message |

Leithwood (1981)

There is some coincidence between the writings of Leithwood (1981) and the paradigm developed from previous writers. He argued for the need for a stable message to be delivered from the authority decision maker. Perhaps the conceptual model being developed in this thesis can be found in the form extended by the introduction of the Leithwood (1981) term 'preferred position'. As an extension of the stable message concept, it incorporates a diagnostic component. In Leithwood's (1981) model, officers of the central authority used the defined preferred position as a point of comparison for measuring the discrepancy between this and present reality. Diagnosis of the discrepancy would reveal, he argued, the major impediments to change.

| Implied need for a rationale | Awareness of client needs | Develops a stable message | Establish preferred position |
Further Exploration Attempted in this Thesis

Each of the writers reviewed to date support the contention that in an authority decision to change, the rationale for such a change should be preceded by pre-decision research. It comes as some surprise, then, to find that many writers did not include, as a logical outcome of such research, some test of relevance or appropriateness of the decision to impact on the target group. Seminal studies in this area, such as Sarason (1971), Smith and Keith (1971), and Gross, Giaquinta and Bernstein (1971) proceeded on the assumption that the established custom could only be improved by change. New ideas, by definition, were better, they argued, and people who resisted were ill informed. Writers such as Baldridge and Deal (1975) and Zaltman et al (1977) indicated scepticism towards this assumption and cited resistance to change as a phenomenon of the change process. Writers such as Morrish (1976) began to investigate resistance to change as a discrete part of the change process.

By the late 1970's some writers were beginning to question this assumption that change was inevitably for the better. Among these were Berman and McLaughlin (1978) who, as part of the Rand Studies, investigated two hundred and ninety three planned change projects. Many of these projects, some drawing millions of dollars in funds, encompassed no test of relevance before commencement, during implementation, or after completion. Although schools had a diagnosed need which these innovations had a demonstrated capacity to satisfy, they were not introduced because factors outside the school took precedence over tests of relevance.
A review of literature reveals a number of these. A common tendency within the cases studied by Berman and McLaughlin (1978) was for educational decisions to be made in response to local pressure groups pursuing the goal of Federal funding. Frequently local authorities informed these authors that it seemed wrong not to generate initiatives that would draw Federal funds to the assistance of children under their care. Decisions of this type were based on expediency. Other decisions were made in response to stake holders such as universities or school-related business interests (Wolcott, 1977). Thus, the University of Wisconsin was cited as the genesis of Individually Guided Instruction. Wolcott (1977) argued that local education authorities, under close scrutiny by their publics, felt the need to demonstrate they were 'progressive' and frequently emulated apparent authorities, basing their decision to implement on faith. Changes in mathematics teaching in the 1960's, for instance, argued Sarason (1971), seem to have emanated from government fears of overseas competition rather than the overt concerns of teachers, children or parents. The point to be made here is not necessarily the inaccuracy of the decision, nor to denigrate the decision maker, but to point out that careful detailed analyses of relevance or the appropriateness of the innovation for the target population were rarely included in the decision-making process.

Certain aspects of government were not conducive to the conclusion of a full and complete study of the appropriateness of an innovation prior to adoption (House, 1974). Parliaments may run for a relatively short period of time, hence as Fullan (1982) points out, governments are motivated to seek short term
progress. This often means they get maximum effect when an innovation is commenced, but may not be still in power when a consistent implementation strategy is required. Sectional interests such as Principals' Associations or subject teacher groups have all used their influence on governments to promote change for improvement as they see it, and could be subject to bias, claims Boyd (1978). Education is subject to fashion and ideas such as open education, individual student progress, and computer assisted learning develop a momentum of their own. Critics urging caution or detailed evaluation of appropriateness may be ignored because the large number of people involved in the innovation seems to indicate that it must be good for everybody. This is not to imply that such ideas should not be implemented, but to emphasise that the decision to implement may be based on faith, not on the suitability of the programme for the target group. If faith rather than diagnostic analysis forms the basis of a decision to implement, some innovations will be implemented even though the effects on children may be inhumane. To illustrate this point Fullan (1982) drew attention to the historical practices of segregating physically and mentally handicapped children. No doubt the perpetrators of such policies had no intention of being cruel.

As stated earlier in this section, the relationship between teacher and pupil in the classroom, from a curriculum perspective, is a symbiotic one. Both have much to gain from harmony and much to lose from conflicts (Lortie, 1975).

It comes as some surprise to discover that such seminal studies as Smith and Keith (1971) in their perceptive examination
of new open education programmes clearly assumed, explained Fullan (1982), that the innovation was the best programme for the teachers and children involved. Similar assumptions were made by the Gross et al (1971) team. The main thrust for the changes investigated in these two studies came from key progressive superintendents influenced by ideas being tried in British primary schools and backed by willing school boards. There was also, at this time, a strong enthusiasm for open education among some leading American universities. According to Fullan (1981) there was more than a coincidence between innovation and upwardly mobile superintendents. Many case studies, he argued, recorded career advancement as being a principal consequence of introducing innovations, and his argument is supported by the earlier findings made by Carlson (1972). The important point made by Fullan (1982), however, is that neither the innovation itself nor the case study laid any emphasis on establishing the appropriateness of the innovation for a group of children or population of parents. Studies led by Downey (1975) and Aoki (1977) illustrated the lack of a clear definition of need for a new Social Studies programme in Canadian Provinces.

As powerful as each of the previously described forces promoting innovation might have been, it is now accepted that many of the innovations adopted at their behest were not, in fact, implemented (Fullan and Pomfret, 1977). Some of the explanation for this may have been due to a lack of a full and proper investigation of the appropriateness of each innovation for its target population.
With the inclusion of the concept of 'appropriateness', the model suggested by the writer to represent 'The Rationale for Change' is complete. It is argued that an effective rationale must include material giving a clear indication that child learning will improve. It must contain tests for verifying that such a change will be in the best interests of the pupils, and acceptable to the teachers and the surrounding community. To be acceptable to teachers, the innovation must accommodate the importance teachers attach to the subject, and have advantages over established programmes. It must be clearly defined and communicate this 'preferred position' to pupils and teachers. All the resources necessary must be included in the innovation package.

In conclusion, it may be observed that a major function of the rationale for change is to promote teacher involvement in the implementation process. Section Three addresses the important question of who will become involved, and in what order.

2.23 Section Three: The Sequence of Involvement

Inherent in any change process is the assumption that some person or persons will make a decision to change, and consequent on this other persons will follow. The reasons proffered to explain follower behaviour, both overt and covert, are many, and vary according to the theory of planned change being applied. In the Entrepreneurial Authority Decision Directive Model of Implementation, an essential element of the classification is that the decision-makers have sufficient power to insist on a measure of coercion. Macro analysis supports the contention that the followers
comply because they are prepared to grant the authority group or person sufficient authority to gain initial compliance. Further analysis of a more fine grained nature reveals that the degree of compliance is dependent on a variety of factors.

From Figure 2.06 it can be seen that the six writers under review have all conceptualized followers and their compliant behaviour in a separate way, each adding new dimensions to the model developed in this thesis.

Chin and Benne (1969)

With their conceptualization, Chin and Benne (1969) explained that, in a macro sense, followers as a group adopt the proposed change because the decision-makers have amassed sufficient power to insist on compliance. Decision-makers may invoke political or moral power. Political power carries with it legitimacy and a variety of sanctions, while moral power exercises force through feelings of guilt and shame. Provided sufficient power is assembled and exercised, either overtly or covertly, they argued, overt behaviour change will occur. Frequently those in a power situation can exert force without the change process target group becoming aware of it.

Chin and Benne (1969) did not theorize on the factors affecting the order in which members of the target group accept change, but they did point out that power coercive change required new knowledge, new skills, new attitudes and new value orientations. At the social level changes were required in norms, social roles
<table>
<thead>
<tr>
<th>Authors</th>
<th>Major Influencing Factors</th>
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<tbody>
<tr>
<td>Chin and Benne (1969)</td>
<td>All target populations assumed to be the same.</td>
</tr>
<tr>
<td></td>
<td>Resisters emerge later</td>
</tr>
<tr>
<td>Rogers and Shoemaker (1971)</td>
<td>Innovators move first.</td>
</tr>
<tr>
<td></td>
<td>Early adopters</td>
</tr>
<tr>
<td></td>
<td>Majority</td>
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<tr>
<td></td>
<td>Laggards</td>
</tr>
<tr>
<td>Havelock (1971)</td>
<td>All target population assumed to be the same</td>
</tr>
<tr>
<td></td>
<td>Influence of Linkage System</td>
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<td>Schon (1973)</td>
<td>Field Officers</td>
</tr>
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<td></td>
<td>Users who are close physically and socially</td>
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<td></td>
<td>Users who are distant physically and socially</td>
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<td></td>
<td>Resisters</td>
</tr>
<tr>
<td>Leithwood (1981)</td>
<td>Curriculum Manager</td>
</tr>
<tr>
<td></td>
<td>Adoption rates for majority vary due to a wide range of factors</td>
</tr>
<tr>
<td></td>
<td>Those affected by obstacles to discrepancy reductions</td>
</tr>
<tr>
<td>This thesis</td>
<td>Advocates Curriculum Managers Committee</td>
</tr>
<tr>
<td></td>
<td>Enthusiasts (School Resource Teachers)</td>
</tr>
<tr>
<td></td>
<td>Majority</td>
</tr>
<tr>
<td></td>
<td>Resisters</td>
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</tbody>
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Figure 2.06 The evolution of the sub-model of the Entrepreneurial Authority Decision Directive Model of Implementation: The Sequence of Involvement.
and related structures. The clear implication was that these factors impinging on individuals would affect the order in which individual members of the target group accepted the change. Chin and Benne (1969) did, however, make a gross distinction between those who overtly accept the change and those who don't. The group who rejected change tended to use power-coercive strategies to co-ordinate resistance forces. Conflict ensued, and should the resistance group amass sufficient power, they then gained a position where they could define the legitimate change process.

```
All target population assumed to be the same
Resisters emerge later
```

Rogers and Shoemaker (1971)

Early work done by Chin and Benne (1969) can be extended by incorporation into the Rogers and Shoemaker (1971) paradigm. A gross congruency between the position of both pairs of writers can be imputed in that they identify two major groups, overt compliers and overt resisters, in an authority decision once the decision to adopt has been made. Rogers and Shoemaker (1971), however, went on to provide a different analysis of the behaviour of individuals in an organization undergoing a change process. Factors affecting the rate at which individuals accept change have been divided into two groups: those invoked by the organization and those by the individual.

**Organizational Factors**

If the organization is one in which the decision unit consists of more than one person, then the first individuals to indicate
overt change will be those within the decision unit. The number of individuals likely to be in such a unit is, in part, a function of the size of the organization. Decision unit members are likely to be involved in the functions of research, data gathering, synthesis and display, personnel co-ordination and evaluation of evidence prior to the actual decision to change being made. As nobody can change until the ultimate decision-making body has communicated with them, then the type of communication system in operation will have a significant impact on which followers accept change first. Communication inaccuracies, due to physical distance from source, number of intermediaries, and complexity of the message will inhibit action on the part of followers. The perceived persuasiveness of the message will be a significant factor in the individual's decision to change. This perceived persuasiveness will, in turn, be influenced by the individual's attitude towards the decision maker. A positive relationship between superordinate and subordinate leads to greater two-way communication and a clear understanding of planned change. Communication from superordinate to subordinate is faster and more likely to occur than upward communication. The channels are restricted in direct proportion to the physical and social distance between the communicants and the difference in status. Rogers and Shoemaker (1971) argued that an organization member who felt he had been consulted was more likely to have a positive approach to the change and be satisfied with the decision. Other writers cited later in this thesis see this interpretation of the role played by participation as much too simplistic.
Factors Relating to Individuals

After much research Rogers and Shoemaker (1971) selected arrays of characteristics typically displayed by individuals as they experienced a change process. These characteristics clustered into five discernible factors, from which could be identified five groups of implementers. The first was a small group of individuals eager for change who exhibited the characteristics of venturesomeness, gregariousness, cosmopolitan social relationships, resilience to defeat and persistence. Such innovators were also socially gregarious, although they were a minority group.

A larger group were the early adopters. This group tended to exhibit the characteristics of local social status, opinion leader, discretion, financial success and respectability. It was to this group that the majority of followers turned for guidance.

The majority of followers were divided into two groups and termed either early majority or late majority by Rogers and Shoemaker (1971). Early majority followers exhibited the characteristics of deliberation, calculation, and willingness to try the new; they were not leaders and watched their peers for guidance. They could be distinguished from the late majority who tended to be cautious, sceptical and reluctant to change until forced to by peer pressure or financial necessity. Finally came the laggards who possessed no opinion leadership, frequently they were isolates, frankly suspicious of change and determined to use the past as a rationale for present behaviour.
Consonant and Dissonant Adoption

In their study, Rogers and Shoemaker (1971) noted that as the change process unfolded, the expectations of the authority innovation decision-maker became increasingly explicit. During this period the attitudes of the individual towards this expected behaviour became established. As overt behaviour became demanded the degree of congruence between individual attitude and organization expectation was inversely proportional to the tension felt by the individual. The less the tension, the greater the likelihood of followers showing overt compliance. Should this tension become unmanageable, the individual moved to reduce it. Stress reduction may take the form of attitude change and organizational compliance. This was clearly preferred by the decision-maker and led to earlier adoption. Later adopters may have deliberately misinterpreted the organization's goals and portrayed them in a form more suited to themselves and closely aligned to their present behaviour. They could then present the achievement of these pseudo goals to the organization, claiming that this was what they had been doing successfully previously, and therefore did not need to change. Alternatively, they may have mobilized their resources and hoped to amass sufficient power to make the organizational expectation consonant with their own. Finally, if all else failed, they rejected the innovation, which may have caused them to leave the organization. Attitude change, argued Rogers and Shoemaker (1971), was a very reliable indicator of a prospective individual's change becoming established as long term behaviour.

<table>
<thead>
<tr>
<th>Innovators</th>
<th>Early adopters</th>
<th>Majority</th>
<th>Laggards</th>
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<tr>
<td>move first</td>
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Havelock (1971)

There is some similarity between the basic assumptions upon which Rogers and Shoemaker (1971) and Havelock (1971) based their theory building. In each case, factors related to organizations and individuals were isolated and examined in order to ascertain the way in which they affected the sequence in which followers adopt change. The work of Havelock (1971) added to the paradigm being developed in this thesis, by illustrating that organizations were part of a macro system linked together by linkage sub-systems. The sequence in which followers accepted change was influenced in part by the position they held within the linkage system. He went on to explain that an individual's position in the organization influenced his position in the macro system, which in turn dictated the number of sub-systems to which he was exposed. An individual's position in the organization may have been ascribed, such as that of school principal, or it may have been achieved, such as by teachers who actively made themselves indispensable to the organization and achieved a high profile. Figure 2.07 shows a school in which teacher (A) who, for whatever reason, had a high profile in the area of school community interaction and interacted with the four sub-systems defined. Teacher (B) who did not have a high profile in this area, interacted with none of the relevant school sub-systems. Havelock (1971) argued that exposure of individuals to sub-systems tended to make proposed changes more relevant and more effective in proportion to the number of sub-systems with which they made contact.
Figure 2.07 A teacher interacting with various sub-systems.
Schon (1973)

A major difference between the findings of Schon (1973) and those of the previous writers reviewed in this section of the thesis was the point in the change process where they placed their major focus. They tended to concentrate on the decision to change and the related factors. Schon (1973) put major emphasis on the strategy used to distribute knowledge about the innovation. His centre-periphery model had three basic elements: first, an assumption that the innovation was essentially fully formed before distribution of its message commenced; second, that diffusion would commence from a central point, and third, that it would disperse outwards like the concentric circles of wave motion on a disturbed pond. The messages followed the radii of the circle, and the instigation and management of such dispersal was the legitimate function of a central authority.

Because centre-periphery theory tended to see diffusion in terms of human face-to-face communication, the question of who would move first revolved around human interaction and consequent relationships. Schon (1973) was of the belief that the level of effectiveness of a centre-periphery system was a function of the quantity of resources available to the centre and the energy expended by the centre as it strove to communicate with its followers. Changes in individuals were likely to be affected by the length of the radii from centre to users on the periphery, the number of peripheral points over which the innovation must be diffused, the social distance between them and the field agents, as well as the skill of the field agents working within each
radius. Clearly, organizational factors operated at the centre, the field agents were the early adopters, and the rate of change accepted by followers was an individual matter varying according to the degree of impact made by the change factors relating to individuals.

Schon (1973) provided an elaboration of the concept 'resisters' alluded to earlier in this thesis when the writer reviewed the work of Chin and Benne (1969). Schon (1973) argued that organizations have a preference for stability which he terms 'dynamic conservatism' and this motivated them to actively resist the plans of members who advocated change. Many members of the organization had a tendency to resist almost inherent in them (Beare, 1977). They found themselves basing their reactions to new information on the assumption that past practices still applied and the resulting confusion, unanticipated consequences and inappropriate behaviour, led to anxiety and insecurity followed by a determination to resist. Innovators were unable to move members of their organization from one stable state to another until they had compiled a critical mass of energy. Disruption of established procedure then occurred, leading to 'exponential change'. Members of the organization who were determined to resist gradually reasserted themselves. During the change process, a high level of energy consumption ensued, and as the initial stockpile of energy was dissipated the organization either settled to a new 'stable state' or modified the proposed change to conform as close as possible to past existing practice, thus frustrating the initial innovation. According to Schon (1973) the forces of resistance or 'dynamic conservatism' were then re-established.
Leithwood’s (1981) conception of an authoritative planned change process consisted of three main sub-systems. Initially, he argued, it was necessary to determine the preferred position for the target population in terms of the decision-maker’s perception. The second part of the first sub-system was devoted to measuring the present, actual position of the target population. This sub-system was followed by a diagnosis sub-system which sought to identify discrepancies between these two positions. Finally, an action plan was compiled which defined manageable stages of growth and stimulated implementation.

Leithwood (1981) suggested that a change process contained a number of groups of people. These groups were closely related but members could be distinguished by the rate of change they exhibited. The first group to be distinguished after the decision to change had been made was the curriculum developer, possibly an individual or group, certainly the authority decision-maker in the curriculum area. This group was the first to exhibit any behaviour associated with the innovation. Curriculum developers formed liaisons with curriculum managers who may have contributed to the decisions to change but who certainly accepted the change early and were the first to internalize the major goals
of the change process. They sought goal attainment pragmatically. Curriculum managers established relationships with a larger group who were persuaded to perform field staff or change agent roles. This latter group then forged face-to-face communication with the mass of potential users.

Leithwood's (1981) findings can be added to the sub-model developed by co-ordinating concepts from previous writers. He postulated the acceptance of both organizational and individual factors influencing the rate of change exhibited by followers. From his work can be drawn the concept of 'diagnosis prediction' and 'change management.' By diagnosing the degree and extent of differences between the preferred and actual position of the teacher involved in a planned change, the decision-maker or curriculum developer could estimate the impact on the rate of change for individual followers. This awareness could form a basis for prediction, anticipated effect, action plan and curriculum management. He went on to explain that change occurred in an organizational context, and in most cases the change competed with existing practices. Novel features having a disruptive impact could be ameliorated by synthesis with current practice or by maximization of the perceived advantages of the new methods. All people involved in a change have their own set of values, hence a critical factor in the process of a successful educational change was the ability of all parties to reach a compromise and accept common goals. Once implementation had commenced, the rate of change would be influenced by the degree to which synthesis could be reached between the goals of implementation held by the curriculum developer, curriculum manager, main potential
users and other relevant influential persons. Successful change does, however, require of the follower special relevant knowledge and skills. The ability to acquire these skills may well vary among individuals, and hence have an influence on the rate of change assumed by these individuals.

In organizations he had studied, reported Leithwood (1981), the authorities relied for behaviour control on norms, sanctions, rewards, and the likelihood of the application of these sanctions and rewards. Compliance behaviour, he argued, was very weakly influenced by established norms. The few rewards available went to a small number of selected persons, hence caused resentment and were more likely to strengthen resistance than lead to change. Evaluation was very rarely applied to education, and as a consequence was ignored (Leithwood, 1981). Educational organizations did not find they could change individual behaviour easily (Leithwood, 1981). Some factors, however, were operative.

The major influential factor governing teacher behaviour was the perceived needs of the children in his/her class. An organization would be able to influence an individual teacher’s rate of change if it could convince the teacher that the new programme coincided with teacher perceptions of child needs. The uncertain nature of the expectations of teachers held by the various parties to education suggested that the rate of change may have been influenced by the degree to which the organization made its change process goals explicit. Leithwood (1981) asserted that provision of material support services influenced the rate of change adopted by individuals, as did the interdependence
of organizational decisions made by individuals.

The only reward system available to teachers which was directly related to teaching type activities was the perceived change in pupil performance, generally on an individual basis but occasionally as a group. The rate of change adopted by an individual teacher was likely to be related to the degree to which the social customs incorporated within the innovation were similar to the established social fabric of the classroom. The facility with which the innovation could establish a harmonious relationship with the teacher's habitual classroom management and class control procedure affected an individual's rate of change. Leithwood (1981) stated that the degree to which the innovation raised teachers' self esteem was related to the rate of change likely to be adopted.

The concepts selected from the writers reviewed may be synthesised into a four-stage sub-model as illustrated below.

<table>
<thead>
<tr>
<th>Curriculum Managers</th>
<th>Users who are close physically and socially</th>
<th>Users who are distant physically and socially</th>
<th>Resisters</th>
</tr>
</thead>
</table>

Further Exploration Attempted in this Thesis

The concept of advocacy attempted in this thesis is the principal addition to the sub-model, synthesized from concepts developed by the writers reviewed in the previous section of the thesis.
The Advocacy Group

The superintendents who adopt the role of entrepreneurial leader accept a high risk mode of achieving their goals. Peters and Waterman's (1982) research indicated that these entrepreneurial superintendents operated in an unconventional manner. Conventional methods were dependable and consistent, but produced predictable results. The entrepreneurial leader seeking new, more effective, methods rejected these and accepted less tried and trusted methods. The chance of being genuinely innovative was higher, but so was the anxiety level. Kanter (1983) found that these people achieved a high public profile, generated a feeling of excitement and achievement around them, and had a charismatic impact on people who worked with them.

Skilful entrepreneurs generated advocacy groups who provided them with the support they needed. Advocates accepted the entrepreneur's decision to implement the innovation with fervour and vigour. According to House (1974) advocates were similar to entrepreneurs; they defended the integrity of the innovation, recruited members, infused them with the accepted values, and secured resources, but they were not the leaders.

Schumacher (1981) has expanded this concept to embrace cosmopolitan and local advocates. Cosmopolitan advocates saw the innovation in terms of how it could assist learners coming from a wide range of locations - District, State or Federal - and who could easily justify expenses. Local advocates, however, balked at high costs because they were primarily seeking short
term gains to their local school or group. Advocates came together to form temporary systems within the organization. Beare (1981), with his concept of 'structural overlay' within an organization, showed how the establishing of such temporary systems permitted the professional educator groups within the organization to act in a collegial manner towards each other, while still remaining part of an organizational structure. This generating of supporting groups was essential to the success of the change agent's plans. It can be argued that a measure of the change agent's success was the extent and the application of his advocacy group.

In this conceptual sub-model, the entrepreneur becomes active, he seeks help from powerful sponsors, and begins to select and interact with those whom he hopes will become advocates. This selection is especially important to the implementation process. Should the entrepreneur select unwisely and choose advocates with inadequate skills, they will fail to implement change and exhaust the resources offered by major sponsors. Should a group of skilled advocates emerge, the implementation is much more likely to proceed. These genuine idealists maintain the innovation, no matter what the cost, and seek implementation with all the skills and the resources at their disposal. Career bound advocates support the innovation for self centred reasons. Frequently they gain promotion before implementation is complete, leave the innovation without clear plans for the future, and in fact, may take some satisfaction from seeing that the implementation cannot succeed without them. As the advocacy group matures, some people are excluded and alienated. This group becomes frustrated and hostile and ceases to promote the innovation - in fact, they may
actively obstruct implementation. Sometimes secondary groups form from the remnants of the careerist and alienated groups. These new groups set up new communication patterns, and learning from previous errors, rejuvenate the innovation. Finally, no matter what the outcome, entrepreneurs tend to be tempted to look elsewhere once implementation has commenced, abandoning the innovation and sometimes leading the advocates to newer projects.

Just as the entrepreneur is energized by a loyal advocacy group, this writer would argue that it is equally true that the advocacy group draws sustenance from the verve of the entrepreneur, its energy output being directly related to the vitality of the entrepreneur. Common observation in schools supported this, for as soon as the principal change agent left the scene, the innovation frequently began to disintegrate.

In this thesis the foregoing argument supporting the concept of advocacy has been accepted, and this concept now forms the first stage in the third sub-set, The Sequence in which Followers Adopt Change, of the Entrepreneurial Authority Directive Decision Making Model of Planned Change. Immediately the curriculum manager has made a decision to attempt implementation of the innovation, he will seek the establishment of a group of advocates. These advocates become the management committee. The actions and vitality of the advocate group generate a secondary group of school based advocates who have been titled, for the purpose of this study, as Enthusiasts or school Resource Teachers. This group coincides with the Rogers and Shoemaker (1971) concept
of early adopters. The concept of majority has also been included from the Rogers and Shoemaker model. Resistors, the concluding group to be argued for in this thesis, has been developed from the work of Schon (1973).

<table>
<thead>
<tr>
<th>Advocates Curriculum Manager's Committee</th>
<th>Enthusiasts School Resource Teachers</th>
<th>Majority</th>
<th>Resisters</th>
</tr>
</thead>
</table>

The implementation process then, argues the writer of this thesis, occurs among people as a linear sequence of involvement. People choose to become involved and the implementation behaviour they exhibit can be used as the basis for a four-fold classification system.

Particular behaviour patterns addressed so far by the evolving Entrepreneurial Authority Decision Directive Model of Implementation have resulted in three sub-models: The Decision to Change, The Rationale for Implementation - why the decision was made; and The Sequence of Involvement - who made the decision, and in what order. To complete the pattern, it is necessary to establish whether any implementation actually occurred. The two major parties in a classroom innovation are the pupils and the teachers. In section four, research related to measuring implementation behaviour exhibited by both these groups will be reviewed, and the final sub-model completed.
2.24 Section Four: Measuring the Degree of Implementation

The fourth and final component of this conceptual analysis and development of a theoretical model to represent a change process is concerned with measuring the degree of implementation occurring in an organization once it has begun using an innovation. The works of the five writers have again been reviewed. Concepts from each have been selected and co-ordinated into a paradigm, the pattern of which is illustrated in Figure 2.08. This has been used as the basis for planning the further extension of research attempted in this thesis. The model has been divided into two parts: concepts associated with measuring the implementation behaviour of teachers, and concepts associated with measuring the implementation behaviour of pupils.

Chin and Benne (1969)

On initial examination, the question of measuring implementation appears superficial. Early work in the area of planned change, such as that done by Chin and Benne (1969), indicated that in the late 1960's researchers tended to assume that implementation followed and was consequent from the decision to adopt. The main conceptual base of these writers related to decision-making and managing to gain acceptance of that decision. They assumed an holistic approach, arguing that if the change agent gained adoption, then implementation of the innovation in its entirety logically followed. Their research used teacher self reports to measure what was actually happening in the classroom. These reports were of a global nature. This type of research technique, when used in isolation, tended to be inconsistent and
at times unreliable. Cannings (1983) in his study reported research indicating that in some situations a discrepancy between the teacher self report and the actual classroom behaviour became apparent. Chin and Benne's (1969) theoretical model of the change process provided no conceptual work in the area of teachers and pupils that could be applied to the theoretical model developed by this thesis.

<table>
<thead>
<tr>
<th>Teacher Sub-model</th>
<th>Pupil Sub-model</th>
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</thead>
<tbody>
<tr>
<td>No mention</td>
<td>No mention</td>
</tr>
</tbody>
</table>

Rogers and Shoemaker (1971)

Rogers and Shoemaker (1971) contributed to an evolution of this type of thinking, although they did not refer directly to the concept of measuring the degree of implementation. They analysed a number of innovations that appeared to have been successfully implemented. Among the innovations a number of common factors were present. Such factors may not have been responsible for the successful implementation, but their presence was a sound predictor of likely successful implementation. They found that when potential users could easily perceive the advantages perpetrated by the new method as compared to existing practice, they considered this relative advantage most persuasive. They found that the likelihood of users applying an innovation increased when the user possessed the necessary skills demanded by the innovation and held personal value orientations similar to those espoused by the innovation. The compatibility of the innovation with existing practice was postulated as a useful
<table>
<thead>
<tr>
<th>Author</th>
<th>Teacher</th>
<th>Pupil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chin and Benne (1969)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rogers and Shoemaker (1971)</td>
<td>Isolated factors common to successful implementations</td>
<td></td>
</tr>
<tr>
<td>Havelock (1971)</td>
<td>Implied research implementation into the behaviour of teachers</td>
<td></td>
</tr>
<tr>
<td>Schon (1973)</td>
<td>Central authority agents visit decentralized operations and monitor performance</td>
<td></td>
</tr>
<tr>
<td>Leithwood (1981)</td>
<td>Second order goal</td>
<td>First order goal</td>
</tr>
<tr>
<td>This thesis</td>
<td>Teacher concerns</td>
<td>Measure performance in speaking and listening</td>
</tr>
<tr>
<td></td>
<td>Teacher use</td>
<td></td>
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<tr>
<td></td>
<td>Fidelity of implementation</td>
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</tbody>
</table>

Figure 2.08 The evolution of the sub-model of the Entrepreneurial Authority Decision Directive Model of Implementation: Measuring the Degree of Implementation.
predictor of likely use. Innovations that were complicated, difficult to communicate and abstract tended to be negatively correlated to user compliance. This complexity was isolated as a discrete factor by Rogers and Shoemaker (1971). Finally they argued that users could be persuaded to apply the innovation in its intended form if they could partake of, or closely observe, trials. Trialability and observability completed the list of the five dimensions on which Rogers and Shoemaker (1971) might have based a framework for measuring the degree of implementation, had they wished to measure this aspect of the innovation.

Rogers and Shoemaker (1971) made no direct mention of the concept of measuring the degree of implementation for teachers that could be synthesized into the model developed in this thesis. Their idea of deriving factors common to successful implementation is an early development of the concept 'Measuring the Degree of Implementation' used as part of the model developed in this thesis. Rogers and Shoemaker (1971) did not allude to pupil behaviour.

<table>
<thead>
<tr>
<th>Teacher Sub-model</th>
<th>Pupil Sub-model</th>
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</thead>
<tbody>
<tr>
<td>Isolated factors common to successful implementations</td>
<td>No mention</td>
</tr>
</tbody>
</table>
Havelock (1971)

The concepts developed by Havelock (1971) included three major strategic orientations of change in organizations: 'Problem Solving', 'Social Interaction', and 'Research, Development and Diffusion'. A six-stage model of the process of planned change was also developed. Although there were some references to diagnosis and feedback in the Problem Solving orientation, Havelock (1971) did not link these to any measurement of the degree of implementation practised by teachers. There was no reference to measurement of degree of implementation by teachers in the Social Interaction orientation, or the Research, Development and Diffusion model. By including the theoretical construct that dissatisfaction at the end of the change cycle led to a repeat of the cycle, he did imply the concept in a very general sense. Havelock (1971) did not include concepts incorporating the measurement of pupil behaviour.

<table>
<thead>
<tr>
<th>Teacher Sub-model</th>
<th>Pupil Sub-model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Made a very general allusion to the concept of measuring implementation behaviour</td>
<td>No mention</td>
</tr>
</tbody>
</table>

Schon (1973)

In the centre-periphery model he designed, Schon (1973) included the general principal of measuring the degree of implementation. He proposed two methods. In the first the field agents, or agents of diffusion, were withdrawn from their own environment and taken to the central authority headquarters to be trained.
Schon (1973) implied a very comprehensive type of training because he used the clause 'trains and incubates the new agents'. These agents skilfully report back to the centre. The second method employed is the deployment of centrally based field staff who visit decentralized operations to observe, monitor performance and oversee leadership. In a general sense Schon's (1973) concept of measurement can be incorporated in the model developed in this thesis. He does not provide any detailed methods and seems to imply that the measurement is an aspect of control, mainly applied to agents working in decentralized operations. He does not refer to client behaviour, such as pupils in classrooms.

<table>
<thead>
<tr>
<th>Teacher Sub-model</th>
<th>Pupil Sub-model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central authority agents visit decentralized operations and monitor performance</td>
<td>No mention</td>
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</table>

Leithwood (1981)

Leithwood (1981) introduced the concept of measurement in terms of the discrepancy between the present position of the users and the preferred position as defined by the change agent or curriculum manager. In terms of developing a model in this thesis, Leithwood's concept provides a shift in emphasis, because the measurement is now conceived from the perspective of the user. The suggestion here is that the distance between the two positions be mapped, and as congruency is approached, the distance between the two positions provides some kind of a measure of degree of implementation. Leithwood (1981) elaborates on this concept by
postulating the need for diagnosis in order to identify the obstacles that frustrate the curriculum managers as they try to reduce this discrepancy.

Measurement of the difference between the actual behaviour of the implementer and that envisaged by the innovation designer requires a clear definition of goals. First order goals relate to desired pupil behaviour, an aspect of change to be further developed later in this section. Behaviours associated with those who have been charged with a custodial role, such as teachers, are termed second order goals. Following goal definition it is necessary to select a number of clearly discernible dimensions of the innovation that can be regarded as major characteristics. These characteristics are described in detail and form an innovation profile. When these characteristics can be observed among users, then the innovation can be regarded as implemented. Movement of users from their preferred behaviour to that preferred by the curriculum manager will occur in stages, argued Leithwood (1981).

<table>
<thead>
<tr>
<th>Pupil</th>
<th>Teacher</th>
</tr>
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<tbody>
<tr>
<td>1st order goal</td>
<td>2nd order goal</td>
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</tbody>
</table>

Further Exploration Attempted in This Thesis

In general terms, the writers reviewed in this section of the thesis supported the argument that the concept of measuring the degree to which the innovation had been implemented, was an important part of understanding the change process. Indirectly,
therefore, these writers provided support for its inclusion in the conceptual model developed in this thesis. This concept consisted of two parts: measurement related to teachers' implementation, and measurement related to pupils. It was necessary, in order to test the model empirically, to operationalize each concept it encompassed. The strategy selected to operationalize the concept measuring the degree of teachers' implementation was drawn, in part, from a synthesis of the findings of Leithwood and Montgomery (1980) and research conducted by Hall et al. (1979).

These writers accept the study of implementation as a discrete research area revealing information useful in comprehending the planned change process as it is referred to by Berman (1981). The conceptualizations of both writers accommodate the argument that change must be understood in terms of how it affects individuals within an organizational context. Both writers postulated that change is a process, not an event; they then extend this by stressing that the implementation process is a highly personalized experience, requiring of innovation-users changes in feelings and skills. There are similarities between the Leithwood concept of diagnosis, which represents an inquiry into the discrepancy between the user's behaviour and that envisaged by the programme developer, and the CBAM model designed by Hall et al. (1975). The CBAM is designed to examine the implementation process in three key areas: aspects of the innovation that make teachers anxious, Teacher Concerns; how much of the innovation the teacher is using, the Level of Use; and how closely the user's behaviour resembled that envisaged by the innovation's designer, Innovation Configuration.
The innovation configuration concept, when operationalized, took as one of its functions the forming of a descriptive profile of the innovation. From this the change agent developed criteria that listed the minimum parts of the innovation a user must deploy in order to be classified a bona fide user. This defining of the critical aspects of each innovation ensured that when researchers and practitioners interacted, they were all talking about the same innovation.

Hall et al. (1979) combined this concept with that of Level of Use and Teacher Concerns to form a system, illustrated in Figure 2.09, which linked the resource system with the users through the agency of a change facilitator. Change facilitators used the knowledge available to them through the three subsystems to understand what was actually happening during the implementation process. They used this understanding as a guide to support the teachers using the innovation.

The Level of Use concept was based on the observation that users vary in the degree of enthusiasm with which they embrace a proposed change. Not only that, they also varied in the degree of that enthusiasm, over a period of time waxing and waning. Hall et al.'s (1979) observations supported the contention that users may operate an innovation within any one of their defined stages or 'levels'. The change facilitator hopes they will proceed up these levels, and Hall et al. (1979) did perceive them as a hierarchy. It turned out, however, that users may plateau at any one level, and depending on their particular concerns, may even move to a lower level.
The remaining part of the trilogy conceptualized by Hall et al (1979) was the concept, Teacher Concerns. Their work had its genesis in a paper written by Frances Fuller (1969). She noted a consistency of concerns enunciated by undergraduate and experienced teachers when they answered a series of questions for her. One of her important findings indicated that undergraduates were mainly concerned with events that concerned them personally, beginning teachers were intensely concerned with such issues as classroom management and discipline, while experienced teachers tended to be more concerned with teaching methods and how much students learned. She distilled her observations into a model which may be simplified into the three stages of concern for 'self', concern for 'task' and finally concern for 'impact' on pupils. Hall et al (1979) expanded these to encompass seven stages.

Working from these developmental conceptualizations, Hall (1979) postulated that those concerns felt by teachers could best be described as stages occurring in a natural sequence. All teachers who became aware of a curriculum change became concerned to a degree, and therefore occupied a position somewhere in Hall et al's (1979) taxonomy. Thus these 'concerns' were independent of a values base and could not be judged as 'good' or 'bad'. A more useful interpretation was to regard them as a guide to likely teacher behaviour and as an indicator of teacher needs that might be filled.

This thesis proposes to use the tools conceived by Hall et al (1979) to add to the available knowledge about teacher change
Figure 2.09 A model representing the linking of the resource system to the user.

Adapted from Hall et al. (1975)
within the setting of a Western Australian rural educational region.

<table>
<thead>
<tr>
<th>Teacher Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Teacher Use</td>
</tr>
<tr>
<td>Resource Deployment</td>
</tr>
<tr>
<td>Organization Change</td>
</tr>
</tbody>
</table>

While most studies of planned educational change devote resources to observing changes in teacher behaviour (Berman and Pauly, 1975), the same cannot be said for changes in pupil behaviour. Scheirer and Rezmovic (1983) found in their analysis of the implementation measures used in seventy four recent studies, which included measures of the concept 'degree of implementation', that researchers seldom asked the recipients of the innovation for information. Only eighteen per cent of interview studies and six per cent of questionnaire studies included pupils in their research.

This may cause the reader some surprise because, as Eisner (1979) argued, in the final analysis it was teacher activities in the classroom and pupil perceptions of the resultant experiences that best described the innovation. There seems little point in changing the way schools are operating unless children gain some tangible measurable benefit. Schools did make a significant difference to pupils' in-school behaviour and achievements, argued Beare (1984). Change in pupil behaviour, therefore, was an integral part of any measure of the degree to which an innovation had been implemented.
There are a number of factors that might affect the degree of change pupils can accommodate as a result of a new programme. Among these may be energy, enthusiasm, motivation, ability, experience and age. An over-riding factor may be that of attitude. McKinney et al (1983) found that pupils withdrew co-operation from a teacher who began to behave too far from the behaviour norms they had internalized as appropriate for a teacher. He also suggested active resistance will eventually be followed by overt conflict. The Entrepreneurial Authority Decision Directive Model of Implementation then will include a comparison of measures of pupil behaviour at the commencement of implementation, and at several points during the implementation process.

Measure pupil performance

2.3 Conclusion to Chapter II

In this chapter, some of the findings of five researchers have been synthesized to form the basis for a theoretical model to represent the implementation process of a planned change phenomenon. Research findings from other writers have been used to expand the theoretical model to increase the breadth of its application. The concept of the entrepreneurial leader was added and the concept of an authority decision was drawn from the five writers reviewed. The concept of directing the implementation process was developed from a co-ordination of the finding of the many researchers cited. The completed theoretical model entitled The Entrepreneurial Authority Decision
Directive Model of Implementation will form the bases of a research design to be detailed in Chapter III.
CHAPTER III
THE RESEARCH DESIGN

Synopsis

In the previous chapter, the writer attempted to set up a model that could be used to explain the behaviour of teachers and pupils who were involved in the implementation of an Oral English programme occurring in a rural region of the Western Australian Education Department. The recent thinking of prominent theoreticians was drawn together in developing a model in Chapter II which aimed to represent reality in terms of available knowledge, and then postulate areas in which knowledge extension could be perpetrated.

In this chapter a research design is established, extrapolated from the model developed in Chapter II. In general terms, this design is based on the four-section framework defined in Chapter II page 6, 'Perspectives of the Entrepreneurial Authority Decision Directive Model of Implementation'.

Each of the four separate sections - The Decision to Change, The Rationale for Implementation, The Sequence of Involvement, and Measuring the Degree of Implementation for Teachers and the Degree of Implementation for Pupils, form the basis for the development of a generalized hypothesis for each section, as is shown in Figure 3.01. Each of these general hypotheses is
Figure 3.01 The relationships between the model, its major parts and the General Hypotheses with regard to a curriculum innovation in Oral English during the period 1982-1984.
supported by a number of sub-hypotheses. Each of the sub-
hypotheses and the generalized hypothesis is introduced by a
preamble that attempts to explain how the hypothesis fits into
the general pattern of the research design.

To facilitate the organization of the large quantity of inform-
ation available, each section of the four-part model is treated
independently, but it must be realized that each is closely inter-
related.

3.0 INTRODUCTION

The theoretical constructs developed in Chapter II formed
a complex relationship which became the basis for this thesis.
These theoretical constructs may be conceived as a fluid, inter-
connected system where pressure exerted on one part flowed, evenly
dispersed, throughout the system. This line of thinking supported
the notion that while the Regional Superintendent may exert press-
ure on the system causing some change of behaviour, he was,
in turn, a highly integrated member likely to experience any
reaction within the system which resulted from his actions. It
was also intended to demonstrate that should the Regional Super-
intendent exert pressure on any one part of the system, this
had implications for all parts.

As illustrated in Figure 3.02, in the Entrepreneurial Authority
Decision Directive Model of Implementation, it was the Regional
Superintendent who commenced the implementation by making a
decision to change, thus exerting pressure on some part of the
Figure 3.02 Flow chart of the Entrepreneurial Authority Decision Directive Model of Implementation.
system. This pressure began to flow through all parts of the system, stimulating hypotheses related to The Decision to Change. At the same time, people began to wonder why the change was being promoted. They commenced developing hypotheses related to The Rationale for Change. A small number of teachers became more enthusiastic about the innovation than their peers, and this drew them into close communication with the Regional Superintendent. These teachers became advocates for the innovation and commenced the formulation of a rationale for its implementation. Advocates used this rationale to persuade other teachers in the organization to implement the Upper Great Southern Region Oral English Programme. Hypotheses to test teachers' perception of this persuasiveness have been included.

The original pressure exerted by the Regional Superintendent was thus increased and spread throughout the organization, impacting on all teachers. Teachers implemented the programme at differing rates, ranging from early adopters through to those who resisted implementation. They also demonstrated differing degrees of fidelity of implementation. Hypotheses have been designed to investigate this phenomenon, which for the purposes of this study has been entitled The Sequence of Involvement.

The final aspect of this system was the point at which the pressure reached the pupils. They, in their turn, changed their behaviour at differing rates. Hypotheses related to Measuring the Degree of Implementation for pupils were developed at this point and needed to be tested in order to provide further explanations of pupil behaviour.
Overview of Research Strategy

The review in the literature in Chapter II supported the theoretical construct of a four-stage model of implementation unique to this study. A generalized hypothesis has been drafted for each stage and forms the foundation for the research pattern designed to investigate each sub-model. This pattern is illustrated in the form of a flow chart reproduced in Figure 3.03. The literature review supported the extrapolation of the major influencing factors and the sub-factors where these proved appropriate. Each was used as a basis for the drafting of a sub-hypothesis. Individual sub-hypotheses were investigated and the findings co-ordinated with the findings from all related sub-hypotheses in the Summation of Findings shown in Figure 3.03. It was on these Summations of Findings that the debate for the acceptance or rejection of the Generalized Hypotheses rested.

Describing the Research Strategy in Greater Detail

To describe the research strategy in greater detail, the four sections of the principal model have been labelled sub-models, then treated independently and in sequence. (See Figure 3.03).

3.1 Sub-model One: The Decision to Change

Within the 'Decision to Change' section of the model it was contended that there were four major influential factors: the extent of Regional Superintendent power; the extent of research associated with the decision to change; the Regional Superintendent and the role of curriculum manager; and the Regional Superintendent as entrepreneur. It was argued that each part was closely
Figure 3.03 Representation of overview of research strategy.
related, but for the sake of clarity of the description each was treated independently, and this has been diagrammatically represented in Figure 3.04. To create a basis for further investigation of this area, a generalized hypothesis including these four major factors has been formed.

**GENERALIZED HYPOTHESIS No. 1**

The degree of implementation of the Oral English Programme that occurs in the Upper Great Southern Region will be related to the power possessed by the Regional Superintendent, the extent to which teachers research the decision to change, the Regional Superintendent's ability to manage curriculum, and his entrepreneurial skills.

This hypothesis would only stand up to close scrutiny if it could be demonstrated that changes actually occurred within the organization. If the data reviewed failed to indicate a behavioural change on the part of the teachers and children involved, then the related factors become irrelevant. A number of measures were examined which, it is argued, indicate changes have occurred. Among these was a measure of the concerns felt by teachers when they contemplated the use of the Upper Great Southern Region Oral English Programme, the level of intensity with which they used the programme, and the quality of that use. Any change in the hierarchy of priorities teachers accorded the subjects they taught, that might be attributed to teachers' use of the Upper Great Southern Region Oral English Programme, was examined by use of a questionnaire. Questionnaires aimed at gauging any shifts in teachers' attitudes to various aspects of the Upper Great Southern Region Oral English Programme are also included.
GENERALIZED HYPOTHESIS No. 1

The degree of implementation of the Oral English Programme that occurs in the Upper Great Southern Region will be related to the power possessed by the Regional Superintendent, the extent to which teachers research the decision to change, the Regional Superintendent's ability to manage curriculum, and his entrepreneurial skills.

Figure 3.04 The relationship between The Decision to Change, the Generalized Hypothesis No. 1 and the related sub-hypotheses.
Anecdotal evidence in the form of personal interviews, observations and content analysis of documents was used to triangulate the data collected (Somekh, 1980).

Changes in pupil behaviour were monitored through skill tests in the key areas of the Upper Great Southern Region Oral English Programme, pupils' public address skills, and their management of listening comprehension tests. Some information on student attitude changes and classroom behaviour was also sought.

Reference to Figure 3.04 reveals the author's intent to further examine the data in an attempt to gain greater understanding of the four major influential factors listed: the extent of Regional Superintendent power; the extent of research associated with the decision to change; the Regional Superintendent in the role of Curriculum Manager, and the Regional Superintendent in the role of entrepreneur.

3.11 The Extent of Regional Superintendent Power.

The concept of 'The Decision to Change' being made within the Entrepreneurial Authority Decision Directive Model of Implementation presupposed the existence of an organization which at least encompassed some centralization of influence, an acknowledged set of rules, a communication network, and some common goals; in short, a system. For the purpose of this thesis, then, the influence of Regional Superintendent power was assumed to incorporate four sub-factors: system power; the status of the Regional Superintendent in the eyes of teachers; control of the flow of
information; and how long the teacher had been associated with the innovation. This has been diagrammatically represented in Figure 3.05.

3.111 System Power.

This system sought to examine two aspects of system power: that of granting teachers the privileges associated with tenure, and also according principals higher status through the promotion system. Two sub-hypotheses have been extrapolated from the Generalized Hypothesis No. 1. In line with the general pattern of debate developed by this thesis, both quantitative and qualitative data were assembled and reviewed. The plan to be followed has been diagrammatically displayed in Figure 3.06.

3.111A Teacher Tenure.

Teachers in Western Australia have a long history of employment stability. Tenure has typically been accorded to approximately eighty per cent of teachers in their second year of teaching and over ten per cent of the remainder have gained this status in following years. Less than ten per cent have been obliged to remain in temporary service or have left the profession. Teachers who have been granted tenure experience a large measure of job security. Less than one per cent of teachers on the permanent staff have had adverse reports recorded against them, and less than half this number have had their services terminated. This type of security may make teachers on the permanent staff feel sufficiently confident to resist superordinate pressure to change. Teachers on the temporary staff do not enjoy this measure of
Figure 3.05 The extrapolation of sub-hypotheses from 'The Extent of Regional Superintendent Power', a major influential factor from Generalized Hypothesis No. 1.
Figure 3.06 The source of data that will be used to test sub-hypotheses related to System Power.
security and may differ from tenured teachers in the degree of compliance they exhibit. Sub-hypothesis 3.111 has been developed to enquire whether teachers without tenure were more prepared to implement the innovation than teachers who possessed tenure.

3.111A Sub-hypothesis.

Teachers who do not have tenure are more likely to implement the Upper Great Southern Region Oral English Programme than teachers on the permanent staff.

3.111B Principals Seeking Special Promotion.

Within the Western Australian Education Department it had long been the practice for teachers seeking promotion to be appointed to the position of principal in schools outside the metropolitan area. Most of these people have homes, relatives and friends in the metropolitan area, hence tended to regard their stay in country schools as transient. They perceived it as a necessary, but generally not desired, step in the promotion system.

Principals coming to the Upper Great Southern Region tended to either transfer in from more remote locations, or promote from the metropolitan area. Those receiving promotion were not eligible to receive further promotion until they had occupied their substantive position for more than two years, but transferees were eligible immediately. Promotion was awarded on the basis of sufficient qualifications, satisfactory performance, and the longest seniority in the previous position. Every third position, however, was designated a 'special', or accelerated, promotion. This position was awarded by the Promotion Board, who would not consider
applicants unless they had been recommended by their Regional Superintendent.

This practice led to the development of myths exaggerating the influence of the Regional Superintendent in the area of promotion. Consequent to this, it was suggested that principals interested in promotion were more prone to support the Regional Superintendent's projects than those not seeking promotion. Sub-hypothesis 3.111B was designed to investigate this.

3.111B Sub-hypothesis.

Teachers in schools in the Upper Great Southern Region wherein the principal is seeking promotion, are more likely to implement the Upper Great Southern Region Oral English Programme than teachers in schools wherein the principal is not seeking promotion.

3.112 Regional Superintendent Status.

There were a number of factors that may have enhanced the status of the Regional Superintendent in the eyes of teachers. Teachers commenced their career with the status of temporary teacher, a position carrying less status and privilege than that of permanent teacher. Change of status was effected by an application to the Education Department, followed by a successful evaluation from a Regional Superintendent. The attraction of the higher status can be gauged by the fact that over ninety per cent of teachers made such an application. Some people may have believed that teachers applying for such an evaluation were especially susceptible to the Regional Superintendent's wishes.
Central Office recognized and approved a minor policy-making function for Regional Superintendents. Policies emanating from the Regional Office carried a degree of persuasive power in that some teachers were docile by nature and followed Education Department approved policy by habit. To them, a written document was interpreted as an instruction with implied sanctions. There were clearly defined limits to this type of power, and the implications have been analysed in Chapter V.

By tradition, the Regional Superintendent had entered primary classrooms regularly and carried out a twice a year audit of teachers' practices. This was generally accepted by primary teachers, and they co-operatively presented their work for inspection. Covert overtones of evaluation were contained in this custom which tended to heighten the influence of the Regional Superintendent when he assumed the role of change agent. Indeed, there may have been, in the minds of some teachers, an expectation that the Regional Superintendent would support a particular innovation each time he visited. It would have been possible for him to outline a favoured innovation during his Term I visit, then imply that this would be of special interest during the Term II visit.

There were also a number of other referents to whom teachers might turn to evaluate curriculum innovations prior to the decision to implement. Fellow teachers in their school, their school principal, teacher education lecturers, curriculum branch officers and commercial booksellers all provide an evaluation, and thus influence the teacher's decision. Some were regarded by teachers
as more significant than others. The Entrepreneurial Authority Decision Directive Model postulates that teachers perceive support from the Regional Superintendent as more influential than the others. Sub-hypothesis 3.112 has been developed to test this.

3.112 Sub-hypothesis

A major proportion of the primary teachers in the Upper Great Southern Region perceive the Regional Superintendent as more likely to influence their decision to implement the Upper Great Southern Region Oral English Programme than fellow teachers in their school, their principal, a teacher education lecturer, a curriculum branch officer or a bookseller.

3.113 Regional Superintendent Support

The Regional Superintendent supported the Upper Great Southern Region Oral English Programme, and this support was clearly communicated to teachers at the beginning of the year through school visits and in-service courses. Teachers coming to the Upper Great Southern Region later in the year may have experienced less of this face-to-face contact with the Regional Superintendent in relation to the Upper Great Southern Region Oral English Programme. Teachers' perception of the influence exercised by the Regional Superintendent's support for the project may have varied. It may also be that once teachers commenced the process of implementation they turned to other people for support. The Regional Superintendent visited schools at infrequent intervals, hence as teachers became more involved in the daily activities associated with the implementation process they turned to exper-
sented teachers in their school to whom they had more frequent access. Sub-hypothesis 3.113 has been designed to measure this.

Sub-hypothesis 3.113

When teachers first encounter the Upper Great Southern Region Oral English Programme in the Upper Great Southern Region, they regard Regional Superintendent support as highly influential in their decision to implement it, but not as influential in their decision to continue the programme into the second year.

3.12 The Extent to which Teachers Research the Decision to Implement the Upper Great Southern Region Oral English Programme.

In the Entrepreneurial Authority Decision Directive Model of Implementation, teachers were informed that the decision to change had already been made. Some may have accepted this without demur, others may have wanted to know more about who made the decision, and upon what authority.

Teachers working in the Western Australian Education Department were exposed to a wide range of diverse programmes: some from the commercial field; some from other Education Departments; some from central office and some from the region in which they worked. Each of these agencies presented attractive materials seeking to imply that the decision to change had already been made by a skilled authority with a higher status than that occupied by the teacher. Teachers implement some of these programmes for a variety of reasons, perhaps the most distinguishing one
being the power exercised by the Education Department head office over some teachers. It may have been that certain groups of teachers in the Upper Great Southern Region perceived the head office of the Education Department as possessing significant power over their working lives through the granting of favours such as permanent tenure, transfer or promotion. Should this have been the case, such people might have wanted to know whether a programme had central office approval, and they might have refused to implement a programme that did not. If this was the case, the identification of such a group would be essential to the change agent, who clearly would need to cater for their needs.

The primary school curriculum has traditionally been controlled by the Western Australian Education Department through the publication of syllabi. There were legally binding regulations which charged principals with the responsibility of ensuring that teachers prepared programmes based on the published Education Department syllabi. Principals were required to sign each programme as an assurance that teachers had completed their duty. In the past, District Inspectors visited schools with the express purpose of ensuring teachers and principals complied with this procedure. This process has existed for some fifty years, and around it has grown up the custom that syllabi were established in central office and 'they' tell you what to do.

A certain 'freeing up' of the organization occurred over the years immediately prior to this study. Headmasters were
now titled Principal Teacher and District Inspectors titled Superintendent. The Director General made several public statements supporting autonomy for schools. Nevertheless, written syllabi were still in existence with revisions recently issued. It may have been that primary teachers were still conscious of central office authority and were not prepared to implement a new programme unless they assured themselves that it carried the central office imprimatur. Sub-hypotheses 3.121 and 3.122 have been developed to further explore this area, and are displayed diagrammatically in Figure 3.07.

3.121 Teachers Seeking a Transfer

Sub-hypothesis 3.121

Teachers in the Upper Great Southern Region seeking a transfer will ensure the Upper Great Southern Region Oral English Programme complies with the Education Department syllabus before they implement.

3.122 Teachers Seeking Permanent Tenure

Sub-hypothesis 3.122

Teachers in the Upper Great Southern Region seeking permanent tenure will ensure the Upper Great Southern Region Oral English Programme complies with the Education Department syllabus before they implement.
Figure 3.07 Sub-hypotheses derived from the major influential factor 'The Extent to which Teachers Research the Decision'.
3.13 The Regional Superintendent in the Role of Curriculum Manager.

Through reference to Figure 3.04 (page 100), the reader is reminded that the third major influential factor within the ambit of the sub-model, 'The Decision to Change', is the Regional Superintendent in the role of Curriculum Manager. The influence was divided into three sub-factors: establishing a temporary system; appointment of a curriculum developer; and the appointment of support staff. From each sub-factor, sub-hypotheses have been developed and will be tested against a range of data. (See Figure 3.08).

3.131 Temporary Systems.

Many people associated with education - parents, teachers and community - tended to perceive a Regional Superintendent as the region's executive officer charged with the responsibility of maintaining the system. This officer occupied a position of status, power and influence, both achieved and acquired, and gained direct benefit from maintenance of the status quo. Teachers also tended to have little to gain, in either increased salary, increased status or reduced workload, from changes in teaching practice already accepted as sufficiently effective. Parallel to these two factors in the organization there may well have been in existence sub-organizations committed to a course of active resistance to change.

Rather than confront these factors, the Regional Superintendent was better served by setting up a temporary system to operate
Figure 3.08 Sub-hypotheses derived from the major influential factor Regional Superintendent in the Role of Curriculum Developer
outside the established school and regional organization. The
newness of such a system allowed the creation of unique goals
unencumbered by teachers' expectations of the entrenched systems.
In this particular case, the temporary system created consisted
of a volunteer school-based resource person who experienced regular
and frequent contact with the Curriculum Developer and Regional
Superintendent. A regular and predictable communications network
was established. To explore some of the aspects of this concept
the following sub-hypothesis has been designed.

Sub-hypothesis 3.131

Teachers who implement the Upper Great Southern Region Oral
English Programme will perceive that they frequently need to
ask the Resource Teacher for assistance. This need will
reduce by the end of their first year of teaching within
the Upper Great Southern Region.

3.132 Appointment of a Curriculum Developer.

When a new programme such as the Upper Great Southern
Region Oral English Programme commenced, people may have tended
to want to attribute it to some particular person. They may
have then tended to make assumptions about the programme based
on what they knew or presumed about the Curriculum Developer.
This phenomenon may have caused the programme to become person-
ified in the name of the Curriculum Developer. Thus, being drawn
into the central role, the Curriculum Developer may have even-
tually made a greater contribution to the programme than other
players, and also have developed a deeper commitment.
Should he/she develop such an intense interest, the Curriculum Developer may have gathered around him/her a small party of enthusiasts. In this event, these enthusiasts would have experienced more interaction with the Curriculum Developer than other users of the programme. It may have been that these supporters showed greater commitment to the programme than other users. They may have linked this commitment with a personal relationship built from frequent intercourse. A transfer of loyalty may have occurred, and these supporters may have come to refer to the programme as the Curriculum Developer's programme, using his/her first name.

Other users, however, may have varied the intensity with which they used the programme according to the amount of interaction they had with the Curriculum Developer. That is, when they were informed that he/she would be calling on their classroom, they made more effort to complete the lessons.

To further explore the process of implementation in this area the following sub-hypothesis has been developed.

Sub-hypothesis 3.132

The Curriculum Developer will eventually come to personify the Upper Great Southern Region Oral English Programme and will be recognized as such by classroom teachers.
Appointing Staff to Support the Upper Great Southern Region Oral English Programme.

One of the features of this top-down decision-making model was that decisions had to be made on predicted outcomes. If the Regional Superintendent predicted that twenty teachers would commence implementing the programme, he needed to organize twenty sets of materials and an inservice/support programme to cope with this number. Such predictions were not always accurate. Should thirty teachers have volunteered for the programme, then this would have called for swift changes in logistical support. Similarly, individual differences between teachers required last minute monitoring and tailoring of inservice type activities.

The Upper Great Southern Region Oral English Programme required considerable logistical support. Once implementation commenced, teachers received a four hundred page document that detailed the yearly plan, the daily lesson strategies, evaluation procedures, audio tape models, and a set of wall charts. The programme could not proceed unless teachers had free access to this material when they needed it. Individual differences among teachers and classes, however, caused an uneven demand for materials to arise. Uneven demand, coupled with a heavy dependence on written material, could have proved an impediment to implementation through teacher frustration, had needed supplies not been forthcoming.

This thesis tended to suggest that the Regional Superintendent, in his/her role as Curriculum Manager, would need sufficient
power to permit flexibility in the deployment of support staff
and material resources to monitor and tailor the implementation
process. Sub-hypothesis 3.133 has been drafted to investigate
this.

Sub-hypothesis 3.133
Teachers will be prevented from moving through the
implementation process unless the Curriculum Manager
has authority to appoint short-term temporary staff.

3.14 The Regional Superintendent as Entrepreneur.

The final major influential factor to be addressed within
the ambit of the sub-model, 'The Decision to Change', was the
concept of an entrepreneurial function for the Regional Superinten-
dent. Three sub-factors of this major influential factor will
be discussed: the gathering of necessary resources; the energizing
of people; and the risk-taking sub-factor as shown in Figure
3.09. Data related to this aspect of the thesis tended to be
qualitative, hence an attempt to generate sub-hypotheses will
not be made in this instance. Instead, various aspects of each
sub-factor will be explored. From this wider picture an attempt
will be made to generate arguments that contribute to the debate
centred on accepting or rejecting the relevant section of General-
ized Hypothesis No. 1.
Figure 3.09 Sub-hypotheses derived from the major influential factor 'The Regional Superintendent as Entrepreneur'.
Conclusion: The Decision to Change

To explore this aspect of the model, The Entrepreneurial Authority Decision Directive approach to the implementation process, a Generalized Hypothesis No. 1 has been formulated. This Generalized Hypothesis has been divided into ten parts. Each part will be individually tested in the following chapters in this thesis. The results of these debates will be co-ordinated and applied to the generation of an argument to accept or reject Generalized Hypothesis No. 1.
3.2 Sub-model Two: The Rationale for Implementation

In Chapter II, concepts established by a number of respected authors were brought together to form a paradigm. Its function was to be used to explain a particular aspect of an implementation process that occurred in the Upper Great Southern Region of Western Australia.

Within the literature there was support for a pattern that commenced with an implied need for a rationale. Authors also argued that a rationale needed to be based on an awareness of client needs if it was to contribute effectively to successful implementation. Further, it was contended that the rationale should indicate the development of a stable message. Through the rationale, implementers should gain a clear impression that the Curriculum Developer has established a preferred position.

To bring the paradigm to a logical conclusion, it was proposed, within this thesis, to seek further information. The investigation centred on what happened in the areas of client needs, developing a stable message and establishing a preferred position, after the Regional Superintendent took the decision to commence the implementation process.

The Regional Superintendent introducing the change to teachers knew he was dealing with a trained, informed group who had a stake in their organization which he was trying to change. These people had been trained in logical thinking and scientific method, hence were likely to bring some of these analytical skills to bear on persuasive material to which they were exposed. Any proposed change would be analysed from a personal, as well
as a professional perspective. Both personally and professionally, teachers were at risk if the children with whom they worked did not learn efficiently, hence teachers may have sought such an assurance when they were initially exposed to the rationale for the Upper Great Southern Region Oral English Programme.

Many may have been unwilling to accept the risks associated with any change from tried and trusted methods unless the rationale convinced them that the Upper Great Southern Region Oral English Programme was an important aspect of a child's education and could be correlated with other important subjects. It may also be that before they fully accepted the risks involved, teachers may have wanted a detailed explanation of the programme, and to have viewed a detailed written teaching plan.

Evidence of a detailed plan may have been a factor sought by teachers in a rationale. Frequently, educational innovations require teachers to provide some of the resources themselves, and they may have to spend more of their time than they had previously committed. In addition to this, change, when it has been achieved, may not be attributed to the teachers but to the school or senior executives. Some teachers may have seen this happen, and be distrustful.

It may also have been that unless the rationale could convince teachers that the Upper Great Southern Region Oral English Programme contained all the relevant resources they needed, therefore saving them time, then neither adoption nor implementation were likely to occur.
To further illuminate these matters, Generalized Hypothesis No. 2 has been formulated.

GENERALIZED HYPOTHESIS No. 2

The rationale will influence teacher implementation behaviour if it convinces them that the Upper Great Southern Region Oral English Programme has specific advantages over previous programmes.

A number of factors bear on the acceptance or rejection of Generalized Hypothesis No. 2. For the purpose of this study, six major influential factors have been isolated and used as a basis for the generation of sub-sections to Generalized Hypothesis No. 2. Data relating to each of these sub-sections will be examined in detail to illuminate trends that may provide evidence contributing to the overall argument for acceptance or rejection of Generalized Hypothesis No. 2. The pattern of this argument is illustrated in Figure 3.10.

3.21 An Indication that Child Learning Will Improve

Teachers tend to look to the system that employs them for extrinsic rewards, and to the children they teach for intrinsic job satisfaction. In the Western Australian Education Department, at the time of this study, teacher service conditions were fixed by statute, hence they could not receive increased material rewards, no matter how hard they worked or how efficient they were. Intrinsic rewards were, however, available in the form of children's reaction to them and to the material they taught.
The rationale will influence teachers' implementation behaviour if it convinces them that the Upper Great Southern Region Oral English Programme has specific advantages over previous programmes.

Figure 3.10 The relationship between the Rationale for Implementation General Hypothesis No. 2 and the related sub-sections.
If children learned successfully, there was a tendency for them to react favourably towards both teacher and material. From this teachers may have derived feelings of personal fulfilment, and, therefore, have a vested interest in teaching material that children enjoyed and could master. This being the case, it may be that one of the questions asked during their first contact with the Regional Superintendent, after hearing the rationale for the first time, will be related to the degree of learning children are likely to experience, if they become involved with the Upper Great Southern Region Oral English Programme.

3.22 The Importance of the Subject to Teachers.

For the purposes of this study it is assumed that each teacher had internalized a preferred hierarchy of subjects which, although not static, could be stated at any particular time. A number of factors operate to define the teacher's preference, such as present community attitudes, positions taken by the school at a particular time, and the teacher's life experiences. In some communities academic subjects are highly valued, while in others sport or cultural pursuits are considered more worthwhile. Some schools tend to become known for their success in certain areas. They then tend to expend enthusiasm, time and resources on these subjects, raising them in participants' consciousness and thus in importance. Finally, teachers, through their life experience of success and failure, have built up a rank order of their preference for each subject, putting subjects they taught successfully at the top and subjects where they doubted their competence at the bottom. It may be that when teachers commenced implementation of the Upper Great Southern Region Oral English Programme,
they began to regard it as an especially important subject area and gave it a higher value when compared to the other subjects they taught. Conversely, teachers who resisted implementation of the Upper Great Southern Region Oral English Programme may not have altered the value they place on Oral English.

3.23 Correlation with Other Subjects.

During the observation period of this study, there were numerous demands for the teaching time available to teachers. Into the school day, already filled with the traditional teaching activities, teachers were urged to fit multicultural education, gender equity, bike education, pastoral care, anti-smoking, and many others. Some teachers argued that there was insufficient school time to cover the subjects recommended by the primary section of the Education Department. The Upper Great Southern Region Oral English Programme demanded one hundred and fifty minutes per week, hence a common initial reaction from teachers may have been that 'it looks like an interesting programme but takes too much time.' It may have been possible to reduce this early resistance if the rationale could show that this particular Oral English programme easily and effectively correlated with Reading, Literature and Social Studies.

3.24 A Clearly Defined Programme.

Within the literature reviewed in Chapter II, the two extreme approaches to curriculum implementation discussed were the fully defined model, sometimes referred to as the Fidelity Perspective, and the method that evolves at the classroom level, the Mutual
Adaption Perspective. There were many variations in between. Among the advantages of the mutual adaption model were the professional freedom for the teacher, the closeness of the decision-maker to those affected, and the speed with which change could be effected. Among the disadvantages were the general lack of school-based resources for this sophisticated activity, the feeling of professional isolation, and perhaps the limited expertise of the teacher. Many teachers claim to be very busy, so it may be that from the teacher's perspective, the disadvantages of the mutual adaption model in this study outweighed the advantages. Should this be the case, teachers may have noted that the Upper Great Southern Region Oral English Programme was clearly defined, and regard this as an advantage.

3.25 The Inclusion of All Necessary Resources

The Upper Great Southern Region Oral English Programme was implemented in a rural region of Western Australia where many of the schools were several hours travel from the Perth metropolitan area. Perth was the source of most of the teaching aids available to schools. While it was true that teachers of the Upper Great Southern had regular mail and telephone links with Perth-based suppliers and institutions, they rarely had the frequent personal contact with sources of relevant educational material as enjoyed by their metropolitan area counterparts. Frequently they experienced frustration when seeking teaching aids, through delays and inaccurate communication. The inclusion of all necessary resources in the Upper Great Southern Region Oral English Programme might be seen by teachers as an important advantage.
3.26 Teacher Perceived Advantages over Other Programmes.

In a rural region such as the Upper Great Southern, a large number of teachers have less than three years' teaching experience. During the period of observation of this thesis, twenty four per cent were in their first year, twenty seven per cent were in their second year, and twenty two per cent were in their third year. These teachers, in the early years of their careers, frequently found it necessary to complete several hours of lesson preparation each night, and may even have had to write programmes during the weekends if they were to meet the various expectations of the community, their principal, the Regional Superintendent and the Education Department. Their major concerns may have been related to classroom management and pupil control, and they may have experienced further anxiety in their dealings with parents of children in their classes. This anxiety may have risen to a point where it impaired their efficiency. There were a number of factors at work here, and it may have been that teachers in the Upper Great Southern Region perceived themselves as overworked. If this was the case, then they would have regarded the facility to save them lesson preparation time as an advantage possessed by the Upper Great Southern Region Oral English Programme.

Conclusion : The Rationale for Change

This second section of the Entrepreneurial Authoritative Decision Directive approach to the implementation process, The Rationale for Implementation, has its genesis in the assumption that teachers will approach the implementation of the Upper Great
Southern Region Oral English Programme in a rational manner. Such an assumption lends importance to the development of the rationale to be presented to prospective implementers. From the model upon which this thesis is based, Generalized Hypothesis No. 2 has been generated. Six sub-sections have been derived from the Generalized Hypothesis, and in Chapter VII each will be debated independently. Such individual findings will then be aggregated in order to test the Generalized Hypothesis for acceptance or rejection.
3.3 Sub-Model Three: The Sequence of Involvement

The theoretical constructs underpinning the Entrepreneurial Authority Decision Directive Model of Implementation, incorporate the postulation that certain conditions arise in an implementation process which contribute to teachers choosing an individual rate of implementation. The same argument applies to the degree of fidelity of implementation practised by teachers.

The model suggested by this thesis proposes that the implementation behaviour exhibited by teachers forms the basis for a classificatory system. Implementers were sorted into categories where the common characteristics of their implementation behaviour were located on a continuum ranging from early to late implementers. A number of variables contributed to the point on the continuum occupied by any one particular teacher.

In this model of implementation involving a large organization, one of the variables of signal importance was that of who, of the large group of potential changees, to contact first. Perhaps the answer to such a question lay on a continuum bounded by two extremes. A change agent may contact one person, or try to contact everybody at once. At one end of the continuum the proposed change may be introduced to one member of the organization. This member would then be strongly supported, in the hope that implementation of the change, in the manner designated by the plans of the change agent, occurred. From this one successful change, the innovation may spread by emulation and word of mouth. There may be many advantages for such a method, not the least of them being the small number. This ensures,
initially at least, that there will be ample support resources and that communication between the change agent and the changee may be frequent, accurate, and face to face. The major disadvantage may be the slowness with which this method gains adherents, although it is fair to say that, once established, the number of implementers may expand considerably and at a much faster rate should the change become self-sustaining. This is only one end of the continuum.

At the other end of the continuum, the change agent attempts to contact every member of the organization simultaneously. In the past, the common technique for attempting this was mass assembly or use of the postal service, both methods encountering the disadvantages of strained resources, the distortion of meaning that can occur when a single message is directed at a large group encompassing a wide range of individual differences. Breakdowns in technology can occur. Modern technology such as television and the computer are facilitating this technique. Fast, accurate, mass communication has the inherent advantages of reducing rumour, lowering anxiety and providing a faster impact.

In either case, the question of who to contact first implied a sequence of communication and involved the concept of power. Whether by design or accident, some members of the organization were privy to information about the proposed change prior to other members. Being first may be important and confer status on the person with knowledge, while being last may be the reverse. There may be an unequal distribution of power in the organization,
leaving some members more susceptible to coercion than others. Inevitably, social factors exist in the workplace; these influence communication networks and have a varying effect on conforming behaviour. Personal factors may also intrude. Some members of the organization may have personal commitments that prohibit them from contributing the extra time frequently demanded by innovations in their early stages. It is argued that many of these factors affect the rate at which individuals accept implementation.

It may be implied, from the work of writers reviewed in Chapter II, that variations in the rate of implementation accepted by individuals can form the basis for a classificatory system of implementers, dividing them into groups each exhibiting distinct characteristics. The reader will recall that the objective of this section of the thesis is to extend the present state of the knowledge available within the literature in the area of Sequence of Involvement. To test this aspect of the Entrepreneurial Authority Decision Directive Model of Implementation, Generalized Hypothesis No. 3 has been generated.

**GENERALIZED HYPOTHESIS No. 3**

*When they become aware of the Upper Great Southern Region Oral English Programme, some teachers in the Upper Great Southern Region will implement the change more readily than others. These differences in implementation behaviour can form the basis for a consistent classificatory system dividing teachers into groups exhibiting distinct characteristics.*
From Generalized Hypothesis No. 3, four sub-hypotheses have been deduced and are displayed in Figure 3.11. The first deals with the teachers who initially indicated they possessed the characteristics of advocates and became members of the Management Committee; the second deals with later advocates who implemented with enthusiasm at the school level and became 'Inschool Resource Teachers'; the third deals with teachers who commenced implementation later than the first two, and who made up the majority of the population of this case study; and the final one refers to a group of teachers who resisted the Upper Great Southern Region Oral English Programme. Data related to each sub-hypothesis has been reviewed to form a micro argument supporting its acceptance or rejection. These findings have been co-ordinated to form the basis of a debate to accept or reject Generalized Hypothesis No. 3.

3.31 Advocates and the Sequence of Involvement

In this study an attempt has been made to gather and display evidence related to the argument that in the Entrepreneurial Authority Decision Directive Model of Implementation, a small number of teachers seek and accept a higher level of involvement in the implementation process than their peers. They form a group, closely associated with the Curriculum Developer, and become advocates of the Upper Great Southern Region Oral English Programme.

This Curriculum Management Committee received special recognition from the Curriculum Manager and was given privileges
**Figure 3.11** The relationship between the Sequence of Involvement, Generalized Hypothesis No. 3 and the related sub-hypotheses.
such as relief from normal classroom duties, special inservice courses, conferences, accommodation and travelling allowances. The model suggests that professional and social contact between this group and the Curriculum Developer will be more regular and frequent than for any other groups in the case study. The Curriculum Management Committee, because of this, will come to identify more closely with him/her. These differences may lead them to exhibit implementation behaviour that differs from that of other implementers.

The special conditions applying to them and this subsequent implementation behaviour will be reviewed in Chapter VIII, seeking further implications for the theory underpinning the model central to this thesis. To this end, sub-hypothesis 3.31 has been developed.

*Sub-hypothesis 3.31*

_The implementation behaviour of teacher-users who become Advocates and form the Management Committee will differ significantly from that of the other teacher implementers._

Sub-hypothesis 3.31 will be tested by calculating the mean responses of the teachers in the Curriculum Management Committee on measures of teacher concerns, the level of skill with which teachers use the programme, and the degree of fidelity with which they implement the Upper Great Southern Region Oral English Programme. These means will then be compared and contrasted with the means of the total sample population, then analysed for significant differences.
The dispersal model adopted by the Curriculum Management Committee for the implementation process observed for this thesis is outlined in Figure 3.12, page 141. This model predicts that the Advocate group will become closely associated with the school-based Resource Teachers, one of whom teaches in every school involved in the programme. Regular links will evolve, it is postulated, both between the Management Committee and the Resource Teachers and amongst the Resource Teacher group. Teachers involved with the programme become aware that school Resource Teachers receive special treatment in the form of inservice, conferences, travelling and accommodation. From the Entrepreneurial Authority Decision Directive Model of Implementation, it may be deduced that these special Resource Teachers will not implement the programme as fast as those in the Curriculum Management Committee, or with the same degree of fidelity. They may, as a group, differ significantly from the rest of the implementees on measures of rate of implementation and degree of fidelity. This postulation will be investigated in section 3.32.

3.32 Resource Teachers and the Sequence of Involvement

This section is clearly related to the previous discussion on the characteristics of the Management Committee. The early implementers or Resource Teachers are likely to display implementation behaviour similar to that displayed by the advocates who make up the Management Committee. The model upon which this thesis is based, however, predicts that resource teachers make up a unique group with its own particular characteristics and which is subject to different conditions. The aim of this section
of the thesis will be to analyse the dispersal method adopted within the case study, then relate this to implementation behaviour seeking evidence that can be used to draw inferences about the relevant tenets of the model upon which this thesis is based.

Sub-hypothesis 3.32 will be tested by calculating the mean responses of the Resource Teacher group on measures of teacher concerns, the level of skill with which teachers use the programme, and the degree of fidelity with which they implement the Upper Great Southern Region Oral English Programme. These means will then be compared and contrasted with the means of the total sample population, then analysed for significant differences.

Sub-hypothesis 3.32
The implementation behaviour of teacher-users who become Resource Teachers will differ significantly from that of other teacher-implementers.

3.33 The Classroom Teacher-users and the Sequence of Involvement.

The Entrepreneurial Authority Decision Directive Model of Implementation postulates that the classroom teacher group within the sample of subjects reviewed by this theory will tend to implement at a slower pace and with less intensity than either the Curriculum Development Committee or the Resource Teacher group. They were unlikely to perceive themselves as having any significant participation in important decision-making. No special recognition or privileges were made available to them that might mark
out the group, or individuals within the group, as unique. Some extra resources were made available, but these were of a general nature and unlikely to be seen as being specially allocated to this particular group. As the group furthest removed from the decision to implement, they might perceive themselves as having the least influence on decision-making and organizational structure, but the most to lose if the innovation failed.

Sub-hypothesis 3.33 will be tested by calculating the mean responses of the Classroom Teacher-user group on measures of teacher concerns, the level of skill with which teachers use the programme, and the degree of fidelity with which they implement the Upper Great Southern Region Oral English Programme. These means will then be compared and contrasted with the means of the total sample population, then analysed for significant differences.

3.33 Sub-hypothesis

The implementation behaviour of Classroom Teacher-users who made up the majority group differs significantly from that of other teacher-implementers.

3.34 Teachers Who Became Resisters

Organizations may resist change, argues Morriish (1976), and this phenomenon can be conceptualized in either individual or organizational terms. An undifferentiated abstract change resisting factor in an organization is not necessarily subject to rational processes, nor is it necessarily negative. In many ways the organization can be threatened by excessive change, in which case the resistance factor may in fact be essential to
its ultimate survival. The greater the perceived threat, the
greater the resistance (Huberman, 1983). Havelock (1973) incor-
porated resistance into his theoretical framework by defining
his innovation formula as:

\[ \text{Innovation} = \text{Demand} - \text{Resistance} \]

The theory proposed by this thesis, however, suggests that
change is very much a process in the minds of individuals.
This concept is supported by Morrish (1976), who sees the main-
springs of resistance to change in the personality of the proposed
user. He quotes three taxonomies found in the literature that
purport to explain the relationship between personality and resist-
ance to change:

- Watson (1967) : Eight forces of resistance;
- Guskin (1971) : Individual variables in knowledge
  utilization; and
- Harvey (1967) : Conceptual systems approach.

Sub-hypothesis 3.34 has been drafted to form a basis for
the investigation of resistance in the Entrepreneurial Authority
Decision Directive Model of Implementation.

Sub-hypothesis 3.34

A group of teacher-resisters will emerge who will have
personal, not organizational, reasons for rejecting the
innovation.

This thesis will seek to add to the already established body
of knowledge associated with this relationship. Details about the resistance to this particular innovation will be sought through the analysis of teacher responses to a variety of instruments designed to measure the degree to which teachers have become involved in the implementation process. Individual resisters will then be interviewed with the purpose of further exploring resistance as a phenomenon of teacher behaviour in response to a proposed change.

The Entrepreneurial Authority Decision Directive Model of Implementation and the Dispersal Process

As a change process unfolds, associated players assume roles and a sequential pattern of involvement emerges. The implementation process being observed in this thesis, explained by the Entrepreneurial Authority Decision Directive Model of Implementation, is a top-down change process where the desired outcome is known and clearly defined. Player compliance is therefore implied. There are a number of factors that contribute to this compliance. Particular ones are present in the case study under observation and contribute to a consequent Sequence of Involvement for the teachers involved.

An extension of the model being developed by this thesis is illustrated in Figure 3.12. It predicts that the Curriculum Manager will make the decision to commence implementation, and this will lead to the appointment of a Curriculum Developer. Around this Curriculum Developer will gather a group of teacher-advocates who will develop a strong personal affinity with the
Figure 3.12 The Implementation Dispersal Process suggested by this theory.
Curriculum Developer and become strong advocates of his work. These people will come to form a support group or 'Management Committee'. This Management Committee will impact on the larger group of teachers in the classrooms of the Upper Great Southern Region. After they have become aware of the new programme, a sample of this group will identify themselves as sufficiently interested in the work of the Curriculum Developer to become school based resource teachers. Two further groups may be identified; generalist classroom teachers, and those who are determined to resist the programme.

**Conclusion: The Sequence of Involvement**

This section of Chapter III is based on acceptance of the concept Sequence of Involvement identified in the literature reviewed in Chapter II. This general concept, that users of an innovation can be categorized into groups according to the implementation they exhibit during an implementation process, was operationalized for this particular study. The foundation of this operation was used to develop Generalized Hypothesis No. 3. Generalized Hypothesis No. 3 was divided into four sub-hypotheses. It proved possible to identify research investigatory techniques appropriate to the testing of each of these sub-hypotheses. Finally, the framework of a research design to test each sub-hypothesis, co-ordinate these parts into a total argument to either accept or reject Generalized Hypothesis No. 3, was established.

Based on the foregoing discussion, it is argued that the
model upon which this thesis rests predicts that when teachers become aware of the Upper Great Southern Region Oral English Programme, their involvement will not be haphazard but occur in an orderly, rational pattern. Although each individual will have a particular pattern of involvement, sufficient commonalities in these patterns occur to support a classificatory system. The tenor of these arguments will be tested in Chapter VIII.
3.4 Measuring the Degree of Implementation

This thesis attempts to build a theoretical model purporting to represent the phenomenon of the implementation of change in a unique setting. An important aspect of the study, therefore, becomes the development of a method to establish whether any implementation actually occurred. Should a measurable degree of implementation have occurred, then the theoretical constructs developed to explain its occurrence become meaningful. In this thesis the measurement of implementation will involve both teachers and pupils.

3.4a Sub-model 4a : Measuring the Degree of Implementation for Teachers

The theoretical constructs of this thesis defend the notion that implementation is a process. Working from this assumption the model postulates that the first stage of the process will be associated with bringing the innovation into the teacher’s consciousness. This awareness phase may arouse some concerns in the minds of teachers. Arousal, intensity and changing of these concerns may provide a useful measure of some aspects of implementation.

Variation in the types of teacher concerns and their intensity may combine with other relevant factors to influence the rate at which individual teachers progress through the implementation process. This individual rate of progress may be measurable. Teachers from the sample studied in this thesis progressed through
the process of implementation at an individual rate. Within this thesis, attempts to measure this rate of implementation will be made.

The authors of this innovation had a particular mental picture of the intended outcomes of their programme which included an idealized notion of full implementation. Within the ambit of the written package of the Upper Great Southern Region Oral English Programme, the authors included carefully defined aims, objectives, descriptions of method and evaluation techniques. There is, therefore, a relatively clear picture of the behaviour required of teachers under conditions of full implementation. To investigate these aspects of the concept measuring the degree of implementation, Generalized Hypothesis No. 4a has been formulated and fits into a research pattern as illustrated in Figure 3.13.

GENERALIZED HYPOTHESIS No. 4a

A high degree of implementation by teachers indicated by high scores in the higher order Stages of Concern, high Level of Use scores and high scores on the fidelity of use measure will be related to the time teachers have been working on the Upper Great Southern Region Oral English Programme.

The highly detailed nature of the innovation supports a fidelity perspective, and it is upon this that a data-gathering instrument unique to this study was developed. Data collected by using this instrument entitled the Oral English Programme Review will be supported by information gathered by using two other data-
3.4a1
The types of concerns felt by teachers when they become aware of the Upper Great Southern Region Oral English Programme.

3.4a2
The concept of individuals using the Upper Great Southern Region Oral English Programme at differing levels of competence.

3.4a3
The fidelity with which teachers implement the Upper Great Southern Region Oral English Programme.

GENERALIZED HYPOTHESIS No. 4a
A high degree of implementation by teachers indicated by high scores in the higher order Stages of Concern, high Level of Use scores and high scores on the fidelity of use measure will be related to the time teachers have been working on the Upper Great Southern Region Oral English Programme.

Figure 3.13 The relationship between Measuring Teacher Implementation Behaviour, General Hypothesis No. 4a, and the related sub-hypotheses.
gathering techniques, the Stages of Concern questionnaire and the Levels of Use focused interview technique, which have been selected for use in this study from the work of Hall et al (1975). Data gathered by using these instruments will be applied to a sub-model devolved from the literature reviewed in Chapter II and illustrated in Figure 3.13. This sub-model, Measuring Teachers' Implementation, is divided into three major influential factors: the types of concerns felt by teachers when they became aware of the Upper Great Southern Region Oral English Programme; the concept of individuals using the innovation at differing levels of competence; and the fidelity with which the teachers implement the Upper Great Southern Region Oral English Programme. These form the basis for three sub-hypotheses, as illustrated in Figure 3.14.

The first to be treated in this study is the type of concern teachers experience once they become involved in an implementation process and the degree of intensity with which they feel these concerns. The Entrepreneurial Authority Decision Directive Model of Implementation predicts that teachers will experience a series of concerns when they first become aware of the Upper Great Southern Region Oral English Programme. It then predicts that the intensity of early concerns will be lowered when the teachers have been using the programme for one year, but that the intensity of later order concerns will rise. To test this, sub-hypothesis 3.4a1 has been designed.
### Major Influential Factors

<table>
<thead>
<tr>
<th>3.4a1</th>
<th>The types of concerns felt by teachers when they become aware of the innovation.</th>
</tr>
</thead>
</table>

### Sub-hypotheses

| 3.4a1 | The type and degree of concern felt by teachers when they commence the Upper Great Southern Region Oral English Programme will differ from that felt by teachers at the end of their first year of implementation, and again at the end of their second year. |

| 3.4a2 | The concept of individuals using the innovation at differing levels of competence. |

| 3.4a2 | The level of use of the Upper Great Southern Region Oral English Programme indicated by teachers will vary according to the time they have been using the programme. |

| 3.4a3 | The fidelity with which teachers implement the innovation. |

| 3.4a3 | The degree of fidelity with which teachers implement the Upper Great Southern Region Oral English Programme will increase the longer they work on the programme. |

| Data Source | Comparison of data from Stages of Concern questionnaire. |

| Data Source | Comparison of data on Level of Use interview responses. |

| Data Source | Scores on the Programme Review Sheet related to time teachers have worked on the programme. |

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**GENERALIZED HYPOTHESIS No. 4a**

Figure 3.14 The extrapolation of sub-hypotheses from General Hypothesis No. 4a
Sub-hypothesis 3.4a1

The type and degree of concern felt by teachers when they commence the Upper Great Southern Region Oral English Programme will differ from that felt by teachers at the end of their first year of implementation, and again at the end of their second.

Sub-hypothesis 3.4a1 will be investigated by using the Stages of Concern questionnaire developed by Hall et al. (1975). This questionnaire is reported in detail in Chapter V. Teachers were asked to complete the questionnaire in February and November of 1982 and 1983. Differences between the scores were subjected to the analysis of variance technique (Anova Scheffe).

The second major influential factor identified in the literature reviewed in Chapter II is that when individuals implement a programme, this process can be divided into a series of levels of competence. The Entrepreneurial Authority Decision Directive Model of Implementation assumes that these levels form a linear pattern from low levels of involvement to a higher degree of involvement, and predicts that the longer teachers are involved in the Upper Great Southern Region Oral English Programme, the greater will become their skill, and thus the higher their level of competence. Sub-hypothesis 3.4a2 has been developed to test this line of thought.

Sub-hypothesis 3.4a2

The level of use of the Upper Great Southern Region Oral English Programme indicated by teachers will vary according
to the time they have been using the programme.

Sub-hypothesis 3.4a2 will be investigated by a review of the data collected through use of the Level of Use focused interview technique developed by Hall et al. (1975). This data-gathering technique is reported in detail in Chapter V. Teachers were interviewed in February and November of 1983. Their responses were analysed and related to the length of time they had been implementing the Upper Great Southern Region Oral English Programme.

The third major influential factor incorporated into the concept of measuring teacher implementation in the literature reviewed in Chapter II is that of fidelity of use. Fidelity of use refers to the degree of congruency between the way the teacher uses the programme and the way the Curriculum Developer intended it to be used. Fidelity of use measures may be independent of the level of use being practised by the teacher. The teacher may be using only a very small part of the programme but be following the Curriculum Developer's plan meticulously. This would indicate a high level of fidelity for that particular part, but to achieve a high score of fidelity of use for the whole programme, a user must attempt all aspects of the programme and adopt behaviour similar to that defined by the Curriculum Developer as signalling full implementation. The Entrepreneurial Authority Decision Directive Model of Implementation predicts that there will be a close relationship between the fidelity of use assumed by teachers and the length of time they have been implementing the programme. This concept will be tested by developing
sub-hypothesis 3.4a3 as a basis for investigation.

Sub-hypothesis 3.4a3

The degree of fidelity with which teachers implement the Upper Great Southern Region Oral English Programme will increase the longer they work on the programme.

Sub-hypothesis 3.4a3 will be investigated by using a Programme Review Checklist developed especially for this study. This development has been analysed and reported in Chapter V. It is based on concepts evolving from the work of Hall et al (1975) and closely related to the concepts of SoC and LoU. Teachers were asked to indicate their fidelity of use on this checklist in February and November of 1982 and 1983. The responses they provided will be subject to analysis of variance.

3.4 Sub-model 4b: Measuring the Degree of Implementation for Pupils.

Implementation by teachers of the innovation proposed by the Curriculum Developer and the Curriculum Management Committee has, as its final intent, changes in the performance of pupils; changes perceived by the implementers as leading to improvement. If the innovation does provide a better service for pupils, then teachers may be more likely to see justification for implementing the innovation. An essential component of the research design for this study is the measurement of pupil behaviour, with the intent of ascertaining any increase or decrease in the level of pupil performance relative to the degree to which teachers implem-
ent the Upper Great Southern Region Oral English Programme. The breadth and diversity of pupil behaviour within the area of Oral English makes measurement of all relevant behaviour impractical. It is therefore necessary to select a small sample of the most significant behaviour. The two major aims of the programme were identified by the Curriculum Developer and the Curriculum Management Committee as improvement in listening skills and improvement in the ability to deliver an impromptu public address. To test this aspect of the Entrepreneurial Authority Decision Directive Model of Implementation, Generalized Hypothesis No. 4b was developed.

**GENERALIZED HYPOTHESIS No. 4b**

A high degree of implementation indicated by pupils returning high scores on the Impromptu Speaking Test and high scores on the Listening Test is related to high scores returned by teachers on Level of Use interviews, high scores on higher order Stages of Concern, and a high degree of fidelity.

The research design to investigate this Generalized Hypothesis is illustrated in Figure 3.15. In this design two major influential factors have been identified: pupils' ability to deliver an impromptu public speech, and pupil mastery of listening skills. From each one a sub-hypothesis has been developed. The first relates to pupils' speaking skills.
**Major Influential Factors**

3.4b1

Pupil mastery of impromptu public speaking skills

Measuring the degree of implementation for pupils

3.4b2

Pupil mastery of listening skills

**Sub-hypotheses**

3.4b1

Higher levels of pupils' mastery of impromptu public speaking skills will be related to high teacher scores on Level of Use focused interviews, high scores on higher order Stages of Concern questionnaire, and high scores by teachers on the test of fidelity.

Pupils' mastery scores on the impromptu public speaking test related to teacher scores on the Level of Use interview, the Stages of Concern questionnaire and scores on the Programme Review Sheet

3.4b2

High levels of pupils' mastery of the Listening Skills Test will be related to high teacher scores on the Level of Use focused interviews, high scores on higher order Stages of Concern questionnaire and high scores by teachers on the test of fidelity

Pupils' mastery scores on the listening skill questionnaire related to teacher scores on the Level of Use interviews, the Stages of Concern questionnaire and scores on the Programme Review Sheet

**Generalized Hypothesis No. 4b**

A high degree of implementation indicated by pupils returning high scores on the Impromptu Speaking Test and high scores on the Listening Test is related to high scores returned by teachers on Level of Use interviews, high scores on higher order Stages of Concern questionnaire and a high degree of fidelity

Figure 3.15 The relationship between Measuring the Degree of Implementation for Pupils, Generalized Hypothesis No. 4b and the related sub-hypotheses.
3.4b1 Changes in Impromptu Speaking Behaviour

Demonstrated by Pupils.

Changes in pupil impromptu speaking behaviour will be measured and these measurements related to change in implementation behaviour exhibited by teachers. Changes in pupil behaviour will be measured by the Impromptu Talks Rating Scale, an instrument especially designed for this study. This instrument is described in detail in Chapter V. Aspects of teachers' implementation behaviour will become available from the investigation designed to test Generalized Hypothesis No. 4a. The concept of a relationship between the implementation behaviour of teachers and alterations in the behaviour of pupils will be investigated by the testing of sub-hypothesis 3.4b1.

Sub-hypothesis 3.4b1

Higher levels of pupils' mastery of impromptu public speaking skills will be related to high teacher scores on Level of Use focused interviews, high scores on higher order Stages of Concern questionnaire, and high scores by teachers on the test of fidelity.

3.4b2 Changes in Listening Skills Demonstrated by Pupils.

The second sub-hypothesis refers to pupils' listening skills. A well established, commercially produced test of pupils' listening skills was available and was selected for use in this study. The test selected was the Progressive Achievement Test of Listening Skills compiled by the New Zealand Council for Educational Research.
which is reviewed in Chapter V.

Sub-hypothesis 3.4b2

*High levels of pupil mastery of the Listening Skills Test will be related to high teacher scores on the Level of Use focused interviews, high scores on the higher order Stages of Concern Questionnaire, and high scores by teachers on the test of fidelity.*

**Establishing a Comparison Sample.**

No standardized norms for Western Australian pupils were available. It was not possible, therefore, to estimate the degree of change due to pupil maturity resulting from the aging process. To control for this phenomenon, a comparison group was established using very detailed selection criteria. Full details of this technique are reported in Chapter IX. Analysis of variance techniques were applied to the data collected to build up an argument, first of all to accept or reject the two sub-hypotheses, and finally to aggregate all the findings, seeking arguments to accept or reject Generalized Hypothesis No. 4b.

**Conclusion: Measuring the Degree of Implementation**

The theoretical construct of implementation measurement has been divided into two aspects: those related to teachers, and those related to pupils. From the aspects of the theoretical constructs related to teachers, a generalized hypothesis was developed. Associated with this, a paradigm involving three sub-hypotheses derived from the generalized hypothesis was formulated as a
research design. Incorporated within this were the relevant data-gathering techniques. The second aspect of the theoretical construct addressed the relationship between pupil performance and teacher implementation behaviour. The research design included a generalized hypothesis, two derived sub-hypotheses, and relevant data-gathering techniques.

3.5 Description of the Sample

In this study, the theoretical model was tested against observations of teacher and pupil behaviour made within the Upper Great Southern Region, a rural region of the Western Australian Education Department, during 1982 and 1983. This region was bordered by York in the north, Varley in the east, Katanning in the south, and Darkan in the west. The Regional Office was located in Narrogin. As can be seen from examination of Map No. 1, The Region covered an area of approximately 100 000 square kilometres. Within this area approximately 8 000 children attended school and were cared for by approximately 500 teachers and administrators, working in 40 separate schools. There were three Senior High schools, twelve District High schools, three Class One primary schools (over 300 pupils), five Class Two primary schools (over 104 pupils), fourteen Class Three primary schools (over 32 pupils), and three Class Four primary schools (less than 32 primary pupils).

The innovation was offered, in 1982, only to teachers of children in years four to seven from schools within the Upper Great Southern Region. Schools with three or more year levels
working together in the same class were excluded. Volunteers represented twelve District High schools, three Class One primary schools, five Class Two primary schools (two of which were schools representing a non-government system), and one Class Three primary school. The distribution of schools, teachers and pupils is shown in Table 3.01. It must be remembered that not all teachers in a school elected to implement the Upper Great Southern Region Oral English Programme — in fact, in 1982, there were 29 teachers who refused to implement the programme and whose refusal was known to many of the volunteers.
TABLE 3.01

Details of the 1982 Sample Population Being Observed in this Study

<table>
<thead>
<tr>
<th>School</th>
<th>Number of Implementers</th>
<th>Number of Pupils</th>
<th>Resisters</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>4</td>
<td>122</td>
<td>2</td>
</tr>
<tr>
<td>B2</td>
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<td>92</td>
<td>2</td>
</tr>
<tr>
<td>B4</td>
<td>4</td>
<td>124</td>
<td></td>
</tr>
<tr>
<td>C</td>
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<td>59</td>
<td>2</td>
</tr>
<tr>
<td>D1</td>
<td>1</td>
<td>27</td>
<td>2</td>
</tr>
<tr>
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</tr>
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</tr>
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</tr>
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</tr>
<tr>
<td>N1</td>
<td>4</td>
<td>137</td>
<td>6</td>
</tr>
<tr>
<td>N2</td>
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<td>51</td>
<td></td>
</tr>
<tr>
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<td>86</td>
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19 66 1892 29

continued
### TABLE 3.01

Details of the 1983 Sample Population Being Observed in this Study

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<tr>
<th>School</th>
<th>Number of Implementers</th>
<th>Number of Pupils</th>
<th>Number of Teachers who were in their second year on the programme</th>
<th>Resisters</th>
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</tr>
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<td>W1</td>
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<td>W2</td>
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<td><strong>23</strong></td>
<td><strong>87</strong></td>
<td><strong>2 610</strong></td>
<td><strong>32</strong></td>
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3.6 Conclusion to Chapter III

Discussion in this chapter has aimed at extrapolating a research design derived from the theoretical constructs developed in Chapter II. This proved to be possible, and four major generalized hypotheses evolved. Each has been unpacked to reveal a number of sub-hypotheses and discussion aspects. A variety of data-gathering techniques have been proposed. These will be applied to various samples of the populations of teachers and pupils and the findings directed to the testing of the generalized hypotheses. The subjects observed for this study were samples drawn from the teacher and pupil population of the Upper Great Southern Region of the Education Department of Western Australia. It is now necessary to place this framework in the context of the Upper Great Southern Region, a non-metropolitan part of the Western Australian Education Department. This will be done in Chapter IV before proceeding to a review of the data-gathering instruments in Chapter V, and Analysis of Findings in Chapter VI, VII, VIII and IX. The conclusions that can be derived from the data analysis revealed in these chapters will be recorded in Chapter X.
CHAPTER IV
SETTING THE SCENE

Synopsis

In Chapter II a theoretical construct designed to explain the implementation behaviour of teachers and pupils in a particular implementation process was distilled from pertinent literature. This served as a basis for the development of a conceptual model detailed in Chapter III. Chapter III also contained a research strategy designed to test this model against data collected from field studies of an implementation process. Chapter IV has as its function the description of the processes by which regionalization occurred in Australian state education departments, with particular reference to Western Australia. Arguments will be deployed to show how this brought both ascribed and achieved powers to the position of the Regional Superintendent, which in turn allowed him the authority to initiate organizational changes. The chapter is presented in three parts. Initially, the concepts of centralization, decentralization and regionalization are addressed. This is followed by a tracing of the Australia-wide trend towards regionalization in education. The second section is focused on describing the Upper Great Southern Region of Education in the state of Western Australia. In the third section the implications of these contextual factors for the four sections of the conceptual model are pursued.
Introduction

The degree to which the conceptual model was able to represent reality was of prime importance to this study. The strategy to test this was a research design intended to field test the model. The design was applied to the implementation of a curriculum innovation in a state education department region. The model under observation incorporated the concept of entrepreneur, and therefore the locus of decision-making became a central tenet in the argument. At one extreme, the decision-making authority could have been placed at the centre of the organization; at the other, it could have been placed with the smallest identifiable unit located furthest from the centre. It became, as a consequence, pertinent to review the concepts of centralism and regionalism. Perhaps the most useful way to gain comprehension of these generic terms is to examine the arguments advanced by writers in support of centralism or regionalism.

Arguments in Favour of Centralism

The arguments in favour of centralism were many and varied. Decision-making was conceived as taking place at all levels in any educational organization, but the power to enforce them was generally more concentrated either at the centre, in the regions, or the schools. When power was held at the central office, personnel occupying prestige positions developed comprehensive arguments to demonstrate that centralism was the most effective alternative. Sometimes these arguments were doctrinaire based on the often repeated slogan that 'bigger is best'. This assumption of the inherent advantage of large scale may gain credibility
through myth and tradition. Early concepts of mass production and the economies of scale still have currency in some organizations. Large scale, highly centralized educational organizations frequently gained credibility with their publics through the physical presence of a large and complex central office. They occupied large, imposing buildings in prominent business districts of capital cities, and were peopled by busy officers who performed a bewildering array of tasks. The elegance of their organizational chart was frequently beyond the comprehension of the lay person. Supporters argued that all this was necessary, as only a large, complex and adequately resourced central office was capable of enunciating policy, then translating this into executive action for a large population such as: a state or province.

Centralized bureaucracies may be accepted by a large population as the executive arm of a government they have helped to elect. They may feel a sufficient sense of control through the appointment of a responsible minister, especially if their association with the organization is peripheral and they have not personally been frustrated by the actions of the organization. This is highly likely to apply in areas where the population is relatively homogeneous in terms of their philosophy of life, their religious and political beliefs, and their expectations of government. These factors may promote the image that officers carrying out the instructions of the organization were, in fact, serving their country.

Other images were invoked in defence of bureaucracies.
Beare (1983) referred to the organization's culture, an integral part of which were the supportive myths that evolve. A myth supported by large central offices may have been that their organizational flow chart was based on rational decisions, and that their organization was highly efficient. Beer (1979) implied that early work done in the development of organization theory dwelt on the rational combination of men, money, materials and management. Modern organizations, he argued, can be described in similar ways, but the relationships between these four parts were better conceptualized as complex rather than rational.

Advocates of centralization pointed out that a large system reacted to individuals in a more objective, dispassionate way than a small organization. Uniform sets of rules, known procedures and arbitration systems were more likely to result, they claimed, in justice than the judgement of individuals working in small, personalized units. Conforming to state- or province-wide policies and procedures also ensured that service would be supplied evenly throughout the geographical area encompassed by the organization. Rewards will be based on performance rather than preference.

Arguments in Favour of Regionalization

Those who supported regions claimed for them numerous advantages. Regions can act as a basis for ethnic and cultural expression (Neave 1979), and they can represent a geographically isolated area effectively (Hannan, 1981). Noyce (1983) claimed strong educational, social and political arguments to support middle level government represented by a regional office. Caldwell
(1982) suggested a case could be made for the strengthening of the power of regional offices. In his concept they could bear the responsibility for ensuring that the regulations were observed; they could evaluate staff and subjects to ensure that standards were maintained. Finally, Scott and Scott (1981) argued support for the growth of Australian regions in terms of experiences in the United States of America. They claimed that in Australia there was an increasing consciousness that American educational problems, now apparent, were beginning to emerge in Australia. With this came the belief that these problems demanded new roles for political, professional and lay participation.

The argument over centralization versus decentralization has brought forth antagonists and protagonists for both concepts. Advantages available to systems that decentralize were frequently summarised as administrative efficiency and political cohesion (Lawler and Hackman, 1969; Davis, 1977) and worker satisfaction (Simon, 1977). The arguments of the supporters of decentralization were summed up by Mintzberg (1979) when he said decentralists have a testable claim that decentralized decision-making leads to increased productivity. They provide support for their other claims on the moralistic stance that workers have a right to participate in decision-making when the decision concerns them. Conversely, the impediments to the delegation of decision-making cited by writers arguing against decentralization claimed moral and legal rights remain with the total system. They referred to legal constraints such as ministerial authority and responsibility, the difficulty of ensuring decision-makers account for their actions, and the difficulty of gaining consensus on system-wide priorities (Child, 1977).
Defining a Region

In order to 'fine tune' this debate, efforts have been made to define the concept 'Region' in terms of size. Neave (1979) pointed out that these efforts have been very imprecise. For instance, the classification provided by U.N.E.S.C.O. can encompass whole continents. Beare (1983) draws attention to the Redcliffe-Maud Commission which issued a report in Britain in 1972. The Commission's brief was to study local government regions in Britain and Wales and realign the borders, optimizing the size of each region in terms of local conditions. This Commission, in fact, reduced the number of Regions from 163 to 105. It was argued that this would provide a wider and richer range of services. Beare (1983) reproduced four major guidelines which Redcliffe-Maud claimed would define the optimum size of a region. Each unit should be large enough to provide everyone in it with a common sense of purpose. Regions should include rural and urban populations. The full range of services provided should come under the one authority, and the population served should be within the range of 250 000 to one million. When Her Majesty's Inspectorate was asked to nominate the most effective size for an educational region, they nominated three groups. The least effective had populations of 200 000 or less, the satisfactory regions had populations ranging between 200 000 and 500 000 and the most effective had populations of more than 500 000. Contrasting this with educational regions in Canada, Evans (1985) noted that of the 171 school boards in Ontario, 95 boards had less than 4 999 pupils, 52 had between 5 000 and 19 999, 24 operated with more than 20 000 pupils, and one board operated with less than 100 pupils.
It appeared that authorities did not agree on the definition of the size of a 'Region' when they came to determine a region as part of a larger organization. Some writers, notably Simon (1977), Beer (1979) and Beare (1983) presented the argument that the answer to this conundrum may have been the concept of a continuum, linking centralization and decentralization. The points on the continuum represent positions of optimum balance for each individual organization. Regionalization may be seen as a point on the continuum. Some functions of the system would be best served by total decentralization of decision-making to the school level. Some, perhaps, would be better served by decentralization of decision-making to the regional level. The issue of which functions can be more effectively fulfilled at either level has not yet been resolved. Regionalization, however, says Beare (1983) is the strongest trend to occur in Australian education during the 1980's and he sees this trend arising from human and managerial tensions found in organizations once they grow beyond tolerable limits of size and complexity. These tensions were exacerbated in Australia because of the very large geographical area over which the systems were distributed.

There were other views of regionalization. Many writers saw it as an administration method capable of alleviating some of these tensions (Caldwell, 1982; Skilbeck, 1983). As previously outlined, Beare (1982) goes part of the way towards enunciating a technique for providing a data base for this debate. He noted, however, that the area had been poorly researched. From the basis of what was available, he cautioned against an unrestrained adoption of the concept of decentralization. He argued that
systems distributing their decision-making throughout the three levels of their organization, central office, regions and schools, found they must address a new set of administrative tasks and problem areas associated with co-ordination, communication, facilitation, liaison and servicing. Completion of these tasks required an increase in resources and power (Williams and Chandler, 1984; Dunstan, 1985). Throughout the world, education systems have responded to these problems with a variety of combinations of centralized and decentralized or regionalized patterns of distributing power (Neave, 1979). Beare (1983), however, made the interesting observation that in three-tier systems of government common in the United Kingdom, the United States of America, and Australia, frequently one tier is weak. Traditionally, in Australia that has not been the centre. Transfer of power from the centre, then, has caused some tension and acrimony (Beare, 1981; Angus, 1984; Dunstan, 1985).

The Trend Towards Regionalization in Australia

Through all the changes in the major systems of education in Australia during the 1970's and 1980's, the common thread was the upsurge in regionalization (Skilbeck, 1983). Every state education system in Australia was involved in some form of regionalization. Within educational circles, there was spirited debate about the place of regions, viz. Chapman (1982) versus Caldwell (1982). Although researchers were unable to agree on a definition of size for 'Region' they did agree there was, in education, a world-wide trend towards the establishment of some type of regionalization (Bannister, 1980; Neave, 1979). This trend reached
Australia and began to impact on Australian state education department systems during the 1970's.

Regionalization was something new to modern Australia, because historically, Australian education had been highly centralized, both organizationally and geographically (Portus, 1937; Austin, 1965, and Hirst, 1969). By the 1970's, tensions between the central offices and their peripheral members began to cause frustration, alienation, dysfunction and inefficiency (Beare 1983). When he wrote these comments, they were particularly apt when referring to the Education Departments of Victoria and New South Wales, both of which served populations of over four million.

Critics claimed that Victoria and New South Wales had the type of machine-like bureaucracy that evolved to manage large and complex organizations. In Victoria the organization had become preoccupied with rigid departmentalization, administrative procedures, policy formation and enforcement (Weir, 1986). From the perspective of the schools' clients, the parents and children, the decision-makers in this vast organization appeared remote, insensitive and inflexible. Weir (1986), referring to the Victorian Education Department, used the term 'administrative distance' to conceptualize the effects of this excessive distance between the head office decision-makers and the schools where these decisions were to be implemented. There was a tendency for large organizations to try to keep the integral parts of the organization separate, reducing flexibility and inhibiting entrepreneurial activity (Kanter, 1983). These organizations are also characterized by an inability to adjust to changes in their environ-
ment (Rogers, 1983). Coupled with this high level of centralized bureaucracy in head office, noted Weir (1985), went a body of schools, many of which were organized under a system of tight hierarchical control excluding parents, students and teachers from any knowledge of decision-making. Dissatisfaction from these groups became manifest, and thus political forces were brought into play. Political parties were becoming concerned with rising costs and the increasing difficulties associated with raising more revenue. When A.J. Hunt became Minister for Education, he commenced actions designed to improve the efficiency and effectiveness of the Education Department. Millikan (1982) claimed the main emphasis was on the economic aspect of efficiency. Millikan (1982) also judged that prior to the change, the Victorian Education Department was frequently criticized for inefficiency, duplication of effort, a low level of co-operation between branches and poor co-ordination of policy. A review of this composite of forces, in hindsight, makes apparent that change for the Victorian Education Department was imminent.

The significant change that occurred is illustrated by a comparison of the organization chart for the Victorian Education Department in 1972 (Figure 4.01) with that established in 1985 (Figure 4.02). The 1972 chart showed a direct line of authority from the Minister to the Director General. From this point on the command channel separated into five divisions: Primary, Secondary, Technical, Special Services and the Service Division Branches. Schools answered to their divisional head. No formal organization existed to facilitate co-ordination or liaison of schools between divisions, nor was there an established structure providing
Figure 4.01 Organization chart for State Education Department of Victoria, 1972.

After Weir 1986
Figure 4.02 Organization chart for State Education Department of Victoria, 1985.

After Weir, 1986
alternative council to the Minister. The structure implies that the Minister's sole source of information about education is the Director General.

In 1985, the organizational chart contained a structure designed to give the Minister independent advice from statutory bodies and an Education Executive Committee. The Director General had been renamed the Chief Executive, implying a role with more emphasis on executing policy than forming it. Divisions based on the type of schools they serviced have been removed in favour of two functional divisions, Policy and Co-ordination and Resources and a Schools' Division, each answering to the Chief Executive. The command line made a direct link between the Chief Executive and the General Manager of the Schools Division, from there to the Regions, and then directly to the schools. Co-ordination and co-operation between the various types of schools at a regional level was implied. All schools have been placed in the one box, entitled Schools, which has a single direct access to the Chief Executive through the Regional Office. The implementation strategy emanated from the Minister of Education's Office (Hunt, 1985). It was supported by the Ministerial Papers entitled 'Decision-making in Victorian Schools', 'The School Improvement Plan', 'The State Board of Education', 'School Councils', 'Regional Boards of Education', and 'Curriculum Development and Planning in Victoria'. Although the magnitude of the changes envisioned varied from state to state, similar forces promoting change were developing in each.
During the 1970's, in every Australian state, governments moved to restructure their education departments. Writing in 1981, Beare noted that seven of the nine systems represented at the Conference of Directors-General of Education were facing substantial restructuring. In each case the restructuring had, as a major tenet, a redistribution of decision-making power, that is, a shift from the omnipotence of the Director General to a sharing of power. There was a general tendency for emphasis to be placed on consultancy before decision-making at all levels of the organization. Major policy decisions were beginning to be made by committees, each seeking consensus. Head offices were being reorganized along functional lines. More and more decision-making power was being divested by head offices, often incidentally, and directed towards schools. Some of this decentralization was perpetrated by head offices voluntarily and gradually evolved, but much was legislated (Selleck, 1985).

The Development of Regionalization in Western Australia

The first significant move towards regionalization came in 1975 when the Western Australian Education Department decided to replace its Superintendents' Districts with eleven regions, four to be in the metropolitan area and seven to be in the country. In 1978, the following remarks were printed in the Annual Report of the Western Australian Education Department:

One of the most significant developments in the administration of education in recent years has been the introduction of regionalization. The adoption of this policy was due to a consideration of such factors as remoteness, size, complexity and administrative convenience.
In 1979, the then Director General of Education authorized the issuing of policy paper No. 17, in which it was reported that the state had been re-divided into thirteen regions, as shown on Map I (page 157). This structure of thirteen regions was established within the portfolio of the Director of Schools on the Western Australian Education Department Administration Organization chart, as illustrated in Figure 4.03.

This was a dramatic departure from a centralist tradition. Horner (1970) described the Director General's position in the Education Department as omnipotent. Even in 1980, the popular myth of the Director General as the all-powerful figure in Western Australian education was prevalent. Smart and Alderson (1980) pointed out that in Western Australia the Director General of the Western Australian Education Department had the potential, through his formal power of administration of the provisions of the Education Act, to be a very powerful figure. Their research revealed a common perception among teachers that the Director General actually wielded this power. People interviewed by Smart and Alderson (1980) regarded Mossenson, the incumbent Director General, as maintaining a close oversight of the operation of his Department's various branches and having a close working relationship with his senior officers. They noted his capacity to influence all major decisions and work vigorously for seven days a week. Contrary to this impression, Mossenson was described as more accessible than previous Directors General by interviewees from the State School Teachers' Union of Western Australia and the Western Australian State Council of Schools Organization. He instituted regular Monday morning meetings where he allowed
Figure 4.03 Western Australian Education Department Organization Flow Chart
senior staff to influence the development of policy. A series of policy papers was issued from the Office of the Director General on a diverse range of topics, such as curriculum matters, administrative structure, staffing policy, specialist services and community involvement. He attempted to open up the Education Department, and used a variety of techniques to communicate with parents and schools. Regions may well have evolved from the Director-General's desire to communicate more clearly and closely with the disparate parts of his empire.

During the same period, the State Government ministers were advocating a policy of regionalism for other aspects of government business. These two factors became combined with the findings of an investigative report commissioned in 1979 by the Education Minister, Peter Jones, with the aim of streamlining the administration of the Education Department. These three strands of influence culminated in the formation, albeit evolving, of a policy on regionalization for the Western Australian Education Department. The blueprint was laid down in Policy Paper No. 17 (1979), which carried as its major stated aims the provision of greater opportunities for educational leadership for Regional Directors/Superintendents; an improvement in communication within the organization; an improvement in the quality of decision-making; increased responsiveness of services as required by schools; an involvement of teachers in the decisions that affect them immediately, and a consequent improvement in morale and effectiveness; the development of local regional policies; and an increase in community involvement in school activities.
Five Regional Directors were appointed, and the other eight regions were granted a Regional Superintendent, whose salary was raised to that of Regional Director by way of an allowance. Staff appointed to country regions were expected to reside in the town in which the Regional Office was located. An effort was also to be made to increase resources and services to rural schools. Examination of Figure 4.04 shows that this regional organization supported schools in the areas of curriculum advisory teachers, advice on general school administration, financial grants and advice, assistance with clerical services, and the provision of specialist services such as audio-visual resources, guidance officer services, and welfare services. This aspect of the policy may have been related to Mossenson's membership of the Rural Education Committee of O.E.C.D.

Mossenson, in Policy Paper No. 17 (1979), made it clear, however, that this was a policy of regionalization, not total decentralization to the regional or school level. Key decisions were still to be made at Head Office level.

Staff appointments, promotion, allocation, payment and recording were all to remain central. Staffing was the most obvious and significant symbol of power from a school's perspective. It meant that schools, particularly metropolitan ones, maintained strong dependency links with the centre. Regions, however, were authorised to approve intra-regional staff transfers and the screening of applications for inter-regional transfers. This directed much of the correspondence related to staffing through the Regional Office, especially from newly appointed teachers.
Figure 4.04 Organizational Flow Chart for the Upper Great Southern Region of the Western Australian Education Department.
and principals. In this way, Regional Offices, especially those in country centres, tended to be invested, by teachers, with more power than that defined in Policy Paper No. 17. This myth was further perpetrated when the Assistant Director of Staffing (Primary) instituted a review meeting between members of the Primary Staffing Directorate and each individual Regional Director or Regional Superintendent. These meetings, designed to review staffing policies as they applied to each particular region, and to plan for the coming year, were held in October well before transfers and new teaching appointments had to be made. The functions of this meeting were clearly communicated to principals. Prior to the meeting, principals were issued with a form on which they were requested to outline their staffing needs for the forthcoming year. The form instructed them to discuss the contents with the Regional Superintendent before mailing. Regional Superintendents were required to approve the principals' plans for the deployment of teachers. In addition to this, all acting and temporary promotional positions were discussed with the Regional Superintendent before appointments were confirmed. Regional Superintendents were also given a budget of teacher relief days and discretion over a small number of teachers declared surplus to school staffing formula.

For the purposes of this study, when reading the section on Sequence of Involvement, it is pertinent to realize that teachers may have perceived the Regional Superintendent as wielding more power than that actually detailed in Policy Paper No. 17.

Curriculum decisions and the overall co-ordination of services
and materials were to remain central. Regions, however, were accorded the power of selection, co-ordination and direction of curriculum advisory and specialist personnel within regions. This was combined with the authority to plan and direct regional inservice programmes. Further support became available in terms of a cash grant and itemized funds from the Consolidated Revenue Fund. In this study, a distinction is drawn between the syllabus, the document outlining the Education Department's broad based policy and clearly the authority sphere of the Minister and retained in Central Office, and curriculum, the detailed implementation of syllabus into the school and classroom. With this distinction in mind, it is clear that Policy Paper No. 17 created contextual factors that had implications for this study.

**Implication of These Contextual Factors for This Thesis**

The broad generalized guidelines offered by Policy Paper No. 17 encouraged a wide range of interpretations for the distribution of power, with attendant opportunities for conflict. These guidelines suggested that regional and school level officers would assume increased powers and responsibilities as regionalization developed in Western Australia. The policy paper stated that the trend to devolve central responsibilities to the regions would continue, and at the time the paper was written regionalization was conceived to be in a developmental phase. The insinuation was that the more it demonstrated success, the more regionalization would be implemented. Conflict immediately developed between regional and central office personnel over the criterion to be used for the judgement of success or failure of regionalization.
Central office personnel had everything to lose and nothing to gain by conceding that regionalization was successful in any regard. Regional office personnel found they had a wide range of administration functions, but that control of money and staffing, real power as perceived by schools, remained with central office and was still centralized in 1985 (Evans, 1985). Regional Superintendents commenced a series of submissions to the Director General to show that regionalization was becoming successful and therefore deserved more liberal funding; they had everything to gain and nothing to lose. At first, the battles were fought at senior executive levels where regional superintendents had no representation. The proponents of central office control resided in central office in close proximity to the senior policy makers, none of whom had ever worked in a region or filled the role of Regional Superintendent. Regional personnel resided in regions, in many cases hundreds of kilometres away from senior policy makers. Initially, very little change occurred; however, a short time before this study commenced, the Director General agreed to hold regular meetings with Regional Directors and Superintendents. Several significant changes followed, which had a direct bearing on the Decision to Change stage of the Entrepreneurial Authority Decision Directive Model of Implementation.

**The Decision to Change**

The capacity of the Regional Superintendent to gain sufficient independence from central office to make the Decision to Change was dependent on several contextual factors. One of the most influential of these was the commencement of regular meetings
with the Director General of Education. These meetings introduced a strong sense of purpose to the regular meetings of the Regional Superintendents. Previously this had been lacking, as the meetings had become a forum for discussion of any matter regarded as significant by any group member. The sheer breadth of the range of topics raised meant the influence of the group was dissipated. This trend was compounded by two factors. Firstly, the chairman had no way of exercising influence over excessively independent Regional Superintendents, and he had no greater formal access to central office power than any other member of the group. Secondly, the Regional Directors and Regional Superintendents who made up the group had been promoted from the relatively independent position of principal, and all were determined to maintain that spirit of independence. Having risen to these senior posts through receiving special promotion, each had a competitive disposition. They depended for their next promotion on being preferred, above the other members of the group, by their immediate superior, the Director of Schools. Divided loyalty was promoted.

Disunity was further promoted by the unequal distribution of funds. Senior central office personnel were granted control over individual budget items. They distributed these funds to schools and regions on a 'needs basis', applying formulas not known to Regional Superintendents. Uncertainty was exacerbated because the amounts paid to each region were not made public. It became widely believed that some regions and some schools within the regions received favourable treatment. These divisive factors remained in force; however, the introduction of the regular meetings with the Director General generated a feeling of increased
power, of being in the 'command channel' rather than being advisory and led to a new professional cohesion and confidence. It quickly became apparent that when the Regional Superintendents spoke to an issue with a united voice, their combined opinions influenced the Director General's decision-making. It became equally obvious to all members of the group that when he sensed disunity, the Director General immediately moved on to other topics and drew his advice from other influential groups. This apparent new source of power to influence important policy change served to raise the aspirations of the Regional Superintendents. It eradicated daily administration problems from the agenda, the discussion of which had tended to trivialize previous meetings. This opportunity to circumvent the centrally based senior executive increased the scope for independence available to the Regional Superintendents. The power of the Regional Superintendent to enforce his/her decision was enhanced as it became known that they had direct access to the Director General, particularly as the executive of the Primary and Secondary Principals' Association had been granted similar access. Regional Superintendents were given authority over the regional budget and the authority to transfer funds from one item number within the budget to another. They were required to be accountable to the Treasury Audit Act, but only once a year to any scrutiny by super-ordinate educators. The evolving Western Australian style of regionalization, therefore, provided a variety of contextual factors that supported the Regional Superintendents' independence to make a Decision to Change.
The Rationale for Implementation

This regionalization also provided certain contextual factors related to the Rationale for Implementation that made unique the setting in which the model was tested. The Regional Superintendent was able to cater for teachers' need to believe the innovation would lead to an improvement in child learning in two ways. Regular duties required him to visit schools, carry out evaluation activities, and make reports on children's performance in a wide range of school programmes. These activities provided comparative information that was frequently sought by teachers in the Upper Great Southern Region. They were accustomed to gaining information from the Regional Superintendent to help them judge whether children's learning would improve when selected methods were invoked. He was also required to supervise Guidance Office services. This associated him and the Regional Office, in the perception of teachers, with the measurement of teachers' performance. This aspect of regionalization also provided the Regional Superintendent and the Regional Office with a ready access to a wide range of sophisticated measuring and behaviour analysis techniques.

Evolving regionalization may have also contributed contextual factors that have influenced the interpretation of data related to the importance teachers attached to the subject being investigated. The Regional Superintendent communicated with all teachers by issuing a weekly newsletter. Through this medium, teachers became aware that Oral English was receiving more attention than it had in the past. They were also informed of budget
support, such as the appointment of the Curriculum Developer, appointment of an acting superintendent, the appointment of temporary support staff, or the granting of increased funds for travelling.

The Upper Great Southern Region Resource Centre promoted the concept of correlating one subject with another. It was a relatively active resource centre which loaned 20,500 items in 1982, and 28,000 were borrowed in 1983. The centre serviced all schools and teachers of all year levels throughout the region, whenever they requested it. Resources were catalogued in themes, with an emphasis on the correlation of subjects whenever possible. Teachers who borrowed a set of resources related to one theme were encouraged to suggest additional resources that would correlate with the existing set.

Similarly the Upper Great Southern Regional Office provided some support for the concept of presenting teachers with a clearly defined programme. It possessed a reprographics room manned by experienced staff. A range of binding techniques were available, as well as sophisticated presentation techniques such as plastic laminating. A close liaison was developed with the local newspaper printing office who were prepared to print items requiring specialized machinery. These facilities, plus the provision of a budgeting item known as the Regional Superintendent's Discretionary Fund, meant the Regional Office was able to include all the necessary resources in the detailed programme.
The unique way in which regionalization developed in Western Australia produced contextual factors that contributed to the particular Rationale for Implementation developed in this study.

The Sequence of Involvement

This study included the assumption that when a teacher elected to participate in an implementation process, that decision was both personal and individual. The commencement date and also the degree of commitment chosen was decided by each teacher individually. This emphasis on personal decision-making removed the moral dilemma that arises when a change agent imposes a top-down implementation process on teachers, resorting to coercion to obtain compliance (Hall et al., 1979). The model presented in this study requires the change agent to present a clear picture of the proposed change to teachers, accompanied by sound educational reasons for implementing it. An integral part of the model was the change agent's role in providing varied support for the teachers as their needs became apparent. Teachers were expected to express different needs as they moved through the implementation process. The concept proposed was that teachers joined the implementation process because they agreed that this was the best decision to make, not because they were coerced. This was recognized by all persons associated with the implementation process because the change agent had made all relevant material freely available in a form easy to understand. The personal nature of the decision implied that all teachers were unlikely to commence the implementation process simultaneously.
The decisions were likely to occur in a time sequence. There were a number of contextual factors that needed to be considered when the research associated with this aspect of the study was reviewed.

The Regional Superintendent may have added credibility to the implementation process through the appearance of ascribed authority. Activities that affect the everyday lives of teachers such as transfers, recommendations for promotion, school evaluation, selection of specialist teachers, allocation of pupils to special classes, were all areas in which the Regional Superintendent's authority was apparent and applied. The varied nature of these activities meant that some teachers were frequently aware of them, some very rarely.

The implementation process commenced in a Regional Office that had a relatively complex organizational structure and substantial buildings (see Figure 4.05). Neave (1979) argued that some people were impressed by features such as these, and assumed they represented authority. Examination of Map 1 (page 157) reveals that the Regional Office was relatively central to the schools of the region. Narrogin was also the largest town, hence contained shopping facilities lacking in many of the other centres. For more than half the schools, the Regional Office was on the main route used by teachers travelling to the state capital. These factors tended to give the Regional Office a high profile in the educational activities of the region.

The Regional Office building served as a basis for a wide
range of communication techniques. It was ideally suited for inservice courses, and many were instituted. Other communication techniques used were incidental telephone calls, daily mail, weekly newsletters, regular school visits by Regional Office personnel, and inviting teachers to visit the regional centre.

Part of the conceptual framework upon which this section of the study is constructed referred to the support to be provided for teachers during the implementation process. As part of general administrative duties, the Regional Superintendent and the Regional Office were involved in supporting schools in the areas of curriculum documents, teaching aids, classroom supplies, new school
building maintenance, school furniture, specialist teachers, and
many other areas. Supporting teachers in educational activities
was a familiar role for the Regional Office.

The Entrepreneurial Authority Decision Directive Model of
Implementation placed emphasis on the personal dimension of the
decision to implement. Teachers were familiar with this role
for the Regional Superintendent and the Regional Office. The
general administrative functions of special leave, teacher allow-
ances, teacher housing, atypical staff situations, stress relief
and informal recognition of outstanding achievement were all
part of the Regional Superintendent's role.

There are, therefore, a number of facets of the regionaliz-
ation of the Western Australian Education Department that need
to be understood within the context of the concept Sequence of
Involvement.

Measuring the Degree of Implementation

Policy Paper No. 17 neither stated nor implied any change
in the traditional functions of the superintendent. This was
governed by regulation, and was incorporated into the Education
Act. A significant element of the superintendent's role was the
measurement of the work of the school, as indicated by Regulation
146, reproduced in Figure 4.06.

When the Regional Superintendent had completed the evaluation
of the school, a written report was prepared. These reports
PART VI.—DUTIES OF SUPERINTENDENTS.

146. (1) The duties and functions of a Superintendent include the following:—

(a) To advise and assist teachers, and make themselves available when possible for consultation and discussion;

(b) to evaluate the work of the school as an educational institution, and to indicate whether it is adequately meeting departmental requirements either as a whole or in particular fields of instruction; and

(c) to report on the nature of the service of Departmental teachers as required by the Director-General.

(2) During any advisory visit a Superintendent may make such reports, either oral or written, as he deems necessary; but those reports are solely for the guidance and information of the teaching staff, and are not required to be forwarded to the Department.

Figure 4.06 Regulation 146 of the Education Act Regulations, 1960.

were considered influential documents by teachers and principals because they were sanctioned by Regulation issued under the Education Act.

(2) On completing the evaluation of a school, the Superintendent shall make out a report on the work of the school as a whole and as many of the individual classes as he considers necessary.

(3) The School Report shall be handed to the principal who shall forward it to the Department after he has ensured that an accurate copy has been made and is retained in the school.

(4) A teacher who wishes to appeal against the whole or any part of the report shall do so within seven days of its receipt.

(5) When a Superintendent considers it necessary to make an individual report as to a teacher, a copy of the report shall be handed to the teacher concerned and be retained by him.

Figure 4.07 Regulation 148 of the Education Act Regulations, 1960

Power allocated to Regional Superintendents to enable them to accurately evaluate the work of the school was quite extensive. Examination of Regulation 149, reproduced in Figure 4.08, indicates that the Director General attached considerable importance to
this measurement aspect of the role of the superintendent.

149. (1) In the course of making a report a Superintendent shall be free to employ whatever procedures he deems necessary to enable him to form an accurate estimate of the effectiveness of the teaching and to evaluate the work of the school in the broadest possible terms.

(2) A Superintendent should devote a considerable part of his visits to observing the conduct of the ordinary work of the school in order that he might become acquainted with its government and organisation and with the character of the training and instruction, and with a view to conducting whatever tests he considers necessary to assist him in making a fair evaluation.

Figure 4.08 Regulation 149 of the Education Act Regulation Act 1960

When reading the section of this study entitled Measurement of Implementation, it is pertinent to be cognizant of the powers for measuring school activities accorded the Regional Superintendent. The legislated authority to measure all aspects of the work of the school available to the Regional Superintendent was operationalized by two of the functions allocated to regions. (Policy Paper No. 17, 1979). Regions were required to liaise with central planning and research programmes to co-ordinate statistical analyses used as a basis for region and central office planning. This gave the region experience in statistical techniques data retrieval and analysis. Schools became accustomed to the region as a data collection centre, and this may have reduced potential resistance to large scale measurement of pupils. This may have been a partial explanation for the high level of responses returned to each of the data-gathering techniques. Further expertise was available to the Regional Superintendent through his/her association with the District Guidance Officer and his/her team. The final function allocated to the Regional Superintendent in Policy Paper No. 17 (1979) was the supervision
of guidance services and the allocation of pupils to special classes. Through this association, access was gained to extensive expertise in the area of test construction, data collection and analysis of variance among responses.

Within the context of a rural region of the Western Australian Education Department, the Regional Superintendent had been granted sufficient authority to investigate the final aspect of the Entrepreneurial Authority Decision Directive Model of Implementation, Measuring the Degree of Implementation.

**Conclusion**

This longitudinal study is set in a complex matrix of forces. Any findings that may be deduced from its investigatory techniques and analysis of data need to be interpreted with this in mind. There were political factors associated with the region being part of a larger unit. In some situations it was semi autonomous and in others excessively dependent. Geographical factors intruded, this being a study implemented in a rural region spread over a large tract of land. Finally, there were characteristics of the role of the Regional Superintendent and the Regional Office supporting him that related to the four major parts of the Entrepreneurial Authority Decision Directive Model of Implementation.

These factors have been reviewed to provide a physical setting to assist with the interpretation of information revealed by the data-gathering techniques used during this study. All data-gathering techniques have been described in Chapter V.
CHAPTER V
THE DATA-GATHERING INSTRUMENTS

Synopsis

Each of the data-gathering instruments and techniques used in this study are reviewed in detail in this chapter. The genesis of the selection of each strategy can be found in Chapter II in the generating of a theoretical base for the development of the Entrepreneurial Authority Decision Directive Model of Implementation. In Chapter III, each data-gathering strategy has been placed in its appropriate position in the research framework. This framework is a longitudinal case study encompassing responses from pupils and teachers, and hence requires a wide range of data-gathering instruments used over a two year period. The first group of instruments mentioned relate specifically to teachers, the second to pupils, and the last two involve collecting information from a variety of sources.

The first list of instruments reviewed in this chapter refers to teachers and includes the Stages of Concern Questionnaire, the Level of Use Focused Interview Technique, the Upper Great Southern Oral English Programme Review, the Oral English Questionnaire, and the Teacher Lesson Evaluation Sheet. The second list of instruments reviewed refers to pupils and includes the Impromptu Talks Rating Scale and the Listening Test. Finally, the chapter concludes with a review of the Unstructured Interview
Technique and the Content Analysis of Documents that have a general application in this study.

**Introduction**

The reader will recall that five 'Generalized Hypotheses' have been developed as part of the research design reported in Chapter III. In that research design it is argued that some aspects of these hypotheses lend themselves to statistical analysis and some are better suited to case study techniques. A range of data-gathering techniques has been employed to cater for this. A list of the data-gathering techniques used in this study is displayed in Figure 5.01, and from an examination of this figure it is possible to ascertain to which generalized hypothesis each relates.

Each of these data-gathering techniques will be addressed in terms of a general description, their applicability to the arguments presented in this thesis, their validity in measuring the behaviour they purport to, and their level of reliability. Should tests selected from other studies be modified, this will be reported in detail. Once this has been done, then each hypothesis will be examined through an analysis of the relevant collected data.

To ensure a comprehensive examination of each of these general hypotheses, data has been collected from a variety of perspectives. It is intended that this will facilitate triangulation of research findings.
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<thead>
<tr>
<th>Related to Teachers</th>
<th>GENERALIZED HYPOTHESES</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>5.21 Stages of Concern Questionnaire</td>
<td>✓</td>
</tr>
<tr>
<td>5.22 Level of Use Focused Interviews</td>
<td>✓</td>
</tr>
<tr>
<td>5.23 Upper Great Southern Oral English Programme Review (Innovation Configuration)</td>
<td>✓</td>
</tr>
<tr>
<td>5.24 Oral English Questionnaire</td>
<td>✓</td>
</tr>
<tr>
<td>5.25 Teacher Lesson Evaluation Forms</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Related to Students:**

| 5.26 Impromptu Talks Rating Scale | ✓ | ✓ | ✓ | ✓ |
| 5.27 Listening Test | ✓ | ✓ | ✓ | ✓ |

**General**

| 5.28 Unstructured Interviews | ✓ | ✓ | ✓ | ✓ |
| 5.29 Content Analysis of Documents | ✓ | ✓ | ✓ | ✓ |

*Figure 5.01* An overview of the Generalized Hypotheses and the array of data-gathering instruments used to test them.
5.1 Time Schedule for Administering the Data-gathering Instruments

Data collection for this thesis extended over a two year period and employed a variety of techniques. A balance has been struck between questionnaire data collected at the beginning and end of each year; unstructured interviews on both a scheduled and incidental basis; focused interview data collected during the second year, when teachers had proceeded sufficiently through the implementation process to produce meaningful responses; content analysis of relevant documents that continued throughout the life of the research; and regular application of check lists and field observations. A schedule showing the techniques used for data collection and when they were applied is illustrated in Figure 5.02. The first instrument listed in Figure 5.02 is 'The Stages of Concern Questionnaire', an instrument formulated by Hall et al (1975) as part of their Concerns Based Adaption Model (CBAM) for measuring the implementation behaviour of teachers.

5.2 The Instruments and Techniques Used to Measure Teacher Implementation

Measuring the degree of implementation was an essential ingredient in the developing of the model, used to explain the phenomenon of implementation under particular circumstances, upon which this study is based. The CBAM was selected from available methods for several reasons. Published studies indicated the model, which was designed to measure implementation, showed promising levels of reliability and validity (Hord and Hall, 1982; Hall,
<table>
<thead>
<tr>
<th></th>
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<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>SoC</td>
<td>February November</td>
<td>February November</td>
</tr>
<tr>
<td>LoU</td>
<td>March November</td>
<td>November</td>
</tr>
<tr>
<td>Upper Great Southern</td>
<td>February November</td>
<td>February November</td>
</tr>
<tr>
<td>Oral English Programme</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review</td>
<td></td>
<td></td>
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<tr>
<td>Oral English Questionnaire</td>
<td>November</td>
<td>November</td>
</tr>
<tr>
<td>Teacher Lesson Evaluations</td>
<td>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Speaking Test</td>
<td>February November</td>
<td>February November</td>
</tr>
<tr>
<td>Listening Test</td>
<td>February November</td>
<td>February November</td>
</tr>
<tr>
<td>Unstructured Interviews</td>
<td>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Content of Analysis of Documents</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 5.02** Time schedule for administering data-gathering instruments.
et al, 1979). Numerous detailed descriptive studies have been published (Hall et al, 1975; Hall and Loucks, 1977; and Hall and Loucks, 1981). The Hall et al instruments are supported by very detailed manuals published in 1979 containing normative statistics.

Finally, Hall visited Western Australia and conducted training workshops in the use of the CBAM instruments, which enabled the author of this study to become a qualified user. The CBAM contains three measuring instruments that have application to this thesis: the Stages of Concern (SoC), the Level of Use (LoU) and the measuring of the implementer's perception of the innovation, which is closely related to the fidelity of implementation concept. This is entitled the concept of Innovation Configuration (IC). Each technique of implementation measurement will be reviewed separately to emphasise their appropriateness to this study, commencing with the Stages of Concern (SoC).

5.21 The Stages of Concern Questionnaire : SoCQ

The SoC questionnaire selected for use in this thesis was created by Hall et al (1975) while they were investigating teacher behaviour associated with educational innovations. Hall and his team drew on earlier work done by Frances Fuller (1969) to form the underlying concept. Her conception of the anxieties experienced by teachers during their professional activities was of especial importance. She conceived them as generic concerns occurring among all teachers in differing degrees, at different times, and in a natural sequence. This concept was then applied
to the concerns teachers felt when they became aware of an educational innovation. Further extrapolation enabled Hall et al. (1975) to formulate a model they titled The Concerns Based Adaption Model (CBAM).

The central concept of concern was defined by Hall et al. (1979) as a composite representation of the feelings, preoccupation, thought and consideration given by a teacher to a particular issue or task. To be concerned is to be in a mentally aroused state about a current issue or task. Concerns relate to teachers' perceptions, not to reality as perceived by another. Hall et al. (1979) found that teachers who became aware of an innovation experienced concerns; however, such concerns varied in type and intensity. Individuals may experience several types and levels of intensity concurrently, but the authors contend that teachers usually exhibit different degrees of arousal. Their research indicated a seven-fold classification of concerns, and these are illustrated in Figure 5.03.

It is important to realize that these concerns are conceived as developmental, hence earlier concerns must be lowered in intensity before later ones appear and can then be allayed. Further, it is postulated that arousal is an effective domain, while resolution is more likely to be effected through cognitive processes. These concerns are personal reactions and need time, as well as timely intervention, if an innovation is to be successfully implemented. Hall et al. (1979) stressed the highly personal nature of this process. Locating a teacher's concerns is not a values exercise; teachers are not to be judged as 'good' or
0 AWARENESS: Little concern about or involvement with the innovation.

1. INFORMATIONAL: A general awareness of the innovation and interest in learning more detail about it is indicated. The person seems to be unworried about herself/himself in relation to the innovation. She/he is interested in substantive aspects of the innovation in a selfless manner such as general characteristics, effects, and requirements for use.

2. PERSONAL: Individual is uncertain about the demands of the innovation, her/his adequacy to meet those demands, and her/his role with the innovation. This includes analysis of her/his role in relation to the reward structure of the organization decision making, and consideration of potential conflicts with existing structures or personal commitment. Financial or status implications of the program for self and colleagues may also be reflected.

3. MANAGEMENT: Attention is focused on the processes and tasks of using the innovation, and the best use of information and resources. Issues related to efficiency, organizing, managing, scheduling, and time demands are utmost.

4. CONSEQUENCE: Attention focuses on impact of the innovation on students in her/his immediate sphere of influence. The focus is on relevance of the innovation for students, evaluation of student outcomes, including performance and competencies, and changes needed to increase student outcomes.

5. COLLABORATION: The focus is on co-ordination and co-operation with others regarding use of the innovation.

6. REFOCUSING: The focus is on exploration of more universal benefits from the innovation, including the possibility of major changes or replacement with a more powerful alternative. Individual has definite ideas about alternatives to the proposed or existing form of the innovation.

(After Hall et al, 1979)

Figure 5.03 Descriptors for the Seven Stages of Concern (after Hall et al, 1979).
'bad' in terms of the concerns they hold. Concerns located should be used as signals of teachers' needs at a particular time. They can form the basis for change agent strategy, indicating the type of information to which teachers are most likely to respond. The response is personal, hence teachers cannot be induced to change stages by contrived means. This avoids the moral dilemma of implied manipulation. Providing inappropriate information aimed at forcing a teacher to change his stage of concern is likely to raise the intensity of his earlier level concerns.

Many factors inhibit a teacher wishing to lower his levels of concern at earlier stages and accept higher levels at later stages. In some cases, personal factors are so overbearing that teachers will not move from one stage to another, no matter what course is followed by a change agent. Movement between stages tends to depend on the nature of the individual, the environment, the nature of the innovation, and timely intervention. Locating and identifying teachers' concerns provides teachers with needed information at appropriate times, thus enabling them to make the best decision in the present circumstances according to their value judgements. Gathering information about their concerns is not aimed at manipulating teachers to perform tasks against their value stance or against their better judgement.

Location of concerns is executed through a thirty five item questionnaire, using the acronym SoCQ as a title.
Description of the SoCQ.

There are three parts to the SoCQ instrument. The introductory page provides respondents with the opportunity to identify themselves, gain a quick overview of the purpose of the questionnaire and understand the answering system. Respondents are also asked to score the questionnaire in terms of present concerns, responding only in terms of their own perceptions of the innovation.

Section two contains thirty five questions. It aims to measure each of the seven stages of concern, five questions relating to each stage. Respondents indicate their reaction to each item by recording a score of from zero to seven. A score of zero indicates the item is perceived as irrelevant to the respondent; one, as not true of the respondent at the time of completing the questionnaire; up to four, as somewhat true of the respondent at the time of completing the questionnaire; ranging up to seven, which is very true of the respondent at the time of completing the questionnaire.

The final section, not issued to the subject, contains a scoring sheet which facilitates easy conversion of raw scores into stanines indicating intensity of concern on each stage, and assisting the researcher to graph the results. (Appendix One).

Administering the SoCQ.

For this study, the researcher visited each school site and addressed each group of teachers before issuing the questionnaires. This address contained an explanation of the purpose
and function of the SoCQ and drew a connection between the American and Australian use of words, such as faculty. These sessions seemed to cause little confusion, and the questionnaire was usually completed within ten to fifteen minutes and returned to the researcher. The use of the standardized administrative format ensured generalizability of findings and consistency with the findings on reliability and validity reported by Hord (1977) and Hall et al (1979).

Validity.

In 1974 the Hall team, using the CBAM conceptual base, wrote 544 items which they believed indicated the concern felt by a teacher at a particular stage in the developmental sequence of concern stages. A group of ten judges familiar with the CBAM performed a questionnaire-sort on this group of items. Of the original 544 items, 400 were judged to be related to a given stage of concern by six of the ten judges. Further editing reduced the number of items to 195. In May 1974 these items were combined into a pilot instrument and distributed to a sample of teachers and college faculty. The sample included users and non-users and teachers whose years of experience with an innovation varied widely. Returned questionnaires were processed using item correlation and factor analysis techniques. Over 60 per cent of the common variance could be explained by the seven factors previously described in Figure 5.03. The questionnaire responses of the sub-sample were compared with the responses of the same group given during interview. This
subjective correlation assisted in the final selection of 35 items, being five items per factor. This questionnaire was then trialled for two years.

Longitudinal and cross sectional studies were applied to eleven different educational innovations. Questionnaire results were verified against interview responses and extensive feedback was collected from fieldwork trials. There appears to be sufficient evidence to support a general conclusion that the SoC questionnaire does measure the stages of concern teachers experience once they become aware of an education innovation (Hall et al, 1979).

Reliability.

High internal reliability is indicated in Table 5.01 which contains data collected from 830 teachers and professors in 1974, then processed using a modified Kuder Richardson Formula 20 outlined by Cronbach (1951).

<table>
<thead>
<tr>
<th>Stage</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alphas</td>
<td>.64</td>
<td>.78</td>
<td>.83</td>
<td>.75</td>
<td>.76</td>
<td>.82</td>
<td>.71</td>
</tr>
</tbody>
</table>

(After Hall et al, 1979)
Test-retest data collected from 132 subjects out of a sample of 171 subjects invited to participate showed that all factors returned correlations equal to or greater than 0.65. The interval between test and retest was two weeks. From the evidence presented by Hall et al (1979) there is sound argument for accepting the SoCQ as a reliable instrument.

5.22 Focused Interview to Measure Teachers' Level of Use of the Innovation.

This test was chosen for use in this thesis because it purports to describe individual implementation behaviour and measures the level of skill teachers exhibit as they use the innovation. It is a companion technique to the Stages of Concern questionnaire and has been conceived from the same developmental theoretical construct, the 'Concerns Based Adoption Model'. Teachers involved in the use of an innovation, argue Hall et al (1975) exhibit typical behaviour sufficiently consistent to support a classification system. Their research, since replicated (Hord, 1986), indicated that these behaviour patterns follow a predictable sequence. Their studies indicate these behaviour patterns can be sorted into eight discrete groups, each containing seven categories, as illustrated in Figure 5.04.

From this argument, it follows that once teachers become aware of an innovation they will generally progress through the categories, although some may remain in one category for ever, and some may regress. It is important to realize that this measurement technique is designed to describe behaviours
<table>
<thead>
<tr>
<th>Level</th>
<th>Knowledge</th>
<th>Acquiring Information</th>
<th>Sharing</th>
<th>Assessing</th>
<th>Planning</th>
<th>Status</th>
<th>Reporting</th>
<th>Performing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 0</td>
<td>Non-use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td>Orientation</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Level 11</td>
<td>Preparation</td>
<td></td>
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</tr>
<tr>
<td>Level 11I</td>
<td>Mechanical Use</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1VA</td>
<td>Routine</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Level 1VBA</td>
<td>Refinement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level V</td>
<td>Integration</td>
<td></td>
<td></td>
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<tr>
<td>Level V1</td>
<td>Renewal</td>
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Figure 5.04 The eight Levels of Use and the Seven Categories.  
(After Hall et al, 1979).
exhibited by innovation users. The LoU technique does not attempt to measure any user attitudes, motivations or other affective factors.

The LoU Interview.

The Level of Use focused interview data gathering technique used for data-gathering in this thesis has been adopted from Hall et al. (1979). They suggest the use of the focused interview, a concept described by Merton, Fiske and Kendall (1956) as an interview situation where the interviewer follows a structure containing objectives and leading questions. Interviewers, however, are allowed sufficient latitude to deviate from this guide when they sense this will reveal peripheral information useful to the investigation. This implies training for the interviewer, both in the peculiarities of the focused interview technique and in gaining an intimate knowledge of the innovation about which they are gaining information. The structure used for this study has been adopted from Hall et al. (1979), but some modifications have been made to meet local conditions. An abridged version of the LoU focused interview guide is illustrated in Figure 5.05, the unabridged version is contained in Appendix Two.

The focused interview has advantages over its more structured counterpart, claim Maccoby and Maccoby (1954), while still retaining its most important features. By using the guide referred to in Figure 5.05, the interviewer in this study was able to focus his/her data collection techniques on specific areas and thus reduce the diversity of the responses he/she had to record.
LoU Focused Interview Questions

Abridged Version

Ask questions related to:-

1. creating a supportive atmosphere;
2. assessing the user's knowledge;
3. The respondent's activity in seeking to acquire knowledge;
4. the respondent's activity in working with other users;
5. the respondent sharing his/her knowledge;
6. the respondent selecting alternative ways of implementing;
7. recent changes made by the user;
8. user's plan for making changes in the innovation this year;
9. major modifications proposed by the user;
10. day to day problems with the innovation experienced by the users;
11. miscellaneous points arising as a consequence of the interview.

Figure 5.05 An abridged version of the LoU focused interview questions.
There was an advantage in this because, as Miles and Huberman (1984) argued, the greater the quantity of data collected, the more difficult it was to find common themes, or classify and sort responses, so that the mass of data may be reduced to meaningful units, useful in testing aspects of the conceptual models. Maccoby and Maccoby (1954) suggested that this technique permitted the interviewer to explain the meaning of each focus question to the individual interviewees. In this way, the meaning of these questions was more likely to be standardized than when respondents read them as a questionnaire item without the benefit of explanation. The focused interview, which occurred in the respondent's own school, was also a more natural setting than a questionnaire situation. It supported a more normal flow of responses from both parties, and the interviewee, being more comfortable, was more likely to reveal his/her private perceptions.

Self report interviews have an inherent weakness; they can be less rigorous than direct observation. Because of this, choosing to use them requires justification. Hall et al (1979) addressed this problem in a number of ways. From a research perspective, they referred to work done by Maccoby and Maccoby (1954) which showed that when a series of logically related questions, differing in form and content, were asked of an interviewee, then a high level of correlation between the answers indicated that questions were tapping a single characteristic such as Level of Use. From a didactic perspective, they argued the self report interviews had particular advantages over direct observation when dealing with a concept as complicated as Level of Use. Interviews, they pointed out, can extract information
about past events occurring without witness. They were also more effective in a sensitive human relationship such as frequently occurred between teachers and pupils. The intrusion of an observer quite dramatically altered such a relationship. Observations were time bound and it was rare that observers were able to continue long enough to collect and recall all relevant data. Even the most astute and highly trained observer could only impute the abstract human conditions of motives, emotions and aspirations. Maccoby and Maccoby (1954) argued that the person observed was much closer to the truth in these areas than the observer, and may have divulged this at an interview where the climate was supportive. Much of the argument supporting the use of the focused interview technique rests on estimates of its validity and reliability.

**Validity of the LoU**

The LoU technique was originally validated through the analysis of one thousand six hundred and eighty LoU interviews (Hall et al., 1979). These findings have since been replicated and the findings published by such authors as Loucks and Melle (1980), Barrows and Klenke (1980), James and Hall (1981), and Matthews and Suda (1982). The technique has been used as a research tool in Australia (Marsh et al., 1984; Marsh, 1983; and Dynan, 1984) as well as in the U.S.A. There is now sufficient accumulated research experience to permit a researcher to use the instrument with confidence. This use, however, needs to be tempered with certain qualifications.

The CBAM, states Oliver (1986), is based on observable
behaviour, measurement of which is intended to be accurate, replicable and generalizable. The behaviouristic value stance is implied. An assumption is made by Hall et al (1979) that during the implementation process the user learns about the innovation in a linear pattern - that is, the process is divided into stages or levels that could be represented as rungs on a ladder. Learners may move up to more complex skills, or may regress, but the manner in which lateral thinkers fit into this pattern is not made clear. Acceptance of this assumption is essential, because the measurement of implementation depends on giving users a score for the stage or level they adopt.

Oliver (1986) raised concerns about the narrow focus of the implementation process addressed by the CBAM. She claimed that the authors had taken a mechanistic view of the teacher. The CBAM authors attempted to pre-empt this criticism by claiming sufficient flexibility in the focused interviews to meet the needs of varied change situations and protagonists; but the two areas of contextual influence and the role of the learner raised by Oliver (1986) are of signal importance. Hall et al (1979) make little or no reference to these aspects of change. The importance of context influence has been noted by Boyd (1982). This study will not rely on CBAM instruments for investigation of the areas of contextual influence and pupil learning.

Estimating Inter-rater and Interviewer Reliability.

In their determination to achieve a high level of reliability the Hall team applied stringent tests of reliability to the data collected during early LoU interviews. Each LoU interview response
recorded was rated by two independent raters. If these raters selected different categories, then the tape was submitted to a third rater. Hall and his team found that only 36 per cent of interview tapes required a third rating, and 77 per cent of these differences were resolved after the third rating.

Individual raters were assessed for reliability through the degree of congruence they registered with other raters. Early research indicated that raters achieved a minimum of 65 to 75 per cent agreement, and a Chi-square revealed no significant difference between the categories selected by raters.

A high level of reliability was also found by using the comparison of variance components method as described by Ebel (1972). The larger the variation in categories accorded by the raters, and the smaller the variation in ratings of each interview, the higher the reliability. A satisfactory level of reliability was claimed by the authors.

In their early research, Hall et al (1979) placed heavy emphasis on the need for comprehensive training of raters and interviewers, an emphasis they have maintained. All interviewers and raters must be trained, tested and provided with written accreditation before they apply CBAM techniques. To ensure these criteria were met, the author of this thesis attended courses run by Professor Gene Hall and also Dr Robin Matthews, and received written accreditation.
Both the LoU and the SoC have been standardized by their authors, therefore the method of applying them in this thesis is as close as possible to the instructions in the appropriate manual. The Innovation Configuration, however, must be especially tailored to each individual innovation; it is a standardization of method, not of content. Because of this, the particular modifications made to the Innovation Configuration technique to suit the especial needs of this study are described in detail during the next section.

5.23 **Innovation Configuration.**

The Innovation Configuration is the third of the concepts emanating from the Concerns Based Adaption Model (CBAM). According to Hall and Loucks (1978), it is designed to ascertain the degree of difference between what implementers are actually doing and the idealized version of the innovation from the perspective of the author of the innovation.

Hall et al (1979) argue, from their theoretical construct, that as well as understanding the concerns felt by individuals who are confronted by a change process (SoC), the length of time of their use, and the intensity of use (LoU), the change agent or researcher needs a clear definition of what will constitute implementation. He/she needs a type of measurement of the innovation itself during implementation, in order that they might better understand and facilitate the change process. The concept as they perceive it represents the operational patterns of behaviour related to the innovation, that result from implementation by different individuals working in different places.
Developers of the Innovation Configuration for this study aimed to answer the question frequently asked by participants in an implementation process, "What is the innovation?". Such a question demands the specification of the minimum number of parts or components of the innovation a person must be using in order to be classified a bona fide user. In this way the major objectives of the programme become the primary focus of the implementation strategy rather than the actual day-by-day activities of the teachers. Individuals are expected to have the same ultimate goals but may differ in the actions they select as the most appropriate to attain them. Clearly the question is not as easily answered as might appear at first. It is common practice to refer to an innovation by a brief title such as "Team teaching - the integrated day" or, as in this study, the Upper Great Southern Region Oral English Programme. When they investigated teaming, though, Hall and Loucks (1977) found that self professed users indicated that a wide variety of types of teaming was being implemented. When they discussed findings related to teaming there was, therefore, some doubt as to whether the researcher and each of the users were talking about the same phenomenon. Unless the term employed as a title for the innovation is further expanded so that the curriculum designer's intentions are clearly defined, and the major tenets well understood by prospective users before they implement, then researchers cannot be sure to which innovation their findings refer. Goodlad (1979) discovered a further confusion. He found divergence between the intent of the curriculum designer and the apparent intent of the material made available by the packagers. He did not, however, find a similar divergence between the intent
of the packagers and the actions of the teachers. There is some support, therefore, for Hall et al. (1979) when they argue the need for an instrument to measure the major dimensions of what is actually being implemented by the users.

A number of data-gathering strategies are suggested by Hall et al. (1979). For this particular thesis, the checklist measurement technique has been selected as the most appropriate, based on the following argument.

The construction of a checklist facilitates the inclusion of perspectives from a variety of people. A typical example of the necessity for this is the case where the Curriculum Developer is familiar with the major components of the innovation, but is not familiar with the day-to-day activities of classroom teachers. Conversely, classroom teachers are so consumed with solving the problems associated with day-to-day running, they become oblivious to the objectives of the major components. The Upper Great Southern Region Oral English Programme is a clearly defined, prescriptive innovation, and therefore lends itself to a fidelity perspective. The fidelity perspective translates into checklist items more easily than a mutual adaption perspective on implementation. Behaviour that indicates an acceptable quality of implementation is more easily itemized, as is behaviour that indicates an unacceptable level of commitment.

The Upper Great Southern Region Oral English Programme is sufficiently detailed to support an argument that it is a discrete innovation, not one of a bundle of related innovations.
This means the construction of a suitable checklist is not complex. The checklist deals with a relatively small number of closely related components. It also deals with one category of user, the teachers in the classrooms of schools in the Upper Great Southern Region having a minimum of four teachers. If the innovation had included a variety of users such as guidance officers, youth education officers para-professionals, or medical personnel, then the complexity of the checklist may have made its construction impractical. Finally, it must be noted that data collection and analysis of checklists is quick and efficient.

The Checklist Designed for This Study.

The checklist designed for this particular study was developed according to the process suggested by Hall _et al_ (1979). It has two parts, one to be completed by teachers and the other by principals. The teacher section is a self-report, while the principal checklist asks the principal to observe the teacher at work and provide an estimate of the degree to which the teacher is complying with the major intentions of the Upper Great Southern Region Oral English Programme. This technique provided a degree of audit of the teacher self reports. The development of the teacher self report checklists will now be addressed.

Teacher Checklists.

To commence the development of this instrument, all written material associated with the Upper Great Southern Region Oral English Programme was reviewed by the Regional Superintendent
in his role as Curriculum Manager. This continued until a
general familiarity with all major aspects of the innovation
had been achieved. An extensive review of the innovation in
association with the Curriculum Developer led to the development
of a preliminary checklist. This preliminary list contained
items designed to investigate the twelve major components isolated
in the initial review. One week later, these components were
reviewed by five senior teachers who had been associated with
the development of the programme and who were regarded as
exemplary users. They verified the selection of the twelve major
components and made suggestions for the inclusion of variations.
The checklist was then returned to the developer, who was asked
to distinguish between critical and related components. He was
also asked for a judgement on where to locate the decision points
for desirable, acceptable and unacceptable variations. After
further discussions between these users, the Curriculum Manager,
the Curriculum Developer and members of the Curriculum Manage-
ment Committee, the final draft was completed. An abridged
version has been reproduced in Figure 5.06, while the unabridged
version is contained in Appendix Three. On the unabridged copy,
the numbers used for scoring purposes have been placed beside
their respective boxes and written in italics. Teachers and
principals were not aware of this scoring system.

Validity.

Content validity of the checklist was very thoroughly inves-
tigated. Initially it was reviewed in detail by the Curriculum
Developer who had a very intimate knowledge of the written
Programme Review Sheet

Abridged Version

Questions were related to:-

1. programme structure;
2. objectives;
3. teaching and role-playing;
4. working with other teachers;
5. understanding children's capabilities;
6. evaluating children's work;
7. using teaching aids;
8. relationships with the Resource Teacher;
9. completing the main expectations of the programme;
10. small group work;
11. children's activity in the classroom;
12. teachers rank order of subjects.

Figure 5.06 An abridged version of the Programme Review Sheet
aspects of the innovation. Classroom practices wherein the Curriculum Developer may not have been familiar, were reviewed by senior teachers experienced in using the innovation. Management aspects of the Upper Great Southern Region not readily apparent to classroom teachers were reviewed by the Curriculum Management Committee. Finally, a trial was conducted by issuing the checklist to a random sample of sixteen teachers drawn from the population being observed for this study. This represented a twenty per cent sample. They were asked to complete the checklist and then report to the Curriculum Manager on ambiguities experienced in completing the instrument, the exclusion of any major components and an evaluation of the component variations included.

To investigate the degree to which teachers can rate their own compliance with the objectives of the innovation, a correlation between their estimate and that of the school principal with whom they worked was sought. The correlation between the estimate of their behaviour returned by each teacher and the principal's estimate of their behaviour using the product-moment correlation technique was 0.81. To elaborate further on this point it is now necessary to describe the development of the technique used to collect the school principal's estimate of each teacher's fidelity of use.

Principal's Checklist.

The major aim for involving the principals in evaluating teacher fidelity of use was to gain some more objective observation
of teacher behaviour than teacher self report. While teacher self report gave the researcher access to information that may have been denied the direct observer, it was open to criticism because of the possibility of personal bias. Principals were close to the source of classroom action but were not direct participants. Principals in the Upper Great Southern Region attended two-day conferences in 1982 and 1983. On each occasion they participated in a session that examined the function of the Programme Review Sheet. They were made aware of the major components and acceptable variations of these. Each was advised that they would be asked to estimate the degree of fidelity practised by individual teachers as they implemented the programme, using the criterion outlined in the Programme Review Sheet. A Principal's Upper Great Southern Region Oral English Programme Review Sheet, as illustrated in Figure 5.07, was issued. The score allocated to each response is indicated in each column by a figure. Programme Review Sheets issued to principals did not contain these numbers.

The Reliability of the Teacher's Checklist.

In February 1982, all teachers in the population being observed were issued with a teacher's checklist entitled Programme Review Sheet. A twenty per cent sample, drawn at random, was asked to repeat the checklist two weeks later. Using the Product-moment Correlation technique, it was discovered that the scores returned on the two separate occasions had a correlation coefficient of 0.84. These results, although showing a relatively high level of correlation, need to be approached with
PRINCIPAL'S UPPER GREAT SOUTHERN REGION ORAL ENGLISH PROGRAMME REVIEW

School: ____________________________  Date: ____________________________

<table>
<thead>
<tr>
<th>Teachers' names</th>
<th>Early user.</th>
<th>Mechanical user. Uses the recommended lesson sequence and generally follows instructions to the letter.</th>
<th>Growing sophistication.</th>
<th>Broadening range of teaching techniques.</th>
<th>Student evaluation techniques have been established.</th>
<th>Full understanding.</th>
<th>Correlation with other subjects.</th>
<th>Evaluating total programme.</th>
</tr>
</thead>
</table>

1 2 3 4

Please estimate the category of programme use into which the teachers at your school can be placed.

Please ask teachers to fill in the Programme Review Sheet, then collect these and post the lot to the Regional Office, Box 535, NARROGIN, W.A. 6312.

Figure 5.07 Principal's Upper Great Southern Region Oral English Programme Review.
caution as the sample was small.

5.24 Oral English Questionnaire.

The Oral English Questionnaire was constructed from data collected during unstructured interviews. These interviews were conducted during April and May of 1982. A random sample of thirty teachers was drawn from a population of approximately two hundred. All thirty were contacted by telephone and invited to take part in an interview of approximately forty minutes' duration on the general topic of why teachers implement some innovations and reject others. No specific foci or goal for these interviews was defined by the Curriculum Manager or communicated to the prospective interviewees. They were to be exploratory, with the intent that information gathered would be of a general nature and might prove, at a later date, to be useful in triangulating findings indicated by analysis of the data collected through use of the SoC, LoU and Innovation Configuration measurement techniques.

It proved possible to interview twenty eight of the thirty teachers contacted. Each was visited at their respective school site and interviewed in a school office while a substitute teacher supervised their class. The interview was commenced with a request that the teacher think of a new programme they had witnessed being introduced at some previous time. They were then asked to talk about this with especial reference to the main reasons they perceived accounting for the acceptance or rejection of the new programme.
At the conclusion of the twenty eight interviews, a large quantity of field notes was accumulated ready for analysis. Large quantities of data such as this need to be reduced to make them meaningful (Miles and Huberman, 1984). The data from these interviews was reduced to four major categories:

1. reasons related to the nature of the programme;
2. reasons related to the provision of resources;
3. reasons related to the influence within schools wielded by the regional officers; and finally
4. the effect of programme ownership.

Description of the Questionnaire

Using these categories as a basis, a nineteen-item questionnaire was constructed. A variety of techniques was employed to make the questionnaire quick and easy to complete, and thus avoid respondent fatigue. One item asked respondents to rank seven alternatives. Eight items used a five-point Likert type scale, as illustrated in item 9:

9. How helpful have you found personal contact with the Resource Teacher when using the Upper Great Southern Region Oral English Programme?

None □□□□□□□ Very helpful

Three items asked the respondent to cross out the answer not applicable, as illustrated in item 14:
14. When you became aware of the Oral English Programme in the Upper Great Southern Region, did you check to see if it complied with the Education Department syllabus? Cross out the one not applicable:

Yes
No
Perhaps

In four of the items respondents were asked to put a ring around their selection, as illustrated in item four:

4. Who do you think is the architect of the Upper Great Southern Region Oral English Programme? Please put a ring around your selection:

   Education Department
   Graham Baxter
   Regional Office
   Regional Superintendent
   Don't know.

Two items provided a forced choice situation where respondents were asked to choose from a list and indicate their choice with a tick. This technique is illustrated in item six:

6. When you think of the Upper Great Southern Region Oral English Programme, whose support for the Programme is most likely to persuade you to use it? Please tick ONE from the list below:

   a) Fellow teacher in your school
   b) Your school principal
   c) A teacher-education lecturer
   d) Curriculum Branch of the Education Department
   e) The Regional Superintendent
   f) A commercial bookseller.

The package was completed with a covering letter attached
to the front of the questionnaire. The total package was then posted to each member of the sample of teachers under observation in this study. A return mailing system was incorporated. A copy of this instrument is contained in Appendix Four.

Validity.

The validity of this questionnaire was addressed from three aspects: the content validity of the items, their readability and the internal consistency of the teachers' responses. A high level of content validity was sought initially by ensuring that at least three of the items were drawn from each of the four categories given by teachers during the unstructured interviews as reasons for implementation. Four were related to the nature of the programme, three were related to the provision of resources, seven were related to the influence of the region, and three were related to the concept of programme ownership.

These items were drafted by the Curriculum Manager, reviewed by the Curriculum Developer and then trialled on members of the Curriculum Management Committee. This technique was used because there were no appropriate methods of questionnaire validation that were totally empirical, and were completely impersonal and objective (Ebel, 1972).

Readability of the items, as a concept, incorporated two theoretical constructs. First, it was important to ascertain what the teachers tended to think of when they first read a question. As the questionnaire was to be responded to by many
inexperienced teachers, it was necessary, for the purpose of this study, to ensure that each item aroused a consistency of meaning in the minds of individual respondents. This was verified by conducting brainstorming sessions with ten inexperienced teachers, one at a time. Although the responses by each of the ten teachers varied, the difference in their responses was judged to be insignificant in all but three of the items. Additions were made to these items to increase the clarity of each item in the perception of the criticizing teacher. The redrafted item was then discussed with the remaining teachers in the group to ensure a consistency of interpretation. The second theoretic construct of the concept of readability concerned the clarity of the instructions on how the respondents were required to record their answers. Verification of the accuracy of this communication occurred simultaneously with the content validity.

Audit of the internal consistency of teachers’ responses was arranged by placing some items in juxtaposition to others, viz. any teacher answering no to question five, "Do you own an Education Department Oral English Syllabus?" would not be expected to answer yes to question fourteen, "When you became aware of the Oral English Programme in the Upper Great Southern Region, did you check to see if it complied with the Education Department syllabus?" Similarly anyone indicating on question two (see Appendix Four) that the provision of resources influenced their decision to implement a great deal would be unlikely to answer yes to the question, "Would you have agreed to begin the programme without the resources being made available?" Several other similar examples exist within the questionnaire.
As a further form of audit the directionality of responses was varied randomly. Finally, when all nineteen items had been exhaustively reviewed, they were assembled into a questionnaire, and the total instrument was subjected to tests of reliability.

Reliability.

The completed questionnaire, plus the covering letter, was sent to all the teachers being observed. Two weeks later, thirty teachers were asked to complete the instrument a second time. Twenty four questionnaires were returned. They were matched with the ones completed by the same twenty four teachers in the first trial. A correlation coefficient of 0.71 was found when the two groups of scores were compared.

5.25 Teachers' Lesson Evaluation.

Once teachers commenced implementation of the innovation, they received regular telephone contact and inservice course contact with the Resource Teacher attached to their group. Written communication was maintained through the Resource Teacher, who issued teachers in their group with Teacher Lesson Evaluation Forms. A copy is contained in Figure 5.08.

The format selected for this instrument was chosen by the Curriculum Management Committee and the Curriculum Manager. It was designed to provide teachers with a method to evaluate each lesson from the classroom practice perspective, and communicate this evaluation to the Curriculum Management Committee for their guidance. Provision was also made for any general
<table>
<thead>
<tr>
<th>AREAS</th>
<th></th>
<th>Very easily followed</th>
<th></th>
<th>Suitable for year level</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIKES/ DISLIKES LISTS</td>
<td>PROCEDURE</td>
<td>Extremely hard to follow</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>CONTENT</td>
<td>Inappropriate</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PREPARATION</td>
<td>Too time consuming</td>
<td>✓</td>
<td></td>
<td>Necessary</td>
</tr>
<tr>
<td>RESULTS</td>
<td>Minimal results</td>
<td>✓</td>
<td></td>
<td>Maximum result for effort expended</td>
</tr>
</tbody>
</table>

| THE PICTURE TALK |              | Very easily followed |              | Suitable for year level |
| CONTENT | Inappropriate | ✓ |    |    |
| PREPARATION | Too time consuming | ✓ |    | Necessary |
| RESULTS | Minimal results | ✓ |    | Maximum result for effort expended |

| FLY ON THE WALL |              | Very easily followed |              | Suitable for year level |
| CONTENT | Inappropriate | ✓ |    |    |
| PREPARATION | Too time consuming | ✓ |    | Necessary |
| RESULTS | Minimal results | ✓ |    | Maximum result for effort expended |

Figure 5.08 Lesson Evaluation Form for teachers.
comments teachers wished to make.

5.26 The Impromptu Talks Rating Scale

This technique was compiled to meet the particular needs of this study. The model upon which the study is based predicts that under certain conditions teachers will implement the Upper Great Southern Region Oral English Programme. From this same model it may also be postulated that this teacher change will be followed by pupil change. Measurement of pupil change during the implementation process is an integral part of the Entrepreneurial Authority Decision Directive Model of Implementation. Having pupils gain the ability to present an impromptu talk was defined by the Curriculum Developer and the Curriculum Management Committee as a major objective of the Upper Great Southern Region Oral English Programme. They judged that implementation had not occurred unless pupils could exhibit an improvement in their level of skill in presenting an impromptu talk.

Impromptu talks cannot be measured unless they can be observed. The qualitative data collected through such observation cannot be used until a number of problems have been addressed.

The behaviour to be observed must be part of an individual's consistent pattern of behaviour when in a similar situation. If the subject does not behave consistently, his erratic behaviour while under observation may yield too great a quantity of information to be processed meaningfully. Miles and Huberman (1984) cite the example of a researcher who collected three thousand
six hundred pages of field notes and encountered some difficulty in reducing this to enable him to extract meaning from the total. They point out that humans are not very powerful processors of large amounts of information. Their data-reduction techniques tend to be haphazard. Indeed, the literature is not replete with effective techniques for reducing large quantities of data to meaningful units (Hyde, 1986).

The developer of an observation data-gathering technique needs to ensure the observer rates the same behaviour in the same way every time it is observed. This reliability must also extend to members of an observation team. There must be a high correlation between the rating of each when they observe the same subject. The importance of this aspect of the observation technique of data-gathering is addressed by McGaw et al. (1972). Rater consistency needs to be supported by a consistency of setting in which the subject will be observed. Frick and Semmel (1978) point out that variations in settings can affect the efficacy of the observer, viz. sudden reductions in visibility or increases in noise could reduce the accuracy of the observer's recording. These changes in the environment could also affect the behaviour of the observed, viz. high level of distraction or high stress situation.

A researcher must ensure the observers are rating the behaviour they set out to rate. The validity of the findings must be established, not only for the credibility of the research but also as a means of ensuring the study can be repeatable. Replicability, says Miles and Huberman (1984) is an essential
part of both quantitative and qualitative data collection and analysis. In the compilation of the Impromptu Talks Rating Scale a number of precautions have been taken in order to address these problems.

Description of the Test Situation.

Reliability and objectivity were primary goals in the mind of the writer during the construction of the Impromptu Talk Measurement Test Situation. Consequently, the test situation was standardized in the following way:

a) A letter explaining the purpose of the visit was sent to the principals of the schools selected.

b) This was followed up by a letter of explanation to each classroom teacher to be visited.

c) A full schedule of proposed visits was sent to all people directly involved.

d) A team of three participant evaluators visited each classroom.

e) On each occasion one person, always the same one, addressed the children from the front of the class following a standard format.

f) During the child's address of approximately one minute, the participant observers sat at the back of the classroom scoring the selected child as he/she addressed the class group as a whole.

g) It was found necessary to allow a pause of approximately three minutes between speakers to permit participant observers to reflect and finalize their scoring.

h) Participant observer impressions were scored according to standardized definition and recorded on cards.
This standardized test procedure was repeated at all twenty-four test sites. The pupils' responses were classified according to the Impromptu Talks Rating Scale, reproduced in Figure 5.09. Pupils' responses were recorded on specially designed cards (see Appendix Five). The Impromptu Talks Rating Scale was compiled especially for this study.

**Developing the Impromptu Talks Rating Scale**

Initially twenty characteristics of a high quality impromptu speech were drawn from the literature and matched with the objectives of the Upper Great Southern Region Oral English Programme. This twenty-fold classification matrix was trialled by three raters working with three year seven classes, under the guidance of three teachers, each of whom had been teaching for more than ten years. To the raters, this twenty-fold classification proved too cumbersome. They also observed that the children's efforts proved insufficiently sophisticated to warrant a twenty item analysis - a judgement that was supported by the three experienced teachers. The three raters and the three teachers, working as a group, placed the twenty items in priority order, using the emphases of the Upper Great Southern Region Oral English Programme as the criteria. The ten categories listed in Figure 5.09 resulted from this consensus. A one to five rating scale was chosen because of its forced choice properties (Gay, 1985). Each score has been defined by a phrase, clause or statement, refined until each requires a minimum of interpretation; many, in fact, have been reduced to frequency counts, e.g. Eye Contact.
<table>
<thead>
<tr>
<th>Baxter, Lake and Reid, U G S Region</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaks in a controlled manner.</td>
<td>Continually appealing to audience through eye contact. Is aware of total audience throughout speech.</td>
<td>Meaningful eye contact occurs for most of speech but lapses in part.</td>
<td>Makes at least three attempts at looking at the audience during the speech.</td>
<td>Fixed gaze to a section of the audience (or individual) or makes one or two nervous attempts to consider audience, then forgets.</td>
<td>Fixed gaze to one part of the room – avoids audience eye contact.</td>
</tr>
<tr>
<td>Uses eye contact effectively.</td>
<td>Uses three meaningful gestures.</td>
<td>Uses two meaningful gestures.</td>
<td>Uses one relevant gestural.</td>
<td>No meaningful gestures.</td>
<td>No meaningful gestures.</td>
</tr>
<tr>
<td>Uses relevant material. Uses</td>
<td>All material used supports topic. Uses similes and metaphors.</td>
<td>Introduces technical vocabulary to a greater degree than everyday conversation. Most material relevant.</td>
<td>Defines the topic and extends it with some relevant material.</td>
<td>Defines topic but proceeds to ramble.</td>
<td>Totally irrelevant.</td>
</tr>
<tr>
<td>appropriate language.</td>
<td>Organizes ideas in sequence.</td>
<td>There is a continuity of ideas throughout the whole talk.</td>
<td>There is one break in the sequence of the ideas.</td>
<td>A number of logical connections but no total continuity.</td>
<td>The first two ideas are logically connected.</td>
</tr>
<tr>
<td>Shows imagination.</td>
<td>Shows imagination.</td>
<td>Uses a parable.</td>
<td>Relates several adventure or high interest incidents to illustrate main points.</td>
<td>Uses a number of very relevant examples to back up talk.</td>
<td>Retells everyday happenings with an attempt to use exciting words.</td>
</tr>
<tr>
<td>Shows enthusiasm.</td>
<td>Shows enthusiasm.</td>
<td>Very keen. Excitement showing in voice and body.</td>
<td>Shows some enthusiasm but this lapses occasionally.</td>
<td>Accepts task in a matter of fact manner.</td>
<td>Will speak but shows little enthusiasm – may indicate displeasure.</td>
</tr>
<tr>
<td>Has a logical conclusion.</td>
<td>Summarizes, recapitulates, proves a point.</td>
<td>Attempts a summing up of the talk.</td>
<td>Has an end point or sentence that sounds like the end.</td>
<td>Announces 'thank you' or 'that's the end'.</td>
<td>Just trails off, very embarrassed.</td>
</tr>
<tr>
<td>Adheres to time.</td>
<td>Adheres to time.</td>
<td>Adequate time used.</td>
<td>55-65 seconds.</td>
<td>46-54 seconds.</td>
<td>31-45 seconds.</td>
</tr>
</tbody>
</table>
Validity.

Establishing the degree of validity for the Impromptu Talks Rating Scale, that is, the extent to which the test scores measure what they are intended to measure, was extremely difficult. No accepted quantitative measures of test validity were available (Ebel, 1972). Ebel (1972) states that only when tests were used to predict subsequent performance, or become a simplified version of a complicated technique, could coefficients of validity be obtained. These strategies were not available to this study, so the Rating Scale technique was obliged to rely on careful definition of what was to be measured, audited by the judgement of acclaimed experts. The major aim of the procedure to construct the Impromptu Talks Rating Scale was to build in relevance and reliability by exposing it to as much expert judgement as possible. It is argued in this thesis that the Rating Scale has a high level of direct validity, and this is further supported by the reliability coefficients.

Reliability.

Test reliability for techniques such as the Impromptu Talks Rating Scale could be judged with greater confidence than could validity because appropriate statistical techniques were available. An operational definition of test reliability is delineated by Ebel (1972:410):

The reliability coefficient for a set of scores from a group of examinees is the coefficient of correlation between that set of scores and another set of scores on an equivalent test obtained independently from the members of the same group.
In the Impromptu Talks Rating Scale data-gathering technique, three important principles were incorporated which contributed to the high level of reliability attributed to the Rating Scale. The tasks were sufficiently difficult to ensure that all respondents were fully extended and sufficiently simple to enable all to commence. Efforts were made to ensure that all tasks were clearly structured so as to reduce the possibility of divergent interpretation. Test constructors were cognizant of respondents' variations in mood, motivation and mental energy levels, depending on the time of the day or week in the year. Efforts to control for these extraneous factors included standardization of test procedure; using a test venue with which the pupils were familiar; using researchers with whom the pupils were familiar; ensuring the scoring was unobtrusive; and completing all testing within a two-week period. Finally, a major key to test reliability was to ensure the observer-scorers based their assessment on consistent standards, not personal notions. The Rating Scale was very detailed and reduced subjectivity so extensively that in some cases it consisted of counting incidents.

**Reader Reliability.**

Some test situations rely for scoring on the expert judgement of the observer. Greater credence can be ascribed to such scores when the one situation is scored by more than one observer. Such multiple ratings can be correlated using the Kuder-Richardson formula (Ebel, 1972:149):

\[ r = \frac{k}{k-1} \left[ 1 - \frac{\Sigma \sigma_i^2}{p^2t} \right] \]
where \( k \) represents the number of separately scored test situations or independent ratings of a performance, \( \sigma^2 \) is the variance of pupil scores on a particular question or from a particular rater, and \( \Sigma \sigma_i^2 \) is the sum of these question or rater variances for all questions or all raters.

To ascertain a reliability coefficient for the Impromptu Talks Rating Scale, a random sample of three schools was drawn from the twenty four schools included in the study. A sample of the calculation of correlations between the raters' scores for pupil samples, drawn at random from the classes within these schools, is shown in Table 5.02.

The reliability coefficients for the years four to seven scores, returned by the three observers' pupils in the three schools, range from a low of \( r = 0.84 \) to a high of \( r = 0.98 \). Examination of Table 5.02 gives clear indication that the Rating Scale is a very reliable instrument.

5.27 Listening Tests.

These tests were formed by the Test Development Division of the New Zealand Council for Educational Research. While the test was being developed, authors consulted a wide range of New Zealand educationalists, including practising generalist and specialist teachers and members of the New Zealand Education Department. Committees of teachers and sub specialists were set up in the ten Education Board Districts of New Zealand. These committees selected material aimed at testing receptive
### Table 5.02

**Correlations Between Raters**

<table>
<thead>
<tr>
<th>February 1982</th>
<th>School A</th>
<th>School B</th>
<th>School C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year Level</td>
<td>4 5 6 7</td>
<td>4 5 6 7</td>
<td>4 5 6 7</td>
</tr>
<tr>
<td>Observer x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>y</td>
<td>r = 0.98</td>
<td>r = 0.87</td>
<td>r = 0.87</td>
</tr>
<tr>
<td>z</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observer x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>y</td>
<td>r = 0.84</td>
<td>r = 0.96</td>
<td>r = 0.87</td>
</tr>
<tr>
<td>z</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observer x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>y</td>
<td>r = 0.94</td>
<td>r = 0.91</td>
<td>r = 0.92</td>
</tr>
<tr>
<td>z</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
and reflective listening. Passages to be read by teachers were selected and supported by answer sheets, marking keys, and a teachers’ manual. Two equivalent forms were available, each returning child responses that could be interpreted according to eleven levels of achievement that convert into percentile rank norms. These percentile rank norms were provided for each half year age group between seven and fifteen years.

Validity.

Test validity rests heavily on the high degree of involvement of a wide range of academic and applied educators distributed across the New Zealand Education Board Districts. Thorough trialling of their work is also indicated. Approximately eight hundred items were prepared for review and analysis. From these, the ones which appeared most promising were selected for further trialling. Each was trialled three times on groups of at least one hundred and twenty children in over forty different schools throughout New Zealand. Item analysis was applied to the items judged most effective on criteria of test specification and appropriate indices of difficulty and discrimination. Parallel forms for each level were established by matching the number of passages and items, type of passages and items, type of passage, vocabulary load of each passage, average difficulty and discrimination indices of the blocks of items associated with each passage on the proportion of recall and inferential items.
Reliability.

Various estimates of the reliability of the P.A.T. Listening Comprehension Tests have been calculated. A Pearson product-moment correlation technique produced correlation coefficients ranging from 0.71 from part one to 0.83 for part five. Data were collected from a random sample of approximately one hundred and seventy respondents from each class level. The tests were conducted on successive days and there was reason to believe that some scores declined on the second day due to a reduction in test motivation. If this was true, then it may be argued that the equivalent forms reliability coefficients reported in Table 5.03 underestimated the reliability of the tests.

Scores from this same sample were used to calculate a split half reliability coefficient corrected by the Spearman-Brown prophesy formula. This was an estimate of internal consistency and so avoids distortion due to fluctuations in pupil motivation or changes in work environment. As can be seen from Table 5.03, a high level of internal consistency was indicated by split half reliability coefficients ranging from 0.79 to 0.91.

A further indication of a satisfactory level of internal consistency was found in Kuder Richardson Formula 20 coefficients ranging from 0.78 to 0.85.

The standard errors of measurement ranged from 2.8 to 3.2 indicating a child's 'true score' was likely to be within three points of the score achieved on the test in two out of
Table 5.03
Reliability Coefficients and Standard Errors of Measurement
for Listening Comprehension Tests

<table>
<thead>
<tr>
<th>Part</th>
<th>Form A</th>
<th>Form B</th>
<th>Form C</th>
<th>Standard Error</th>
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<tr>
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<td>.88</td>
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<td>3.1</td>
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<tr>
<td>Form B</td>
<td>.83</td>
<td>.81</td>
<td></td>
<td>3.1</td>
</tr>
<tr>
<td>Part Three</td>
<td>.74</td>
<td>.81</td>
<td>.81</td>
<td>2.9</td>
</tr>
<tr>
<td>Form B</td>
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<td>2.9</td>
</tr>
<tr>
<td>Part Four</td>
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<td>.79</td>
<td>.81</td>
<td>2.9</td>
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<tr>
<td>Form B</td>
<td>.82</td>
<td>.83</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>Part Five</td>
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<td>.84</td>
<td>.83</td>
<td>2.9</td>
</tr>
<tr>
<td>Form B</td>
<td>.91</td>
<td>.85</td>
<td></td>
<td>2.8</td>
</tr>
<tr>
<td>Part Six</td>
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<td>.88</td>
<td>.82</td>
<td>2.8</td>
</tr>
<tr>
<td>Form B</td>
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<td>.83</td>
<td></td>
<td>2.8</td>
</tr>
<tr>
<td>Part Seven</td>
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<td>.80</td>
<td>.78</td>
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<tr>
<td>Form B</td>
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<td>.80</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>Part Eight</td>
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<td>.86</td>
<td>.81</td>
<td>2.9</td>
</tr>
<tr>
<td>Form B</td>
<td>.81</td>
<td>.81</td>
<td></td>
<td>3.1</td>
</tr>
</tbody>
</table>
three occasions, or within six points in ninety five out of one hundred cases.

5.28 Unstructured Interviews.

This thesis makes extensive use of the research interview technique as a data-gathering device. Research interviews are purposeful interaction between two or more people, initiated by the interviewers seeking information related to specific research enquiry (Wiersma, 1975). Researchers collect information for systematic descriptions of an event or environment, to increase the likelihood of accurate prediction of change, or for the identification of cause and effect. They distinguish their role from that of the interviewee by directing the content of the interview, deciding when a discussion on a particular topic has satisfied the objectives of the research, when the next topic shall be introduced, and what it will be. It is important to be aware than in most cases the consequences of a research interview for the interviewee are far removed from the interview situation and are likely to have little impact on them (MacDonald, 1981).

Interviews range in complexity from the simple asking of a short list of direct questions such as in a census-gathering exercise, to those taking over an hour and involving a course of probing and cross checking techniques. They are conducted in the field in both natural and contrived situations. Interviews may also be part of laboratory experimentation. Human behaviour experiments typically consist of a contrived situation established in a laboratory under carefully controlled experimen-
tal conditions. After the introduction of the controlled variable and the recording of the consequently changed behaviour, there are times when an interview can be used to provide useful feedback, especially in the area of emotions and attitudes that may not be apparent to even the most skilful observer (Smith and Manning, 1982).

Historically, interviews have been used as a major data-gathering technique for social scientists. Even today, despite technological advances, most studies incorporate some use of research interview.

Being a research instrument, the interview is fundamentally a technique of measurement. The researcher then becomes confronted with the concept of validity: does the instrument actually measure the behaviour it purports to? In its simplest form, validity is gauged by looking at the questions and judging what they appear to be measuring—for example, face validity. This is a weak technique, heavily dependent on the skill of the observer. Social scientists prefer convergent validity where the results of interviews are compared with another style of measurement, the validity of which is already known (Travers, 1978). Allied in importance with validity, for the researcher, is the concept of reliability: if the interview procedure is repeated, will the results be the same each time? Reliability is generally measured by repeating the technique frequently, then measuring the similarity of responses or the split half technique. In either case, statistical formulae, designed to raise the efficiency and accuracy of these techniques, have
been developed.

A number of solutions are available to the research worker who needs an accurate, valid and reliable measure and who wishes to use the research interview technique. He may use a test from another study, for which reliability and validity criteria have already been established. An extensive range is available from the social science research literature; however, for many researchers, as was true for this study, the range of subjects to be investigated is more extensive than the range of tests available, hence it is necessary to construct an instrument specifically to suit the demands of the present study. When constructing such an instrument, it is prudent to be guided by a number of established principles.

Variations in respondent ability and motivation, interviewer skill, and the feasibility of interview content lead to differing levels of success. Concepts associated with efforts to improve the effectiveness of interviews as data-gathering instruments may be loosely classified into those dealing with how freely the respondent can gain access to the relevant data, the extent to which both parties comprehend the purpose of the interview, and the motivation to co-operate felt by the interviewee (MacDonald, 1981).

When planning an interview strategy, it is necessary to accommodate the impediments to interviewee access to information; normal forgetting, repression of information due to emotional experience, and finally those due to aspects of the total milieu
of the interview situation that may induce interviewee tension (Travers, 1978). Problems of language, vocabulary, obtuse concepts, differences in social class, sub-culture and perception of power are but a few of these contributory factors.

Both parties to an interview bring their own preconceptions to the interview situation and then predicate their future actions according to the purpose of the interview as they perceive it. Much of the effectiveness of the interview will depend on how clearly both parties comprehend the role that each is expected to fulfil. In the present study, interviewers were specifically trained in interview technique and also the new Upper Great Southern Region Oral English Programme itself, thus ensuring they had adequate background information. Teachers who were interviewed were all qualified to teach Oral English. They had, of course, varying degrees of expertise and interest in the new programme, but all knew of its existence.

Teachers' motivation to co-operate when they approached the interview situation was likely to vary widely; it was therefore important to be cognizant of contributory factors to this motivation, both when designing interview strategy and when interpreting data. For the work of this study, the interview was viewed as a social situation, therefore the interviewer must account for influences due to personal relations between the participants, their perceptions of each other related to their perceptions of their joint tasks, and the nature of the transactions that unfolded during the interview (Van Dalen, 1979). Extrinsic and intrinsic motivation factors applied. Some teachers contrib-
uted with enthusiasm because of the intrinsic reward of emotional satisfaction gained from participating in the project; some drew satisfaction from the feeling that they had been specially selected; some were motivated more than others by the particular relationship they established with the interviewer; and still others were encouraged by the satisfaction they gained through the intellectual stimulation provided by this project. In this study, only a few motivational factors applied, because the teachers involved were employed by a systemic education department in which carefully defined, structured, rather inflexible reward systems applied. Some teachers found a congruency between their goals and values and those of the interviewer. Others perceived a legitimacy of authority because it seemed to be a course of action in the best interests of the children. Education departmental officers were involved, hence a number of teachers assumed legitimate authority.

5.29 Content Analysis of Documents.

Content analysis, as a research technique designed to gather information by studying written communication processes and content, has a wide range of application in research (Guba and Lincoln, 1981). It was highly appropriate for the needs of this thesis because, during the two year period of data-gathering, much of the communication used within the implementation process was in the form of written documents. It was also pertinent that content analysis was receiving special attention and support in recent educational evaluation literature (Guba, 1978; Murphy, 1980; Guba and Lincoln, 1981; and Smith and Manning, 1982).
Two prominent characteristics distinguished content analysis from other research methods. First, the data was already apparent, not called into existence as with the interview or questionnaire data-gathering techniques; and second, the analysis process sought to define meaning by establishing a plan for classifying data (Krippendorff, 1980). This plan sought techniques for minimizing investigator judgement when classifying data, thus increasing the reliability. It was therefore economical in terms of time when compared with data obtained through participant observation unstructured interviews and open ended questionnaires (Smith and Manning, 1982).

Content analysis has gained credibility through diverse application in the social sciences, including a wide range of disciplines such as psychology, literature or social work from ideographic research. It has also been applied to analysis of changes adopted by whole societies. This credibility has been enhanced because historically it has been used as a research tool by social scientists for most of the twentieth century. Early application included the analysis of newspaper articles by frequency counts of designated incidents and the construction of readability indexes for school reading books. Essentially, the technique was one of sorting and classifying data using an established set of guidelines. Definition of these guidelines ranged across a continuum from wide angle focusing as suggested by Stake (1981), to the more restrictive guidelines proposed by writers such as Glaser and Strauss (1967), Miles (1979), Murphy (1980) and Firestone and Dawson (1982).
There were advantages to using content analysis in this thesis. Among the most important was the verification of findings from other sources. Content analysis was cheap in that it required few resources. Many of the documents in this study covered a wide range of variables, adding breadth of perspective to the study. These documents provided a snapshot of events as they occurred, and were not as volatile as some more human interaction situations. In 'real life' situations, observer intervention may be a factor causing change. It was also possible that teachers may be more frank when writing reports than in face to face interviews when they are not sure of the degree of power and influence of their interviewer.

Certain disadvantages must be kept in mind. When sets of documents were incomplete it may not have been possible to fill in the missing details, hence the data may not be sufficiently representative. Care must be exercised in ascertaining the level of reliability and validity that can be ascribed to the individual documents. A certain authority emanated from written documents just because they were written. It was necessary to ascertain a commonality of trends between the documents and other sources of parallel information. If, however, comparison between data collected by content analysis and other means were to be made, the researcher needed to be aware of vagaries that arose when data was drawn from different time periods. In the present study this occurred, and the reader's attention is drawn to it at the appropriate time. Finally, it was imperative that the documents be presented in a form readily understood by the content analyst. This may not occur with the same facility as when the researcher
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collects his own data.

5.3 Conclusion to Chapter V

This is a longitudinal field study conducted in situ, seeking a comprehensive understanding of a complex matrix of causes and effects. To gain the widest possible perspective on these issues it has been necessary to use the data-gathering techniques of standardized questionnaires, focused interviews, questionnaires designed specifically for this study, progress review, content analysis, structured oral and written tests, and unstructured interviews. Careful attention has been paid to validity and reliability tests of each technique. Upon this validity and reliability rests the data analysis applied in Chapter VI.
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CHAPTER SIX
CHAPTER VI

ANALYSIS OF THE DATA RELATED TO THE DECISION TO CHANGE

Synopsis

In this chapter of the thesis, collected data has been analysed in relation to the first of the four sub-models of the Entrepreneurial Authority Decision Directive Model of Implementation, The Decision to Change. Each major sub-factor, 'The Extent of Regional Superintendent Power', 'The Extent to which Teachers Research the Decision to Change', 'The Regional Superintendent in the Role of Curriculum Manager', and 'The Regional Superintendent in the Role of Entrepreneur', is examined by testing eleven sub-hypotheses and analysing three sub-sections. The chapter concludes with a review of the findings, generating an argument for the acceptance or rejection of Generalized Hypothesis No. 1.

3.1 Sub-model One: The Decision to Change

The first of the sub-models of the Entrepreneurial Authority Decision Directive Model of Implementation is The Decision to Change. The model recognizes this as a major phenomenon of implementation. The investigation of this phenomenon is based on the Generalized Hypothesis No. 1, the development of which has its foundation in the theoretical constructs of Chapter II. Its place in the research design applied in this thesis has been
detailed in Chapter III.

GENERALIZED HYPOTHESIS No. 1

The degree of implementation of the Oral English Programme that occurs in the Upper Great Southern Region will be related to the power possessed by the Regional Superintendent, the extent to which teachers research the decision to change, the Regional Superintendent's ability to manage curriculum, and his entrepreneurial skills.

The argument to accept or reject Generalized Hypothesis No. 1 is divided into four major influential factors: The Extent of Regional Superintendent Power, The Extent to which Teachers Research the Decision to Change, The Regional Superintendent in the Role of Curriculum Manager, and The Regional Superintendent in the Role of Entrepreneur. From each major influential factor, sub-hypotheses have been developed. Data related to each will be reviewed in this chapter with a view to accepting or rejecting each sub-hypothesis. The findings from the related sub-hypotheses will be applied to the testing of Generalized Hypothesis No. 1.

3.11 The Extent of Regional Superintendent Power.

Generalized Hypothesis No. 1 has been divided into four major influential factors, the first being 'The Extent of Regional Superintendent Power'. Three sub-factors devolve from this major influential factor: system power, the status of the Regional Superintendent in the eyes of teachers, and the length of time a teacher has been involved in the programme.
3.111 System Power.

Two sub-hypotheses have been derived from the sub-factor 'System Power' and have been numbered 3.111A and 3.111B.

Sub-hypothesis 3.111A

Teachers who do not have tenure are more likely to implement the Upper Great Southern Region Oral English Programme than teachers on the permanent staff.

Data used to test this sub-hypothesis has been drawn from teacher responses to the SoC questionnaire and the LoU focused interview.

Teacher Concerns (SoC).

Review of teacher responses to the Stages of Concern questionnaire reveals that in February 1982 teachers from both groups indicated similar concerns, most returning high scores on awareness. When teachers completed the questionnaire in November 1982, there was a significant difference between the responses to the two groups at the 0.05 level of confidence on the personal and management dimension. Non-tenured teachers tended to return higher scores on the personal concerns dimension, while tenured teachers tended to return their highest scores on the management dimension. A comparison of the scores returned in February and November of 1983 revealed that non-tenured teachers tended to return their highest scores on management and consequence dimensions, while tenured teachers tended to return their highest scores on consequence, collaboration and refocusing. Scores on the latter three dimensions for non-tenured teachers differed
significantly at the 0.05 level of confidence from those scores returned by tenured teachers.

In the area of teacher concerns, teacher responses to the SoC made by teachers who held tenured positions differed from those made by teachers who did not have tenure, but only on a limited number of the dimensions measured. It may be argued that the results that occurred could have been predicted from Hall et al.'s (1979) theory. That is, at the commencement of 1982 most teachers knew little about the innovation and consequently returned high scores on the awareness concern items. During the year, as teachers gained more experience with the implementation process, their concerns moved from awareness to personal and some to the management dimension. Of particular relevance to this hypothesis is the observation that during November 1982 non-tenured teachers tended to return higher scores on a personal dimension and tenured teachers tended to score higher on management. The differences are significant at the 0.05 level of confidence, so it appears that tenured teachers may proceed through the implementation process in a similar sequence, but at a faster rate than those without tenure. This finding is supported by the 1983 responses, where tenured teachers were more likely to return high scores in the consequences collaboration or refocusing than non-tenured teachers.

There is little evidence to specifically suggest that the difference between the two groups on this particular aspect of their work is due to differences in tenure conditions. A more probably interpretation is that non-tenured teachers, being
younger and less experienced in the profession, are more likely
to be concerned about the management aspects of the innovation
than teachers who hold tenured positions. Some support for this
notion comes from the differences in the mean number of years
of teaching experience for the two groups. Non-tenured teachers
averaged one year eight months, while tenured teachers averaged
five years four months.

Level of Use (LoU)

Teacher responses to the focused interview questions have
been analysed according to the classification system proposed
by Hall et al (1979). They have then be re-sorted into two
groups: those returned by tenured teachers and those returned
by teachers who have not yet been granted tenure. These respon-
ses have been displayed as a bar graph in Figure 6.01. Most
non-tenured teachers (57%) were judged to be at Level 1 (Orien-
tation), with a smaller number (13%) at Level 11 (Preparation).
This is in striking contrast to scores returned by tenured teachers,
less of whom (34%) were judged to be at Level 1, eight per
cent of whom were judged to be at Level 11, and 46 per cent
were at Level 111 (Mechanical Use). A small number who used
the programme were judged to be Routine Level (IVA) (6%).

While it is true to say that data collected from the first
round of LoU interviews indicates an 'eyeball' difference between
the scores returned by teachers with tenure and those without,
this is not the total picture. Further analysis of these scores
tends to indicate that scores returned by teachers who were in
their first year of use of the programme, and presented in Figure 6.02, tend to be remarkably similar, whether teachers were tenured or not. The data shows clearly that when teachers came to use the programme, differences in their Level of Use were more likely to be due to the time they have spent using the programme rather than the years of teaching experience they possess.

Examination of teacher responses to the Level of Use interviews given in November 1983 and displayed in Table 6.01 tend to support the findings extrapolated from the data returned during the first round of interviews. There is an indication that teachers possessing tenured appointments were operating at a higher level of use than those without.

ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.111A

The sub-hypothesis is rejected.

3.111B The Influence of Principals who were Seeking Special Promotion

During the time this study was in progress, one third of the principals promoted in Western Australian government schools received accelerated promotion. They were nominated and reported upon by regional superintendents, then judged by a semi-independent Promotions Board. This process abrogated the influence of years of seniority. Within the Western Australian Education Department it was commonly accepted that the Special Promotions Report written by the Regional Superintendent was very influential. This being the case, and allied with the coincidence that within the Upper Great Southern Region the Curriculum Manager and
Figure 6.01 LoU scores for non-tenured and tenured teachers from the first interviews.

Figure 6.02 LoU scores for non-tenured and tenured teachers from the first interviews for those teachers in their first year on the programme.
<table>
<thead>
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<th>Teachers With Tenure</th>
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</thead>
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<td><strong>Total Group</strong></td>
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</tr>
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<td><strong>Teacher Group</strong></td>
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</tr>
<tr>
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<td>2</td>
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<td>1</td>
</tr>
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<td><strong>TOTALS</strong></td>
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**Second Round Interviews: November 1983**

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<th><strong>Number</strong></th>
<th><strong>%</strong></th>
<th><strong>Number</strong></th>
<th><strong>%</strong></th>
<th><strong>Number</strong></th>
<th><strong>%</strong></th>
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<td>3</td>
<td>5.9%</td>
</tr>
<tr>
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<td>36</td>
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<td>14</td>
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</tr>
<tr>
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<td></td>
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<td>4.6%</td>
</tr>
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<td>9.8%</td>
<td>5</td>
<td>22.6%</td>
</tr>
<tr>
<td>V</td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>5</td>
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</tr>
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<td><strong>TOTALS</strong></td>
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<td>100%</td>
<td>28</td>
<td>100%</td>
<td>51</td>
<td>100%</td>
</tr>
</tbody>
</table>
the person of the regional superintendent were the same, principals seeking special promotion may have implemented atypically. They may have brought pressure to bear on the teachers with whom they work. Sub-hypothesis 3.111B was designed to test this.

Sub-hypothesis 3.111B

Teachers in schools in the Upper Great Southern Region wherein the principal is seeking special promotion are more likely to implement the Upper Great Southern Region Oral English Programme than schools wherein the principal is not seeking promotion.

Comparisons were made between the SoC questionnaire scores in February and November 1982 and 1983. They were also made between the LoU focused interview responses in March and November 1983. No significant differences were found, nor were any indications of a difference implied during the unstructured interviews. When the data was re-sorted on a 'time on the programme' basis, it can be seen from Figure 6.03 that 10.5 per cent of non-tenured teachers were judged to be above Level III, while 36.4 per cent of tenured teachers were judged to be above this level.

ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.111B

Minor differences occur between the groups; however, the trend is insufficient to support an acceptance of sub-hypothesis 3.111B.

3.112 Regional Superintendent Status

This section of the thesis aims to explore the concept that
Figure 6.03 LoU scores for non-tenured and tenured teachers from the second round interviews for those teachers in their first year on the programme.
the Regional Superintendent strongly influenced the decision to implement the Upper Great Southern Region Oral English Programme made by the group of teachers from the Upper Great Southern Region included in this study. This is a complex exercise because a range of forces of varying degrees of intensity impinge on teachers, influencing their decision to implement change. These forces may come from within the teacher or may be generated by another person. The investigation is based in sub-hypothesis 3.112.

Sub-hypothesis 3.112

A major proportion of primary teachers in the Upper Great Southern Region perceive the Regional Superintendent as more likely to influence their decision to implement the Upper Great Southern Region Oral English Programme than fellow teachers in their school, their principal, a teacher education lecturer, curriculum branch officer or a bookseller.

It is argued in this thesis that a sample of sixty one subjects is sufficiently large to accept that the individual differences among teachers will be randomly distributed, and can therefore be assumed to cancel each other out as factors likely to influence the total sample to implement change. If change does come to the total sample, it is argued, then some external force is at work.

To seek the loci of this force, unstructured interviews were conducted, and during discussions of the 'people aspect' of external forces, a number of influential individuals were mentioned. The findings from these interviews are displayed in Figure 6.04.
Interview Question: When you look back over your teaching experience, can you name some of the people who persuaded you to implement a new curriculum?

In March 1982, first year teachers were asked to speculate who would be most likely to persuade them.

**Teacher Responses During Unstructured Interviews**

*March 1982*

**Sample:** 61 teachers

<table>
<thead>
<tr>
<th>Most frequently mentioned</th>
<th>N = 25</th>
<th>N = 36</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Experienced</td>
<td>Inexperienced</td>
</tr>
<tr>
<td>Fellow teacher</td>
<td>19</td>
<td>12</td>
</tr>
<tr>
<td>My principal</td>
<td>14</td>
<td>19</td>
</tr>
<tr>
<td>Teachers College lecturer</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Curriculum Branch or Head Office</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>The Regional Superintendent</td>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>Commercial bookseller</td>
<td>3</td>
<td>15</td>
</tr>
</tbody>
</table>

**NB:** During the course of the interview some teachers named several positions they believed to be influential.

---

**Figure 6.04** Teacher responses during unstructured interviews.
Some tentative conclusions indicate that senior teachers tended to see their fellow teachers as most influential; a small group of inexperienced teachers named teacher education lecturers; very few teachers named head office personnel or curriculum branch officers, and most inexperienced teachers named the Regional Superintendent. This material must be regarded with caution as some teachers might have believed the information would reach the regional superintendent. An attempt will be made to expand upon these responses using questionnaire and level of use data.

Further illumination of this point may be provided by examination of responses to question 6 from the Upper Great Southern Region Oral English Programme questionnaire. These responses, which were returned anonymously, indicate that when teachers were asked to think specifically of the Upper Great Southern Region Oral English Programme and to select the person most likely to influence them, there was a strong tendency for them to choose the Regional Superintendent. Responses returned by teachers have been reproduced in Figure 6.05 which also includes a copy of question 6 from the Upper Great Southern Oral English questionnaire.

Responses to this item give some indication that the regional superintendent was perceived as the person most likely to influence teachers' decision-making when they were considering implementing the Upper Great Southern Region Oral English Programme. He/she may have been advantageously placed with respect to the flow of information. Support for such a contention is found in teacher responses to question 3 of the Upper Great Southern Region Oral
Question 6:
When you think of the Oral English programme, whose support for the programme is most likely to persuade you to use it?

Please tick one from the list below:  

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Fellow teachers in your school</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>b. Your school principal</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>c. A Teachers College Lecturer</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>d. Curriculum Branch officer</td>
<td>Nil</td>
<td>3</td>
</tr>
<tr>
<td>e. The Regional Superintendent</td>
<td>40</td>
<td>37</td>
</tr>
<tr>
<td>f. A commercial bookseller</td>
<td>Nil</td>
<td>Nil</td>
</tr>
</tbody>
</table>

NB: Raw scores are used because some respondents returned more than one selection.

Figure 6.05 Teacher responses to question 6 from the Upper Great Southern Region Oral English Questionnaire.
English Programme questionnaire returned in March 1982 and 1983, which are presented in Table 6.02. Teachers in the Upper Great Southern Region might be expected to feel professionally isolated because of the geographical distance between themselves, the centres of higher learning in Perth, and the Education Department head office. A mean score of 2.06, however, tends to indicate that teachers in the sample do not feel professionally isolated when they think of Oral English.

ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.112

When teachers thought about the people who had influenced them to implement a new curriculum, a wide range of people were mentioned. When teachers became aware of the Upper Great Southern Region Oral English Programme while teaching in the Upper Great Southern Region, however, they tended to regard the Regional Superintendent as more likely to influence their decision to implement than any of the others mentioned in question 6.

It is recommended that the sub-hypothesis be accepted within the framework of this thesis.

3.113 Regional Superintendent Support

The following sub-hypothesis is designed to test the possibility that when a programme is new to a region and new to the teachers therein, Regional Superintendent support may well be a strong influence in their decision to implement; however, over a period of time, teacher perception of the strength of that influence may change.
### TABLE 6.02

**Teacher Responses to Question 3 of the Upper Great Southern Region Oral English Questionnaire**

When you think of the Oral English Programme, to what extent do you feel professionally isolated?

Please tick the correct answer.

<table>
<thead>
<tr>
<th>Year</th>
<th>Option</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>None</td>
<td>14 34 9 3 1</td>
</tr>
<tr>
<td>1983</td>
<td>None</td>
<td>17 47 10 3 2</td>
</tr>
</tbody>
</table>

Score 1 2 3 4 5
Sub-hypothesis 3.113

When teachers first encounter the Upper Great Southern Region Oral English Programme in the Upper Great Southern Region, they regard Regional Superintendent support as highly influential in their decision to implement it; however, not as influential in their decision to implement or continue the programme into the second year.

From inspection of teacher responses to question 6 displayed in Figure 6.05, it can be deduced that in 1982 the Regional Superintendent was chosen more frequently than any other person listed. In 1983 he/she was still chosen more frequently than the other people listed but 'fellow teachers' and 'your school principal' received first choice responses many more times in 1983. The probable explanation for this is that during the first year, especially early in the year, few teachers besides the Regional Superintendent knew anything about the innovation. His support therefore, was perceived as influential when teachers came to make their decision to implement. A year later, early in 1983, teachers and principals had been using the programme for a year and were thus in a position to advise teachers new to the programme. The novices therefore had more frequent contact with the in-school experienced personnel than with the Regional Superintendent. These school-based people would be better placed to assist teachers new to the programme on a weekly or even daily basis. They would be perceived as very well informed about the programme and able to provide skilled support. If this were the case, then teachers new to the programme would not experience any need for support from the Regional Superinten-
dent needs to be very active in the early stages of a change process in seeking face-to-face contact with teachers he hopes to influence. During the second year indirect contact through agents such as principals or experienced teachers may be equally effective.

ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.113

It is recommended that the sub-hypothesis be accepted.

3.12 The Extent to which Teachers Research the Decision to Implement the Upper Great Southern Region Oral English Programme

The main purpose of the sub-hypotheses in Section B is to ascertain whether teachers in the Upper Great Southern Region refer to the current syllabus seeking congruency between it and the new Upper Great Southern Region Oral English Programme before they commence implementation. The syllabus is a legal document issued under the auspices of the Minister for Education, and therefore should be regarded by teachers as the major power base when they plan classroom strategies. This being so, then any entrepreneurial authority decision-making directive implementation process would need to demonstrate to teachers that it was operating within the parameters of the syllabus. If the opposite prevails and teachers do not venerate the syllabus to this extent, then much greater freedom is accorded the change agent.

Four questions from the Upper Great Southern Region Oral English questionnaire reproduced in Figure 6.06 bear directly on this aspect to the thesis.
(14) When you became aware of the Upper Great Southern Region Oral English Programme did you check to see if it complied with the Education Department syllabus?

Yes [ ] No [ ]

(5) Do you own an Oral English syllabus?

Yes [ ] No [ ]

(13) If you were equally inclined to implement either of two Oral English Programmes and you knew that only one had Education Department approval, would you:

[ ] implement the approved one?

[ ] go against the Education Department?

[ ] ignore approval as a criterion and look for some other measure?

(12) Are you planning to apply for a transfer at the end of this year?

Yes [ ] No [ ]

Figure 6.06 Four questions from the Upper Great Southern Region Oral English Questionnaire probing the relationship between the syllabus and teachers' decision to implement.

Discussion of Questions

Question 5 is included as an audit question. Where a teacher answered 'yes' to question 14 and 'no' to question 5, the data was regarded as suspect and ignored. Questions 13 and 14 are similarly juxtaposed. To remain consistent a teacher
would be unlikely to check the programme against the syllabus and then choose to go against the departmental recommendation as indicated by the second answer to question 13. Where this occurred, the data was removed from the scores to be processed. Scores contributed by teachers from the private school systems have also been excluded from this section of the thesis.

3.121 Teachers Seeking a Transfer

Sub-hypothesis 3.121

Teachers in the Upper Great Southern Region seeking a transfer will ensure the Upper Great Southern Region Oral English Programme complies with the Education Department syllabus before they implement.

To test sub-hypothesis 3.121 teachers were asked whether they were planning to apply for a transfer at the end of the year (question 12). They were also asked whether they had checked the new Upper Great Southern Region Oral English Programme to establish whether it complied with statements made in the Western Australian Education Department syllabus. These two questions, when combined, were designed to investigate the suggestion that teachers making a request of the Education Department for transfer might be more inclined to comply with departmental policy with greater fidelity than teachers not intending to make such a request. The responses displayed in Table 6.03 show that teachers intending to apply for transfers were about evenly divided on whether they refer to the syllabus before commencing implementation. The scores show no significant differ-
ence at the 0.05 level for 1982 and 1983. The act or intention of applying for a transfer had no influence on the implementation behaviour of teachers in this study when they became aware of the Upper Great Southern Region Oral English Programme.

ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.121

The sub-hypothesis is rejected.

3.122 Teachers Seeking Permanent Tenure

Sub-hypothesis 3.122

Teachers in the Upper Great Southern Region seeking permanent tenure will ensure the new Upper Great Southern Region Oral English Programme complies with the Western Australian Education Department syllabus before they implement.

In testing sub-hypothesis 3.122, question 14 will be used to ascertain whether teachers refer to the syllabus, and question 13 (see Figure 6.06, page 268) will probe the degree of influence wielded by the Western Australian Education Department through the syllabus. Teachers' responses to question 14 have been divided into two groups: those teachers applying for permanent tenure and those who already have it. These scores are reproduced in Table 6.04. The two groups differ significantly at the 0.01 level for both 1982 and 1983.

Question 13 asks teachers whether they would accept the
TABLE 6.03
Responses to Question 14 of the Upper Great Southern Region Oral English Questionnaire by Teachers Applying for Transfer

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Applying for Transfer</td>
<td>Not Applying for Transfer</td>
</tr>
<tr>
<td><strong>Yes =</strong></td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>45%</td>
<td>53%</td>
</tr>
<tr>
<td><strong>No =</strong></td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>55%</td>
<td>47%</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

TABLE 6.04
Responses to Question 14 from the Upper Great Southern Region Oral English Questionnaire by Tenured and Non-tenured Teachers

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teachers applying for permanent tenure</strong></td>
<td><strong>Teachers who have permanent tenure</strong></td>
<td><strong>Teachers applying for permanent tenure</strong></td>
</tr>
<tr>
<td><strong>Yes =</strong></td>
<td>21</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>63%</td>
<td>40%</td>
</tr>
<tr>
<td><strong>No =</strong></td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>37%</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
syllabus as their criterion for accepting or rejecting the Upper Great Southern Region Oral English Programme. Teacher responses are displayed in Table 6.05. The scores show a difference which is significant at the 0.01 level of confidence. Data returned by teachers in answer to question 13 tend to reinforce the findings from responses to question 14. Once they had gained permanent tenure, teachers in the Upper Great Southern Region seemed to develop a set of criteria for implementation that was independent of the Education Department syllabus.

Question 14 data indicates teachers seeking permanent tenure show a greater tendency to check whether the Upper Great Southern Region Oral English Programme complied with the syllabus than teachers with permanent status. There may be a number of explanations for this. Teachers seeking permanent status tended to be younger and less experienced, therefore less confident. They were more vulnerable to pressure because of their apparent job insecurity. Comments made in the unstructured interviews suggest another possible explanation. Some teachers on the permanent staff have found that after the granting of permanency the Education Department offers few rewards for efficiency. They argued that the most significant rewards came from their everyday audience, the children they teach. Satisfaction was gained from watching the children, under their care, change to meet standards and patterns laid down by the teacher. Teachers stated they sought methods of teaching that were enjoyed by children and in which children were, therefore, more likely to co-operate. If this is the case, then the syllabus will tend to become less important the longer a teacher has practised.
TABLE 6.05
Teacher Responses to Question 13 from the Upper Great Southern Region Oral English Programme Questionnaire by Tenured and Non-Tenured Teachers

Question 13: If you were equally inclined to implement either of two Oral English programmes and you knew that only one had Education Department approval, would you:

( ) implement the approved one?
( ) go against the Education Department?
( ) ignore approval as a criterion and look for some other measure?

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-tenured teachers</th>
<th>Tenured teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>28 85% 6 23% 33 82% 9 23%</td>
<td>1 3% 3 22% 1 3% 5 13%</td>
</tr>
<tr>
<td>1983</td>
<td>4 12% 17 55% 6 15% 25 64%</td>
<td></td>
</tr>
</tbody>
</table>
Such findings have implications for the head office of the Education Department and the theory of implementation. It casts some doubt on the syllabus as an element of control, and raises the importance of catering for teachers' professional needs as an element in the theory of implementation.

ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.122

It is recommended that sub-hypothesis 3.122 be accepted.

3.13 The Regional Superintendent in the Role of Curriculum Manager.

The Western Australian Education Department has well established organization patterns, a number of which might be resistant to change. To alleviate some of this potential resistance, the Regional Superintendent, assuming the role of Curriculum Manager, established a number of temporary systems. The main thrust of Section 3.13 is to investigate a sample of the aspects of these systems which became part of the implementation process.

3.131 Temporary Systems

Sub-hypothesis 3.131

Teachers who implement the Upper Great Southern Region Oral English Programme will perceive that they frequently need to ask the Resource Teacher for assistance. This need will reduce by the end of their first year of teaching within the Upper Great Southern Region.

Teachers responded to question 8 of the Programme Review Sheet displayed in Figure 6.07. A summary of responses displayed
Data for this section of the thesis has been gathered from:

A) Question 8 of the Programme Review Sheet.

Resource Teacher

a) I frequently need to ask the Resource Teacher for help.

b) I occasionally need to ask the Resource Teacher for help.

c) I rarely need to ask the Resource Teacher for help.

d) I meet the Resource Teacher with a view to suggesting improvements.

B) Focus Question 3 from the Level of Use Interview.

Acquiring Information: Are you currently looking for any information about Graham's programme? What kind? For what purpose?

C) Item 9 from the Oral English Programme Questionnaire.

How helpful have you found the personal contact with the Resource Teacher when using the Oral English Programme?

No help  [ ]  [ ]  [ ]  [ ]  a lot

Figure 6.07 Questions used to gather data related to sub-hypothesis 3.131
In table 6.06 shows that teachers using the programme for the first time early in 1982 tended to perceive themselves as frequently needing to ask the Resource Teacher for help. Conversely, by November of that year, few teachers still perceived themselves as frequently needing to ask the Resource Teachers for help; many perceived themselves as rarely needing to ask the Resource Teacher for assistance, while 27 per cent now feel they can offer advice to the Resource Teacher on how to improve the Upper Great Southern Region Oral English Programme. After using the Upper Great Southern Region Oral English Programme for one year, over 80 per cent of the teachers moved from a position of dependence (Frequently need help) to a position of independence (Rarely need help).

Responses collected in 1983 came from teachers who were either using the programme for the first time or had used the programme in 1982 and were, therefore, experienced users. Their responses were divided into first year and second year users, and have been displayed in Figure 6.07. Examination of Figure 6.07 revealed a trend that was also apparent in the 1982 responses reproduced in Figure 6.06. Further examination revealed that teachers in their first year indicated considerable reliance (84%) on the Resource Teacher at the beginning of the year, a reliance that declined sharply by the end of 1983 (0%). Most teachers in their second year on the programme rarely needed to contact the Resource Teacher for help, even at the beginning of the year, and by the end of the year met the Resource Teacher mainly with a view to offering their own advice. The responses provided by teachers to the LoU interview early
<table>
<thead>
<tr>
<th></th>
<th>February</th>
<th>November</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequently need help</td>
<td>46 = 83%</td>
<td>3 = 6%</td>
</tr>
<tr>
<td>Occasionally need help</td>
<td>7 = 13%</td>
<td>10 = 17%</td>
</tr>
<tr>
<td>Rarely need help</td>
<td>2 = 4%</td>
<td>27 = 46%</td>
</tr>
<tr>
<td>Offer advice</td>
<td>0 = 0%</td>
<td>18 = 31%</td>
</tr>
<tr>
<td></td>
<td>55 = 100%</td>
<td>58 = 100%</td>
</tr>
</tbody>
</table>

Question 8 refers to Figure 6.07, page 275.
in 1983 show a continuation of this trend. Some 48 of the 50 teachers who were in their first year of teaching the programme claimed to be looking for more information about the programme. Of these, 40 (83%) identified the in-school Resource Teacher as their only source, the rest looked to institutes of higher learning. Few teachers in their second year of use of the programme were still seeking further information (5 out of 30). Two out of the five referred to the in-school Resource Teacher, while the other three were pursuing further studies at an institute of higher learning.

It can be seen from Table 6.08 that in each year that question 9 was asked, teachers tended to perceive their personal contact with the in-school Resource Teacher as helpful. It seems reasonable to argue that teachers could have sought further information about the programme from sources outside the Upper Great Southern Region, but in this study they did not. They relied heavily on the in-school Resource Teachers, especially when they commenced the programme. The Resource Teacher role changed during the first year for some, and the second year for others. At first it was a role of essentially advising and supporting teachers, but in the end it became one of liaising and finally redundancy in some cases. This is an interesting finding, because teachers in the Upper Great Southern Region can gain easy access by telephone to institutions of higher learning, the Education Department and colleagues living in the city. Many travel to Perth regularly on weekends, public holidays and school vacations.
### TABLE 6.07

Responses to Question 8 by 1983 Teachers According to the Number of Years They Have Been Involved in the Programme

Question 8 refers to Figure 6.07, page 275

<table>
<thead>
<tr>
<th></th>
<th>Teachers in their First Year</th>
<th>Teachers in their Second Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>February</td>
<td>November</td>
</tr>
<tr>
<td>Frequently need help</td>
<td>84%</td>
<td>0%</td>
</tr>
<tr>
<td>Occasionally need help</td>
<td>10%</td>
<td>24%</td>
</tr>
<tr>
<td>Rarely need help</td>
<td>6%</td>
<td>56%</td>
</tr>
<tr>
<td>Offer advice</td>
<td>0%</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### TABLE 6.08

Teacher Responses to Question 9 from the Oral English Programme Questionnaire

Question 9:

How helpful have you found personal contact with the Resource Teacher when using the Oral English Programme?

How helpful:

<table>
<thead>
<tr>
<th>November 1982: No help</th>
<th>6</th>
<th>9</th>
<th>14</th>
<th>19</th>
<th>4</th>
<th>a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>11%</td>
<td>17%</td>
<td>28%</td>
<td>37%</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>November 1983: No help</th>
<th>8</th>
<th>11</th>
<th>23</th>
<th>29</th>
<th>9</th>
<th>a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>14%</td>
<td>29%</td>
<td>36%</td>
<td>11%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.131

The review of the data available reveals sufficient evidence to support acceptance of the sub-hypothesis 3.131.

3.132 The Appointment of a Curriculum Developer

By appointing a Curriculum Developer, the Regional Superintendent commenced a temporary system. The Curriculum Developer operated within the parent organization but was accepted by teachers as responsible for meeting new needs not previously serviced by the parent organization. His time was not consumed by demands that he service the needs already articulated by the organization, that is, he was expected to establish a new programme, not travel from school to school to help teachers improve existing programmes. The new programme was to be a regional initiative, incorporating the expertise of as many people as possible, and the teachers of the Upper Great Southern Region were informed of this frequently. This section of the thesis is designed to investigate whether people accept an amorphous mass of people as authors, or whether they prefer to reduce this number by personifying the programme. If they distort the communication from the regional office and prefer to perceive themselves as knowing the author personally, then this has interesting ramifications for agencies attempting large scale implementation.

Sub-hypothesis 3.132

The Curriculum Developer will eventually come to personify the Upper Great Southern Region Oral English Programme and will be recognized as such by classroom teachers.
Two questions from the Upper Great Southern Region Oral English Programme questionnaire, questions 4 and 8, bear directly on this aspect of the thesis. They have been displayed in Table 6.09 together with the teachers' responses.

In both cases it is clear most teachers have personified the programme as being an extension of the person of the Curriculum Developer, Graham Baxter. This has occurred despite published documents and public addresses projecting the message that the programme has the full support of the Regional Superintendent and the Regional Office. It was also made clear in personal correspondence to every teacher that a Curriculum Development Committee was intimately involved with the creation, monitoring and tailoring of the Programme.

**ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.132**

There is sufficient evidence available to recommend the acceptance of sub-hypothesis 3.13

3.133 **Appointing Staff to Support the Upper Great Southern Region Oral English Programme**

Implementation of the Upper Great Southern Oral English Programme was not a steadily evolving process. It unfolded in stages, but many teachers moved through these stages erratically. Sometimes they remained on a stage merely a matter of days; at other times, weeks or months; or they may even have assumed a stage and not moved from it. There were also times when teachers regressed. A variety of reasons may be advanced
TABLE 6.09
Teachers' Responses to the Upper Great Southern Region Oral English Questionnaire Items Relating to Personifying the Programme

4. Who do you think is the architect of the programme?

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education Department</td>
<td>12%</td>
<td>1%</td>
</tr>
<tr>
<td>Graham Baxter</td>
<td>42%</td>
<td>75%</td>
</tr>
<tr>
<td>Regional Office</td>
<td>38%</td>
<td>15%</td>
</tr>
<tr>
<td>Don't know</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

B. What title do you use when referring to the new programme?

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Oral English and Drama Course</td>
<td>17%</td>
<td>9%</td>
</tr>
<tr>
<td>Graham's Programme</td>
<td>42%</td>
<td>65%</td>
</tr>
<tr>
<td>Regional Oral English Programme</td>
<td>19%</td>
<td>11%</td>
</tr>
<tr>
<td>Oral English</td>
<td>22%</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
to explain this. The new programme, in the initial stages at least, required more effort from teachers. Frequently this was freely given, but teachers’ energy levels rose and fell. Demands from other areas of the school led to work overload, preventing teachers from procuring resources essential to the effective implementation of the new programme. Many of these reasons, which may have been beyond teacher control, frustrated their movement through the stages of the implementation process.

To further test this aspect of the Entrepreneurial Authority Decision Directive Model of Implementation, sub-hypothesis 3.133 was developed.

Sub-hypothesis 3.133
Teachers will be prevented from moving through the implementation process unless the Curriculum Manager has authority to appoint short term temporary staff.

At the commencement of the project a budget was prepared, with funds allocated to three main areas: Management Committee, document production, and teacher inservice. In each of these areas a number of incidents arose illustrating the need for the Curriculum Manager to have authority to appoint short term casual staff. Term 1, 1981, a typical example, is reproduced in Figure 6.08.

The Management Committee was first established with a male deputy principal who was responsible for supervising years four to seven in a district high school, and a classroom teacher, also
**Intervention**

<table>
<thead>
<tr>
<th>1 day clerical aide.</th>
<th>Print programmes.</th>
<th>4 extra teachers wishing to implement the programme.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1½ days clerical aide.</td>
<td>Print programmes.</td>
<td>7 extra teachers</td>
</tr>
<tr>
<td>1½ days clerical aide.</td>
<td>Print programmes.</td>
<td>11 extra teachers</td>
</tr>
<tr>
<td>1 day clerical aide.</td>
<td>Print programmes.</td>
<td>7 extra teachers</td>
</tr>
<tr>
<td>1 day teacher.</td>
<td>Assist with extra inservice course.</td>
<td>Need to cater for extra teachers.</td>
</tr>
<tr>
<td>1 day a week teacher.</td>
<td>Join the Management Committee.</td>
<td>70% of the implementing teachers were women and the Management Committee did not have a woman member.</td>
</tr>
<tr>
<td>1 day teacher.</td>
<td>Relieve Curriculum Developer.</td>
<td>Curriculum Developer claimed the extra numbers of teachers caused problems and he wished to gain advice from C.A.E.s in the capital city.</td>
</tr>
</tbody>
</table>

Figure 6.08 Curriculum Manager's short term appointments to facilitate implementation in Term One, 1982.
male. These people were released from classroom duties for one
day per week and given a travelling and meals allowance. It
soon became apparent that seventy per cent of the teachers who
agreed to implement the programme were female, necessitating
the appointment of a female teacher, with an attendant increase
in expenses. The Management Committee had to be established
before volunteers were called for, hence it was not possible to
cater in advance for needs that arose due to the constitution
of the teacher group.

Document production proved a key factor in the implemen-
tation process. The fidelity perspective adopted as part of
the theory of implementation proposed by this thesis argues for
detailed documentation as an integral and essential component
of the thesis. Implementation cannot proceed until the teacher
has unrestricted access to the written documents. These documents
also form much of the basis for instruments that evaluate the
implementation process, such as the Programme Review Sheet.
Budget planners underestimated teacher demand for 1982, and
an early correction was needed, as can be seen from Figure 6.08.

Demands for inservice proved equally difficult to estimate.
Modest plans were laid at the commencement of 1982 but strong
demand from teachers saw an escalation of these plans to three
times the original budget figure. Conceivably, some teachers
will ask for more than they need. Conversely, though, the
Management Committee members knew the region well, were chosen
for their sense of responsibility, and were cognizant of the need
to be accountable for the effective spending of public funds.
They claimed to use only the funds they believed were essential to achieve effective implementation.

Finally, it can be seen from Figure 6.08 that the Curriculum Developer made requests for funds above the budgeted limit. This occurred because the number of teachers implementing the programme became greater than predicted. Consequently more teachers applied to him for assistance. He indicated a need for greater expertise in handling larger numbers of teachers, and lodged a submission for more short-term courses in the capital city to instruct him in managing large numbers of teachers at inservice courses.

ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.133

It is argued that there is sufficient evidence to recommend the acceptance of sub-hypothesis 3.133.

3.14 The Regional Superintendent as Entrepreneur

The principal focus of this section of the thesis is to add knowledge about this major influential factor in the Entrepreneurial Authority Decision Directive Model of Implementation. Three particular aspects are proposed for further examination: gathering resources, energising people, and risk taking.

3.14.1 Gathering Resources

A fidelity perspective of implementation, coupled with the authority decision-making directive model, has been adopted for the implementation of the Upper Great Southern Region Oral English
Programme. This is a top-down model of change, and resources are required for the detailed definition of the innovation, the printing of the programme document, the provision of support material, and for the provision of personnel to organize dissemination, monitoring, tailoring and evaluation activities. The theory postulates that the provision of resources is an important aspect of the Entrepreneurial Authority Decision Directive Model of Implementation. Review of Table 6.10 indicates that resources were provided, and shows the extent. The majority of responses to question 16 of the Upper Great Southern Region Oral English Programme questionnaire, illustrated in Table 6.11, indicated a teacher perception that the Regional Superintendent was mainly responsible for providing the resources. Responses to question 11 indicate that the provision of resources was important to the teachers when they made their decision to accept the implementation process.

Question 7 from the Upper Great Southern Region Oral English Programme questionnaire was presented to teachers to probe the degree of importance they attached to resources when they came to the decision to commence implementation.

From Table 6.12 it can be seen that in both 1982 and 1983 less than twenty per cent of the teachers state they would be prepared to implement the programme without being supplied with the extra resources. It is also significant to note that almost half the group in each year claim they definitely would not implement.
TABLE 6.10
Resources Provided to Support the Programme

<table>
<thead>
<tr>
<th>Resource</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum Developer</td>
<td>$20 000 approx.</td>
</tr>
<tr>
<td>Three part-time teachers</td>
<td>$12 000 approx.</td>
</tr>
<tr>
<td>One clerk typist</td>
<td>$10 000 approx.</td>
</tr>
<tr>
<td>Printing</td>
<td>$ 670</td>
</tr>
<tr>
<td>Inservice courses</td>
<td>$ 5 000</td>
</tr>
<tr>
<td>Total</td>
<td>$47 670</td>
</tr>
</tbody>
</table>

TABLE 6.11
Teacher Responses to Items 16 and 11 of the Upper Great Southern Region Oral English Programme Questionnaire Expressed as a Percentage

Question 16: The following resources have been made available to support the Oral English Programme:
- One Advisory teacher
- Three part-time teachers
- One clerk typist
- Funds for printing
- Funds for inservice courses.

Who do you believe has been mainly responsible for providing them?

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Principal?</td>
<td>8%</td>
<td>11%</td>
</tr>
<tr>
<td>The Education Department?</td>
<td>34%</td>
<td>30%</td>
</tr>
<tr>
<td>The Regional Superintendent?</td>
<td>54%</td>
<td>58%</td>
</tr>
<tr>
<td>The Commonwealth Government?</td>
<td>4%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Question 11: To what extent has the provision of resources been important to your decision to implement?

<table>
<thead>
<tr>
<th>November 1982:</th>
<th>None</th>
<th>3%</th>
<th>10%</th>
<th>47%</th>
<th>30%</th>
<th>10%</th>
<th>a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 1983:</td>
<td>None</td>
<td>4%</td>
<td>5%</td>
<td>30%</td>
<td>36%</td>
<td>25%</td>
<td>a lot</td>
</tr>
</tbody>
</table>
TABLE 6.12
Responses to Question 7 of the Upper Great Southern Region Oral English questionnaire

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>10%</td>
<td>19%</td>
</tr>
<tr>
<td>No</td>
<td>41%</td>
<td>48%</td>
</tr>
<tr>
<td>Perhaps</td>
<td>49%</td>
<td>33%</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

ACCEPTANCE OR REJECTION OF SUB-SECTION 3.14

Data presented in this section of the thesis supports the notion that extra resources were gathered by the Regional Superintendent and specifically allocated to the Upper Great Southern Region Oral English Programme. The provision of these resources was regarded by teachers as an important influence in their decision to implement.

It is recommended therefore that the sub-section be accepted.

3.142 Teachers Commit More Time

In order to demonstrate that teachers committed more time to Oral English once they had agreed to implement the new programme, it was necessary to establish a sample measure of teacher time commitment in this curriculum area prior to the establishment of the new programme. A number of indicators were available. The Western Australian Education Department recommended thirty minutes per week for the teaching of Oral English in years four to seven, although it did indicate that Oral English should be integrated into all subjects.
Another indicator was sought by comparing the time devoted to Oral English by teachers within this study to that taken by teachers from a similar group. A comparison group was established by drawing a random sample from a neighbouring Education Department region. The comparison group and the experimental group were matched in terms of similarities in their geographical location, distance from Perth, number of children within their school, socio-economic environment, and range of economic status. The sample of teachers taken from the comparison group indicated a mean time commitment of thirty three minutes of classroom teaching time per week. This is considerably less than the one hundred and fifty minutes of classroom time suggested by the Upper Great Southern Region Oral English Programme, or than the actual time allocated by teachers using the programme, which as indicated by Table 6.13 was never less than an average of eighty minutes. These estimates do not include teacher preparation time. Arguably, teacher preparation time for a thirty three minute lesson, as practised by teachers in the comparison region, would have been shorter than preparation for the ninety two minute lesson as practised by teachers using the new Upper Great Southern Region Oral English Programme.

Concerns about the extra time needed for the new programme were indicated in a number of ways. In answer to the question "What are the major problems associated with the programme?" asked during interview, time was frequently mentioned, though its importance declined over the two year period. Fifty four of the sixty one teachers, or eighty eight per cent, indicated time as a major problem at the commencement of this study.
By November 1982 this had declined to fifty seven per cent of teachers, as illustrated in Table 6.14.

Examination of Table 6.14 reveals that the number of teachers claiming that devoting one hundred and fifty minutes per week to the new Upper Great Southern Region Oral English Programme was causing them major problems rose to eighty two per cent at the beginning of 1983. This is explained by noting that twenty two teachers were using the programme for the first time. By the end of 1983, only thirty per cent of teachers still stated that allocating one hundred and fifty minutes to Oral English was causing them major difficulties.

Another indicator selected was a response by teachers to a question asking them to indicate, on a five point scale, the degree of difficulty they experienced when trying to fit one hundred and fifty minutes of Oral English into their weekly timetable. These responses, as illustrated in Figure 6.09 (page 294), show that when averaged, teachers' scores indicated they perceived a high level of difficulty at the commencement of the programme. This dropped by almost two intervals by the end of the year, rose again due to an intake of teachers new to the programme, then fell more than two intervals by the end of the second year. There are strong trends in this data to support the contention that teachers did contribute more of their teaching time to the new Upper Great Southern Region Oral English Programme than they had to previous Oral English programmes.

A similar conclusion can be reached by examining teachers'
### TABLE 6.13
Mean Classroom Time Spent on the Oral English Programme

<table>
<thead>
<tr>
<th></th>
<th>Teacher estimates</th>
<th>Curriculum Developer estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 1982</td>
<td>100 minutes</td>
<td>92 minutes</td>
</tr>
<tr>
<td>November 1982</td>
<td>80 minutes</td>
<td>85 minutes</td>
</tr>
<tr>
<td>February 1983</td>
<td>125 minutes</td>
<td>106 minutes</td>
</tr>
<tr>
<td>November 1983</td>
<td>120 minutes</td>
<td>125 minutes</td>
</tr>
</tbody>
</table>

### TABLE 6.14
Teacher Responses When Asked About Major Problems Associated with the Programme During Interview

<table>
<thead>
<tr>
<th></th>
<th>Teachers listing time</th>
<th>Teachers not listing time</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 1982</td>
<td>54 - 88%</td>
<td>7 - 12%</td>
</tr>
<tr>
<td>November 1982</td>
<td>35 - 57%</td>
<td>26 - 43%</td>
</tr>
<tr>
<td>February 1983</td>
<td>66 - 82%</td>
<td>14 - 18%</td>
</tr>
<tr>
<td>November 1983</td>
<td>24 - 30%</td>
<td>56 - 70%</td>
</tr>
</tbody>
</table>
responses to Question 4 of the Stages of Concern questionnaire reproduced in Figure 6.10.

This question investigated the difficulty teachers experienced in allocating the recommended one hundred and fifty minutes of instruction time, per week, to the Upper Great Southern Region Oral English Programme, from a slightly different perspective. It asked teachers to include in their deliberations their own preparation time as well as the pupil contact time they experienced. At the commencement of the implementation, the mean response from teachers was 5.8. This indicated that finding the time demanded by the implementation process, at the point in time when the questionnaire was completed, was a significant concern to them.

ACCEPTANCE OR REJECTION OF SUB-SECTION 3.142

Data presented in this section of the thesis supports the notion that teachers did commit more time to Oral English when they implemented the Upper Great Southern Region Oral English Programme. It is recommended that the sub-section be accepted.

3.143 Entrepreneurial Risk Taking

The Entrepreneurial Authority Decision Directive Model of Implementation predicts that the Regional Superintendent who chooses to implement a new programme places his reputation at risk. There are a number of indicators to show that this is, in fact, what happened. After the invitation to implement the new Upper Great Southern Region Oral English Programme, teachers
10. What degree of difficulty have you found when fitting 150 minutes of Oral English into a weekly timetable?

<table>
<thead>
<tr>
<th>Month</th>
<th>Experience</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 1982</td>
<td>none</td>
<td>a lot</td>
</tr>
<tr>
<td>November 1982</td>
<td>none</td>
<td>a lot</td>
</tr>
<tr>
<td>February 1983</td>
<td>none</td>
<td>a lot</td>
</tr>
<tr>
<td>November 1983</td>
<td>none</td>
<td>a lot</td>
</tr>
</tbody>
</table>

Figure 6.09 Teacher perception of the time difficulty.

"I am concerned at not having enough time to organize myself each day."

Irrelevant 1 2 3 4 5 6 7 Very true of me now

Figure 6.10 Question 4 from the SoC questionnaire.
could have chosen to use other methods. Those methods may very well have turned out to be effective. Should this have happened, the Regional Superintendent would have expended resources to little effect. He is publicly accountable for his action. This means his efforts would have received publicity, with the failure becoming well known and attended by consequent loss of prestige. As it turned out, during the first year sixty one from a total of ninety teachers implemented the programme, albeit at different levels of use. This is a majority, but it still means that twenty nine teachers thought their programme was better. In the second year, eighty two out of ninety teachers accepted the programme, which meant that the risk was reduced to the extent that only eight teachers thought their programme was superior.

Teacher acceptance of the programme was only a portion of the risk. Another significant area of risk was related to the impact the programme had on children. The Regional Superintendent could not know for certain that the new Upper Great Southern Region Oral English Programme would lead to an improvement in the speaking and listening skills of the children in the Upper Great Southern Region. Clearly, it was a calculated risk based on research and trialling; however, that is not the same thing as encouraging a whole region to participate. Test results could not be interpreted until the end of 1982 when the first set of pre- and post-test scores were returned. The risk was reduced for 1983 after it became apparent that children had scored higher in the November test than they had done in the earlier February tests in both the speaking and listening. On the speaking test they also performed significantly better than the comparison group,
the results of which are reproduced in section 4a. The listening
tests could be interpreted confidently because a set of norm tables
was available.

Finally, risk taking was indicated by the expenditure of
resources before the results of the testing programme were known.
Many teachers did not regard Oral English to be one of their
top priority subjects when they first agreed to implement the
programme. Judging by the priority ranking they accorded Oral
English, reproduced in Figure 6.11, they might well have preferred
the resources to be directed to other curriculum areas. Had they
felt strongly enough to dissent, an impasse may have developed,
because in these times of declining budgets, it is unlikely the
funds already consumed could have been replaced, then redirected
to another curriculum area. The Regional Superintendent would
then have been the recipient of considerable criticism from
numerous quarters.

ACCEPTANCE OR REJECTION OF SUB-SECTION 3.143

Data reviewed during this section of the thesis supports the
contention that entrepreneurial risk-taking is an integral
aspect of the proposed implementation model, and that in the
case study under review, the Regional Superintendent assumed
the role predicted by the Entrepreneurial Authority Decision
Directive Model of Implementation.

Thus, acceptance of the sub-section is recommended.

Evidence indicates that the Regional Superintendent gathered
resources and engendered risk by altering regional priorities.
Figure 6.11 The rank out of ten accorded Oral English by respondents to the Oral English Programme Review in February, 1982.
Consequently, Oral English received an allocation of resources before all other curriculum areas. He energized people so that they commenced implementation and committed more time to the new programme than they had to the old, and finally he accepted a high public profile as a supporter of an untried, untested programme.

ACCEPTANCE OR REJECTION OF GENERALIZED HYPOTHESIS No. 1

Generalized Hypothesis No. 1, reproduced below, was designed to investigate The Decision to Change aspect of the Entrepreneurial Authority Decision Directive Model of Implementation.

GENERALIZED HYPOTHESIS No. 1

The degree of implementation of the Oral English Programme that occurs in the Upper Great Southern Region will be related to the power possessed by the Regional Superintendent, the extent to which teachers research the decision to change, the Regional Superintendent's ability to manage curriculum, and his/her entrepreneurial skills.

Closer examination of Generalized Hypothesis No. 1 has been facilitated by dividing this sub-model into four sections, each being used as a basis for generating several sub-hypotheses. Each sub-hypothesis has been subject to detailed analysis and a summary of the results of this is reproduced in Table 6.15.

From the data presented in Table 6.15, it can be seen that
<table>
<thead>
<tr>
<th>Sub-hypothesis</th>
<th>Unqualified Acceptance</th>
<th>Qualified Acceptance</th>
<th>Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.A.1.(i)</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>I.A.1.(ii)</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>I.A.2.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I.A.3.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I.B.I.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I.C.1.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I.C.2.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I.C.3.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sub-sections of the Major Factor

<table>
<thead>
<tr>
<th>Sub-sections</th>
<th>Unqualified Acceptance</th>
<th>Qualified Acceptance</th>
<th>Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.D.1.</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>I.D.2.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I.D.3.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
the analysis invoked for this thesis supports the view that
the acceptance of Generalized Hypothesis No. 1 can be
recommended. Such acceptance must be subject to the provisos
that sub-hypotheses 3.111A and 3.111B have been rejected and
sub-section 3.142 has been accepted with certain qualifications.
CHAPTER VII

ANALYSIS OF THE DATA RELATED TO THE RATIONALE FOR IMPLEMENTATION

Synopsis

In this chapter of the thesis, collected data has been analysed in relation to the second of the four sub-models of the Entrepreneurial Authority Decision Directive Model for Implementation, The Rationale for Implementation. In Chapter III, a plan has been presented to facilitate the investigation of Generalized Hypothesis No. 2 by using each major factor as a basis for a sub-section to address a specific aspect of the generalized hypothesis. The data has been classified according to the sub-section to which it is most relevant and then deployed to form a noumenon. The arguments in each sub-section thus generated, to either accept or reject the Generalized Hypothesis No. 2, have been presented at the conclusion of each sub-section. The trends have been drawn together in a final concluding section to form an argument for the acceptance or rejection of Generalized Hypothesis No. 2.

3.2 Sub-model Two: The Rationale for Implementation

The reader will recall that in Chapter III support was drawn from the literature to develop the basis for a sub-model of the Entrepreneurial Authority Decision Directive Model of Implementation, The Rationale for Implementation. This included an implied need for a rationale, the necessity to have an awareness
of client needs, the development of a stable message, and the establishment of a preferred position. Extrapolation of the latter three areas outlined in Chapter III led to the development of Generalized Hypothesis No. 2.

Generalized Hypothesis No. 2 has, as its main thrust, the concept that to communicate the Entrepreneurial Authority Decision Directive Model of Implementation to teachers, a rationale was required. This rationale became the major vehicle for carrying the initial message to the target group of teachers, thus an integral part of the implementation process. It was designed to provoke the awareness phase of the implementation process in the target group of teachers as it informed them about the Upper Great Southern Region Oral English Programme. Primary teachers in Western Australia were already required to teach Oral English within their classrooms, hence teachers who then rejected these established programmes to implement the Upper Great Southern Region Oral English Programme may have perceived from the rationale that the new programme had certain definable advantages over established programmes. To test this, Generalized Hypothesis No. 2 was developed in Chapter III.

GENERALIZED HYPOTHESIS No. 2

The rationale will influence teachers' implementation behaviour if it convinces them that the Upper Great Southern Region Oral English Programme has specific advantages over previous programmes.
The Generalized Hypothesis No. 2 has been dissected, in Chapter III, into six major factors which are listed below.

1. An indication that child learning will improve. (3.21)
2. The importance of the subject, of which the innovation is a part, to the teachers contemplating implementation. (3.22)
3. The facility with which the innovation may be correlated with other subjects. (3.23)
4. The degree to which the programme is clearly defined (3.24)
5. The inclusion of all necessary teaching resources within the innovation package (3.25).
6. Teachers' perception of whether the innovation increases or decreases their workload (3.26).

From each major factor a sub-section has been generated, data from which is examined in detail to illustrate any general trends that had occurred. The object is to locate trends that would contribute to the overall argument for accepting or rejecting the Generalized Hypothesis No. 2.

3.21 An Indication that Child Learning Will Improve

To explore the first factor in this argument, data was collected from the research plan outlined in Figure 7.01.

The first data-gathering instrument used to explore sub-section 3.21 in this argument involved a random sample of thirty teachers chosen from a population of approximately two hundred teachers. Each was visited in their school, during normal school
hours, by an interviewer.

<table>
<thead>
<tr>
<th>Month</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 1982</td>
<td>Interview (random sample 30/200)</td>
</tr>
<tr>
<td>November 1982</td>
<td>Question 1 Oral English Questionnaire</td>
</tr>
<tr>
<td>March 1983</td>
<td>Interview (random sample 30/200) LoU data</td>
</tr>
<tr>
<td>November 1983</td>
<td>Question 1 Oral English Questionnaire LoU data</td>
</tr>
</tbody>
</table>

**Figure 7.01** The research plan for collecting data relevant to sub-section 3.21 of Generalized Hypothesis No. 2

During the ensuing interview, the following question was asked:

If you were designing a rationale to deliver to teachers on the staff of your school, to convince them to begin implementing the new teaching programme, what would you tell them?

This particular question, being presented in an interview situation, created the opportunity to encourage teachers to think laterally. During the interview each was engaged in unstructured conversation eventually leading to them selecting an innovation in which they had an interest. Each teacher then postulated on particular aspects of the innovation, selected by them, that might be perceived by teachers as good reasons for commencing implementation. These reasons were recorded for later analysis. This procedure was applied in March 1982 and again in March 1983. The March 1982 data was used as a foundation for the development of question 1 from the Upper Great Southern Region Oral English Programme Questionnaire, while the March 1983 data served to audit the previous year's findings. The findings of
the two years proved to be similar and are presented in Figure 7.02. A frequency count for similar data is presented in Figure 7.03 and has been based on responses to a question in the Upper Great Southern Region Oral English Programme questionnaire. It is argued that this is more meaningful because the number in the sample is higher and the questionnaire is more impersonal than the interview.

It is relevant to note that 'an indication that child learning will improve' is included by teachers in the seven most frequently cited factors that were perceived by teachers as likely to persuade them to implement the Upper Great Southern Region Oral English Programme. These seven factors are incorporated into question 1 of the Oral English questionnaire presented in Figure 7.03.

In November of each year teachers were asked to complete the Upper Great Southern Region Oral English Programme questionnaire. Question 1 contained therein presented teachers with a list of the seven most frequently mentioned advantages, which they were then asked to rank. Fifty four complete answers were returned in 1982 and seventy one answers were completed in 1983.

It is important to remember that 'an indication that child learning will improve' is included by teachers in the seven most frequently cited factors that are perceived by teachers as likely to persuade them to implement the Upper Great Southern Region Oral English Programme. The results of the questionnaire indicate that in this study teachers perceive this factor as very important to them when they make their decision to implement the Upper
1. The innovation was clearly defined.
2. All the resources we needed were provided.
3. The innovation saved teachers a lot of work.
4. Children's learning will improve.
5. New teachers had little difficulty finding out what the teachers had taught during the previous year.
6. The innovation was easy to follow
7. When compared to other school subjects, the innovation under consideration was considered very important.
8. The innovation did not require a great deal of classroom time.
9. This was a very practical innovation.
10. Our innovation kept the children interested (quiet).
11. This innovation integrated easily with other subjects.

Figure 7.02  Good reasons for commencing various innovations as perceived by a sample of teachers, and reported in unstructured interviews.
1. Please think about the arguments you heard this year in favour of using the Oral English Programme. Now rank the following items in order of their importance to you at that time.

1 = least important

<table>
<thead>
<tr>
<th>Argument</th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>The programme is clearly defined</td>
<td>3.02</td>
<td>3.60</td>
</tr>
<tr>
<td>The programme saves teachers work</td>
<td>2.00</td>
<td>1.60</td>
</tr>
<tr>
<td>All resources are provided</td>
<td>3.80</td>
<td>4.00</td>
</tr>
<tr>
<td>Children's learning will improve</td>
<td>4.58</td>
<td>4.70</td>
</tr>
<tr>
<td>New teachers can easily find out what teachers did last year</td>
<td>6.10</td>
<td>5.80</td>
</tr>
<tr>
<td>The programme is easy to follow</td>
<td>3.00</td>
<td>2.80</td>
</tr>
<tr>
<td>When compared to other school subjects one is very important</td>
<td>5.21</td>
<td>5.40</td>
</tr>
</tbody>
</table>

Figure 7.03 Teacher responses to question 1 of the Oral English Questionnaire.
Great Southern Oral English Programme. This high rating of 4.58 in 1982 and 4.7 in 1983 came when teachers have been working on the programme for at least one school year. The reader will recall that this finding is congruent with that which would be predicted from the Concerns Based Adoption Model, proposing, as it does, evaluation concerns such as 'child learning' as later order phases of the implementation process.

Further verification of the arguments supporting these apparent tendencies can be derived from analysis of data collected during LoU interviews conducted at the beginning and end of 1983. This analysis reveals that 'indications that child learning would improve' was mentioned by teachers only twenty three times in the seventy nine interviews (29%), and was not central to the general line of thought; of the twenty three, the example included below is typical:

The strengths - well, one of the strengths for people who don't really enjoy Oral English situations - I've never enjoyed drama, nor Oral English - but the fact that it is there - is number one! Really, because otherwise you tend to think, oh, Oral English, what can we do this week? Oh, we'll do a play. Here someone has actually planned something that is easy to put into your classroom, and tells you in black and white what you have to do; everything is there ... it's good for the children, too.

At the end of the year, however, teachers mentioned this factor much more frequently, being forty seven times out of seventy nine interviews (62%). At this time the factor becomes more central in the interview response, as the following excerpt typifies:
The main strength, I think, is that it is an endeavour to lift the standards of the children's speech in the region, and in this school in particular, as I just mentioned earlier, one area I think in particular that the children need here is the listening skill development. It seems to be a problem more so to my way of thinking than the speech.

Finally, resisters, twenty nine in 1982 (31.5%) and eight in 1983 (9%), when interviewed maintained that a major reason for their not taking up the new programme was that they already had their own course, from which they felt confident children would learn successfully. They offered this response, or similar, at both the beginning and end of year LoU interviews.

ACCEPTANCE OR REJECTION OF SUB-SECTION 3.21

There are clear trends within the data related to sub-section 3.21 that provide support for accepting this aspect of Generalized Hypothesis No. 1. In general terms, teachers place a high value on the possibility that child learning will improve, although this objective becomes more central to their thinking in later stages of the implementation process. Acceptance of sub-section 3.21 is recommended.

3.22 The Importance of the Subject to Teachers

The argument presented in this section of the thesis is based on the assumption that each teacher has internalized an hierarchy of school subjects, evaluating each in terms of its importance when compared to other subjects. It is further assumed that teachers will be prepared to accord Oral English a rank in a series of from 1...10, in terms of the importance they place on Oral English, as part of their teaching programme, when it is
related to the other subjects they teach. Further, the argument runs that there is a relationship between the teacher's internal hierarchy of subjects and the implementation process; as the implementation process unfolds, this relationship will change. It is predicted that teachers in the early stages of the implementation process or teachers rejecting implementation will return low scores. Higher scores will be returned by teachers further advanced in the implementation process. Teachers persisting with rejection would not be expected to alter their scores perceptibly. Evidence collected from two sources indicates support for these expectations.

Firstly, when all teachers were novices at implementing the Upper Great Southern Region Oral English Programme at the beginning of 1982, they were asked to rank Oral English on a scale of from 1...10 in terms of the importance they perceived it to have when they thought of all the subjects they taught. The results of this enquiry are displayed in Table 7.01. The most frequent score returned at this time was three. A repetition of this enquiry at the end of 1982 saw this figure rise to 7. It fell again at the beginning of 1983, not down to the 1982 figure but sufficient to indicate a trend. The slightly higher ranking may be explained. In the second year of implementation, some teachers who were new to the region would have encountered teachers who, after using the programme for one year, ranked Oral English as a very important subject to them. Young, inexperienced teachers preparing for their first full class programming responsibility, early in the school year, tend to seek help anywhere they can get it. They may well have found these
enthusiasts very helpful, and therefore allowed them to have a significant influence on their hierarchy of subjects. Another reference to Table 7.01 reveals that the most frequently returned rank at the end of 1983 was eight, which was higher than the seven returned as the most common rank at the end of 1982. There is an indication of a trend for teachers to award Oral English a higher rank at the end of a year of using the programme than they did at the commencement of implementation of the new programme. When these results are compared with those collected from teacher-resisters, there is further indication that the trend exists. Responses to question 12 of the Programme Review Sheet made by Teacher-resisters are distributed between one and seven, and concentrated in the lower scores, sixty six per cent being at three or below. What is of greater interest is the lack of a significant difference between these scores and those returned at the end of the year. The evidence seems to indicate that teachers who did not implement the Upper Great Southern Region Oral English Programme did not significantly alter their ranking of Oral English in the hierarchy of subjects they taught. Teachers who implemented the new programme tended to award a higher ranking to Oral English at the end of a year using the programme than they had at the commencement of implementation.

ACCEPTANCE OR REJECTION OF SUB-SECTION 3.22

From the findings previously described, it is argued that a rationale meaningful to teachers would communicate to them that implementing the new programme would make the subject, of which the innovation was the medium of instruc-
tion, more important to them. Teachers' attention need not be drawn to the priority they presently accord the subject. Trends within the data indicate that at the time of commencing implementation, there was within the three teacher implementing groups - the Advocates, the Resource Teachers and the Majority - a full range of opinions, from people who regarded Oral English as very important to people who ranked the subject among the least important they taught. The same may be said of teachers who resisted implementation. To this extent, the importance of the subject to teachers could not be isolated as a strongly influential factor in gaining initial implementation. (Table 7.02).

Accordingly, it is argued that this sub-section gives only qualified support to the acceptance of this part of Generalized Hypothesis No. 2.

3.2 Correlation with Other Subjects

In this section of the thesis, data gathered from the unstructured interviews and from the Level of Use focused interview questions 2, 5 and 7, will be reviewed. Attempts will be made to ascertain teacher perceptions of the relative ease with which the new Upper Great Southern Region Oral English Programme can be correlated with other aspects of school life.

There are strong indications, from data collected for this study, that most teachers perceived the allocation of one hundred and fifty minutes of teaching time to Oral English each week
### TABLE 7.01
Responses of Teachers, New to the Programme, to the Programme Review Sheet

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>23</td>
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<tr>
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<td>22</td>
<td></td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
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<td>8</td>
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<tr>
<td>9</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### TABLE 7.02
Responses of Teachers Who Have Resisted the Implementation of the new Oral English Programme to Question 12 of the Programme Review Sheet

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
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<td>9</td>
<td>6</td>
<td>1</td>
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<tr>
<td>3</td>
<td>2</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
to be a major difficulty to them, and a serious impediment to implementation. The majority of teachers resisting implementation, twenty two out of twenty nine (60%) in 1982, and five out of eight (60%) in 1983, claimed excessive consumption of time as a major reason for refusal to implement. Of the thirty teachers involved in unstructured interviews at the beginning of 1982, twenty four (80%) mentioned time as a possible problem, and five of these interviewees asked whether it would be permissible to correlate Oral English with other subjects such as Reading, Literature and Social Studies.

During these unstructured interviews conducted in both 1982 and 1983, teachers also indicated that they found committing 150 minutes to the teaching of Oral English a very significant problem and indeed, as illustrated by Table 6.13 on page 292, the majority of implementers did not commit the full 150 minutes to the programme. Their mean commitment ranged from 80 minutes in 1982 and 120 minutes in 1983. Level of Use interview focus questions provide a further opportunity for teachers to reveal their perceptions.

When they responded to the LoU focus question, "What do you see as the strengths and weaknesses of Graham’s programme in your situation?" in February 1983, 80 per cent of teachers cited the necessity to allocate 150 minutes to the teaching of Oral English as a major weakness in the implementation strategy. Within this group, only 21 per cent indicated they perceived correlation or integration with other subjects to be a possibility or an advantage. The responses of this 21 per cent are typified by this direct quotation taken from an interviewee:
Weaknesses: integrating into the programme, really. I would like to - some of the lessons you can easily see, once you have sorted through them all, that they would fit into a certain subject area. I would have liked them highlighted at the beginning ... but not too much of a problem. I think they like to move - especially in Year 4 level they like to move a lot, and it is a shame there is not more movement written in with it, because I am using my Drama time really, quite often, and they are just doing speech and they should be moving a lot more.

In November of the same year, however, teacher responses from the same group, to the same questions, indicated that only twenty nine per cent of the group now believe the time taken to teach the subject to be a major weakness of the implementation strategy, while fifty four per cent indicate they perceived the opportunity to integrate or correlate with other subjects as a major strength. They listed language-related subjects, such as Written Expression, Reading, Social Studies, Literature or Drama.

The responses of this group are typified by the following quote from a response given by a teacher in November 1983.

A strength of the programme is the way you can correlate it with other subjects. Yes - because of that fact that you do - your Oral English is out of the way; you don't touch Oral English. You do all your programmes, and then you look at the master sheet at the front and you say, Impromptu Talk, Impromptu Talk, and you look through and you look at the main ideas of each one, and you say, ah yes, of course; and I have done a sheet which I put what each one is - I just put 1, 2, 3 and next to it I put that one can go with Social Studies, that one can go with this. Actually master plan it, really, in a way, so that when I do my Social Studies I just put 'refer to Oral English Programme page such and such'; so I don't use my Oral English Programme in the Oral English time all the time, I utilise that because I can see it will fit into another subject. So therefore that goes out of that time. But I use my Social Studies time whereas sometimes it could be Art time, one day it could be an Oral English time, because that is what it is. Because so much of our Social Studies, if you have a look through all those skill areas, it has got 'verbal, verbal, verbal' ... and very little, only a couple, has it got 'mapping skills'. That is just an occasional one. All is verbal, and all of a sudden we are looking at a new syllabus which is saying 'discuss', 'think about', 'argue', 'look at these factors', 'get into groups and decide what is the best way of doing this approach', and all of a sudden it hit me that really we are looking at an Oral
English programme in Social Studies, let alone Science. A lot of people think that this is all, but you look at the Science – we have been doing the solar eclipse to prepare the kids for Saturday, and the research has gone into that the kids can come out with THEIR ideas of something that has been brilliant, and we really need to look at the skills of that so that we can use them as part of the school curriculum. So there are two points, really. The first point is that if we do an issue, the children have got to become personally involved; and the second point is that we should see some use of it in the rest of the subjects.

The Level of Use focused interview provides another perspective on this issue in the form of an opportunity to probe into the area of teacher interaction with their colleagues, specifically referring to the new Upper Great Southern Region Oral English Programme by asking the question,

Do you ever talk with others about Graham's programme?
If yes, what about?

The programme is relatively self contained and does not, of itself, require – nor deliberately stimulate – teacher interaction. A content analysis, illustrated in Figure 7.04, reveals that correlating was mentioned by only twenty one of seventy nine teachers (26%) in February 1983, and thirty four out of seventy nine teachers (43%) in November 1983.

A review of the data pertinent to this argument, 'Talk about correlating with other subjects', gives some indication that teachers believe correlation with other subjects to be an important aspect of implementation. The size of the response is such that it can be regarded as a trend which had stronger support at the end of the year than it had at the beginning.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers who talk to other teachers</td>
<td>58</td>
<td>37</td>
</tr>
<tr>
<td>Teachers who work alone</td>
<td>21</td>
<td>42</td>
</tr>
<tr>
<td>Teachers who team</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>Talk about the difficulty of keeping up</td>
<td>67</td>
<td>29</td>
</tr>
<tr>
<td>Talk about teaching methods</td>
<td>61</td>
<td>19</td>
</tr>
<tr>
<td>Talk about making aids</td>
<td>53</td>
<td>25</td>
</tr>
<tr>
<td>Talk about correlating with other subjects</td>
<td>21</td>
<td>34</td>
</tr>
<tr>
<td>Talk about evaluating our own teaching methods</td>
<td>41</td>
<td>11</td>
</tr>
<tr>
<td>Talk about children actions</td>
<td>23</td>
<td>57</td>
</tr>
</tbody>
</table>

**NB:** Total number of teachers interviewed = 79

---

**Figure 7.04** A content analysis of teacher responses to LoU question 5.
There are two other questions, the responses to which indicate that some teachers consider the concept of correlation when they think of implementation. Question 7 asks teachers whether they have made any changes recently in how they use the programme, and if so, what, why and how recently. In February 1983, as would be expected, few teachers commencing the programme for the first time indicated plans to change it. Only eleven (14%) stated they intended to correlate the aspects of the new programme with aspects of other programmes they taught. Answers given in November 1983 indicated that twenty seven (34%) intend to correlate Oral English with other subjects, generally Written English, Social Studies and Literature.

Similar responses were returned to question 8 which asked teachers to look ahead to the end of the year and outline plans they have in relation to their use of the programme for later in the year. Very little deviation from specified procedure was indicated in the February interviews; however, the answers given in November were similar to those given to question 7.

ACCEPTANCE OR REJECTION OF SUB-SECTION 3.23

There is sufficient evidence to maintain the contention that the relative ease with which teachers can correlate the Upper Great Southern Region Oral English Programme with other school programmes is important to them when they are making their decision to implement. The consistent trends within the data reviewed in this sub-section support the acceptance of this aspect of Generalized Hypothesis No. 2. Acceptance of sub-section 3.23 is recommended.
3.24 A Clearly Defined Programme

There are two major aspects to this section of the thesis: do the teachers perceive the programme as clearly defined, and if so, do they believe this to be an advantage?

During the LoU interviews in February 1983, when teachers responded to question 2, "What do you see as the strengths and weaknesses of Graham's programme in your situation?", a small group of respondents (eleven out of seventy-nine, or 16%) actually referred to 'the programme being clearly defined and easily understood' as a major strength of the programme and a positive factor in the implementation process. Towards the end of the interview, teachers were asked whether they believed the programme to be a complex one, and sixty-five per cent indicated they did not. All teachers in the sample were then asked whether they perceived the programme as giving very explicit instructions. From the seventy-nine responses, seventy-three per cent indicated that they believed the programme gave very explicit instructions.

When the LoU interviews were repeated in November 1983, a larger number of teachers (twenty-seven out of seventy-nine, or 34%) indicated they perceived the programme as 'being clearly defined and easily understood'. They regarded this as a strength of the programme.

There was also a twelve per cent increase in the number of teachers who stated they did not believe the programme to be a complex one, rising from sixty-five per cent to seventy
seven per cent. The number of teachers who indicated they believed the programme to be explicit rose from seventy three per cent to seventy five per cent.

In general terms, when teachers were talking during interviews, they indicated that one of the principal reasons for them enjoying implementing the programme was that it was easy to understand. This is perhaps more clearly illustrated in the following quotation drawn from an LoU interview given in November 1983 in response to question 2, 'What do you see as the strengths and weaknesses of Graham's programme?'

At first the size - all that paper, a full lever arch file of notes - it seemed very complicated - but you find when you get into it that the lessons are very clear - yes, you can then just follow along - that's an advantage. You really begin to enjoy it when you realize the directions given are clear and one lesson follows another. You know where you are going, and that's really good.

This data supported the concept that teachers reacted favourably to clearly defined programmes, and this can be further verified by reference to teacher responses to questions 17 and 19 from the Upper Great Southern Region Oral English Programme Questionnaire. Review of the November 1982 results, reported in Table 7.03, reveals that twenty four teachers (44%) returned scores above the median, perceiving the programme as clearly defined, while only fourteen (26%) returned scores below the median, indicating a 'broad guidelines' perspective. From the group of seventy eight teachers who responded in November 1983, thirty seven (49%) of teachers returned scores indicating they perceived the programme as clearly defined, while twenty two
**TABLE 7.03**

Teacher Responses to Question 17 from the Oral English Questionnaire

**Question 17:** On a continuum ranging from clearly defined to broad guidelines, please indicate where you would place the new Oral English Programme.

<table>
<thead>
<tr>
<th>clearly defined</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>broad guidelines</th>
</tr>
</thead>
</table>

**November 1982 responses:** 4 20 16 11 3

**November 1983 responses:** 6 31 19 18 4
(20%) returned scores below the median, perceiving the programme to be a set of broad guidelines.

Teachers were then asked much the same question, but in terms of whether they would prefer the programme to be clearly defined or a set of broad guidelines. This question and the teachers' responses are displayed in Table 7.04. It can be seen from examination of teacher responses that a trend emerged similar to that evident in responses to question 17. In each year, approximately 60 per cent of teacher responses were above the median and indicated a desire for the new Upper Great Southern Region Oral English Programme to be clearly defined, and only approximately 16 per cent of teacher responses were below the median, indicating a very small number preferred the programme to be a set of broad guidelines for teachers.

ACCEPTANCE OR REJECTION OF SUB-SECTION 3.24

The evidence reviewed in this particular case indicates that teachers prefer the new Upper Great Southern Region Oral English Programme to be explicit, easy to follow and clearly detailed. The findings have come from data which has been cross-checked or triangulated from independent sources. Acceptance of sub-section 3.24 is recommended.

3.25 The Inclusion of All Necessary Resources

The need to include all necessary resources in the programme packaged and delivered to the school became apparent as a concern for teachers very early in the observation period. This may
TABLE 7.04

Teacher Responses to Question 19 from the Oral English Questionnaire

**Question 19:** Where would you like the Oral English Programme to be placed on a scale ranging from broad guidelines to clearly defined instruction?

<table>
<thead>
<tr>
<th>broad guidelines</th>
<th>clearly defined</th>
</tr>
</thead>
</table>

| Nov. 1982 responses | 3 | 5 | 14 | 21 | 11 |
| Nov. 1983 responses  | 3 | 11 | 18 | 34 | 12 |
have been due to the rural location of the Upper Great Southern education region and the distance between schools, causing teachers to perceive themselves as professionally isolated. It may also have been explained because few schools in the sample had direct access to public libraries, tertiary institutions, or large private industries. Most relied heavily on school-based resources. These were likely to prove inadequate because the Upper Great Southern Region Oral English Programme is a new approach to the teaching of Oral English, hence the schools in the sample had either no relevant resources or a small number only slightly related. Information related to this topic was gathered from teachers using four instruments: lesson evaluation reports, question 7 from the Oral English Questionnaire, unstructured interviews at the beginning of 1982, and LoU interviews with those teachers new to the programme in February 1983.

Teachers implementing the programme were asked to complete the lesson evaluation report, previously detailed in Chapter V, at the completion of each lesson, and return the report to the Regional Office. During the first two weeks of the implementation process, thirty-eight teachers from the sample of forty-nine teachers who had indicated they had commenced the programme by that date, had returned forms. Nineteen of the reports made specific reference to the inclusion of the necessary resources; a sample has been included in Figure 7.05.

It is important to remember that these responses were returned by nineteen teachers, which is 50 per cent of the returns but only 38 per cent of the total sample. It is at least an indication of
a. The copies of poems provided worked well.

b. The first part of the lesson worked well — I did not do the second lesson because the teaching aids were not there.

c. The game provided "Identify the Famous People" worked well.

d. This lesson was omitted, I didn't have time to make the T.V. from a cardboard box.
   (17 teachers made a similar comment!)

e. I found the chart provided for this lesson very helpful.
   I haven't used charts for Oral English before.

Figure 7.05 Teacher responses to the Lesson Evaluation Report during the first two weeks of the implementation process.
a trend. Fifty teachers were new to the programme in 1983. Returns from this group tend to support the findings from the 1982 group. The percentages are a little higher, being 52 per cent of returns, and 42 per cent of the total population.

In February 1982 and 1983, teachers implementing the Upper Great Southern Region Oral English Programme were asked to complete the Oral English Questionnaire. Included in that questionnaire was item 7, designed to be a direct probe to investigate relationships between the provision of essential resources and the implementation process. Teacher responses to item 7 have been displayed in Table 7.05. These responses gave some support for the trend evident in the Lesson Evaluation Reports. Less than 20 per cent of teachers indicate a resolve to commence the programme without the provision of resources, and between 40 per cent and 48 per cent indicate they would not commence implementation if the resources were not made available.

The question of the importance of the provision of necessary resources was raised with teachers during the thirty unstructured interviews conducted in March 1982. Analysis of field notes revealed nineteen teachers gave clear indication they believed the provision of resources to be vital to successful innovation. Six of the remaining eleven regarded the provision of resources as unnecessary and believed that teachers would have more commitment if they provided their own. The remaining five gave no clear opinion. These lend further support to the general trend that emerged.
TABLE 7.05

Teacher Responses to Item 7 of the Upper Great Southern Region Oral English Programme Questionnaire Expressed as a Percentage

Question 7:

<table>
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<th>1985</th>
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</tr>
<tr>
<td>No</td>
<td>20</td>
<td>38</td>
</tr>
<tr>
<td>Perhaps</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Finally, during the LoU focused interview, subjects were offered the opportunity to address the strengths and weaknesses of the programme. Seventy nine interviews were conducted. Of these, only eleven teachers referred to the provision of the necessary resources. In each case, teachers saw this as an advantage.

ACCEPTANCE OR REJECTION OF SUB-SECTION 3.25

On the above grounds, it is argued that teachers regard the provision of all necessary resources as an important aspect of the implementation process, and therefore it is recommended that sub-section 3.25 be accepted.

3.26 Teacher Perceived Advantages Over Other Programmes

In this section the suggestion implied by the thesis is not that teachers wish to avoid the workload imposed on them by the new Upper Great Southern Region Oral English Programme; it refers more to the type of workload imposed. In this particular study, teachers indicated they resented some perceived demands made on them by Education Department authorities and the commun-
ity to accept new courses which contained expectations that teachers write detailed programmes. This tendency first became apparent during unstructured interviews conducted early in 1982. As previously described, thirty teachers were interviewed and twenty four of the thirty (80%) spontaneously referred to programming overload. They each outlined a perception that too many new courses were imposed on teachers, often with little assistance in programming being provided.

Analysis of responses illustrated in Table 7.06 reveals an apparent contradiction. Twenty seven teachers (90%) perceive that clearly defined, up-to-date syllabi are needed. Twenty four teachers (80%), however, perceive that, in general, teachers' programming workload is excessive. The apparent contradiction between these teachers perceptions of both the Education Department and the community expecting teachers to adopt too many new syllabi, and their acceptance of the need for modernization of syllabi, may be explained by the spontaneous reference to the Social Studies syllabus by sixteen of the interviewees. Such a reference is relevant because, of all Western Australian syllabi, the Social Studies contain by far the most support for teachers in the area of programming. This is typified by the following quote from an interviewee.

What we need is more subjects like Social Studies - you know - when you go to the programme you can find all you need within the syllabus - it's all there.

Further support for this tendency may be found in teachers' responses to question 2 from the LoU interviews. In February
<table>
<thead>
<tr>
<th>Classification of Teacher Responses:</th>
<th>Number of Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception that, in general, teachers' programming workload is excessive.</td>
<td>24</td>
</tr>
<tr>
<td>Education Department issues too many new programmes.</td>
<td>19</td>
</tr>
<tr>
<td>Community expects too many new programmes.</td>
<td>17</td>
</tr>
<tr>
<td>Social Studies cited as an example of good programme assistance.</td>
<td>16</td>
</tr>
<tr>
<td>Perception that clearly defined, up-to-date syllabi are needed.</td>
<td>27</td>
</tr>
</tbody>
</table>
1983, 34 per cent of teachers interviewed indicated they believed the new Upper Great Southern Region Oral English Programme required a reduced workload in the area of programming, and they perceived this as an advantage. When the same question was asked of this group of teachers in November 1983, a large number, being 56 per cent of the sample, suggested the programme support contained within the document was perceived by teachers to be an advantage and an incentive for implementing the programme.

ACCEPTANCE OR REJECTION OF SUB-SECTION 3.26

Data reviewed in this section of the thesis indicates a trend among teachers within the sample to regard as excessive the perceived programming workload expected of them by the Education Department and the Community. A significant number, it is argued, believe the new Upper Great Southern Region Oral English Programme provides teachers with assistance in programming, and therefore interpreted this factor as an inducement to implement.

On these grounds, it can be argued that acceptance of sub-section 3.26 be recommended.

ACCEPTANCE OR REJECTION OF GENERALIZED HYPOTHESIS No. 2

Generalized Hypothesis No. 2 reproduced below has been designed to investigate some ways in which The Rationale for Implementation influenced teachers' implementation behaviour.
GENERALIZED HYPOTHESIS No. 2

The rationale will influence teachers' implementation behaviour if it convinces them that the Upper Great Southern Region Oral English Programme has specific advantages over previous programmes.

Within each of the six sub-sections of Generalized Hypothesis No. 2, analysis of data indicates trends supporting the acceptance of this generalized hypothesis. Acceptance is conditional, with reservations being described within each sub-section.

On balance, however, it would seem that there is sufficient evidence to recommend the acceptance of Generalized Hypothesis No. 2.

This provides a useful extension of the knowledge, relating to characteristics of the implementation process, within the educational change literature. These findings relate especially to the user concerns that arise during an implementation process.
CHAPTER VIII
ANALYSIS OF DATA RELATED TO THE SEQUENCE OF INVOLVEMENT

Synopsis

In this chapter of the thesis, collected data have been analysed in relation to the third of the four sub-models of the Entrepreneurial Authority Decision Directive Model of Implementation, The Sequence of Involvement. In Chapter III, Generalized Hypothesis No. 3 was developed, and from it extrapolated four sub-hypotheses. In Chapter VIII, Generalized Hypothesis No. 3 has been tested by dividing the debate into four parts and reviewing and testing each part. Each part contains a sub-hypothesis. The sub-hypotheses have each been tested by establishing teacher mean scores on SoC, LoU, and the measure of Fidelity of Implementation (IC). These mean scores have then been compared with the mean scores of the total group on SoC, LoU and the measure of Fidelity of Implementation. Trends evident in each analysis have been co-ordinated to debate the acceptance or rejection of Generalized Hypothesis No. 3.

3.3 Sub-model Three: The Sequence of Involvement

The Sequence of Involvement is a concept evolving from the work of previous writers reviewed in Chapter II. Their ideas have been co-ordinated to support the development of a four-stage sub-model of the sequence in which teachers become involved in
the implementation process. The decision to implement is made by the Curriculum Manager. This impacts on the Curriculum Developer and the Advocates simultaneously, as they form the Management Committee. Each Advocate has frequent contact with a group of Resource Teachers and uses this to communicate information aimed at achieving teacher acquiescence. Resource Teachers, in their turn, interact frequently with the group of teachers allocated to them. This interaction is facilitated because, in most cases, the Resource Teacher and the teachers for whom they are responsible work in the same school. This process has been represented diagramatically in Figure 8.01.

To test the concept of Sequence of Involvement developed in Chapter III, Generalized Hypothesis No. 3 has been defined.

**GENERALIZED HYPOTHESIS No. 3**

*When they become aware of the Upper Great Southern Region Oral English Programme, some teachers in the Upper Great Southern Region will implement the change more readily than others. These differences in implementation behaviour can form the basis for a consistent classificatory system dividing teachers into groups exhibiting distinct characteristics.*

Four sub-hypotheses have been extrapolated from Generalized Hypothesis No. 3 and are supported by the theoretical constructs deduced from literature reviewed in Chapter II. For each sub-hypothesis a separate argument has been developed. The relevant data have been collected, reviewed and co-ordinated to support
Figure 8.01 How the decision to implement moves through the groups of implementers.
a conclusion for the acceptance or rejection of each sub-hypothesis.

At the conclusion of the chapter, these arguments will be used as a basis for concluding the acceptance or rejection of Generalized Hypothesis No. 3. The pattern of the debate to be applied to testing Generalized Hypothesis No. 3 is illustrated in Figure 8.02.

3.31 Advocates and the Sequence of Involvement

Sub-hypothesis 3.31

The implementation behaviour of teacher-users who become Advocates and form the Management Committee will differ significantly from that of the other teacher-implementers.

In this case study, the Curriculum Manager instructed the Curriculum Developer to establish a Management Committee. From a group of volunteers, the Curriculum Developer selected three to combine with him and form a four-person management committee. The arguments he advanced to the Curriculum Manager in support of their acceptance included the belief that each was respected by their immediate colleagues as possessing a high level of teaching skill. This was subsequently verified by an interviewer, not connected to the project, who visited the schools in which the advocates worked. She was a graduate, so was accepted into the school without conflict when she asked principals to direct her to collect effective teaching ideas in the year four to year seven classes within their school. Principals readily co-operated.
3.31
The implementation behaviour of Teacher-users who become Advocates and form the Management Committee will differ significantly from that of the other teacher implementers.

Advocate mean scores compared to total sample mean scores for SoC, LoU and Fidelity of Use

3.32
The implementation behaviour of Teacher-users who become Resource Teachers will differ significantly from that of the other teacher implementers.

Resource teacher mean scores compared to total sample mean scores for SoC, LoU and Fidelity of Use

3.33
The implementation behaviour of Teacher-users who make up the Majority group will differ significantly from that of the other teacher implementers.

Majority mean scores compared to total sample mean scores for SoC, LoU and Fidelity of Use

3.34
A group of Teacher-resisters will emerge who will give personal, not organizational, reasons for rejecting the Upper Great Southern Region Oral English Programme.

Investigate through unstructured interviews

GENERALIZED HYPOTHESIS No. 3

Figure 8.02 The relationship between Generalized Hypothesis No. 3 and the four derived sub-hypotheses.
The principal from school X nominated three teachers, the principal from Y nominated four, and the principal from Z nominated two. The interviewer also asked the same question of four teachers from each school, selecting them by using the random sample technique. Principal and teacher responses have been reproduced in Figure 8.03 and tend to lend credibility to the Curriculum Developer's claims.

Examination of Figure 8.03 reveals that, in each school, teacher A, teacher F and teacher I, being the teachers nominated for positions on the Curriculum Management Committee, have been selected by their school principal as highly talented teachers. When teachers were asked to do the selecting, the findings were not unanimous. Teacher three in school X and teacher twelve in school Z did not select the teacher nominated to join the Curriculum Management Committee; however, ten out of the total of twelve asked, did. There is sufficient evidence to accept the claim made by the Curriculum Developer that the teachers nominated by him were accepted in their schools as highly effective teachers.

The arguments advanced by the Curriculum Developer to support his selection of teachers to join the Curriculum Management Committee also included his belief that his nominees possessed an early interest in the implementation of the new programme. This belief was verified by the fact that the three teachers had indicated a keen interest in Oral English and were seeking ways to improve their own performance. Each had planned programmes that were more detailed and showed a higher degree of expertise
SCHOOL X:

Principal indicated teachers  A  B  C
1. Teacher indicated teachers  A  D
2. Teacher indicated teachers  C  B
3. Teacher indicated teachers  D  A
4. Teacher indicated teachers  A  C

SCHOOL Y:

Principal indicated teachers  E  F  G  H
5. Teacher indicated teachers  F  H
6. Teacher indicated teachers  G  F
7. Teacher indicated teachers  E  F
8. Teacher indicated teachers  H  F  G

SCHOOL Z:

Principal indicated teachers  I  J
9. Teacher indicated teachers  I  K
10. Teacher indicated teachers  J  I  L
11. Teacher indicated teachers  I  J
12. Teacher indicated teachers  J  K

NB: Teachers selected for Curriculum Management Committee = A  F  I

Neither of the choices made by Teachers 2 and 12 were selected to be part of the Curriculum Management Committee.

Figure 8.03 The principals' and teachers' selection of highly talented teachers from their region.
than those planned by a random sample of twenty five teachers drawn from the Upper Great Southern Region before they had become aware of the new programme. It is important to note that nominees for the committee were selected from a small group of volunteers who expressed an interest in implementing the Upper Great Southern Region Oral English Programme.

Finally, the Curriculum Developer claimed the group was mutually socially compatible. At the time of selection, each member knew the other, but had experienced only brief professional contact made during visits to each school by the Curriculum Developer. Social compatibility was, therefore, an estimate made by the Curriculum Developer who predicted they would stay together over the two year period 1982-1983.

Social contact rapidly expanded. Curriculum Management Committee members were allocated half a day a week release from classroom duties and a small travel budget, which allowed them to visit another school once a fortnight and the Regional Office once a month. The major function of their role was to be supportive to the Curriculum Developer and the In-school Resource Teachers, and to forge a bridge between the two. Soon after selection, social contact between the Curriculum Developer and the Curriculum Management Committee intensified to include regular monthly all-day meetings at the Regional Office, during which clerical assistance was available and lunch was provided. These meetings were soon voluntarily lengthened to include sharing the evening meal at each other's homes. Shared tasks such as organizing inservice courses for in-school Resource Teachers also required frequent
telephone contact and shared responsibility.

There is some qualified support for the argument that members of the curriculum management group (Advocates) gathered around the Curriculum Developer and differed from the other groups in the frequency and intensity of the social contact they had with him.

Further information about the implementation behaviour of Advocates is available through the analysis of the data collected by applying the SoC, the LoU and the Fidelity of Implementation measure.

The Stages of Concern (SoC)

The CBAM assumption accepted by this thesis in relation to teacher concerns about the implementation predicts that teachers from the management group will proceed through the same process or follow the same 'map' of concerns as all the other Teacher-users. Examination of Table 8.01 reveals that responses from teachers at the commencement of implementation in February 1982 were scored in the Awareness category (90%), and the Informational category (10%). Such findings are predicted by the CBAM. The SoC questionnaire was issued only three weeks after the teachers had been made aware of the Rationale for Implementation. The ten per cent of teachers seeking more information may be early implementers, and it is of interest to note that the three teachers who were later selected to join the Curriculum Management Committee were among this group.
TABLE 8.01

Teacher Responses to the Stages of Concern Questionnaire

<table>
<thead>
<tr>
<th></th>
<th>Awareness</th>
<th>Informational</th>
<th>Personal</th>
<th>Management</th>
<th>Consequences</th>
<th>Collaboration</th>
<th>Refocussing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982 (Feb.)</td>
<td>90%</td>
<td></td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1982 (Nov.)</td>
<td></td>
<td>45%</td>
<td>52%</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983 (Feb.)</td>
<td>54%</td>
<td>14%</td>
<td>1%</td>
<td>21%</td>
<td>5%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>1983 (Nov.)</td>
<td></td>
<td></td>
<td>5%</td>
<td>48%</td>
<td>27%</td>
<td>18%</td>
<td>2%</td>
</tr>
</tbody>
</table>

By the end of 1982, as is predicted by the CBAM, all teachers' responses had moved out of the Awareness and Informational categories and were distributed between Personal concerns (45%), Management concerns (52%), with one teacher (3%) experiencing Consequence concerns. Two of the Curriculum Management Committee teachers indicated they still had Management concerns, while one teacher indicated he had proceeded through the concerns of Management Consequences and was now concerned with problems associated with Consequences.

Responses returned in February 1983 were distributed across the first six categories, from Awareness to Collaboration, with the largest number, 68 per cent, being in the categories of Awareness and Informational. This apparent regression from November 1982 is explained by reference to the 49 teachers who were new to the Upper Great Southern Region Oral English Programme and the Upper Great Southern Region for February 1983. Two out of three responses from teachers selected for the Curriculum Management Committee, and being studied in relation to sub-hypothesis No. 3.31, were placed in Consequence concerns and
one in Collaboration concerns.

The tendency for these Advocates to proceed through concerns about implementation faster than other members of the teacher group under observation is further verified by the November 1983 responses indicating teachers have Collaborations concerns.

Data collected during LoU interviews will now be examined to ascertain differences between the LoU of the total sample population and that displayed by the Curriculum Management Committee.

**Level of Use (LoU)**

Data collected during the Level of Use focused interviews indicates a tendency for teachers to move through the Level of Use to Level III, Mechanical Use, after one year on the programme. A review of Table 8.02 reveals that in February 1983, 93 per cent of the 1983 implementers indicated levels of use between 0 and III, with 36 per cent at the Mechanical Use level. Level of Use interviews repeated in November 1983 indicated that 76 per cent were still operating at these levels. It should be noted that these findings are in sharp contrast to the responses returned by the members of the Curriculum Management Committee (Advocates).

Scores returned by the Curriculum Management Committee personnel, and illustrated in Table 8.03, differed from this group by indicating Levels of Use of IVa and IVb in February 1983 at a time when they had been serving on the Curriculum Manage-
ment Committee since March 1982. It is interesting to note that they did not proceed past Level V by November 1983, when they were again interviewed. This occurred, despite the fact that five of the total cohort of teachers indicated a Level of Use VI, this being Renewal (See Table 8.02).

A possible explanation for this is that close association with the Curriculum Developer may have provided them with opportunities to influence not only the implementation strategy, but also changes in parts of the programme itself. Loyalty to the programme and the Curriculum Developer may have been generated, hence they are likely to be in a:

state in which the user is combining own efforts to use the innovation with related activities of colleagues to achieve a collective impact on clients within their common sphere of influence. (Level V).

After Hall et al 1979.

Level VI is less likely to be adopted by Curriculum Management Committee members because it is associated with making major changes to the very innovation they are promoting.

In conclusion, it is argued that Level of Use data do reveal particular characteristics of Curriculum Management Committee personnel. Attention will now be turned to Innovation Configuration data to investigate any differences that might occur due to the fidelity with which teachers use the programme.
### TABLE 8.02
Level of Use Scores Returned by the Total Sample Population of Teachers in February and November 1983

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Non-use D.P.A.</td>
<td>3 (4%)</td>
<td></td>
</tr>
<tr>
<td>1 Orientation D.P.B.</td>
<td>35 (43%)</td>
<td></td>
</tr>
<tr>
<td>11 Preparation D.P.C.</td>
<td>8 (0%)</td>
<td></td>
</tr>
<tr>
<td>111 Mechanical Use D.P.D.-1</td>
<td>29 (36%)</td>
<td>93%</td>
</tr>
<tr>
<td>1VA Routine D.P.D.-2</td>
<td>3 (4%)</td>
<td>6 (7%)</td>
</tr>
<tr>
<td>1VB Refinement D.P.E.</td>
<td>2 (3%)</td>
<td>5 (6%)</td>
</tr>
<tr>
<td>V Integration C.P.F.</td>
<td>1 (1%)</td>
<td>4 (5%)</td>
</tr>
<tr>
<td>V1 Renewal</td>
<td></td>
<td>5 (6%)</td>
</tr>
</tbody>
</table>

### TABLE 8.03
Level of Use Scores Returned by the Curriculum Management Committee

<table>
<thead>
<tr>
<th>Know</th>
<th>Acquire</th>
<th>Share</th>
<th>Assess</th>
<th>Plan</th>
<th>Status</th>
<th>Perform</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 1983 Teacher A</td>
<td>111</td>
<td>IVA</td>
<td>IVA</td>
<td>IVA</td>
<td>IVA</td>
<td>IVA</td>
<td>IVA</td>
</tr>
<tr>
<td>F</td>
<td>IVA</td>
<td>IVB</td>
<td>IVA</td>
<td>IVA</td>
<td>IVB</td>
<td>IVA</td>
<td>IVA</td>
</tr>
<tr>
<td>I</td>
<td>IVA</td>
<td>IVB</td>
<td>IVA</td>
<td>IVB</td>
<td>IVB</td>
<td>IVB</td>
<td>IVB</td>
</tr>
<tr>
<td>Nov. 1983 Teacher A</td>
<td>V</td>
<td>V</td>
<td>IVB</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>IV</td>
</tr>
<tr>
<td>F</td>
<td>V</td>
<td>V</td>
<td>IVB</td>
<td>IVB</td>
<td>V</td>
<td>V</td>
<td>IV</td>
</tr>
<tr>
<td>I</td>
<td>V</td>
<td>V</td>
<td>IVB</td>
<td>IVB</td>
<td>V</td>
<td>V</td>
<td>V</td>
</tr>
</tbody>
</table>
Innovation Configuration (IC)

Data for this section were collected by teacher-completed checklists mailed to the principal of every school involved in the implementation. Each checklist was accompanied by a postage paid envelope addressed to the Education Officer at the Regional Office. Two reminder telephone calls were made to each principal, and finally sixty one checklists were returned in February and November 1982, and eighty one checklists were returned in February and November 1983.

To verify these responses all principals were provided with a four-fold classification system, and asked to classify each member of their staff who was implementing the new Upper Great Southern Region Oral English Programme in terms of the degree of fidelity they were practising with their implementation. Principals received inservice training in this process at the Regional Principals' Conference in February of each year. Where a principal's classification of the level of fidelity being practised by the classroom teacher was not congruent with the teacher's own judgement, then the Curriculum Manager visited the classroom and completed the checklist from first hand observation. Using this technique, three checklists were rejected as unreliable in 1982, and two in 1983.

In February 1982 the mean score on the checklist for teacher-users was 19.4 out of a total of 58, which may be interpreted as indicating a very low degree of fidelity. This is not surprising, given the short time teachers had been aware of the programme.
Curriculum Management Committee members did not differ significantly from the cohort as they scored 28, 17 and 17 out of a possible total of 58. In November of 1982, the Curriculum Management Committee members scored 47, 49 and 48 out of a possible total of 58, which differed from the mean score for the cohort of 41. Their scores indicated higher degrees of fidelity in implementing the Upper Great Southern Region Oral English Programme on the aspects of adhering to the programme structure, working with other teachers, understanding children's capabilities, working with the inschool resource teacher, and using small group work as a teaching technique.

In February 1983, the beginning of the second year of this case study, the Curriculum Management Committee members returned scores of 56, 53 and 48, indicating a significantly higher degree of fidelity than the mean score of 31 returned by the other teacher-users in the case study, or the mean score of 41 returned by teachers working on the programme for the second consecutive year. By the November of 1983 the Curriculum Management Committee members' scores were significantly different from those returned by the total sample population.

ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.31

The review of the data available reveal evidence that provides qualified support for the acceptance of the sub-hypothesis. Advocates as a group were subject to the same stages of concern experienced by other teachers. They moved through the stages at a faster rate but did not move on to the final stage, which is Refocusing. They also
followed the same patterns of level of use as other teachers; however, unlike teachers in the majority group, they did not move on to Renewal. Advocates started the implementation process at a higher level of fidelity than other groups and retained this superiority, despite the fact that all implementing groups increased their levels of fidelity. Subject to the above qualifications, acceptance of sub-hypothesis 3.31 is recommended.

3.32 The Resource Teachers and the Sequence of Involvement

The concept of an 'in-school Resource Teacher' group was closely allied to that of the Curriculum Management concept. The model developed by this thesis suggested that once the Curriculum Management Committee had evolved, its members began to contact the school. From this contact personal relations developed and when asked by the Curriculum Developer, one teacher in each school accepted the responsibility of fulfilling the role of in-school Resource Teacher. This teacher then experienced an increased access to a member of the Curriculum Management Committee and also some access to the Curriculum Developer. As a group, the in-school Resource Teachers are accorded greater inservice resources and curriculum support than other teachers, and through this, met the Curriculum Manager more frequently than other teachers. They thus became an important link between this management group, the ideas they were disseminating, and the classroom teachers; they became the purveyors of knowledge.

These unique conditions and experiences made the in-school
Resource Teachers an identifiable group who may develop common characteristics in their implementation behaviour. Sub-hypothesis 3.32 has been used as a basis to probe their implementation behaviour to ascertain whether any common characteristics are revealed.

Sub-hypothesis 3.32
The implementation behaviour of teacher-users who become Resource Teachers will differ significantly from that of other teacher-implementers.

To test sub-hypothesis 3.32, this thesis will address three aspects of teacher implementation behaviour: the SoC, the LoU, and the measurement of Fidelity of Implementation. The first aspect to be investigated is the SoC.

The Stages of Concern questionnaire (SoCQ) which has been described at length in Chapter V, was administered in February and November 1982 and 1983. Teacher responses thus collected were divided into those returned by Resource Teachers, of whom there were seventeen in 1982, and the forty four implementers who did not receive such favoured treatment (the Majority). In 1983 fifteen of the original Resource Teachers remained in the Upper Great Southern Region and continued with their role, while sixteen of the original forty four from the Majority group remained. These numbers have been displayed in Table 8.04.

The Design of the Data Analysis
The seven Stages of Concern addressed by the Hall et al. (1979) questionnaire were each measured by scores returned on
TABLE 8.04

Number of Responses Received from Inschool Resource Teachers and Teacher-users, to the clusters of items for the Seven Stages of Concern

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inschool Resource Teachers</td>
<td>Teacher-users</td>
</tr>
<tr>
<td>Awareness</td>
<td>17</td>
<td>43</td>
</tr>
<tr>
<td>Informational</td>
<td>17</td>
<td>44</td>
</tr>
<tr>
<td>Personal</td>
<td>17</td>
<td>43</td>
</tr>
<tr>
<td>Management</td>
<td>17</td>
<td>43</td>
</tr>
<tr>
<td>Consequences</td>
<td>17</td>
<td>43</td>
</tr>
<tr>
<td>Collaboration</td>
<td>17</td>
<td>44</td>
</tr>
<tr>
<td>Refocusing</td>
<td>17</td>
<td>43</td>
</tr>
</tbody>
</table>
five items, making thirty five items in all. It is proposed in this section of Chapter VIII to compare the responses of Resource Teachers to those clusters of five items with the responses to the same items returned by Teacher-users in the majority group. This will be done on a stage by stage basis, each stage being addressed in a discrete section. The mean scores for each group have been presented in a summary table as an introduction to the stage by stage analysis in Table 8.05. Differences in group mean scores have been displayed in Figure 8.04.

The first stage of the SoC concept addressed by Hall et al (1979) is that of Awareness.

Awareness (SoC Stage 1)

According to the theory propounded by Hall et al (1979), teachers first becoming aware of an innovation typically believe they are busy with other affairs and their concerns are not with the innovation but with their already established practices. Before the implementation process can commence, its incorporated awareness strategies must arouse teachers' attention. To operationalize this concept, Hall et al (1979) designed and tested five items which they then included in the Stages of Concern Questionnaire. Responses to these five items were gathered from the Resource Teacher group and the Teacher-user group. These scores were subject to an analysis of variance technique seeking statistically significant differences.

Comparison of the Resource Teachers' scores, collected in
TABLE 8.05

Mean Scores for the Resource Teacher Group and the Majority Group on the SoC Stages

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th></th>
<th>1983</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>February</td>
<td>November</td>
<td>February</td>
<td>November</td>
</tr>
<tr>
<td></td>
<td>Resource</td>
<td>Teacher</td>
<td>Resource</td>
<td>Teacher</td>
</tr>
<tr>
<td>Awareness</td>
<td>27.6</td>
<td>26.53</td>
<td>3.76</td>
<td>3.88</td>
</tr>
<tr>
<td>Informational</td>
<td>12</td>
<td>11</td>
<td>8.3</td>
<td>9</td>
</tr>
<tr>
<td>Personal</td>
<td>6.9</td>
<td>7.4</td>
<td>19.3</td>
<td>16.5</td>
</tr>
<tr>
<td>Management</td>
<td>5.2</td>
<td>4.7</td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td>Consequences</td>
<td>3</td>
<td>4</td>
<td>7.3</td>
<td>8.5</td>
</tr>
<tr>
<td>Collaboration</td>
<td>2</td>
<td>2.6</td>
<td>5.35</td>
<td>6.14</td>
</tr>
<tr>
<td>Refocusing</td>
<td>2.3</td>
<td>2</td>
<td>1.4</td>
<td>1.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th></th>
<th>1983</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>February</td>
<td>November</td>
<td>February</td>
<td>November</td>
</tr>
<tr>
<td>Awareness</td>
<td>No difference</td>
<td>No difference</td>
<td>Significant difference at the 0.05 level</td>
<td>Significant difference at the 0.05 level</td>
</tr>
<tr>
<td>Informational</td>
<td>No difference</td>
<td>No difference</td>
<td>No difference</td>
<td>No difference</td>
</tr>
<tr>
<td>Personal</td>
<td>No difference</td>
<td>Significant difference at the 0.05 level</td>
<td>No difference</td>
<td>No difference</td>
</tr>
<tr>
<td>Management</td>
<td>No difference</td>
<td>Significant difference at the 0.05 level</td>
<td>No difference</td>
<td>No difference</td>
</tr>
<tr>
<td>Consequences</td>
<td>No difference</td>
<td>Significant difference at the 0.05 level</td>
<td>No difference</td>
<td>Significant difference at the 0.05 level</td>
</tr>
<tr>
<td>Collaboration</td>
<td>No difference</td>
<td>No difference</td>
<td>Significant difference at the 0.05 level</td>
<td>Significant difference at the 0.05 level</td>
</tr>
<tr>
<td>Refocusing</td>
<td>Significant difference at the 0.01 level</td>
<td>No difference</td>
<td>Significant difference at the 0.01 level</td>
<td>Significant difference at the 0.01 level</td>
</tr>
</tbody>
</table>

Figure 8.04 The Mean Scores for the Resource Teachers and Other Teacher-users on the SoCQ and the Analysis of Variance.
February 1982 with those of the Teacher-users collected at the same time, revealed no statistically significant differences. When the same process was repeated in November 1982, the level of intensity of the Resource Teachers' concerns had fallen from the very high mean score of 27.6 to the very low mean score of 3.76. Similarly, the Teacher-users' mean score in February 1972, of 26.53, had fallen to a low mean score of 3.88. The difference between the two mean scores returned in November 1982 was not statistically significantly different. Statistically significant differences were ascertained between the scores of these two groups for February and November of 1983. In each case, the level of concern was low.

From a review of the items reproduced in Figure 8.05 and the analysis of variance illustrated in Figure 8.06, it can be deduced that in February 1982, when teachers were becoming aware of the new Upper Great Southern Region Oral English Programme for the first time, both groups indicated a high level of concern about the awareness phase of the planned change process. While the Resource Teachers' mean score was higher at the beginning of the year, the difference was not statistically significant. On this dimension, the Resource Teachers did not start the year indicating different concerns, neither were their perceptions of awareness concerns any different from those of the Teacher-users when the second SoC was administered in November 1982. Differences emerged in February 1983.

In both the February and November 1983 collection of data,
3 I don't even know what the innovation is. 1 2 3 4 5 6 7
12 I am not concerned about this innovation. 1 2 3 4 5 6 7
21 I am completely occupied with other things. 1 2 3 4 5 6 7
23 Although I don't know about this innovation, I am concerned about things in this area. 1 2 3 4 5 6 7
30 At this time, I am not interested in learning about this innovation. 1 2 3 4 5 6 7

Scoring: 0 = irrelevant 1-2 = not true of me now 3-5 = somewhat true of me now 6-7 = very true of me now

Figure 8.05 The SoC questions designed to identify teachers experiencing Awareness concerns.

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th></th>
<th>1983</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teacher users</td>
<td>Teacher users</td>
<td>Teacher users</td>
<td>Teacher users</td>
<td>Teacher users</td>
<td>Teacher users</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27.6</td>
<td>26.53</td>
<td>3.76</td>
<td>3.88</td>
<td>5.2</td>
<td>6.3</td>
<td>2.27</td>
</tr>
<tr>
<td></td>
<td>T = 0.062</td>
<td>T = 1.948</td>
<td>T = 4.034</td>
<td>T = 4.879</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No statistically significant difference</td>
<td>No statistically significant difference</td>
<td>Significant Difference at the 0.05 level</td>
<td>Significant Difference at the 0.05 level</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 8.06 The mean scores for the Resource Teachers and other Teacher-users on the Awareness Dimension and the Analysis of Variance.
the scores of the Resource Teachers as a group were significantly lower than those of the other Teacher-users. On the evidence available, it may be suggested that as no differences existed in the first year, then differences occurring in the second year were more likely to be due to the change process than to personality factors.

**Informational (SoC Stage 2)**

The second classification of concerns in the Stages of Concern paradigm are those that arise when teachers begin to seek information about the innovation. The five questions used to identify teachers experiencing such concerns are listed in Figure 8.07. The mean scores returned by the Resource Teacher group and the Teacher-user group were compared.

Analysis of variance between the mean scores returned by the two groups on the four separate occasions revealed significant differences between the mean scores returned by the Resource Teacher group and the Teacher-user group in February and November of 1983, but no significant differences between the mean scores of the two groups in February or November, 1982. The results of the analysis of variance are displayed in Figure 8.08.

The findings here are similar to those that may be deduced from the review of the data relevant to the Awareness stage. It can be seen from a further examination of Figure 8.08 that the groups did not display different implementation behaviour in the first year, but some differences emerged in the second.
6 I have a very limited knowledge about the innovation.  

14 I would like to discuss the possibility of using the innovation.  

15 I would like to know what resources are available if we decide to adopt this innovation.  

26 I would like to know what the use of the innovation will require in the immediate future.  

35 I would like to know how this innovation is better than what we have now.  

---

Figure 8.07 SoC questions designed to identify teachers experiencing informational concerns.

---

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>February Resource Teacher-users</td>
<td>12</td>
<td>5.2</td>
</tr>
<tr>
<td>November Resource Teacher-users</td>
<td>11</td>
<td>10.1</td>
</tr>
<tr>
<td>T = 0.062</td>
<td>T = 0.025</td>
<td>T = 4.85</td>
</tr>
<tr>
<td>No statistically significant difference</td>
<td>No statistically significant difference</td>
<td>Significant Differences at the 0.05 level</td>
</tr>
</tbody>
</table>

---

Figure 8.08 The mean scores for the Resource Teachers and other Teacher-users on the Informational dimension and the Analysis of Variance.
Resource Teachers' mean scores dropped from 8.3 in November 1982 to 5.2 in February 1983. Teacher-users' mean scores, in contrast, were 9 in November 1982 and rose to 10.1 in February 1983. The difference between the February 1983 scores of 5.2 and 10.1 is statistically significantly different at the 0.05 level of confidence. A further review of Figure 8.08 reveals that both groups returned mean scores of 4.8 in November 1983. This is a very low level of concern, so it is not surprising to find the difference is not statistically significantly different. The trend in the data seems to indicate that neither group experienced high levels of concern when seeking information. Resource Teachers, who would have had greater access to information, were able to reduce the level of their concerns earlier than the Teacher-users.

**Personal (SoC Stage 3)**

The SoC is a developmental concept and this is based on the assumption that once teachers have accommodated their concerns from the Awareness and Informational stages and lowered the intensity of such concerns felt by them, then the concerns associated with personal factors will be felt. The items designed to sample this aspect of implementation behaviour have been listed in Figure 8.09. Analysis of variance among teacher responses to these items are displayed in Figure 8.10.

In the first two Stages of Concern, Awareness and Informational, data indicated a tendency for user concerns felt by Resource Teachers and Teacher-users to be similar in the first year but to differ in the second. In this third stage, Personal
7. I would like to know the effect of reorganization on my professional status. 1 2 3 4 5 6 7

13. I would like to know who will make the decisions in the new system. 1 2 3 4 5 6 7

17. I would like to know how my teaching or administration is supposed to change. 1 2 3 4 5 6 7

26. I would like to have more information on time and energy commitments required by this innovation. 1 2 3 4 5 6 7

33. I would like to know how my role will change when I am using the innovation. 1 2 3 4 5 6 7

Figure 8.09 SoC questions designed to identify teachers experiencing Personal concerns.

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>February</td>
<td>6.9</td>
<td>7.4</td>
</tr>
</tbody>
</table>

\[ X = \]

\[ T = 0.012 \]

No statistically significant difference

\[ T = 2.067 \]

Statistically significant difference at the 0.05 level

\[ T = 0.246 \]

No statistically significant difference

\[ T = 0.031 \]

No statistically significant difference

Figure 8.10 The mean scores for the Resource Teachers and other Teacher-users for Personal concerns and the Analysis of Variance.
Concerns, the concerns for both groups were similar in February, but were felt at their highest intensity in November 1982. Further examination of Figure 8.10 reveals a mean of 19.3 for Resource Teachers and 16.5 for Teacher-users. Scores returned in February and November 1983 indicate that both groups have lowered the intensity of their concerns to approximately 30 per cent of potential and do not differ significantly in 1983.

**Management (SoC Stage 4)**

By the time the users have resolved their earlier concerns associated with becoming aware of the Upper Great Southern Region Oral English Programme, gaining information about it, and their own personal situation, they have begun using it. Concerns tend to be aroused by affective experiences (Fuller, 1969), hence the next cluster of concerns to be addressed is that associated with making the innovation work in a classroom. In the Hall et al (1979) concept entitled Management, teachers become concerned about such classroom-related issues as efficiency, organizing, managing, time tabling and planning as they focus on the processes and tasks necessary to make the innovation work. The items included in the SoCQ intended to identify teachers experiencing these concerns have been listed in Figure 8.11. Analysis of variance of the teacher responses is reported in Figure 8.12.

Data analysis reported in Figure 8.12 showed that, as with previous stages, the two groups returned scores in February 1982 that were not significantly different. The scores returned in
4 I am concerned about not having enough time to organize myself each day. 1 2 3 4 5 6 7

8 I am concerned about conflict between my interests and my responsibilities. 1 2 3 4 5 6 7

16 I am concerned about my inability to manage all the innovation requires. 1 2 3 4 5 6 7

25 I am concerned about time spent working with non-academic problems related to this innovation. 1 2 3 4 5 6 7

34 Co-ordination of tasks and people is taking too much of my time. 1 2 3 4 5 6 7

Figure 8.11 SoC questions designed to identify teachers experiencing Management concerns.

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Resource</td>
<td>November</td>
</tr>
<tr>
<td></td>
<td>Teacher</td>
<td>Teacher</td>
</tr>
<tr>
<td>Teachers-users</td>
<td>users</td>
<td>users</td>
</tr>
<tr>
<td>1982</td>
<td>5.2</td>
<td>4.7</td>
</tr>
<tr>
<td>1983</td>
<td>19</td>
<td>21.5</td>
</tr>
</tbody>
</table>

T = 0.02
No statistically significant difference

T = 2.63
Statistically significant difference at the 0.05 level.

T = 0.14
No statistically significant difference

T = 0.12
No statistically significant difference

Figure 8.12 Mean scores for the Resource Teachers and other Teacher-users for Management concerns and the Analysis of Variance.
November, however, differed significantly at the 0.05 level, with the Resource Teachers showing greater intensity of concern. When the scores returned in February and November 1983 were compared, it could be seen that no significant differences were to be found.

Consequences (SoC Stage 5)

Once teachers experience a lowering in the intensity of their feelings towards the practical concerns associated with managing the Upper Great Southern Region Oral English Programme, concerns of a higher order may emerge; conversely, they may not. Hall et al.’s (1979) research indicates that holding and changing concerns is a dynamic of each individual user, hence is not dependent on reduction of lower order concerns or manipulation of the environment by a change agent. If users become concerned about higher order concerns such as the consequences of the programme for children, the decision to become concerned is made by each individual user. Although Hall et al.’s (1979) conception is positivistic and developmental, it does not claim that user progress through the seven stages is inexorable. There may be factors such as personality, the level of talent and skill possessed by the teacher, or the amount of time available to them that prohibit a teacher from making a decision to move from one stage to the next. If a user does choose to move from management concerns to those of a higher order, the next stage is associated with teacher concerns over the consequences for children when they become involved in the Upper Great Southern Region Oral English Programme.
Consequence concerns focus on the pupils and the behaviour changes they undergo as a result of being exposed to the Upper Great Southern Region Oral English Programme. Teachers become concerned about the relevance of the programme and its ability to meet pupil needs, the ability of pupils to meet programme objectives, and the methods of teaching needed to help them achieve higher quality results. There are five questionnaire items contained in the Stages of Concern Questionnaire that are designed to distinguish teachers experiencing such concerns, and these have been reported in Figure 8.13. Analysis of Variance reported in Figure 8.14 indicated that the two groups commenced the implementation process with low levels of consequence concerns and no significant difference between their scores. On each subsequent data collecting occasion, the scores of the two groups differed significantly. High level concerns did not appear until the second year, and these remained high at the end of the two year observation period.

**Collaboration (SoC Stage 6)**

Research collected by Hall *et al.* (1979) supports a contention that users who have resolved their concerns associated with the consequences for children who become involved in the programme will begin to accept concerns related to a desire to work with other teachers. Some will become concerned over their perceived need to co-ordinate their work with other teachers in order to maximize the effect of the programme and to help fellow teachers. Still others, who have become convinced that the programme provides positive consequences for children, will be keen to
1 I am concerned about students' attitudes towards this innovation. 1 2 3 4 5 6 7

11 I am concerned about how the innovation affects students. 1 2 3 4 5 6 7

19 I am concerned about evaluating my impact on students. 1 2 3 4 5 6 7

24 I would like to excite my students about their part in this approach. 1 2 3 4 5 6 7

32 I would like to use feedback from students to change the programme. 1 2 3 4 5 6 7

Figure 8.13 SoC questions designed to identify teachers experiencing Consequence concerns.

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th></th>
<th>1983</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>February</td>
<td>November</td>
<td>February</td>
<td>November</td>
</tr>
<tr>
<td></td>
<td>Resource</td>
<td>Resource</td>
<td>Teacher-users</td>
<td>Teacher-users</td>
</tr>
<tr>
<td></td>
<td>Teachers</td>
<td>Teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x̅</td>
<td>3</td>
<td>7.3</td>
<td>23.4</td>
<td>24.3</td>
</tr>
<tr>
<td>T</td>
<td>0.411</td>
<td>3.32</td>
<td>1.207</td>
<td>2.655</td>
</tr>
</tbody>
</table>

No statistically significant difference at the 0.01 level

Figure 8.14 The mean scores for the Resource Teachers and other Teacher-users for Consequence concerns and the Analysis of Variance.
demonstrate this to other teachers in their school, and even to teachers who work in other schools. There are five questionnaire items in the Stages of Concern Questionnaire that have been designed to distinguish teachers experiencing Collaboration concerns. These five have been reproduced in Figure 8.15.

Inspection of the responses reproduced in Figure 8.16 reveals that in 1982 the two groups perceived themselves as having very low levels of intensity of concerns about the need to collaborate with other teachers. There is no significant difference between the scores they returned. In 1983 a very different picture emerges. Resource Teachers return scores that indicate an intensity of concern over the collaborative aspect of the programme that is almost twice that of the other Teacher-users.

Refocusing (SoC Stage 7)

The last of the seven stages of the Hall et al (1979) Stages of Concern conception is that of Refocusing. Individuals who elect to enter this stage have resolved their concerns about the consequences of the programme for the children who participate in it. They have also lowered the intensity of their concerns associated with their desire to collaborate with other teachers as they use the programme. Being familiar with the innovation, they know its strengths and weaknesses, and have definite ideas on how it might be improved. Teachers with Refocusing concerns tend to focus on the exploration of wide ranging, long term benefits that could be accomplished through modification, and they may well include the possibility of a total review and the creation
5. I would like to help other faculty in their use of the innovation. 1 2 3 4 5 6 7

10. I would like to develop working relationships with both our faculty and outside faculty using this innovation. 1 2 3 4 5 6 7

18. I would like to familiarize other departments or persons with the progress of this new approach. 1 2 3 4 5 6 7

27. I would like to co-ordinate my efforts with others to maximize the innovation's effects. 1 2 3 4 5 6 7

29. I would like to know what other faculties are doing in this area. 1 2 3 4 5 6 7

---

Figure 8.15 SoC questions designed to identify teachers experiencing Collaboration concerns.

---

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>February Resource Teachers</td>
<td>November Resource Teachers</td>
</tr>
<tr>
<td>Teacher-users</td>
<td>-2.0</td>
<td>5.35</td>
</tr>
<tr>
<td></td>
<td>2.6</td>
<td>6.14</td>
</tr>
</tbody>
</table>

\[ X = \]

\[ T = 0.048 \]
No statistically significant difference

\[ T = 0.078 \]
No statistically significant difference

\[ T = 2.49 \]
Statistically significant difference at the 0.05 level

\[ T = 5.29 \]
Statistically significant difference at the 0.01 level

---

Figure 8.16 The mean scores for the Resource Teachers and other Teacher-users for Collaboration concerns and the Analysis of Variance.
of a new programme. Five items have been included in the Stages of Concern Questionnaire with the express purpose of identifying users who are experiencing Refocusing concerns. These five items have been reproduced in Figure 8.17.

Resource Teacher responses to the Stages of Concern Questionnaire returned in February 1982 and displayed in Figure 8.18 differed significantly from those of the other Teacher-users. They recorded a higher intensity of the concerns associated with Refocusing. It is interesting to note that this was not the case for most of the previous concerns, where Resource Teachers consistently registered lower levels of concern than Teacher-users. By the time the second SoC questionnaire was administered, the two groups had adopted a similar perspective on concerns associated with the Refocusing dimension, and their responses did not differ significantly.

When the February 1983 responses to the items designed to indicate the presence of refocusing concerns were analysed, it became apparent that the two groups again differed significantly. This time, the Teacher-users indicated they perceived themselves as having a higher intensity of concerns over matters associated with Refocusing than Resource Teachers. Perhaps the most interesting trend revealed by analysis of the data returned in November 1983 was that other Teacher-users increased the intensity of their concern over matters associated with the Refocusing dimension to a much greater degree than the Resource Teachers.
2 I now know of some other approaches that might work better. 1 2 3 4 5 6 7
9 I am concerned about revising my use of the innovation. 1 2 3 4 5 6 7
20 I would like to revise the innovation's instructional approach. 1 2 3 4 5 6 7
22 I would like to modify our use of the innovation based on the experiences of our students. 1 2 3 4 5 6 7
31 I would like to determine how to supplement, enhance, or replace the innovation. 1 2 3 4 5 6 7

Figure 8.17 The SoC questions designed to identify teachers experiencing Refocusing concerns.

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>February Resource Teachers</td>
<td>November Resource Teachers</td>
</tr>
<tr>
<td>X =</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>2.0</td>
<td>1.4</td>
</tr>
<tr>
<td>T = 8.21</td>
<td>T = 0.04</td>
<td>T = 4.56</td>
</tr>
<tr>
<td>Statistically significant difference at the 0.01 level.</td>
<td>No statistically significant difference</td>
<td>Statistically significant difference at the 0.01 level.</td>
</tr>
</tbody>
</table>

Figure 8.18 The mean scores for the Resource Teachers and other Teacher-users for Refocusing concerns and the Analysis of Variance.
Level of Use (LoU)

The LoU interviews took place in February and November of 1983, the second year of the implementation process. During this year, only 31 of the original 64 implementers remained in the Region, the rest having sought and received transfers to schools in other regions of Western Australia. It was normal practice for the majority of teachers to spend two years teaching in the Upper Great Southern Region and then request a transfer to return to their homes in the Perth metropolitan area. These applications contained no evidence that their involvement in the implementation process influenced their desire to seek a transfer.

Although 53 teachers new to the Upper Great Southern Region in 1983 had already commenced implementing the Upper Great Southern Region Oral English Programme, they were in only their first year of using this programme, and so it would have been inappropriate to use responses returned by them in this comparison exercise. Of the remaining 31 subjects, 15 were Resource Teachers while the other 16 were Teacher-users. The percentage of teachers from each group on the various LoU for February and November 1983 is reported in Table 8.06.

Examination of data presented in Table 8.06 revealed that the distribution of responses in February for both groups was quite similar. For both groups, responses in the Mechanical Use category make up 76 per cent of the total. Only one Teacher-user had progressed to the Refinement level, and none had progressed further. Two Resource Teachers, however, had reached the Routine
TABLE 8.06
Mean Scores for the Resource Teachers and Other Teacher-users on Refocusing Concerns and the Analysis of Variance for 1983

<table>
<thead>
<tr>
<th></th>
<th>Resource Teachers</th>
<th>Teacher-users</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>February</td>
<td>November</td>
</tr>
<tr>
<td>Non use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical Use</td>
<td>76%</td>
<td>27%</td>
</tr>
<tr>
<td>Routine</td>
<td>12%</td>
<td>19%</td>
</tr>
<tr>
<td>Refinement</td>
<td>6%</td>
<td>27%</td>
</tr>
<tr>
<td>Integration</td>
<td>6%</td>
<td>27%</td>
</tr>
<tr>
<td>Renewal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

level, one had reached Refinement, and one had progressed as far as Integration. By the end of the year, five of the Teacher-users had reached an operating level of Renewal, which contrasts sharply with the Resource Teachers, none of whom had recorded responses indicating an LoU at the Renewal level.

Innovation Configuration (IC)

The research design used in this section of Chapter VIII employed data from two sources. The first was a review of principals' estimates of the fidelity of use for teachers in their school. This was followed by a review of teacher responses to the major areas of the Programme Review Sheet, the Programme
Structure, Working with Other Teachers, and the Importance of the Subject to the User. The focus of the analysis was to compare the two sets of responses, seeking differences that could be identified as characteristics of the group of Resource Teachers or characteristics of the Teacher-user group.

**Principals' Estimates of Teachers' Fidelity of Use**

Principals were asked to estimate on a four-point scale the degree of fidelity with which individual teachers on the staff were implementing the Upper Great Southern Region Oral English Programme. This task was fulfilled conscientiously, and a one hundred per cent response was received. The responses received are displayed in Table 8.07. During the first year of observation the differences between principals' estimates were not sufficiently large to indicate any trends. In February 1983 principals judged eight out of the seventeen Resource Teachers to be operating at the highest level of fidelity. They judged only three of the fifteen Teacher-users to be operating at this level. This trend received further support from the principals' estimates returned in November 1983.

When they made their November 1983 estimates, principals considered that fourteen of the Resource Teachers were operating at the highest level of fidelity, while only four of the Teacher-users were. From the principals' perspective, a characteristic of the Resource Teacher group was that they reached a high level of fidelity of implementation in a shorter time than the Teacher-users.
### Table 8.07

Principals' Estimates of the Degree of Fidelity with which Teachers Implement the Upper Great Southern Region Oral English Programme

<table>
<thead>
<tr>
<th>Scale</th>
<th>Number of Resource Teachers</th>
<th>Number of Teachers-users</th>
<th>Number of Resource Teachers</th>
<th>Number of Teachers-users</th>
<th>Number of Resource Teachers</th>
<th>Number of Teachers-users</th>
<th>Number of Resource Teachers</th>
<th>Number of Teachers-users</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15</td>
<td>15</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>8</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>3</td>
<td>14</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Scale shown on the vertical axis:

1 = Early user.

2 = Mechanical user. Uses the recommended lesson sequence and generally follows instructions to the letter.

3 = Growing sophistication. Broadening range of teaching techniques. Student evaluation techniques have been established.

4 = Full understanding. Correlation with other subjects. Evaluating total programme.
Teacher Responses to the Programme Review Sheet

Teacher responses to the Programme Review Sheet were divided into those returned by the Resource Teacher group and those returned by the Teacher-user group. Mean scores for these two groups on the total number of items were calculated and then displayed in histogram form in Figure 8.19. Examination of the histogram shows that the degree of fidelity of use displayed by both groups on the four dates used was not significantly different.

Three individual items from the Programme Review Sheet will now be investigated, the first being Programme Structure.

Programme Structure (Item 1)

The Upper Great Southern Region Oral English Programme had a clearly defined structure which was fully documented. A major dimension of fidelity, as defined by the Programme Review Sheet, was the extent to which users followed this structure. Item one, designed to investigate this aspect of user behaviour, contained four statements, each designed to indicate a different level of fidelity of implementation. Teachers were asked to indicate the statement that best described their behaviour as they worked their way through the Programme. The statements, which are reproduced in Figure 8.20, range from indicating a close adherence to the recommended pattern, to a highly individualized approach to the use of the Programme.

Teacher responses to Item One have been divided into those
Figure 8.19 Histogram of the mean responses for the Resource Teachers and the Teacher-users on the Programme Review Sheet.
Please tick the sentence that best describes your approach to the Oral English Programme at this time.

1. Programme Structure
   How are you progressing through the Oral English course?

   a) I complete each lesson according to the suggested sequence, perhaps omitting a few. □

   b) I re-sort lessons into a sequence to suit myself. □

   c) I choose a few high interest activities and leave out the rest. □

   d) I integrate other subjects with the Oral English Programme. □

---

Figure 8.20 Item One from the Programme Review Sheet.

made by Resource Teachers and those made by the other Teacher-users, excluding those made by the Curriculum Management Committee members. A comparison of Resource Teacher and other Teacher-user responses is recorded in Table 8.08.

Data displayed in Table 8.08 reveal that in February 1982 a higher percentage of Resource Teachers recorded a score of (d) than other Teacher-users. This indicates a use of the programme structure at the optimum level, as perceived by the Curriculum Developer. On both collection dates in 1982, this trend continued. Both groups, however, returned similar scores in November 1983 (Resource Teacher 81 per cent and other Teacher-
TABLE 8.08

A Comparison of Teacher Responses to Item One of the Programme Review Sheet Divided into Those Made by Resource Teachers and Those Made by Other Teacher-users.

<table>
<thead>
<tr>
<th></th>
<th>February 1982</th>
<th>February 1983</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Resource</td>
<td>Teacher-users</td>
</tr>
<tr>
<td></td>
<td>Teachers</td>
<td>users</td>
</tr>
<tr>
<td>(a)</td>
<td>12.5%</td>
<td>8.5%</td>
</tr>
<tr>
<td>(b)</td>
<td>19.0%</td>
<td>28.0%</td>
</tr>
<tr>
<td>(c)</td>
<td>31.0%</td>
<td>55.0%</td>
</tr>
<tr>
<td>(d)</td>
<td>37.5%</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>November 1982</th>
<th>November 1983</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Resource</td>
<td>Teacher-users</td>
</tr>
<tr>
<td></td>
<td>Teachers</td>
<td>users</td>
</tr>
<tr>
<td>(a)</td>
<td>12.5%</td>
<td>7.0%</td>
</tr>
<tr>
<td>(b)</td>
<td>19.0%</td>
<td>20.0%</td>
</tr>
<tr>
<td>(c)</td>
<td>30.5%</td>
<td>69.0%</td>
</tr>
<tr>
<td>(d)</td>
<td>38.0%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

users 78 per cent. In this instance, Resource Teachers as a group, differed from the other Teacher-users because a greater percentage of their members performed at the higher level of fidelity every time a measurement was made.

Working with Other Teachers (Item 4)

The Upper Great Southern Region Oral English Programme is a very comprehensive teaching document, the implementation of which demands resources from teachers greater than those usually deployed for this subject. A major aim of this programme is to ensure that teachers are able to avoid an increase in work
load by working together. To compensate for any perceived extra work load, the Curriculum Developer stressed during inservice courses the advantages gained by teachers who co-operate in pairs or teams. Four statements have been developed as part of Item Four, each describing a separate level of fidelity, and they are reproduced in Figure 8.21. Teachers were asked to indicate which one best described their behaviour at the time they completed the Programme Review Sheet.

Teachers' responses to these statements, recorded in Table 8.09, tended to support a trend earlier identified in the responses to Item One, Programme Structure. In answer to Item Four, both groups returned similar responses to the February 1982 collection of data, where almost all teachers perceived themselves as not interested in working with other teachers. By November 1982, 38 per cent of Resource Teachers perceived themselves as meeting other teachers with a view to maximizing the effectiveness of the programme, which is the optimum level of fidelity. Responses of the other Teacher-users returned at the same time indicated that none of the group perceived themselves to be at the optimum level of fidelity - indeed, the majority were at level two. By February 1983, however, more Teacher-users were returning scores at the optimum level (42.9%) and by November 1983 in both groups the majority of members were operating at the optimum level of fidelity.

Resource teachers as a group exhibited different implementation behaviour to that exhibited by other Teacher-users on the Working with Other Teachers dimension of the Upper Great
Please tick the sentence that best describes your approach to the Oral English Programme at this time.

4. **Working with other teachers.**

   a) At this time I'm not interested in what other teachers are doing. 

   b) I team to save work in preparation. 

   c) I team teach during lessons. 

   d) I meet regularly with other teachers to seek ways of maximizing the effectiveness of the Oral English Programme.

---

**Figure 8.21 Item Four from the Programme Review Sheet**

---

<table>
<thead>
<tr>
<th></th>
<th>February 1982</th>
<th>February 1983</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Resource Teachers</td>
<td>Teachers-users</td>
</tr>
<tr>
<td>(a)</td>
<td>94.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>(b)</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>(c)</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>(d)</td>
<td>6.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>November 1982</th>
<th>November 1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>62.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>(b)</td>
<td>0.0%</td>
<td>25.0%</td>
</tr>
<tr>
<td>(c)</td>
<td>0.0%</td>
<td>12.5%</td>
</tr>
<tr>
<td>(d)</td>
<td>38.0%</td>
<td>62.5%</td>
</tr>
</tbody>
</table>
Southern Region Oral English Programme.

The Importance of the Subject to the User (Item 12)

From the review of the literature cited in Chapter 11, it may be deduced that the teachers' perception of the importance of the subject will change during the implementation process. If this were to happen during this case study, then Resource Teacher perception of the importance of the subject may deviate from that of the other Teacher-users. To explore this matter further, teacher responses to Item Twelve of the Programme Review Sheet have been analysed and displayed in Table 8.10.

Analysis of the data reveals that there is little difference between the responses of the two groups in February 1982. In November 1982, 44 per cent of Resource Teachers ranked Oral English as at seven on the ten-point scale. Another nineteen per cent ranked the programme at eight. This was higher than the ranks accorded the programme by the other Teacher-users. They returned a 32.5 per cent response for a rank of seven, and a ten per cent response for a rank of eight. Responses returned by both groups during 1983 did not differ significantly.

A review of the data from this section of the thesis revealed aspects of the behaviour of Resource Teachers and Teacher-users as identifiable groups. This was the aspect of the Entrepreneurial Authority Decision Directive Model of Implementation that sub-hypothesis 3.32 was developed to investigate.
### TABLE 8.10

Teacher Responses to Item 12 of the Programme Review Sheet

<table>
<thead>
<tr>
<th>February 1982</th>
<th>November 1982</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource</td>
<td>Resource</td>
</tr>
<tr>
<td>Teachers</td>
<td>Teachers</td>
</tr>
<tr>
<td>Teacher-users</td>
<td>Teacher-users</td>
</tr>
<tr>
<td>2 = 19.0%</td>
<td>2 = 0.0%</td>
</tr>
<tr>
<td>3 = 44.0%</td>
<td>3 = 0.0%</td>
</tr>
<tr>
<td>4 = 25.0%</td>
<td>4 = 0.0%</td>
</tr>
<tr>
<td>5 = 6.0%</td>
<td>5 = 12.0%</td>
</tr>
<tr>
<td>6 = 0.0%</td>
<td>6 = 25.0%</td>
</tr>
<tr>
<td>7 = 6.0%</td>
<td>7 = 44.0%</td>
</tr>
<tr>
<td>8 = 0.0%</td>
<td>8 = 19.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>February 1983</th>
<th>November 1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource</td>
<td>Resource</td>
</tr>
<tr>
<td>Teachers</td>
<td>Teachers</td>
</tr>
<tr>
<td>Teacher-users</td>
<td>Teacher-users</td>
</tr>
<tr>
<td>4 = 6.0%</td>
<td>4 = 12.5%</td>
</tr>
<tr>
<td>5 = 0.0%</td>
<td>5 = 0.0%</td>
</tr>
<tr>
<td>6 = 6.0%</td>
<td>6 = 12.5%</td>
</tr>
<tr>
<td>7 = 38.0%</td>
<td>7 = 50.0%</td>
</tr>
<tr>
<td>8 = 44.0%</td>
<td>8 = 12.5%</td>
</tr>
<tr>
<td>9 = 6.0%</td>
<td>9 = 12.5%</td>
</tr>
</tbody>
</table>

**Item 12:** Of all the primary syllabi, how would you rank the Oral English Programme on the continuum below?

**Least** .............................................  **Most important**

important 1 2 3 4 5 6 7 8 9 10
Sub-hypothesis 3.32

The implementation behaviour of Teacher-users who become Resource Teachers will differ significantly from that of other teacher implementers.

ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.32

Analysis of the data pertinent to this sub-hypothesis reveals qualified support for an argument to support the acceptance of sub-hypothesis 3.32. Resource Teachers differed from the Majority group in the area of contact with the Management Committee, quantity of inservice support, SoC scores, LoU scores, responses to the Fidelity of Implementation measure, and the ranking they gave Oral English during the two year period.

It is recommended that sub-hypothesis 3.32 be accepted.

3.33 Classroom Teacher-users and the Sequence of Involvement

Within the implementation process observed for this study, different levels of opportunity for teachers to become involved in the decision-making systems available were presented. These opportunities ranged from programme design, management of the dispersal process to the schools of the Region, dispersal throughout individual schools, and finally implementation at the classroom level. From this range, teachers tended to select a level of participation which, along with specific implementation behaviour, formed the basis for the classificatory system.

A group of teachers elected to be involved in decision-making
only at the classroom level. These teachers, referred to as Teacher-users, were defined as having less access to the decision-making structures of the implementation process than the Resource Teachers. They had little say in the creative aspects of designing the implementation process, neither were they involved in daily planning. Their access to the major sources of information available, The Curriculum Developer and the Advocates, was more restricted than that of the Resource Teachers. They were much less well informed. The model propounded by this thesis predicts they will exhibit implementation behaviour differing from that of other groups. To further examine this proposition, sub-hypothesis 3.33 has been devolved.

Sub-hypothesis 3.33
The implementation behaviour of Teacher-users who make up the Majority group will differ significantly from that of other teacher implementers.

ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.33
A review of the total evidence presented in the section entitled The Majority of Classroom Teachers and the following section Teacher-resisters and The Sequence of Involvement provides qualified support for the acceptance of sub-hypothesis 3.33 in terms of SoC scores, LoU responses, and answers to the test for Fidelity of Implementation. Subject to the qualifications outlined, it is recommended that sub-hypothesis 3.33 be accepted.

3.34 Teachers Who Became Resisters
Resisters, for the purpose of this thesis, have been defined
as those teachers who, when offered the new programme by the Curriculum Developer, said they would not be implementing the Upper Great Southern Region Oral English Programme. This distinguished them from those who accepted a programme, agreed to implement it, but had very little commitment. The latter were regarded as implementers, albeit low level, whose implementation behaviour was revealed through close scrutiny of data collected using the SoC, LoU and Innovation Configuration. The behaviour of self-defined resisters, however, was not subject to the same data-gathering instruments, these being deemed inappropriate. To research this area, sub-hypothesis 3.34 was developed.

Sub-hypothesis 3.34
A group of Teacher-resisters will emerge who will give personal, not organizational, reasons for rejecting the Upper Great Southern Region Oral English Programme.

Data applied to the testing of sub-hypotheses were collected by using the unstructured interview technique in March and November 1982 with a random sample of fourteen subjects drawn from the twenty nine self-defined resisters. In 1983 LoU interviews were conducted in February and November with the remaining eight Teacher-resisters.

On closer inspection, it can be seen that sub-hypothesis 3.34 asks two questions. The first asks whether a group of Teacher-resisters emerged once implementation commenced. The second asks whether Teacher-resisters give personal or organizational reasons for their rejection of the innovation.
In answer to Question One, it may be noted that 29 teachers refused to implement the programme at the beginning of 1982. By November 1982, six had commenced implementation, leaving 23 still consistently resisting implementation of the Programme. At the commencement of 1983, sixteen teachers had received transfers to other regions, and eight of the original group remained as consistent resisters of implementation. When interviewed again in November 1983, they still resisted implementation of the new programme. From these numbers it may be argued that a group of teachers, being 83 percent of the resisters, made the initial decision to reject the innovation within one month of hearing of it, and remained firm in their resolve throughout the implementation period with which they were associated.

To answer question two posed by sub-hypothesis 3.34, a content analysis of teacher responses to the unstructured interviews of which they were a part in March and November 1982, is presented in Figure 8.22. Seven of the nine explanations given by teachers for not implementing the programme are personal reasons, while the remaining two, "takes too much time" and "there are too many new syllabi", are clearly organizational. On balance, therefore, the evidence supports the acceptance of sub-hypothesis 3.34.

These findings receive further support from the responses to the LoU focused interviews returned by the eight Teacher-resisters in 1983. Reacting to the probe, "What do you see as the strengths and weaknesses of the programme?", Resisters provided the answers reproduced in Figure 8.23. These LoU interviews
<table>
<thead>
<tr>
<th></th>
<th>1982 March</th>
<th>1982 November</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Takes too much time</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>2. I don't have enough time for all the preparation required.</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>3. There are too many new syllabi.</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>4. I already have a good programme.</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>5. My children can't be trusted not to be disruptive.</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>6. I don't like all that drama and performing in front of the class.</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>7. Not an important subject.</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>8. The new programme is too difficult to follow.</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>9. The programme tries to do too much.</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

NB: These responses came from a random sample of 14 teachers taken from a population of 29.

Figure 8.22 Teacher-resister responses to unstructured interviews.
were conducted with the eight teachers remaining in the Upper Great Southern Region who had been consistent resisters since the inception of the programme in February 1982. During the interviews, these teachers showed little interest in the 'advantages' aspect of this question. Four interviewees did make brief references, of which the following quote is typical.

I suppose one advantage is that it is there, and people who know nothing of Oral English at least have something to work from.

All interviewees contributed to the disadvantages aspect of the probe question. As illustrated in Figure 8.22, the comments made by the Teacher-resisters can be classified under four main headings. Three out of the four clearly relate to the personal factors of the quality of the teacher's own programme, infringement on private life, and classroom control. Even Item Two, which might be seen as an organizational concern, would be classified as personal within the Lortie (1975) concept of the classroom as the teacher sphere of autonomy.

ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.34

Data designed to test sub-hypothesis 3.34 were collected by using unstructured interviews and the Level of Use focused interview technique.

It is contended that analysis of this data revealed sufficient evidence to recommend acceptance of sub-hypothesis 3.34.

ACCEPTANCE OR REJECTION OF GENERALIZED HYPOTHESIS No.3

Generalized Hypothesis No. 3, reproduced below, has been designed to investigate the Sequence of Involvement of teachers
<table>
<thead>
<tr>
<th></th>
<th>1983</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>March</td>
<td>November</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>My programme gets the best results.</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>2.</td>
<td>The Upper Great Southern Region Oral English Programme takes too much teaching time.</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>3.</td>
<td>I wouldn't have time to do all that preparation.</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>Children are too difficult to control.</td>
<td>-</td>
<td>2</td>
</tr>
</tbody>
</table>

**Figure 8.23** Weaknesses in the Upper Great Southern Region Oral English Programme perceived by Teacher-resisters and stated during LoU interviews.
as they become aware of the Upper Great Southern Region Oral English Programme within the Entrepreneurial Authority Decision Directive Model of Implementation.

GENERALIZED HYPOTHESIS No. 3
When they become aware of the Upper Great Southern Region Oral English Programme, some teachers in the Upper Great Southern Region will implement the change more readily than others. These differences in implementation behaviour can form the basis for a consistent classificatory system, dividing teachers into groups exhibiting distinct characteristics.

This aspect of the thesis has been divided into four subsections: Advocates, in-school Resource Teachers, Classroom Teacher-users, and Resisters, each used as a basis for generating sub-hypotheses. The four sub-hypotheses developed have been subjected to close analysis by a review of relevant data, and where inconsistencies occur, these have been noted. In each case, however, sufficient evidence has been found to recommend the acceptance of all sub-hypotheses. Consequently, the acceptance of Generalized Hypothesis No. 3 is recommended.
CHAPTER IX
ANALYSIS OF THE DATA RELATED TO MEASURING
THE DEGREE OF IMPLEMENTATION

Synopsis

The reader will recall from Chapter III that the model being developed within this thesis to explain teacher behaviour during an implementation process in a region incorporates a sub-model designed to measure the implementation behaviour of teachers and pupils. Reference to Figure 2.01 in Chapter II confirms that this thesis is designed to extend the work done by major writers reviewed during the development of the theoretical framework. Their work will be extended in the areas of measuring teacher concerns associated with the implementation process, teacher level of use of the Upper Great Southern Region Oral English Programme, and the quality of that use. Pupil implementation behaviour will be investigated to determine changes in their speaking and listening skills.

3.4 Sub-model Four : Measuring the Degree of Implementation

This chapter has been divided into two parts. The first section deals with changes in teacher behaviour and is designed to test Generalized Hypothesis No. 4a; the second deals with changes in pupil behaviour, and is designed to test Generalized Hypothesis No. 4b.
3.4a Measuring Teachers' Implementation Behaviour

The Entrepreneurial Authority Decision Directive Model of Implementation predicts that if the conditions outlined in the first three sub-models came into existence, then teachers would implement the Upper Great Southern Region Oral English Programme. It was also predicted that the longer teachers were involved with the programme, the higher the degree of implementation. Generalized Hypothesis No. 4a was designed to investigate this.

GENERALIZED HYPOTHESIS No. 4a

A high degree of implementation by teachers indicated by high scores in the higher order Stages of Concern, high Level of Use scores and high scores on the Fidelity of Use measure will be related to the time teachers have been working on the programme.

The argument generated to support the acceptance or rejection of Generalized Hypothesis No. 4a was divided into three parts, each one based on a major influential factor. The three factors were: the types of concern felt by teachers when they became aware of the programme, the concept of individuals using the innovation at differing levels of competence, and the fidelity with which teachers implemented the innovation. From each major influential factor, a sub-hypothesis was developed. The research design applied in this aspect of the thesis, and illustrated in Figure 9.01, commenced with the concerns teachers felt when they became aware of the innovation.
Figure 9.01 The research design for testing Generalized Hypothesis 4a.
3.4a1 The Types of Concerns Felt by Teachers Who Implement

Earlier in this thesis it was contended that teachers experienced a particular pattern of concerns when they became aware of the implementing process. Evidence to support this assumption was reviewed in detail. Evidence was also co-ordinated to support the dividing of subjects within this study into three groups: the Curriculum Management Committee (Advocates), Resource Teachers (Early Implementers) and Classroom Teachers-users (the Majority).

To measure the degree to which teachers in the three groups implemented the innovation in the area of teacher concerns, sub-hypothesis 3.4a1 was developed.

Sub-hypothesis 3.4a1

The type and degree of concern felt by teachers when they commence the Upper Great Southern Region Oral English Programme will differ from that felt by teachers at the end of their first year of implementation, and again at the end of their second.

To test this sub-hypothesis Stages of Concern data was divided into responses returned by each of the three teacher groups. Data was collected in February and November of 1982 and 1983. The model developed in this thesis predicted the recording of high levels of concern by teachers on the early stages of the Stages of Concern model when they returned their
responses in February 1982. Responses collected in November 1982, it was predicted, may indicate lower intensity of concern on the earlier SoC but teachers' scores on the later SoC may be higher. As the implementation process progresses, teachers may tend to lower their level of concern on earlier SoC and move to higher levels of concern on later SoC.

**Stages of Concern Data:**

**Advocates:**

The reader will recall from Chapter V that the SoCQ indicates user stages of concern at a particular point in time. It also indicates the intensity with which users feel these concerns. Examination of Table 9.01 reveals that the three advocates varied in the level of intensity with which they experienced their concerns, although their responses to the questionnaire tended to show they returned their highest scores on similar stages - two out of the three returned their highest scores for February 1982 on the Awareness dimension. To illustrate the trends contained within these figures, each mean has been converted to a stanine and reproduced in a line graph in Figure 9.02.

The Table 9.01 shows clearly that in February 1982, two Advocates recorded a high level of awareness concerns, with relatively low levels of concern in other areas. The third Advocate returned his/her highest score on the Informational stage. When the questionnaire was completed in November 1982, Advocates had resolved their concerns associated with awareness and seeking information and were indicating high levels of personal concerns.
### TABLE 9.01
The Responses Made by Advocates to the SoCQ

<table>
<thead>
<tr>
<th></th>
<th>Awareness</th>
<th>Informational</th>
<th>Personal</th>
<th>Management</th>
<th>Consequence</th>
<th>Collaboration</th>
<th>Refocusing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>February 1982</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocate A</td>
<td>10</td>
<td>27</td>
<td>7</td>
<td>8</td>
<td>8</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>B</td>
<td>26</td>
<td>10</td>
<td>8</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>34</td>
<td>14</td>
<td>1</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>( \bar{X} )</td>
<td>=23.3</td>
<td>17</td>
<td>5.3</td>
<td>8.3</td>
<td>3.6</td>
<td>3.3</td>
<td>3.6</td>
</tr>
<tr>
<td>Percentiles:</td>
<td>99</td>
<td>63</td>
<td>26</td>
<td>28</td>
<td>8</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td><strong>November 1982</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocate A</td>
<td>1</td>
<td>22</td>
<td>14</td>
<td>32</td>
<td>5</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>2</td>
<td>24</td>
<td>25</td>
<td>0</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>11</td>
<td>24</td>
<td>28</td>
<td>5</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>( \bar{X} )</td>
<td>=1.6</td>
<td>11.6</td>
<td>20.6</td>
<td>28.3</td>
<td>3.3</td>
<td>6.3</td>
<td>1</td>
</tr>
<tr>
<td>Percentiles:</td>
<td>27</td>
<td>47</td>
<td>75</td>
<td>95</td>
<td>2</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td><strong>February 1983</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocate A</td>
<td>0</td>
<td>27</td>
<td>24</td>
<td>17</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>24</td>
<td>21</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>C</td>
<td>1</td>
<td>5</td>
<td>6</td>
<td>27</td>
<td>27</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>( \bar{X} )</td>
<td>=0.6</td>
<td>12</td>
<td>12.3</td>
<td>22.6</td>
<td>17.6</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Percentiles:</td>
<td>18</td>
<td>48</td>
<td>49</td>
<td>84</td>
<td>23</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td><strong>November 1983</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocate A</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>11</td>
<td>19</td>
<td>24</td>
<td>33</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>8</td>
<td>25</td>
<td>29</td>
<td>5</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>10</td>
<td>22</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td>( \bar{X} )</td>
<td>=2.6</td>
<td>2.3</td>
<td>6</td>
<td>9.6</td>
<td>22</td>
<td>28.6</td>
<td>13.6</td>
</tr>
<tr>
<td>Percentiles:</td>
<td>35</td>
<td>17</td>
<td>28</td>
<td>33</td>
<td>38</td>
<td>67</td>
<td>37</td>
</tr>
</tbody>
</table>
Advocate Percentiles on the SoCQ

SoC Stages

KEY:

February 1982 : Red
November 1982 : Green
February 1983 : Blue
November 1983 : Black

Figure 9.02 The Responses given by Advocates to the SoCQ
and even higher levels of Management concerns. Scores returned in February 1983 were remarkably similar to the November 1982 scores, though lower intensity on the Personal and Management concerns was indicated. Study of the line graph based on Advocates' responses to the November 1983 collection of data shows that the Advocates had lowered the intensity of all the concerns they felt associated with Levels 0 to IV, and registered high levels of concern on the Collaboration stage. It is of interest to note that none had moved on to the Refocusing concerns.

This concerns-based implementation behaviour of Advocates provided strong supporting evidence for sub-hypothesis 3.4a1. Advocates moved consistently through the stages of concern, and the longer they were associated with the Upper Great Southern Region Oral English Programme, the more they were associated with the later stages of concern, such as Consequence, Collaboration, and Refocusing.

Resource Teachers

Resource Teachers formed a larger group than the Advocates, being seventeen in 1982 and fifteen in 1983. They exhibited common characteristics in their implementation behaviour, as was demonstrated in a previous section of this thesis, consequently their responses to the SoC have been aggregated and the means graphed in Figure 9.03. Data collected by using the SoC questionnaire illustrated that Resource Teachers indicated high levels of intensity over the early stages of concern, stages 0 and 1, when they completed the questionnaire in February 1982. These
Figure 9.03 Mean responses of Resource Teachers to the Stages of Concern Questionnaire.
concerns were resolved by the time the Resource Teachers completed the questionnaire in November 1982. At this time they indicated high levels of concern on the Personal and Management dimensions. In the February 1983 data, the highest level of concern intensity was registered on Consequence, that being 23.4 out of a potential of 35. The only other high score was on Management where the score was .19 out of a potential of 35. Scores returned in November 1982 indicated high levels of intensity on Stages IV and V. It is interesting to note that at no time during the implementation process observed during this thesis did Resource Teachers return scores indicating high levels of intensity over concerns associated with Refocusing.

Resource Teachers involved in this implementation process changed both the stage of their concern and the level of the intensity with which they felt it on each of the four occasions they responded to the SoCQ. Their responses tended to support the acceptance of sub-hypothesis 3.4a1.

Teacher-users

Further support for sub-hypothesis 3.4a1 can be found in the analysis of responses returned by Teacher-users to the SoCQ, the Lou focused interview, and the Fidelity of Implementation measure. This group has been identified by investigation of implementation behaviour. These investigations have been reported in Chapter VIII.

The line of boxes illustrated in Table 9.02 shows a trend
indicating that the longer the classroom Teacher-users were associated with the Upper Great Southern Region Oral English Programme, the more likely they were to report low levels of concern on the early SoC and high levels of concern on later SoC. It is of interest to note that these teachers returned a mean of 16 on Refocusing, which is considerably higher than means of responses returned by other groups. A mean score of 16 converts to a percentile of 47, contrasting with a percentile of 15 for the Resource Teachers.

<table>
<thead>
<tr>
<th></th>
<th>Awareness</th>
<th>Informational</th>
<th>Personal</th>
<th>Management</th>
<th>Consequence</th>
<th>Collaboration</th>
<th>Refocusing</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 1982</td>
<td>26.53</td>
<td>11.0</td>
<td>4.3</td>
<td>4.7</td>
<td>4.0</td>
<td>2.6</td>
<td>2.0</td>
</tr>
<tr>
<td>November 1982</td>
<td>3.83</td>
<td>9.0</td>
<td>2.3</td>
<td>22.0</td>
<td>8.5</td>
<td>6.14</td>
<td>5.0</td>
</tr>
<tr>
<td>February 1983</td>
<td>6.3</td>
<td>10.1</td>
<td>10.9</td>
<td>21.5</td>
<td>17.62</td>
<td>6.5</td>
<td>4.9</td>
</tr>
<tr>
<td>November 1983</td>
<td>2.38</td>
<td>4.8</td>
<td>8.1</td>
<td>13.3</td>
<td>23.0</td>
<td>14.7</td>
<td>16.0</td>
</tr>
</tbody>
</table>

ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.4a1

The responses of the three teacher groups - Advocates, Resource Teachers and Majority of Classroom Teacher-users - to the SoC on each of the four occasions they responded, provide consistent support for the acceptance of sub-hypothesis 3.4a1.

It is recommended that sub-hypothesis 3.4a1 be accepted.
3.4a2 The Level of Competence with which Teachers Use the Innovation.

The concept that teachers involved in the implementation of an innovation commence the process with a low level of competence was argued earlier in this thesis. Acceptance was qualified by the analysis made by Oliver (1986). She pointed out that researchers need to be aware of the positivistic behavioural basis of the concept. The particular levels of competence concept accepted for this thesis is the Levels of Use developed by Hall et al. (1979). Their data-gathering instrument, the LoU focused interview, was administered to the sample in March and November of both 1982 and 1983. The data collected was divided into three groups corresponding to the division of users justified in this thesis: the Advocates, the Resource Teachers, and the classroom Teacher-users. To measure the degree to which teachers implemented the innovation in the area of levels of use, sub-hypothesis 3.4a2 was developed.

Sub-hypothesis 3.4a2.

The Level of Use of the Upper Great Southern Region Oral English Programme indicated by teachers will vary according to the time they have been using the programme.

Level of Use Data

The LoU interviews were conducted at the beginning and end of the second year of the implementation process. This meant that some teachers entered the interview as novices, while others were in their second year. The Teacher-user group was divided
into the sixteen teachers who were in their second year on the
programme, and the forty three who were in their first year.
Advocates and Resource Teachers all entered the interviews as
second year implementers. Their responses and those of the
classroom Teacher-users are reproduced in Table 9.03

Advocates

In February 1982, the three Advocates were well advanced
in the level of use they perceived themselves as having accom-
plished; two were at Level IVa, Routine, and one was at Level
IVB, Refinement. No Advocates had advanced to Integration
(Level V) or Renewal (Level VI). Responses to the LoU focused
interviews by the Advocates in November 1983 indicated that
two had moved to the Refinement level and one had moved up
to the Integration level. The existence of a trend, for Advocates
to return higher LoU scores the longer they used the Programme,
was indicated. It is noteworthy that even after using the Upper
Great Southern Region Oral English Programme for two years,
none of the Advocates moved to the Renewal LoU. It would seem
that they had a commitment to the Programme, hence implemented
it at the highest level of use possible, without seeking to make
significant alterations to its specifications. This trend continued
throughout the two year observation period. It is not possible
to predict from this study how long the trend would continue.

Resource Teachers

The responses returned by this group in February 1982
cluster around Level III, with only twelve per cent on Routine,
six per cent on Refinement, and six per cent on Integration. By the end of the year, Resource Teacher scores were evenly distributed from Level III to Level V, with nineteen per cent on Routine, nineteen per cent on Refinement, and nineteen per cent on Integration. Their responses provide evidence to suggest the acceptance of sub-hypothesis 3.4a2. It is of interest to note that just as none of the Resource Teachers returned scores indicating Refocusing concerns, not one of them returned scores indicating a level of use at Level VI, the Renewal level.

---

**TABLE 9.03**

The Levels of Use Scores of the Various Teacher Groups During 1983

<table>
<thead>
<tr>
<th></th>
<th>Advocates</th>
<th>Resource Teachers</th>
<th>1st Year Teacher-users</th>
<th>2nd Year Teacher-users</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Non Use</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Orientation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>111 Mechanical Use</td>
<td>17%</td>
<td>12%</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>1Va Routine</td>
<td>66%</td>
<td>0%</td>
<td>12%</td>
<td>19%</td>
</tr>
<tr>
<td>1Vb Refinement</td>
<td>34%</td>
<td>66%</td>
<td>6%</td>
<td>19%</td>
</tr>
<tr>
<td>V Integration</td>
<td>0%</td>
<td>34%</td>
<td>6%</td>
<td>19%</td>
</tr>
<tr>
<td>V1 Renewal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Teacher-users

There were two distinct groups within this classification: Teacher-users in their first year of implementation, and those in their second. The responses from both groups show that during the year teachers moved from low levels of use to higher levels. First year users moved to Mechanical Use relatively quickly. This might be explained by the observation that they all had at least one experienced user in their school as well as the Resource Teacher. It may also be that the Resource Teachers, being in their second year, were more skilful in their assistance to teachers who agreed to make the change. Most teacher-users commenced their second year of using the programme as Mechanical Users. At the end of the second year, their responses indicated that 21 per cent had moved to Routine, and 35 per cent to Renewal. There was a possible explanation for the Teacher-users who had been using the programme for two years moving to a higher level of use than Advocates or Resource Teachers. The latter were the first teachers to agree to implement the new Upper Great Southern Region Oral English Programme. Advocates and Resource Teachers were more deeply involved in the management of the implementation process than Teacher-users. Their greater involvement in this formation and management of the implementation process may have developed in them a stronger loyalty to the programme than that developed by the Teacher-users. They would, therefore, be resistant to the higher levels of use which lead a teacher to initiate changes to the programme and possibly to formulate new programmes. Analysis of the data returned by both groups of Teacher-users, however, tended to support acceptance of sub-hypothesis 3.4a2.
ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.4a2

Comparison of the responses from the first LoU focused interview with those returned by teachers during the second, for all three groups, indicated teachers moved from low to higher levels of use. Advocates and Resource Teachers tended to move through the levels faster than the teacher-users, but Teacher-users were more likely to move to the final level, Renewal, than the other groups. Accordingly it is recommended that sub-hypothesis 3.4a2 be accepted.

3.4a3 The Fidelity with which Teachers Implement the Innovation.

The Upper Great Southern Region Oral English Programme was based on detailed written documents which made the Curriculum Developer's intentions clear. This facet of the programme supported the application of the Fidelity of Use concept to any investigation of implementer behaviour. The third of Hall et al's (1979) CBAM of SoC, LoU and Innovation Configuration now became applicable. While the LoU gave a measurement of teachers' competency while they were using the programme, it did not give any indication of how closely the teachers adhered to the Curriculum Developer's intentions. Using Hall et al's (1979) concept of Innovation Configuration, an instrument designed to measure the fidelity of use behaviour was constructed for the study, and was reported in detail in Chapter V. The Entrepreneurial Authority Decision Directive Model of Implementation predicted a positive relationship between the time the teachers had been using the programme and the degree of fidelity they observed. To test this, sub-hypothesis 3.4a3 was developed.
Sub-hypothesis 3.4a3.

The degree of fidelity with which teachers implement the Upper Great Southern Region Oral English Programme will increase the longer they work on the programme.

Innovation Configuration Data (Programme Review Sheet)

Research done in this area was designed to gauge increases or decreases in teachers' fidelity of use; that is, to what extent was the behaviour of the implementers congruent with the Curriculum Developer's specifications at the four points of measurement: February and November of 1982 and 1983. The responses, gathered by using the two-part instrument designed for use in this thesis (viz. the Principal's Oral English Programme Review and the Teacher's Oral English Programme Review Sheet) were analysed to ascertain the fidelity with which users implemented the Upper Great Southern Region Oral English Programme.

Principals' Responses.

Principals were provided with four categories of fidelity and asked to allocate each staff member who was using the programme to a category on the basis of observed behaviour. The instrument to which principals were asked to respond is reproduced in Figure 9.04. It is important to note that principals participated in regular inservice courses to instruct them in the use of the instrument and comprehension of the principal tenets of the new Upper Great Southern Region Oral English Programme.

The principals' responses indicate a shared perception that
PRINCIPALS' ORAL ENGLISH PROGRAMME REVIEW

School: ___________________________ Date: ___________________________

To be completed at the

| Teachers' Names | Early user. | Mechanical user. Uses the recommended lesson sequence and generally follows instructions to the letter. | Growing sophistication. Broadening range of teaching techniques. Student evaluation techniques have been established. | Full understanding. Correlation with other subjects. Evaluating total programme. |

Please estimate the category of programme use into which the teachers at your school can be placed.

Please ask teachers to fill in the Programme Review Sheet, then collect these and post the lot to the Regional Office, Box 535, NARROGIN, 6312.

Figure 9.04 Innovation Configuration instrument issued to principals.
teachers commenced the programme exhibiting common behavioural characteristics which have been labelled 'Early User'. By the end of the year, teachers ranged in their use of the programme from early user to full understanding. Examination of Figure 9.05 shows a trend for principals to estimate each teacher's group to be at higher levels of fidelity on each succeeding estimate. Those teachers who continued using the programme in the second year were perceived by principals as gaining a greater understanding of the concepts central to implementation. These teachers broadened the range of teaching methods they employed. They also established consistent patterns of evaluation. The majority of teachers had gained a full understanding of all the major tenets of the programme by the end of the second year of use. Their understanding was sufficiently diverse to facilitate correlation with other programmes and comprehensive evaluation of student performance. Principals estimated there was a consistent movement by teachers from beginning as a naïve user to becoming a sophisticated implementer. This is illustrated by following the line of colour across the bar graph. Raw scores have been converted to percentiles and illustrated in the form of line graphs. The trends apparent in these graphs lend some support for the acceptance of sub-hypothesis 3.4a3. The scoring and presentation techniques have been taken from the work of Hall et al. (1979).

**Teachers' Responses**

The Fidelity of Use instrument presented to the teachers was much more detailed. It called for responses to twelve components and contained, in all, fifty eight items requiring
Principals' estimation of the quality of teacher use of the innovation.

KEY: Black : Advocates  Green : Resource Teachers  Red : Teacher-users

Figure 9.05 Trends in principals' estimations of changes in the quality of teacher implementation.
responses. The higher the score, the higher the degree of fidelity. The responses were classified into the three teacher groups.

Advocates

The three Advocates completed the questionnaire four times, coinciding with the beginning and end of each of the two years in the observation period. Their responses, reproduced in Table 9.04, show a steady rise in the fidelity of their implementation behaviour.

Resource Teachers

The Resource Teachers worked closely with the Advocates. Regular meetings were held and combined with inservice courses as a medium to communicate the Curriculum Developer's concept of fidelity. It would be expected, therefore, that Resource Teacher responses would closely parallel those of the Advocates. In general, this tended to be the case and can be verified by examining Table 9.05.

Ten out of the sixteen Resource Teachers indicated a steady rise in their degree of fidelity in implementing the Upper Great Southern Region Oral English Programme, returning a higher score on each of the four occasions on which they completed the Programme Review.

Teacher-users

Classroom Teacher-users' responses indicated a similar trend
### TABLE 9.04
Advocates' Responses to the Programme Review Sheet

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Advocate A</td>
<td>28</td>
<td>47</td>
<td>56</td>
<td>54</td>
</tr>
<tr>
<td>Advocate B</td>
<td>16</td>
<td>49</td>
<td>53</td>
<td>53</td>
</tr>
<tr>
<td>Advocate C</td>
<td>17</td>
<td>48</td>
<td>48</td>
<td>54</td>
</tr>
</tbody>
</table>

### TABLE 9.05
Resource Teacher Responses to the Programme Review Sheet

<table>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>28</td>
<td>47</td>
<td>54</td>
<td>58</td>
</tr>
<tr>
<td>B</td>
<td>17</td>
<td>37</td>
<td>48</td>
<td>52</td>
</tr>
<tr>
<td>C</td>
<td>17</td>
<td>35</td>
<td>43</td>
<td>52</td>
</tr>
<tr>
<td>D</td>
<td>15</td>
<td>48</td>
<td>55</td>
<td>56</td>
</tr>
<tr>
<td>E</td>
<td>16</td>
<td>49</td>
<td>51</td>
<td>56</td>
</tr>
<tr>
<td>F</td>
<td>17</td>
<td>48</td>
<td>51</td>
<td>53</td>
</tr>
<tr>
<td>G</td>
<td>18</td>
<td>42</td>
<td>53</td>
<td>56</td>
</tr>
<tr>
<td>H</td>
<td>17</td>
<td>38</td>
<td>26</td>
<td>45</td>
</tr>
<tr>
<td>I</td>
<td>19</td>
<td>41</td>
<td>29</td>
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</tr>
<tr>
<td>J</td>
<td>19</td>
<td>49</td>
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<tr>
<td>K</td>
<td>17</td>
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<td>L</td>
<td>18</td>
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<td>M</td>
<td>20</td>
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<td>N</td>
<td>18</td>
<td>42</td>
<td>27</td>
<td>42</td>
</tr>
<tr>
<td>O</td>
<td>27</td>
<td>52</td>
<td>44</td>
<td>51</td>
</tr>
<tr>
<td>P</td>
<td>22</td>
<td>52</td>
<td>47</td>
<td>63</td>
</tr>
</tbody>
</table>

\[
\begin{align*}
\overline{X} &= 19.3 \\
\overline{X} &= 44.7 \\
\overline{X} &= 42.6 \\
\overline{X} &= 52
\end{align*}
\]
to that evident for Resource Teachers. There was some qualified support for sub-hypothesis 3.4a3. Nine of the sample of fifteen teachers returned higher scores on the Fidelity of Use instrument on each of the four successive trials. Each of the remaining six showed some increase, but had regressed on some occasions. Examination of Table 9.06 indicates the group mean increased on each of the four successive trials.

ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.4a3

Each of the three groups of implementers were asked to respond to the fidelity of implementation measure on four separate occasions. On each occasion, the groups tended to return higher scores, indicating a greater degree of fidelity of implementation. There were some qualifications to this finding, and they have been noted. The general trends within the data support sub-hypothesis 3.4a3 and accordingly its acceptance is recommended.

ACCEPTANCE OR REJECTION OF GENERALIZED HYPOTHESIS No.4a

Generalized Hypothesis No. 4a, reproduced below, was designed to investigate Measuring the Degree of Teacher Implementation Behaviour as they became involved in the Upper Great Southern Region Oral English Programme.

GENERALIZED HYPOTHESIS No. 4a

A high degree of implementation by teachers, indicated by high scores in the higher order Stages of Concern, high Levels of Use scores and high scores on the Fidelity of Use measure will be related to the time teachers have been working on the programme.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>23</td>
<td>37</td>
<td>54</td>
<td>56</td>
</tr>
<tr>
<td>B</td>
<td>22</td>
<td>43</td>
<td>56</td>
<td>57</td>
</tr>
<tr>
<td>C</td>
<td>23</td>
<td>40</td>
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<td>54</td>
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<td>J</td>
<td>18</td>
<td>29</td>
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<td>K</td>
<td>18</td>
<td>47</td>
<td>49</td>
<td>52</td>
</tr>
<tr>
<td>L</td>
<td>16</td>
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</tr>
<tr>
<td>M</td>
<td>22</td>
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<td>N</td>
<td>13</td>
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<td>O</td>
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<tr>
<td></td>
<td><strong>302</strong></td>
<td><strong>615</strong></td>
<td><strong>658</strong></td>
<td><strong>754</strong></td>
</tr>
</tbody>
</table>

\[
\bar{x} = 20.1 \quad \bar{x} = 41.0 \quad \bar{x} = 44 \quad \bar{x} = 50.2
\]
A close examination of Generalized Hypothesis No. 4a was facilitated by dividing it into three sections, each being used as a basis for generating a sub-hypothesis. Each sub-hypothesis was subjected to close analysis, and on the evidence available recommended for acceptance. The trends in the data revealed that teachers tended to move from high scores on lower order stages of concern to high scores on higher order stages of concern. They also tended to move from low levels of use at the commencement of the implementation process to higher levels by the end of the observation period. Fidelity of implementation scores showed a tendency for teachers to move from low scores at the commencement of the implementation process to high scores at the conclusion of the observation period.

Based on these findings, it is recommended that Generalized Hypothesis No. 4a be accepted.

3.4b Measuring the Degree of Implementation for Pupils

This is the second part of Chapter IX and addresses the major chapter title, Measuring Implementation, from the aspect of changes in pupil's behaviour. The experimental design for this section has been previously outlined in Chapter III. It is based on the proposition that a necessary facet of implementation is the occurrence of planned changes in pupils' behaviour. The implementation model developed in this thesis predicts that when teachers implement the Upper Great Southern Region Oral English Programme, a rise in pupils' speaking and listening skills will occur. To investigate this, Generalized Hypothesis
No. 4b was developed and reported in Chapter III.

**GENERALIZED HYPOTHESIS No. 4b**

*A high degree of implementation, indicated by pupils returning high scores on the Impromptu Speaking Test and high scores on the Listening Test, is related to high scores by teachers on Level of Use focused interviews, high scores on higher order Stages of Concern, and a high degree of fidelity.*

To test Generalized Hypothesis No. 3.4b, the research design illustrated in Figure 9.06 will be applied.

The model begins from the observation of teachers' behaviour changes within the dimensions of SoC, LoU and Innovation Configuration. It is contended that the teachers under observation in this case study changed their behaviour within the duration of the study and implemented the Upper Great Southern Region Oral English Programme. Three areas of teachers' implementation behaviour, teacher concerns, the level of use they adopt, and the fidelity of that use, have been measured. Analysis of data in each area provided sufficient evidence to accept that teachers had implemented the new programme. An intervention strategy, in the form of the Upper Great Southern Region Oral English Programme, was directed towards pupils' behaviour. The research design highlights two major features of the programme: teaching pupils the skill of delivering impromptu speeches, and teaching pupils the technique of listening accurately. Pupils' ability to speak skilfully in an impromptu public speaking situation
Figure 9.06 The experimental design for testing Generalized Hypothesis 4b.
and listen accurately was identified by the Curriculum Developer and the Management Committee as a major learning goal of the new Upper Great Southern Region Oral English Programme. The committee decided that implementation could not be judged to have occurred unless measures of children's behaviour indicated a rise in their level of skill displayed when discharging these tasks. It was a necessary, though not sufficient, indicator of implementation. Pupil mastery of these skills was measured in February and November of 1982 and 1983, using tests that were described in Chapter V. Responses returned by pupils were used to test the two sub-hypotheses reported in Chapter III. They, in turn, formed the basis for debating the acceptance or rejection of Generalized Hypothesis No. 4b. To increase the validity of this design, a comparison sample was established.

Establishing a Comparison Sample.

No norm referenced data for the speaking skills of children from Western Australian schools was available. It was not possible, therefore, to decide what degree of improvement in speaking skills was due to the implementation process and what degree was due merely to the normal aging process. In an attempt to control for this variable, a comparison sample was established, members of which were selected by using a consistent criterion. This criterion incorporated nine descriptors which have been reproduced in Table 9.07.

Class of School

Western Australian government schools were classified
### TABLE 9.07
Criteria for Establishing the Two Samples of Schools to be Compared

<table>
<thead>
<tr>
<th>Class of School</th>
<th>E</th>
<th>C</th>
<th>E</th>
<th>C</th>
<th>E</th>
<th>C</th>
<th>E</th>
<th>C</th>
<th>E</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>III</td>
<td>III</td>
<td>II</td>
<td>II</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td>Number of Schools</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>8</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Population who live in district</td>
<td>590</td>
<td>500</td>
<td>710</td>
<td>725</td>
<td>5500</td>
<td>6400</td>
<td>1470</td>
<td>1260</td>
<td>1760</td>
<td>1800</td>
</tr>
<tr>
<td>Population who live in town</td>
<td>300</td>
<td>250</td>
<td>410</td>
<td>400</td>
<td>4800</td>
<td>5500</td>
<td>1140</td>
<td>1060</td>
<td>1420</td>
<td>1400</td>
</tr>
<tr>
<td>Distance to nearest town</td>
<td>47.7</td>
<td>45</td>
<td>49</td>
<td>34</td>
<td>46</td>
<td>40</td>
<td>46.7</td>
<td>38</td>
<td>41</td>
<td>40</td>
</tr>
<tr>
<td>Distance to Capital City</td>
<td></td>
<td>MORE THAN</td>
<td>100km</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major Industry</td>
<td>WHEAT AND SHEEP</td>
<td>FARMING PLUS DEPENDENT SERVICE INDUSTRIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability of Cultural Activities</td>
<td>VERY LITTLE</td>
<td>MORE THAN THE IIs and IIIs</td>
<td>BUT VERY LITTLE WHEN COMPARED WITH THE METRO AREA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recreational Opportunities</td>
<td>REGULAR WEEKEND SPORT</td>
<td>REGULAR WEEKEND SPORT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability of T.V.</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Years of experience of teachers</td>
<td>6</td>
<td>5.5</td>
<td>6</td>
<td>6</td>
<td>5.5</td>
<td>5.6</td>
<td>5.2</td>
<td>6.7</td>
<td>6.5</td>
<td>6.8</td>
</tr>
</tbody>
</table>

NB: E = Experimental Sample
C = Comparison Sample
according to the number of children enrolled. Class IV primary schools enrolled up to only 30 children, hence were considered too small and atypical to be included in the study. Class III primary schools enrolled up to 120 children between the ages of five and twelve years. Class II primary schools enrolled up to 300 children between the ages of five and twelve years, and Class I primary schools enrolled up to 500 children between the ages of five and twelve years. Class II District High Schools enrolled up to 300 children between the ages of five and fifteen years, while Class I District High Schools enrolled more than 300 children aged five to fifteen years. They may have had a small number of children older than fifteen years, but the schools involved in this study did not.

Talking is a social function, hence it is argued that the size of the groups within which children worked may have influenced their rate of learning in this subject. Clearly it would affect the number of models to which they were exposed. The variety of opportunities with which they were presented to practise their craft would frequently be a function of the number of people available for social intercourse. On these grounds, the comparison sample of schools was structured so as to contain a representative sample of each class of school contained in the experimental sample. The sample of schools drawn from the Upper Great Southern Region as the experimental group included schools from Class III, II and I primary schools and Class II and I District High Schools. It was therefore held necessary to include one of each of these in the comparison group. In each case
the Class I primary schools were located within the boundaries of towns that contained approximately 6,000 people, had neighbouring primary schools and a high school. All other schools were located in towns with populations ranging from 120 to 3,000 people. It was possible to provide a close match in terms of total town populations. Apart from the Class II primary schools, each school in the Upper Great Southern Region was the sole town school, and was separated from any neighbouring schools by a minimum of 31 kilometres; it was also a minimum of 100 kilometres from the state capital. The schools matched to this group as part of the comparison fulfilled each of the criterion.

**District and Town Population Numbers**

This study took place in a rural setting, examining 20 schools located in 15 separate districts, each with its own small town containing a school. The districts ranged in population from 490 people to 6,400, and the towns ranged from populations of 250 people to 5,500. There seemed some likelihood that the range of speaking experiences and role models available to children was related to the number of people in the community of which they were a part, hence the inclusion of the district population in the list of criteria upon which the comparison sample was based. The town population was included as a precautionary measure.

People may have been distributed over a large area with
only a relatively small number living close together in the towns. Had this been the case, then children would have experienced isolation due to the geographical distances involved, and the relatively high district numbers may have implied an erroneously high level of social intercourse. Reference to Table 9.07 indicates sufficient congruency between the mean populations of the districts in which the schools resided for both experimental and comparison samples of schools for the purposes of this study. The proportion of people in these districts who live in the towns was also similar.

Distance to the Nearest Town and Capital City

The attempt to control for distance from the nearest town and nearest capital city was based on the premise that the more geographically isolated a town, the more inward looking its people might become. Such towns might develop idiosyncratic communication patterns. Stereotyped responses could develop unique vocabulary, sentence structure and even elocution. Taken to an extreme, it could lead to the formation of a dialect. Conversely, schools existing close to another town and the capital city may be exposed to a wider variety of speech experiences. They would have their consciousness of change raised. Gross variations on these two dimensions would provide excessive skew to the results. Reference to Table 9.07 indicates a high level of similarity between the distances separating experimental schools and those separating the comparison sample.

Major Industry

This variable was included because of the dominating effect
of the grain and sheep farming industry in the Upper Great Southern Region. All towns in the region depend for their livelihood on this industry or those that service it. These include government agencies, financial services such as banks and insurance houses, or those that supply resources.

Agricultural activity is closely related to the seasons and permeates socio-cultural activities. It has an attendant specific vocabulary, particular turn of phrase and characteristic idiom. The cultural milieu in which the children learn and then practise their speaking may be described as atypical if compared with that experienced by children growing up in a large metropolitan region. For these reasons, the comparison sample had within it children from a region experiencing a similar dependence on the grain and sheep farming industry.

**Availability of Cultural Activities**

The availability of cultural activities as a criterion was included because of its clear implication for role modelling and instruction. A child attending an isolated school whose only source of cultural activity was the school and audio tapes at home may speak differently from a child who was taken regularly to the theatre in a large city and had speech lessons once a week. The difference may not be attributed to any programme taught at school. None of the sole town schools in either group had any special advantages in terms of cultural activities. Each relied heavily on its own resources, with occasional outside input from travelling shows. Sometimes instruction was available
to local people, but this was infrequent and of short duration. The two major towns, one from the experimental sample and one from the comparison group, had a sufficiently large population to support a variety of speech-related clubs such as Rostrum and Repertory. They also attracted Arts Council funding, which increased the frequency and duration of visits from performers and instructors. All schools had equal access to television. Finally it proved possible to match the group of teachers on the mean of their years of experience on a school-by-school basis.

The Intervention

The experimental sample experienced the new Upper Great Southern Regional Oral English Programme as an intervention strategy. No such intervention occurred within the comparison sample. Teachers of the comparison group did witness the children under their guidance presenting the impromptu talks, and were told that the children's responses would be compared with those of children from another region as part of an academic study. They were placed under no pressure to change their current teaching practices because the testing team came from another region and was unknown to them. At no time was the data collecting exercise presented to them in a manner implying competition.

Teachers in Western Australian schools were required by regulations laid down in the Education Act to teach the subject Oral English, and the related teaching patterns had been established in classrooms for many years. Content analysis of the
teaching programme compiled by teachers from the comparison sample revealed very little variation in content or teaching practice during 1982 and 1983.

On the basis of the foregoing, it was contended that the two samples were similar in many regards, a major difference however being the teacher implementation of the Upper Great Southern Region Oral English Programme by those in the experimental sample. In the following section, pupils' responses will be analysed, seeking evidence to address the acceptance or rejection of sub-hypothesis 3.4b1 and 3.4b2 according to the plan detailed in Figure 9.01 located at the commencement of this section of Chapter IX.

It has already been argued and reported in Section 4a that scores returned by teachers in answer to the SoC, the LoU and the IC indicated that teacher behaviour conceived by the Curriculum Developer as necessary to achieve implementation had occurred. To complete the argument in favour of accepting or rejecting Generalized Hypothesis No. 4b, data related to the impromptu public speaking behaviour and listening skills of the children was measured and analysed to reveal any change that might have occurred.

3.4b1 Changes in Impromptu Speaking Behaviour

Demonstrated by Pupils

To investigate pupils' implementation behaviour on this aspect of the Upper Great Southern Region Oral English Programme,
sub-hypothesis 3.4b1 was developed and the final draft reported in Chapter III. The position it occupied in the major research design can be ascertained by review of Figure 3.15 in Chapter III.

Sub-hypothesis 3.4b1

Higher levels of pupil mastery of impromptu public speaking skills will be related to high teacher scores on Level of Use focused interviews, high scores on higher order Stages of Concern questionnaires, and high scores by teachers on the test of fidelity.

The test designed to measure changes in children's behaviour during the implementation process related to sub-hypothesis 3.4b1 was the Impromptu Talks Rating Scale. Chapter V contains data indicating that the test has a high level of validity, and respondents' scores revealed high coefficients of reliability; consequently, it was claimed that changes in rating scale scores indicated changes in children's behaviour. The rating scale was administered to all children using the Upper Great Southern Region Oral English Programme at the beginning and end of each year of observation. It was also administered to pupils in the comparison group. The research design followed is illustrated in Figure 9.07.
Repeat the cycle for Year 4, Year 5, Year 6 and Year 7.

Figure 9.07 The plan for testing sub-hypothesis 3.4b1 using Impromptu Talks Rating Scale (ITRS) data.

Data Analysis for Each Year Level (Impromptu Talks Rating Scale).

As stated earlier in Chapter V, each child was observed for a minimum of one minute. Observers were seeking pupil behaviours regarded by the Management Committee as essential to effective implementation. The behaviours were classified under ten headings which have been used as the horizontal axis of the series of graphs that follow. At the conclusion of the observation period, each pupil was accorded a score on a rating scale ranging from zero (indicating no evidence of implementation) to a score of five (which indicated full implementation.) Pupils' mean scores in percentages were recorded on the horizontal axis.

Comparison of Mean Scores for the Year Four Samples

Tests undertaken in February 1981 indicated that both groups possessed few of the skills recognized as essential to effective impromptu public speaking. This is illustrated by a review of Table 9.08, which showed that neither group returned scores
TABLE 9.08
Year Four Pupil Mean Percentage Scores on the Impromptu Talks
Rating Scale for the Experimental and Comparison Samples

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>February</td>
<td>November</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>Experimental</td>
</tr>
<tr>
<td></td>
<td>Sample</td>
<td>Sample</td>
</tr>
<tr>
<td></td>
<td>Comparison</td>
<td>Sample</td>
</tr>
<tr>
<td></td>
<td>Sample</td>
<td>Sample</td>
</tr>
<tr>
<td></td>
<td>20%</td>
<td>16%</td>
</tr>
<tr>
<td>L. Stimulating Beginning</td>
<td>14%</td>
<td>38%</td>
</tr>
<tr>
<td>M. Speaks Clearly</td>
<td>16%</td>
<td>8%</td>
</tr>
<tr>
<td>N. Does Eye Contact</td>
<td>4%</td>
<td>10%</td>
</tr>
<tr>
<td>O. Clarity</td>
<td>10%</td>
<td>44%</td>
</tr>
<tr>
<td>P. Does Relevant Material</td>
<td>20%</td>
<td>16%</td>
</tr>
<tr>
<td>Q. Organizes Ideas in Sequence</td>
<td>16%</td>
<td>32%</td>
</tr>
<tr>
<td>R. Shows Imagination</td>
<td>4%</td>
<td>8%</td>
</tr>
<tr>
<td>S. Shows Enthusiasm</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>T. Logical Conclusion</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>U. Adheres to Time</td>
<td>28%</td>
<td>8%</td>
</tr>
</tbody>
</table>

of more than 20 per cent on any of the ten aspects of this test.

When the test was repeated in November 1982, the mean score
of the experimental group differed significantly at the 0.05 level
on all behaviours except categories five and seven. Examination
of Figure 9.08 reveals that those differences tended to become
more significant in the second year. Mean scores returned by
the comparison sample were in the range zero to 24 per cent on
all four test dates. These scores were represented by the red
line graphs. Experimental group scores, represented by the
blue line graphs, fell in a similar range for February 1982
but rose on each subsequent date, including the November 1983
test. Mean scores returned during the November 1983 test ranged
between 60 per cent and 80 per cent level of implementation.

It may be concluded that during the trials, pupils in
the experimental group fulfilled at least 60 per cent of the
Figure 4. Mean scores for pupils responding to the Impromptu Talks Rating Scale.

<table>
<thead>
<tr>
<th>Time</th>
<th>Clue Detection</th>
<th>Contact</th>
<th>Speech Clarity</th>
<th>Eye Contact</th>
<th>Uses Material</th>
<th>Uses Gesture</th>
<th>Uses Organ-Illusion</th>
<th>Shows Logical Ideas</th>
<th>Shows Imaginative Action</th>
<th>Shows Imaginative Speech</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov. 1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 1983</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov. 1983</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**KEY:**
- Blue = Experimental
- Red = Comparison
- Sample
required behaviour for each criterion, and on some criteria the frequency went as high as 80 per cent.

Comparison of Mean Scores from the Year Five Samples

Results from these two groups bear a striking similarity to the responses returned when the Year Four groups were compared. At the commencement of the observation period, neither group indicated they possessed skills regarded as essential for effective impromptu public speaking. This was illustrated when a review of Table 9.09 revealed that not one of the means for scores returned on the ten categories of the rating scale exceeded 12 per cent. This indicated a very low level of implementation.

| TABLE 9.09 |
| Year Five Pupil Mean Percentage Scores on the Impromptu Talks Rating Scale for the Experimental and Comparison Samples |

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FEBRUARY</td>
<td>NOVEMBER</td>
</tr>
<tr>
<td></td>
<td>Experimental Sample</td>
<td>Comparison Sample</td>
</tr>
<tr>
<td>1. Stimulating Beginning</td>
<td>8%</td>
<td>6%</td>
</tr>
<tr>
<td>2. Speaks Clearly</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>3. Uses Eye Contact</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>4. Gestures</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>5. Uses Relevant Material</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>6. Organises Ideas in Sequence</td>
<td>10%</td>
<td>14%</td>
</tr>
<tr>
<td>7. Shows Imagination</td>
<td>12%</td>
<td>6%</td>
</tr>
<tr>
<td>8. Shows Enthusiasm</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>9. Logical Conclusion</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>10. Adheres to Time</td>
<td>12%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Comparison group mean scores were similar, with the highest score of 16 per cent being allocated to 'Adheres to Time'.
Figure 9.09 Mean scores for pupil's responding to the Improvment Talks Rating Scale.

**Key:**
- Blue = Experimental
- Red = Comparison

<table>
<thead>
<tr>
<th>Time to Adhered</th>
<th>Time to Added</th>
<th>Time to Commence</th>
<th>Time to Conclude</th>
</tr>
</thead>
</table>

Legend:
- S: Speak
- N: Name
- M: Man
- E: Eyes
- D: Details
- L: Look
- T: Talk
- I: Ideas
- A: Action
Differences began to emerge in November 1982. The experimental group mean score had risen so they now came in the range of 8 per cent to 20 per cent, with eight dimensions at 16 per cent or higher. Only two dimensions were scored at this level by the comparison group. During the second year, as illustrated in Figure 9.09, the mean scores for the experimental group on all ten aspects of the instrument tended to be higher than the comparison group. When subjected to a t-test, they were significantly higher at a 0.05 level of confidence.

**Comparison of Mean Scores for the Year Six Samples**

Year Six children responding to the February 1982 application of the Rating Scale returned mean scores ranging from 4 per cent to 20 per cent mastery for the experimental sample. Mean scores for the comparison sample, reproduced in Table 9.10, ranged from zero per cent to 20 per cent. The experimental sample scores ranged from 20 per cent to 40 per cent implementation on the November 1982 trials, which is higher than the range of zero per cent to 20 per cent implementation achieved by the comparison sample. Significant differences at the 0.05 level occurred between the scores on 'Speaks Clearly and Audibly', 'Gestures', 'Uses Relevant Material', and 'Logical Conclusion'. 
TABLE 9.10

Year Six Pupil Mean Percentage Scores on the Impromptu Talks Rating Scale for the Experimental and Comparison Samples

<table>
<thead>
<tr>
<th></th>
<th>Experimental Sample</th>
<th>Comparison Sample</th>
<th>Experimental Sample</th>
<th>Comparison Sample</th>
<th>Experimental Sample</th>
<th>Comparison Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>February</td>
<td>November</td>
<td>February</td>
<td>November</td>
<td></td>
<td>February</td>
<td>November</td>
</tr>
<tr>
<td>1. Stimulating Beginning</td>
<td>14%</td>
<td>4%</td>
<td>20%</td>
<td>16%</td>
<td>32%</td>
<td>28%</td>
</tr>
<tr>
<td>2. Speaks Clearly</td>
<td>20%</td>
<td>16%</td>
<td>32%</td>
<td>8%</td>
<td>40%</td>
<td>16%</td>
</tr>
<tr>
<td>3. Seen Eye Contact</td>
<td>8%</td>
<td>0%</td>
<td>20%</td>
<td>0%</td>
<td>24%</td>
<td>12%</td>
</tr>
<tr>
<td>4. Gestures</td>
<td>6%</td>
<td>0%</td>
<td>18%</td>
<td>20%</td>
<td>44%</td>
<td>16%</td>
</tr>
<tr>
<td>5. Uses Relevant Material</td>
<td>12%</td>
<td>10%</td>
<td>36%</td>
<td>12%</td>
<td>42%</td>
<td>18%</td>
</tr>
<tr>
<td>6. Organizes Ideas in Sequence</td>
<td>8%</td>
<td>6%</td>
<td>40%</td>
<td>16%</td>
<td>44%</td>
<td>20%</td>
</tr>
<tr>
<td>7. Shows Imagination</td>
<td>8%</td>
<td>10%</td>
<td>16%</td>
<td>8%</td>
<td>16%</td>
<td>18%</td>
</tr>
<tr>
<td>8. Shows Enthusiasm</td>
<td>10%</td>
<td>6%</td>
<td>20%</td>
<td>14%</td>
<td>28%</td>
<td>10%</td>
</tr>
<tr>
<td>9. Logical Conclusion</td>
<td>8%</td>
<td>14%</td>
<td>40%</td>
<td>16%</td>
<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td>10. Adheres to Time</td>
<td>10%</td>
<td>20%</td>
<td>20%</td>
<td>16%</td>
<td>36%</td>
<td>28%</td>
</tr>
</tbody>
</table>

In the second year, as revealed by a study of Figure 9.10, the differences between the groups became greater. The February 1983 mean scores showed differences between the experimental and comparison groups, on the same aspects as November 1982. In addition, differences emerged between the mean scores of the two groups on 'Organizes Ideas in a Sequence'. Examination of data from trial number four, held in November 1983, revealed significant differences between the mean scores of the two groups on eight out of ten dimensions. The two exceptions were 'Shows Imagination' and 'Shows Enthusiasm'.

Comparison of Mean Scores from the Year Seven Samples

Data collected from Year Four, Five and Six level pupils revealed a trend for the scores from the experimental sample
Figure 9.10 Mean scores for pupils responding to the Improvisation Talk Rating Scale.

**KEY**
- Red = Comparison sample
- Blue = Experimental sample

<table>
<thead>
<tr>
<th>Time to adhered Chant</th>
<th>Time to swarm</th>
<th>Categorization at swarm basis</th>
<th>Swarms in swarm basis</th>
<th>Swarm size</th>
<th>Materials Used</th>
<th>Uses</th>
<th>Gestures</th>
<th>Eye Contact</th>
<th>Clarity</th>
<th>Speeches</th>
</tr>
</thead>
</table>

Scores range from 0 to 100.
to parallel those of the comparison sample for the February 1982 test. They subsequently differed increasingly over the succeeding three tests, the experimental sample indicating significantly higher levels of implementation. This trend was not as clearly discernible amongst the Year Seven data. Examination of the mean responses from the Year Seven pupils revealed that both samples indicated implementation levels of from zero per cent to 26 per cent on the February 1982 test, with neither group differing significantly on any category. Rating Scale mean scores returned by both samples in November 1982 showed implementation levels ranging from 6 per cent to 42 per cent. These mean scores have been reproduced in Table 9.11.

**TABLE 9.11**

Year Seven Pupil Mean Percentage Scores on the Impromptu Talks Rating Scale for the Experimental and Comparison Samples

<table>
<thead>
<tr>
<th></th>
<th>Experimental Sample</th>
<th>Comparison Sample</th>
<th>Experimental Sample</th>
<th>Comparison Sample</th>
<th>Experimental Sample</th>
<th>Comparison Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>February</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Stimulating Beginning</td>
<td>0%</td>
<td>2%</td>
<td>16%</td>
<td>20%</td>
<td>16%</td>
<td>16%</td>
</tr>
<tr>
<td>2. Speaks Clearly</td>
<td>10%</td>
<td>8%</td>
<td>16%</td>
<td>14%</td>
<td>20%</td>
<td>18%</td>
</tr>
<tr>
<td>3. Uses Eye Contact</td>
<td>2%</td>
<td>4%</td>
<td>4%</td>
<td>10%</td>
<td>36%</td>
<td>8%</td>
</tr>
<tr>
<td>4. Gestures</td>
<td>0%</td>
<td>6%</td>
<td>16%</td>
<td>8%</td>
<td>22%</td>
<td>12%</td>
</tr>
<tr>
<td>5. Uses Relevant Material</td>
<td>10%</td>
<td>16%</td>
<td>32%</td>
<td>24%</td>
<td>42%</td>
<td>26%</td>
</tr>
<tr>
<td>6. Organizes Ideas in Sequence</td>
<td>24%</td>
<td>26%</td>
<td>42%</td>
<td>32%</td>
<td>38%</td>
<td>30%</td>
</tr>
<tr>
<td>7. Shows Imagination</td>
<td>8%</td>
<td>12%</td>
<td>6%</td>
<td>12%</td>
<td>24%</td>
<td>24%</td>
</tr>
<tr>
<td>8. Shows Emotional</td>
<td>2%</td>
<td>4%</td>
<td>20%</td>
<td>10%</td>
<td>18%</td>
<td>6%</td>
</tr>
<tr>
<td>9. Logical Conclusion</td>
<td>14%</td>
<td>16%</td>
<td>30%</td>
<td>18%</td>
<td>34%</td>
<td>20%</td>
</tr>
<tr>
<td>10. Adheres to Time</td>
<td>6%</td>
<td>10%</td>
<td>26%</td>
<td>18%</td>
<td>36%</td>
<td>24%</td>
</tr>
</tbody>
</table>

| **November**    |                     |                   |                     |                   |                     |                   |
| 1. Stimulating Beginning | 4%                 | 2%                | 16%                 | 20%               | 42%                 | 24%               |
| 2. Speaks Clearly | 10%                | 6%                | 16%                 | 14%               | 26%                 | 16%               |
| 3. Uses Eye Contact | 2%                 | 4%                | 4%                  | 10%               | 66%                 | 12%               |
| 4. Gestures     | 0%                  | 6%                | 16%                 | 8%                | 46%                 | 14%               |
| 5. Uses Relevant Material | 10%               | 18%               | 38%                 | 24%               | 78%                 | 32%               |
| 6. Organizes Ideas in Sequence | 24%          | 26%               | 42%                 | 32%               | 78%                 | 48%               |
| 7. Shows Imagination | 8%                | 12%               | 6%                  | 12%               | 24%                 | 24%               |
| 8. Shows Emotional | 2%                  | 4%                | 20%                 | 10%               | 18%                 | 6%                |
| 9. Logical Conclusion | 14%              | 16%               | 30%                 | 18%               | 34%                 | 20%               |
| 10. Adheres to Time   | 6%                  | 10%               | 26%                 | 18%               | 36%                 | 24%               |
The samples differed significantly on item three - 'Uses Eye Contact Effectively' - but no significant differences occurred amongst the other criteria. Similar findings were indicated by the data collected in February 1983, with implementation levels ranging from 8 per cent to 42 per cent. Significant differences, however, occurred on item Three, 'Uses Eye Contact', item four 'Gestures', and item five, 'Uses Relevant Material', when the experimental sample of pupils returned higher mean scores than the comparison sample. Analysis of the November 1983 responses revealed significant differences on items one, three, four, five, six, eight and nine. An alternative illustration of this general trend is reproduced in Figure 9.11.

ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.4b1

Sub-hypothesis 3.4b1 suggests that high levels of children's mastery of impromptu public speaking skills will be related to high teacher scores on Levels of Use, high teacher scores on the higher order levels of the Stages of Concern, and high scores on the test for Fidelity. In Section 3.4a, it was argued that teachers had implemented the Upper Great Southern Region Oral English Programme. These findings can now be related to the analysis of the data returned by children. It is contended that when the results returned by children working with teachers who have implemented the Upper Great Southern Region Oral English Programme were matched with a comparison group of children who have not worked with implementing teachers, then these children score higher levels of mastery of impromptu public speaking skills. From this, considerable
support for the acceptance of sub-hypothesis 3.4b1 can be found.

From the evidence cited in this section of the thesis, it is recommended that sub-hypothesis 3.4b1 be accepted.

3.4b2 Changes in Listening Skills Demonstrated by Pupils

Children's ability to demonstrate the improved use of listening skills was identified by the Curriculum Developer and the Management Committee as a major learning goal of the Upper Great Southern Region Oral English Programme. They judged that implementation could not be considered to have occurred unless measures of children's actual behaviour indicated a rise in the level of their listening skills. A change in the level of listening skills demonstrated by pupils was considered to be a necessary, though not sufficient, indicator of implementation. It forms, then, the basis for the strategy for testing the second part of Generalized Hypothesis No. 4b. To this end, sub-hypothesis 3.4b2 has been developed.

Sub-hypothesis 3.4b2

High levels of pupil mastery of the Listening Skills Test will be related to high teacher scores on Levels of Use focused interviews, high scores on higher order Stages of Concern Questionnaire, and high scores on the test for fidelity.

The strategy for testing sub-hypothesis 3.4b2 has been delineated in Figure 9.06 on page 412. Changes in teachers' implementation behaviour, alluded to in sub-hypothesis 3.4b2,
have been discussed in detail in section 4a. Arguments assembled and reviewed previously tend to indicate that teachers in the experimental sample returned high scores on Level of Use focused interviews, high scores on higher order Stages of Concern, and high scores on the test for Fidelity. On these grounds, it was argued in Section 4a that teachers in the experimental sample had implemented the Upper Great Southern Region Oral English Programme. A content analysis of the programme being followed by the comparison sample indicated that this sample of teachers had not implemented the Upper Great Southern Region Oral English Programme or any other new Oral English programme. This line of deduction suggests that the first part of the sub-hypothesis 3.4b2 has been established, and that a comparison strategy can be supported. To complete the noumenon upon which the sub-hypothesis is based, it is necessary to investigate the extent, if any, of the level of listening skills mastered by pupils. This analysis also needs to ascertain the direction of such a change in order to test the suggestion, implied by the Entrepreneurial Authority Decision Directive Model of Implementation, that the pupils from the experimental sample will return higher scores. The comparison sample is needed to control for the extent of change due to the normal aging process in children.

Pupils' listening behaviour was measured in February and November of 1982 and 1983 by using the New Zealand Progressive Achievement Listening Comprehension Test previously described in Chapter V. The experimental sample from which the scores were returned included at least eleven classes for each year level
and a minimum of four classes from the split level classes, years four/five, five/six, and six/seven. Each year level contained more than four hundred pupils. The distribution of year level numbers of pupils has been reproduced in Table 9.12. In the comparison sample pupils from year four, five, six and seven were represented, as were children from the split year levels four/five, five/six, and six/seven. The distribution of pupils within the comparison sample is illustrated in Table 9.13. It has previously been established that pupils in the comparison sample match the pupils from the experimental group on-a wide range of factors.

**Year Four Pupils**

All the year four level pupil scores returned by pupils in the experimental sample in February 1982 were collected. These were then contrasted with the scores returned by the comparison sample and the difference subjected to a t-test analysis of data, to ascertain whether the difference was significant. Mean scores were examined, seeking the direction of the difference. The Entrepreneurial Authority Decision Directive Model of Implementation predicts the pupils in the experimental sample will score higher than those in the comparison sample. The test conducted in February 1982 was the initial trial, and at the time it was conducted the experimental treatment had not been commenced. Examination of Table 9.14 (page 443) shows that, as predicted from the foregoing comments, the t-test analysis of data indicated there was no significant difference between the sample scores returned in February 1982. Any difference between the
### TABLE 9.12

The Distribution of Pupils on a Year Level Basis for the Experimental Sample

<table>
<thead>
<tr>
<th>Year Level</th>
<th>No. of Classes</th>
<th>No. of Children</th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>11</td>
<td>408</td>
<td>12</td>
<td>426</td>
</tr>
<tr>
<td>4/5</td>
<td>12</td>
<td></td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>11</td>
<td>475</td>
<td>11</td>
<td>419</td>
</tr>
<tr>
<td>5/6</td>
<td>5</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>12</td>
<td>461</td>
<td>14</td>
<td>463</td>
</tr>
<tr>
<td>6/7</td>
<td>12</td>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>13</td>
<td>456</td>
<td>18</td>
<td>528</td>
</tr>
</tbody>
</table>

### TABLE 9.13

The Distribution of Pupils on a Year Level Basis for the Comparison Sample

<table>
<thead>
<tr>
<th>Year Level</th>
<th>No. of Classes</th>
<th>No. of Children</th>
<th>1982</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>6</td>
<td>181</td>
<td>6</td>
<td>189</td>
</tr>
<tr>
<td>4/5</td>
<td>3</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>171</td>
<td>5</td>
<td>162</td>
</tr>
<tr>
<td>5/6</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>161</td>
<td>4</td>
<td>166</td>
</tr>
<tr>
<td>6/7</td>
<td>2</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>241</td>
<td>6</td>
<td>232</td>
</tr>
</tbody>
</table>
means must, therefore, be regarded as coincidence and could not be construed as supporting the acceptance or rejection of the sub-hypothesis.

Scores returned by the same two groups were collected in November 1982 and subjected to the same analysis. Examination of Table 9.14 revealed that the experimental sample scores were significantly higher than those of the comparison sample. These results were predicted by the Entrepreneurial Authority Decision Directive Model of Implementation, hence provide support for the acceptance of sub-hypothesis 3.4b2. Further support for this finding is provided by the data collected from the 1983 year four samples, which have been reproduced in Table 9.14. The trend is similar to the data collected in 1982.

**Year Five Pupils**

Data collected from the year five pupils in the experimental sample has been reproduced in Table 9.14, as have been the scores returned by the pupils in the comparison sample. When these two groups of scores were compared, the t-test indicated no significant difference between the February 1982 scores and those collected in November 1982. Similar findings evolved from a comparison of the scores collected in February 1983. Further examination of Table 9.14 revealed that the scores returned in November 1983 by the experimental sample differed significantly, and were higher than those of the comparison sample. There was thus some support for the acceptance of sub-hypothesis 3.4b2. It is important to remember, at this juncture, that the 1983 year
five pupils had experienced the Upper Great Southern Region Oral English Programme in 1982 when they had been in a year four level class of pupils. Changes in their behaviour in the first year of the experimental condition were apparently too small to differ significantly from the comparison group. By the end of the second year, however, the behaviour change of the pupils in the experimental group was sufficiently large to register a significant difference at the 0.05 level of confidence. This was the first indication of a trend which was repeated in the year seven scores and reported later in this thesis.

Year Six Pupils

In February 1982, scores returned by the experimental sample were not significantly different from those returned by the comparison sample. This would be expected, as at this date there had been no experimental treatment intervention. By November 1982, the difference between the scores of the two samples had grown sufficiently large to be significant at the 0.05 level. When the same test was administered to the year six pupils for 1983, in February of that year, the scores returned by pupils were significantly different at the 0.05 level. During that year, some behavioural changes due to the implementation process they had experienced that year could be detected by the measurement instruments used in this section of the thesis. The changes seemed to have been cumulative and became more evident over a longer period of time. Scores provided by the pupils from the comparison
sample by the end of the observation period in November 1983, indicated that this group of pupils had undergone little change in their listening skills behaviour throughout the observation period.

**Year Seven Pupils**

In the first trial, the year seven level pupils from both samples returned very similar scores, being 18.9 for the experimental sample and 19.3 for the comparison sample. These scores were typical of those provided by pupils from the other year levels on their first trial. This phenomenon gives further indication that the two groups were well matched. The Entrepreneurial Authority Decision Directive Model of Implementation predicts that, after working for a school year on the Upper Great Southern Region Oral English Programme, the pupils in the experimental sample would return higher scores than the comparison sample when both were tested for listening skills in November 1982. The scores returned by pupils from both samples in November 1982 did not support this. Change was manifest, however, by February 1983, when the responses returned by the experimental sample were significantly higher than those returned by the comparison sample. The explanation for this may be embedded in the year six level experience of the intervention strategy imposed on the pupils in 1982. The trend for the implementation strategy to have a cumulative effect is further supported by the significantly higher scores returned by the experimental sample in November 1983, being 29.4 compared with the relatively low score of 22.7 returned
by the comparison sample.

ACCEPTANCE OR REJECTION OF SUB-HYPOTHESIS 3.4b2
Support for sub-hypothesis 3.4b2 is not unequivocal; however, after close examination of relevant data, much of which is succinctly reproduced in Table 9.14, it is argued that sufficient evidence has been accumulated to recommend the acceptance of sub-hypothesis 3.4b2.

ACCEPTANCE OR REJECTION OF GENERALIZED HYPOTHESIS 4b
In section 3.4b, the relationship between certain implementa-
tion behaviour of children and teachers was investigated. This investigation was based on Generalized Hypothesis 4b, reproduced below, which was developed in Chapter III.

GENERALIZED HYPOTHESIS 4b.
A high degree of implementation, indicated by pupils returning high scores on the Impromptu Speaking Test and high scores on the Listening Test, is related to high scores by teachers on Levels of Use focused interviews, high scores on higher order Stages of Concern, and a high degree of fidelity.

For testing purposes the generalized hypothesis was divided into three parts. The first, which referred to improvements in pupils' speaking skills, was investigated by developing sub-hypothesis 3.4b1. The second, which referred to improvements in pupils' listening skills, was investigated
<table>
<thead>
<tr>
<th>Date</th>
<th>Year</th>
<th>Experimental Sample</th>
<th>Comparison Sample</th>
<th>Samples differ significantly at the 0.05 level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982 Sample</td>
<td>Feb. 4</td>
<td>21.1</td>
<td>20.8</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Nov. 4</td>
<td>25.8</td>
<td>22.3</td>
<td>Yes</td>
</tr>
<tr>
<td>1983 Sample</td>
<td>Feb. 4</td>
<td>21.9</td>
<td>20.3</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Nov. 4</td>
<td>26.8</td>
<td>22.5</td>
<td>Yes</td>
</tr>
<tr>
<td>1982 Sample</td>
<td>Feb. 5</td>
<td>21.8</td>
<td>22.1</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Nov. 5</td>
<td>26.7</td>
<td>23.7</td>
<td>No</td>
</tr>
<tr>
<td>1983 Sample</td>
<td>Feb. 5</td>
<td>24.1</td>
<td>21.1</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Nov. 5</td>
<td>31.0</td>
<td>22.3</td>
<td>Yes</td>
</tr>
<tr>
<td>1982 Sample</td>
<td>Feb. 6</td>
<td>21.2</td>
<td>21.1</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Nov. 6</td>
<td>27.4</td>
<td>22.3</td>
<td>Yes</td>
</tr>
<tr>
<td>1983 Sample</td>
<td>Feb. 6</td>
<td>26.1</td>
<td>22.1</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Nov. 6</td>
<td>32.6</td>
<td>23.4</td>
<td>Yes</td>
</tr>
<tr>
<td>1982 Sample</td>
<td>Feb. 7</td>
<td>18.9</td>
<td>19.3</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Nov. 7</td>
<td>25.4</td>
<td>23.1</td>
<td>No</td>
</tr>
<tr>
<td>1983 Sample</td>
<td>Feb. 7</td>
<td>23.8</td>
<td>19.6</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Nov. 7</td>
<td>29.4</td>
<td>22.7</td>
<td>Yes</td>
</tr>
</tbody>
</table>

NB: It is necessary to remember that in Western Australia children are promoted each year based on their chronological age. There is no specific test for each year level.
by developing sub-hypothesis 3.4b2. The third, which referred to teacher change, was developed and tested in Section 4a of this chapter.

Evidence pertinent to sub-hypotheses 3.4b1 and 3.4b2 was reviewed. In each case it was contended by the writer that there was sufficient supportive evidence to accept them both. In Section 4a a strong case was developed to support an argument that teachers had implemented the Upper Great Southern Region Oral English Programme. On these grounds, it is contended that there is sufficient evidence to recommend the acceptance of Generalized Hypothesis No. 4b.
CHAPTER X

CONCLUSIONS

Introduction

The major aim of this thesis was the construction of a conceptual model to represent an implementation process occurring when an organization makes a curriculum change. The theoretical construct was to represent an implementation process which commenced with an authoritarian decision to implement a new curriculum, and took place in a rural region of a state education department. To meet this aim, major factors, drawn from the literature, were classified under four principal headings and assembled into a pattern. From this base it proved possible to construct a model, and the results were reported in detail. Each part of the model has been compared to an analysis of data obtained from a field study of an implementation process. The process observed for this study occurred in the Upper Great Southern Region of the Western Australian Education Department.

The procedure gained credibility as the study progressed, because it became increasingly apparent from measurement of teacher and pupil behaviour that a high degree of implementation was occurring. Analysis of field observations revealed that the congruence between what the model predicted and what happened in the field study varied from a high level of correlation on some aspects, to others that bore so little relationship that they had to be rejected. A closer analysis of each of the four
The Decision to Change

Although the model introduced the concept of an authority decision, and the field study to verify this occurred in a state education department which had a history of centralism, it became apparent that the decision was not a finite action occurring at a given time. It was a process unfolding over a protracted length of time. In this study the Regional Superintendent was able to make a formal declaration that the implementation process would proceed. This aspect of the decision depended on power from three sources: power given him/her from the State Education Department, power achieved through personal status, and power through the allocation of resources.

Power given to the Regional Superintendent by the State education system was the first aspect addressed by the study. Field study data tended to indicate that formal power granted to the Regional Superintendent had little influence on the extent to which teachers became involved in the implementation process. Teachers subject to assessment, such as the granting of tenure or seeking special promotion, were neither more likely nor less likely to become involved in the implementation process. It must be remembered that these are generalized comments. There were some instances when formal power influenced teachers' implementation behaviour, and these have been reported in the thesis.
The power aspect of the Decision to Change seemed to come from sources other than the formal ones. In the Upper Great Southern Region of the Western Australian Education Department, the Regional Superintendent had a high public profile. Schools and community groups were visited frequently and regularly. Communiqués in the form of newsletters, advisory bulletins and written instructions carrying the Regional Superintendent's name were issued to all schools and numerous school-related groups. This familiarity was frequently mentioned during interviews, and may have explained why teachers tended to regard the Regional Superintendent as more influential in their decision to implement than educationally significant others, such as fellow teachers, school principals or head office curriculum officers. Allied to this is the Regional Superintendent's power, both real and imagined by teachers, to gain access to resources. In the study under observation, the Regional Superintendent used his power to provide a wide range of support to teachers implementing the new programme. Teachers indicated they regarded this behaviour as highly influential in the first year, but less so in the second, thus supporting this aspect of the conceptual model.

The conceptual model predicted that teachers would grant the Regional Superintendent limited authority to make decisions over their implementation behaviour; but that teachers would audit this power, by verifying the innovation against the requirements laid down in the Western Australian Education Department syllabus. Field studies upheld this, but only in part. Teachers without tenure ensured the new programme conformed with the
syllabus before they made their decision; tenured teachers did not. An aspect of the model that was strongly supported by field studies was the concept of the Regional Superintendent assuming the role of Curriculum Manager. The Regional Superintendent's power to establish the temporary systems of in-school Resource Teachers, the Curriculum Developer and his support committee and incidental staff was regarded by teachers as an integral part of the Decision to Change. Finally, it can be concluded that the analysis of data obtained during the field study supported the contention that entrepreneurial leadership was necessary to the successful implementation of a curriculum change as postulated by the Entrepreneurial Authority Decision Directive Model of Implementation. It is perceived by teachers as part of their decision to accept the implementation process.

The theoretical model postulated that the Decision to Change was a process made up of a composite of actions from a variety of people. Analysis of the data collected from the field study provided strong support for the concepts incorporated in this section of the model.

The Rationale for Implementation

Within the theoretical model the second sub-model, The Rationale for Implementation, was built to represent the teachers' perspective of reasons they found persuasive when they were making a decision to accept or reject an implementation process. This study revealed the evolution of the concept could be traced through the writings of the five principal authors cited in
Chapter II. From a combination of their work and the findings of several other researchers working in the same field, published in the late 1970's and early 1980's, six major influential factors were deduced.

The first of these factors, 'An indication that child learning will improve', received strong support from the wide range of data collected from the field observations made during this study. It is clear that from the perspective of the sample of teachers studied, this factor was very important to them, and they would have expected it to be incorporated into any rationale which aimed to persuade them to accept a decision to implement. The findings of the next sub-section were more equivocal. 'The importance teachers attached to the subject' was not related to the extent to which they implemented the new programme. Teachers granting Oral English a low value compared to other subjects they taught, were equally likely to become resource teachers, be in the majority group, or become resisters. Teachers who had been using the new programme for one year, however, valued the programme more highly at the end of the year than at the beginning. It may be concluded that the importance of the subject to the teacher before implementation commenced had little impact on the teacher's decision to accept implementation. The fact that involvement in the implementation process was likely to make the subject more important to him/her may influence a teacher's decision-making, and therefore may provide partial support for this aspect of Generalized Hypothesis No. 2.

Analysis of the data presented in Chapter VII indicated
that teachers regarded allocating 150 minutes of teaching time per week to Oral English as a major problem. Indeed, there was good reason to believe that very few teachers actually allocated the full 150 minutes. This being the case, teachers implementing the programme were trying to achieve goals set by the Curriculum Developer but in less time than they predicted as necessary. Consequently, they may have been seeking any time-saving techniques available to them. Their responses to a number of probes indicated that they regarded the possibility of 'correlating with other subjects' as a very important factor to be considered when they were making their decision to accept or reject the implementation process. There were many projects competing for a part of the school day; it may be concluded, therefore, that the findings of this sub-section support the suggestion that teachers regarded the possibility of correlating with other subjects as an important influence in their decision to accept the implementation process.

Field study observations indicated that teachers perceived the implementation process as easy to understand, not complex. The Entrepreneurial Authority Decision Directive Model of Implementation predicts that teachers will regard this as an important factor to consider when they are making their decision to accept or reject the decision to implement the innovation. Field study observations strongly supported this prediction.

The Upper Great Southern Region Oral English Programme was new to the region, rendering redundant, therefore, the previous teaching aids and teaching ideas books. No teachers
in the school had used the innovation, so in-school advisors were not available. Field observation data indicated teachers believed this to be the case, and that they perceived themselves as professionally isolated. They also perceived themselves as overworked and short of time, consequently they regarded the provision of all necessary resources as an important advantage likely to persuade them to accept the decision to implement the innovation. There was a perception among the teachers observed in the field study that curriculum change in Western Australian schools was excessive. They therefore provided a range of responses that was clearly supportive of the 'work reducing' characteristics of the very detailed Upper Great Southern Region Oral English Programme.

In conclusion, the Entrepreneurial Authority Decision Directive Model of Implementation proposes the need for a rationale as an essential part of an effective implementation process. This need was established in the literature, and verified and expounded upon, using data received from the particular field study investigated to meet the needs of this study.

The Sequence of Involvement

The third sub-model, The Sequence of Involvement, was based on a concept adopted from the literature related to planned change in organizations. In the Entrepreneurial Authority Decision Directive Model of Implementation, this concept was applied to the more specific context of the implementation process occurring within a planned curriculum change strategy. It was proposed within this concept that people participating in an implementation
process could be classified into groups according to the behaviour they exhibited once they became aware of the implementation process.

Data collected from the field research indicated qualified support for the assumption that the sub-model provided a representation of reality useful as a basis for research. Four major groups were identified: those who joined the Management Committee, the in-school Resource Teachers, the Majority, and the group of Resisters. The Management Committee could be identified because their behaviour differed from that of the rest of the sample observed on a number of dimensions. They had more frequent and extended communication with the Curriculum Developer than other groups. Their contact became social as well as professional. They were among the small group of early implementers. All teachers observed tended to move through the implementation patterns of SoC and LoU established by Hall et al (1979). Management Committee members moved through this pattern at a faster rate than other groups, but did not move on to the highest levels of Refocusing for SoC and Renewal in LoU. This group demonstrated an atypically high level of commitment to the innovation by recording higher scores than any other group on the Fidelity of Implementation measurement for each of the four occasions on which it was taken.

The in-school Resource Teachers were distinguished from the Majority group by receiving greater recognition from the Curriculum Developer, more inservice, and more frequent communication. They moved more quickly through the stages of concern
and levels of use, but like the Management Committee members, did not move on to the Refocusing stage of the SoC or the Renewal level of the LoU. Their level of fidelity was never as high as that of the Management Committee group, but was significantly higher than that of the Majority on three key elements of the test for Fidelity of Implementation. They did not rank Oral English any more highly than other groups at the commencement of the implementation process; however, their ranking was significantly higher than the Majority group at the end of the two-year observation period. It proved possible to identify the Majority group by comparing their behaviour with that of the Resource Teacher group, combined with the degree of involvement they had in decision-making.

A group of teachers identified themselves as resisters by indicating to the Curriculum Manager during interview that they would not be commencing the implementation process. Of these teachers, 83% remained constant to their decision to resist throughout the observation period. The majority of the reasons they gave for behaving atypically were related to their personal concerns.

In the field study observed as part of this research, teacher behaviour was represented by the conceptual model. Teachers' behaviour did form the basis for a consistent classification system dividing teachers into groups which exhibited distinct characteristics.
Measuring the Degree of Implementation

The concepts associated with Measuring the Degree of Implementation fulfilled two functions in this study, the first as part of the model, and the second as part of the experimental design. The Entrepreneurial Authority Decision Directive Model of Implementation developed from theoretical concepts reported in the literature review required a measurement component to bring it to a logical conclusion. The model, as illustrated in Figure 3.02 reproduced in Chapter III, incorporated the analogy of a hydraulic system. Each part was conceived as being interrelated so that once the implementation process commenced, movement in one part of the system had implications for all other parts. Teachers contemplating the Rationale for Implementation, for example, and seeking an indication that child learning will improve, will be influenced by measurement information related to pupils. The second use of the concept was related to the experimental design. In this study, a major aim was to use field data to test the degree to which a conceptual model represented reality.

To collect this field data a battery of instruments, some selected from previous studies and some designed especially for this study, were assembled. Instruments designed to measure teacher concerns revealed evidence to indicate that all three groups of teachers experienced concerns, and moved through the Hall et al (1979) stages, but at differing rates. For Advocates, peak intensities of concern moved consistently from early stages of concern to the later ones, but did not reach the level of
Refocusing. Resource Teacher scores indicated similar trends and showed no arousal of concerns associated with Refocusing. Classroom Teacher-user concerns proved to be much less consistent. On the initial trial in February 1982, Awareness concerns were high but had fallen to very low levels by November 1982. Informational and Personal concerns were low (maximum score of 11 out of a potential of 35) on all four trials. Management concerns were relatively high for the November 1982 and February 1983 trials, while the only time high intensities of concern were recorded for the last three stages was on the November 1983 trial. In general, teachers tended to move from early order stages of concern to later order stages. The longer they stayed on the programme, the more likely they were to have high levels of concern on later stages. Similar trends were revealed by analysis of the data collected during the LoU focused interviews.

The second aspect of the concept, Measuring the Degree of Implementation, applied to the implementation behaviour displayed by pupils. Their behaviour was measured in the area of impromptu speaking and the area of listening comprehension. The instruments were found to have a high level of validity and reliability. In each case, they indicated that pupils from Years 4 to 7 displayed low levels of skill on the first trial but higher levels of skill on each successive trial. By using a comparison group, it was possible to control for a range of variables, thus it was argued that pupils achieved a high level of implementation, and this was closely related to their use of the innovation.
Responses to the Principal's Programme Review Sheet returned by principals, indicated they perceived the teachers under their direction as demonstrating increasing fidelity of implementation on each of the four occasions they were measured. The three teacher groups returned higher scores on the Fidelity of Implementation measure on each of the four occasions they were measured.

On the basis of the evidence presented from these three areas, it is argued that a high degree of implementation among the teacher group occurred, as indicated by high scores in the higher order Stages of Concern, high Levels of Use scores, and high scores on the Fidelity of Use measure. The longer the period of implementation, the higher these scores indicating increased implementation became. The operationalizing of the concept of measuring the degree of implementation for teachers also fulfilled a necessary function in the experimental design.

Suggestions for Further Research

The implementation process is increasingly being regarded by educational researchers as an important phase in the process of planned change (Fullan, 1982). As a consequence, a steadily growing volume of research is becoming available (Oliver, 1986). Despite this, there are still deficiencies in our understanding of some aspects of the implementation phase (Marsh and Hill, 1984). Some broadly based conceptual models are being developed, but none have yet emerged as fully developed theories (Leithwood, 1981). A range of curriculum dissemination strategies is available from top-down to grassroots upward, and this study has investig-
ated one of them in a unique setting. The evolution of the current conceptual models into fully developed theories would be accelerated by the investigation of each of these strategies in a variety of settings.

Even within each strategy there is need for more fine-grained investigation. Already, research into aspects of successful top-down implementation processes has revealed four major contributing factors. Marsh and Huberman (1984) report them as: administrative advocacy, high prescriptiveness, good administrative engineering of the implementation process, and strong backup. The degree of contribution to success made by each of these factors is likely to vary. There is a need to co-ordinate them into a variety of combinations, field testing each of these models against a 'real life' implementation process as it is occurring. Top-down dissemination strategies have been regarded as very unsuccessful by some writers (Fullan, 1982), and highly successful by others (Louis et al, 1981, and Datta, 1980). The implementation process observed during the study reported in this thesis came to a successful conclusion. These varying results may be explained by situational variables, the investigation of which would contribute to the development of an overarching theory of implementation. If these findings are to be generalized to Australian implementation processes, there is a need for such studies to be situated in Australia, observing Australian teachers and pupils. At present there is a shortage of Australian studies, Marsh and Carter (1980) imply, while most of the research findings available rely on observations of North American teachers and pupils. The Australian situations
to be studied need to be part of state education systems. The majority of Australian children are educated in state schools, yet very few studies detail levels of curriculum implementation within state education systems (Marsh and Hill, 1984).

While a great deal has been discovered about the implementation process, much useful work is yet to be done in order to make the knowledge available appropriate to the Australian scene.
APPENDIX ONE

Stages of Concern Questionnaire

(After Hall et al, 1979)
A QUICK SCORING DEVICE
FOR THE
STAGES OF CONCERN QUESTIONNAIRE

Eddie W. Parker
Teresa H. Griffin

Procedures for Adopting Educational Innovations/CBAM Program
The Research and Development Center for Teacher Education
The University of Texas at Austin

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A Quick Scoring Device for the Stages of Concern Questionnaire

The Stages of Concern About the Innovation Questionnaire is the result of three and one-half years of research and development, including extensive study of individuals involved in "change" in both schools and colleges. Based on teacher concerns research conducted by Frances Fuller in the 1960's, Stages of Concern are a primary dimension of the Concerns-Based Adoption Model, a model developed at the Texas R&D Center to conceptualize and describe educational change. The Stages of Concern Questionnaire (SoCQ) was developed to assess the seven hypothesized Stages of Concern About the Innovation. The 35-item SoCQ was tested for reliability, internal consistency, and validity with several different samples and eleven different innovations, all of which provided confidence that the SoCQ measures the hypothesized Stages of Concern. The Questionnaire takes about 15 minutes to administer, and can be scored by hand or by computer.

The Quick Scoring Device can be used to hand score the SoCQ and to plot an individual profile on a graph. It is especially useful when only a small number of questionnaires need to be processed or when computer processing is not available. By following the step-by-step instructions, the SoCQ responses are transferred to the device, entered into six scales, and each scale is totaled. Then the six raw scale score totals are translated into percentile scores and plotted on a graph to produce the individual's SoC profile. This packet of materials contains:

1) instructions for using the Quick Scoring Device
2) sample SoCQ (I.D. #0001)
3) completed Quick Scoring Device for SoCQ (I.D. #0001)
4) sample SoCQ (I.D. #0002)
5) blank Quick Scoring Device to fill out using data from SoCQ (I.D. #0002)
6) blank Quick Scoring Device (for reproduction purposes).

The SoCQ user's manual\(^1\) more fully describes the questionnaire, provides reliability and validity information, and contains instructions for interpretation of SoCQ profiles. It also lists the programs for computer scoring and displaying SoCQ data.

---

How to Use the SoCQ Quick Scoring Device

The Stages of Concern Questionnaire (SoCQ) contains 35 items. The scoring of the SoCQ requires a series of operations which result in an SoC profile.

Instructions

The following steps have been carried out on the attached Quick Scoring Device, for subject number 0001, using the SoCQ responses which are also provided.

Step 1: In the box labeled A, fill in the identifying information taken from the cover sheet of the SoC Questionnaire.

Step 2: Line up the left margin of the Scoring Device with the responses on the right of the first page of the SoCQ. Note that the lines on the margin of the Scoring Device will correspond with the SoCQ items on that page. Copy the numerical values of the circled responses to statements 1 through 18 in the numbered blanks on the margin of the Device. Then hold the right margin of the Scoring Device next to the second page’s responses and write in responses 19 through 35 in the numbered spaces.

Step 3: Next, in the table labeled B on the Scoring Device, transcribe each of the 35 SoCQ responses entered in the margins to the corresponding numbered blank. Note that the numbered blanks in Table B are not in consecutive order.

Step 4: Box C contains the Raw Scale Score Total for each stage (0-6). Take each of the seven columns (0-6) in Table B, add the numbers within each column, and enter the sum for each column (0-6) in the appropriate blank in Box C. Each of these seven Raw Scale Score Totals is a number between 0 and 35.
Step 5: Table D contains the percentile scores for each Stage of Concern. Find the Raw Scale Score Total for Stage 0 from Box C ("5" in the example); locate this number ("5") in the left-hand column in Table D, then look in the Stage 0 column to the right in Table D and circle that percentile ranking ("53" in the example). Do the same for Stages 1 through 6.

Step 6: Transcribe the circled percentile scores for each stage (0–6) from Table D to Box E. Box E now contains seven numbers between 0 and 99.

Step 7: Box F contains the SoC graph. From Box E, take the percentile score for Stage 0 ("53" in the example) and mark that point with a dot on the Stage 0 vertical line on the SoC graph. Do the same for Stages 1 through 6. Connect the points to form the SoC profile.

Step 8: Practice Steps 1 through 7, using the blank SoCQ Quick Scoring Device and the SoC Questionnaire with responses filled in by subject number 00002.

For interpretation of the SoC profile, refer to the SoCQ manual.
There's Excitement in Speaking

Concerns Questionnaire.

Name: (optional) ________________________________

The purpose of this questionnaire is to determine what people who are using, or who are thinking about using There's Excitement in Speaking are concerned about at various times during the innovation adoption process. The items were developed from typical responses of school and college teachers who ranged from no knowledge at all about such a programme to many years experience in using it. Therefore, a good part of the items on this questionnaire may appear to be of little relevance or irrelevant to you at this time. For the completely irrelevant items please circle "0" on the scale. Other items will represent those concerns you do have, in varying degrees of intensity, and should be marked higher on the scale.

For example:

This statement is very true of me at this time. 0 1 2 3 4 5 6 7
This statement is somewhat true of me now. 0 1 2 3 4 5 6 7
This statement is not at all true of me at this time. 0 1 2 3 4 5 6 7
This statement seems irrelevant to me. 0 1 2 3 4 5 6 7

Please respond to the items in terms of your present concerns, or how you feel about your involvement or potential involvement with There's Excitement in Speaking. We do not hold to any one definition of this innovation, so please think of it in terms of your own perception of what it involves. Since this questionnaire is used for a variety of innovations, the name There's Excitement in Speaking never appears. However, phrases such as "the innovation", "this approach" and "the new system" all refer to There's Excitement in Speaking.

Remember to respond to each item in terms of your present concerns about your involvement or potential involvement with There's Excitement in Speaking.

Thank you for taking time to complete this task.
'There's Excitement in Speaking'

PLEASE COMPLETE THE FOLLOWING:

1. What percent of your job is:
   teaching ___% administration ___% other (specify) ___%

2. Do you work: full time ___ part time ___ ?
3. Female _____ Male _____
5. Highest degree earned:
   Associate ___ Bachelor ___ Masters ___ Doctorate ___
6. Please list any units in Oral English you have completed.

7. Year degree earned: ______
8. Total years teaching: ______
9. Number of years at present school: ______
10. In how many schools have you held full time appointments?
    one ___ two ___ three ___ four ___ five or more ___
11. How long have you been involved in 'There's Excitement in
    Speaking'?
    never ___ 6 months ___ 18 months ___
12. In your use of 'There's Excitement in Speaking', do you consider
    yourself to be a:
    non-user ___ novice ___ intermediate ___ old hand ___
    past user ___
13. Have you received formal training in 'There's Excitement in
    Speaking' (workshops, courses)?
    Yes ____ No ____
14. Are you currently in your first or second year of use of some
    major innovation or programme other than 'There's Excitement
    in Speaking'?
    Yes ____ No ____
    If yes, please describe briefly.
## A.2 SoC QUESTIONNAIRE ITEMS

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Irrelevant</td>
<td>Not true of me now</td>
<td>Somewhat true of me now</td>
<td>Very true of me now</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>I am concerned about students' attitudes toward this innovation.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>I am concerned about not having enough time to organize myself each day.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>I would like to help other faculty in their use of the innovation.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>I have a very limited knowledge about the innovation.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>I would like to know the effect of reorganization on my professional status.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>I am concerned about conflict between my interests and my responsibilities.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>I am concerned about revising my use of the innovation.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>I would like to develop working relationships with both our faculty and outside faculty using this innovation.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>I am concerned about how the innovation affects students.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>11</td>
<td>I am not concerned about this innovation.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>12</td>
<td>I would like to know who will make the decisions in the new system.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>13</td>
<td>I would like to discuss the possibility of using the innovation.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>14</td>
<td>I would like to know what resources are available if we decide to adopt this innovation.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>15</td>
<td>I am concerned about my inability to manage all the innovation requires.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>16</td>
<td>I would like to know how my teaching or administration is supposed to change.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>17</td>
<td>I would like to familiarize other departments or persons with the progress of this new approach.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
0 1 2 3 4 5 6 7
Irrelevant Not true of me now Somewhat true of me now Very true of me now

19. I am concerned about evaluating my impact on students. 0 1 2 3 4 5 6 7
20. I would like to revise the innovation's instructional approach. 0 1 2 3 4 5 6 7
21. I am completely occupied with other things. 0 1 2 3 4 5 6 7
22. I would like to modify our use of the innovation based on the experiences of our students. 0 1 2 3 4 5 6 7
23. Although I don't know about this innovation, I am concerned about things in the area. 0 1 2 3 4 5 6 7
24. I would like to excite my students about their part in this approach. 0 1 2 3 4 5 6 7
25. I am concerned about time spent working with non-academic problems related to this innovation. 0 1 2 3 4 5 6 7
26. I would like to know what the use of the innovation will require in the immediate future. 0 1 2 3 4 5 6 7
27. I would like to coordinate my effort with others to maximize the innovation's effects. 0 1 2 3 4 5 6 7
28. I would like to have more information on time and energy commitments required by this innovation. 0 1 2 3 4 5 6 7
29. I would like to know what other faculties are doing in this area. 0 1 2 3 4 5 6 7
30. At this time, I am not interested in learning about this innovation. 0 1 2 3 4 5 6 7
31. I would like to determine how to supplement, enhance, or replace the innovation. 0 1 2 3 4 5 6 7
32. I would like to use feedback from students to change the programme. 0 1 2 3 4 5 6 7
33. I would like to know how my role will change when I am using the innovation. 0 1 2 3 4 5 6 7
34. Coordination of tasks and people is taking too much of my time. 0 1 2 3 4 5 6 7
35. I would like to know how this innovation is better than what we have now. 0 1 2 3 4 5 6 7

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R & D Center for Teacher Education, The University of Texas at Austin
APPENDIX TWO

Level of Use Focused Interviews

(After Hall et al., 1973)
## Figure 4: Interview Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you using the innovation?</td>
<td>To distinguish between users and nonusers; to break LoU 0-II from LoU III-VI.</td>
</tr>
<tr>
<td>What do you see as the strengths and weaknesses of the innovation in your situation? Have you made any attempt to do anything about the weaknesses?</td>
<td>To probe Assessing and Knowledge categories.</td>
</tr>
<tr>
<td>Are you currently looking for any information about the innovation? What kind? For what purpose?</td>
<td>To probe Acquiring Information category.</td>
</tr>
<tr>
<td>Do you ever talk with others about the innovation? What do you tell them?</td>
<td>To probe Sharing category.</td>
</tr>
<tr>
<td>What do you see as being the effects of the innovation? In what way have you determined this? Are you doing any evaluating, either formally or informally, of your use of the innovation? Have you received any feedback from students? What have you done with the information you get?</td>
<td>To probe Assessing category.</td>
</tr>
<tr>
<td>Have you made any changes recently in how you use the innovation? What? Why? How recently? Are you considering making any changes?</td>
<td>To distinguish between LoU III (user-oriented changes), LoU IV B (student-oriented changes) and LoU IV A (no or routine changes); to probe Status Reporting and Performing categories.</td>
</tr>
<tr>
<td>As you look ahead to later this year, what plans do you have in relation to your use of the innovation?</td>
<td>To probe Planning and Status Reporting categories.</td>
</tr>
</tbody>
</table>
### Question

- Are you working with others (outside of anyone you may have worked with from the beginning) in your use of the innovation? Have you made any changes in your use of the innovation based on this coordination?
- Are you considering or planning to make major modifications or to replace the innovation at this time?
- How do you work together? How frequently?
- What do you see as the strengths and the weaknesses of this collaboration?
- Are you looking for any particular kind of information in relation to this collaboration?
- When you talk to others about your collaboration, what do you share with them?
- Have you done any formal or informal evaluation of how your collaboration is working?
- What plans do you have for this collaborative effort in the future?

### Purpose

- To separate LOU V from III, IV A and IV B. If a positive response is given, LOU V probes (below) are used.
- To separate LOU VI from III, IV A, IV B and V.

**LOU V Probes**
<p>| Question                                                                                                                                                                                                 | Purpose                                                                                                                                                                                                 |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IF NO |                                                                                                                                                                                                         |                                                                                                                                                                                                         |
| Have you made a decision to use the innovation in the future? If so, when?                                                                                                                                  | To separate LoU 0 from I; to probe Status Reporting, Planning and Performing categories. To separate LoU I from II.                                                                                       |
| Can you describe the innovation for me as you see it?                                                                                                                                                        | To probe Knowledge category.                                                                                                                                                                             |
| What do you see as the strengths and weaknesses of the innovation for your situation?                                                                                                                      | To probe Assessing category.                                                                                                                                                                             |
| At this point in time, what kinds of questions are you asking about the innovation? Give examples if possible.                                                                                              | To probe Assessing, Sharing and Status Reporting categories.                                                                                                                                              |
| Do you ever talk with others and share information about the innovation? What do you share?                                                                                                                   | To probe Sharing category.                                                                                                                                                                              |
| What are you planning with respect to the innovation? Can you tell me about any preparation or plans you have been making for the use of the innovation?                                                          | To probe Planning category.                                                                                                                                                                              |
| Can you summarize for me where you see yourself right now in relation to the use of the innovation? (Optional Question)                                                                                      | To get a concise picture of the user's perception of his/her use or nonuse.                                                                                                                             |</p>
<table>
<thead>
<tr>
<th>Question</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why did you stop using the innovation?</td>
<td></td>
</tr>
<tr>
<td>Can you describe for me how you organized your use of the innovation, what problems you found, what its effects appeared to be on students?</td>
<td></td>
</tr>
<tr>
<td>When you assess the innovation at this point in time, what do you see as the strengths and weaknesses for you?</td>
<td></td>
</tr>
</tbody>
</table>
LEVEL OF USE RATING SHEET

<table>
<thead>
<tr>
<th>Level</th>
<th>Knowledge</th>
<th>Acquiring Information</th>
<th>Sharing</th>
<th>Assessing</th>
<th>Planning</th>
<th>Status Reporting</th>
<th>Performing</th>
<th>Overall LoU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Use D.P. A</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>Orientation D.P. B</td>
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<td>III</td>
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<td>Routine D.P. D-2</td>
<td>IVA</td>
<td>IVA</td>
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<td>Integration D.P. F</td>
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User is not doing: ND ND ND ND ND ND ND ND

No information in interview: NI NI NI NI NI NI NI NI

Past User _______ Estimated past LoU _______

The amount of information in the interview was: insufficient for rating 1 2 3 4 5 6 7 very adequate for rating

The Interviewee: does not fit on the chart 1 2 3 4 5 6 7 fits well on the chart

The Interviewee: was very difficult to interview 1 2 3 4 5 6 7 was no problem to interview
APPENDIX THREE

Oral English Programme Review Sheets
**PRINCIPAL'S ORAL ENGLISH PROGRAMME REVIEW**

School: ____________________________ Date: ________________

To be completed at the end of each programming period e.g. every 6 weeks.

<table>
<thead>
<tr>
<th>Teachers' Names</th>
<th>Early User</th>
<th>Mechanical User</th>
<th>Growing Sophistication</th>
<th>Correlation with other subjects</th>
<th>Evaluating total programme</th>
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Please estimate the category of programme use into which the teachers at your school can be placed.

Please ask teachers to fill in the Programme Revision Sheet, then collect these and post the lot to the Regional Office, Box 535, NARROGIN, W.A. 6312.
PROGRAMME REVIEW SHEET

Name: ___________________________ Date: ___________ School: ___________________________

Please tick the sentence that best describes your approach to the Oral English Programme at this time.

1. Programme Structure.

   How are you progressing through the Oral English course?
   
a) I complete each lesson according to the suggested sequence perhaps omitting a few. ☐
b) I re-sort lessons into a sequence to suit myself. ☐
c) I choose a few high interest activities and leave out the rest. ☐
d) I integrate other subjects with the Oral English Programme. ☐

2. Objectives

   a) I use an objective for every lesson. ☐
b) I use an objective occasionally. ☐
c) I never need to use any of the objectives. ☐

3. Teacher Role

   a) I now use role as a teaching technique -
      
      often. ☐
      occasionally. ☐
      rarely. ☐
      never. ☐

   b) I use myself as a model in activities such as story telling and meeting procedure -
      
      often. ☐
      occasionally. ☐
      rarely. ☐
      never. ☐

   c) I use the speech drills -
      
      often. ☐
      occasionally. ☐
      rarely. ☐
      never. ☐

4. Working with other Teachers

   a) At this time I'm not interested in what other teachers are doing. ☐
b) I team to save work in preparation. ☐
c) I team teach during lessons. ☐
d) I meet regularly with other teachers to seek ways of maximizing the effectiveness of the Oral English Programme. ☐

5. Understanding Children's Capabilities

   a) I am gaining a greater awareness of what children are capable of producing. ☐
b) I find my expectations for children have changed. ☐
c) I have some difficulty establishing realistic expectations of children. ☐
d) I can gauge children's capabilities in Oral English with confidence. ☐

6. Evaluation of Children
   a) I intend to start formally evaluating children soon.
   b) I frequently use the diary for keeping observations.
   c) I use my objectives as a base for regular evaluation of all children.
   d) I am confident with my evaluation of both the children and the Programme.

7. Aids
   a) I have difficulty preparing all the aids asked for in the Programme.
   b) I generally have all the aids asked for in the Programme ready for the lesson.
   c) I supplement the Programme aids with aids of my own.

8. Resource Teacher
   a) I frequently need to ask the Resource Teacher for help.
   b) I occasionally need to ask the Resource Teacher for help.
   c) I rarely ask the Resource Teacher for help.
   d) I meet the Resource Teacher with a view to suggesting improvements.

9. Aspects of the Course
   a) Of the speaking lessons I am able to complete [few / some / most / all]
   b) Of the listening skill lessons I am able to complete [few / some / most / all]
   c) Of the speech drills I am able to complete [few / some / most / all]

10. Small Group Work
    When the Programme recommends small group lesson techniques:
    a) I change this to whole group instruction in most cases.
    b) I try some of the lessons but still feel uncomfortable. I prefer whole group instruction.
    c) I mostly use these, however, a few children can still spoil the lesson by poor self control.
    d) I approach small group work with confidence.

11. Child Activity
    a) I feel uncomfortable when the classroom is noisy.
    b) I am prepared to tolerate noise during group work but I don't like it.
    c) I can confidently assess when classroom working noise is effective.
    d) I believe children can learn a great deal by talking during classroom lessons.

Of all the Primary syllabi how would you rank the Oral English Programme on the continuum below?
Least Important . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Most Important.
1  2  3  4  5  6  7  8  9  10
APPENDIX FOUR

Upper Great Southern Region Oral English Questionnaire
Dear

The attached questionnaire is designed to provide the Regional Office with information upon which a plan to help teachers use the Oral English Programme will be based. Please complete the questionnaire as soon as possible and as accurately as you can. Your answers will be taken seriously and included in the next phase of planning.

I should be grateful if you would hand the completed questionnaires to the school secretary.

With thanks in anticipation of your help, I remain

Yours faithfully

B J S Reid
Regional Superintendent
ORAL ENGLISH QUESTIONNAIRE

1. Please think about the arguments you heard this year in favour of using the Oral English Programme. Now rank the following items in order of their importance to you at that time.

1 = Least important.

The programme is clearly defined

The programme saves teachers work

All resources are provided

Children's learning will improve

New teachers can easily find out what teachers did last year

The programme is easy to follow

When compared to other school subjects this one is very important

2. To assist teachers in the Upper Great Southern who are using the Oral English Programme the following resources have been made available:

A Curriculum Developer
Three part-time Teachers
One Clerk Typist
Funds for printing materials
Funds for inservice courses

To what degree has the provision of these resources persuaded you to commence implementing the programme? Please tick the correct answer.

None □ □ □ □ □ □ alot

3. When you think of Oral English, to what extent do you feel professionally isolated? Please tick the correct answer.

None □ □ □ □ □ □ alot

4. Who do you think is the architect of the Oral English Programme? Please tick the correct answer.

Education Department □
Graham Baxter □
Regional Office □
Regional Superintendent □
Don't know □

5. Do you own an Education Department Oral English Syllabus?
6. When you think of the Oral English Programme whose support for the programme is most likely to persuade you to use it? Please tick one from the list below:  
   (a) Fellow Teachers in your school  
   (b) Your school Principal  
   (c) A Teachers College Lecturer  
   (d) Curriculum Branch of the Education Department  
   (e) The Regional Superintendent  
   (f) A commercial bookseller  

7. Would you have agreed to begin the programme without the resources being made available?  
   Yes  
   No  
   Perhaps  

8. What title do you use when referring to the new Oral English Programme?  
   The Oral English and Drama Course  
   Graham's Programme  
   Regional Oral English Programme  
   Oral English  

9. How helpful have you found personal contact with the Resource Teacher when using the Oral English Programme?  
   No help  
   Very  
   Somewhat  
   Moderately  
   Very much  
   alot  

10. What degree of difficulty have you found when trying to fit one hundred and fifty (150) minutes of Oral English into a weekly timetable?  
    None  
    Very  
    Somewhat  
    Moderately  
    Very much  
    alot  

11. To what extent has the provision of resources been important to your decision to implement?  
    None  
    Very  
    Somewhat  
    Moderately  
    Very much  
    alot  

12. Are you planning to apply for a transfer at the end of this year?  
    Yes  
    No  

13. If you were equally inclined to implement either of two Oral English programmes and you knew that only one had Education Department approval would you,  
    (a) implement the approved one?  
    (b) go against the Education Department?  
    (c) ignore approval as a criterion and look for some other measure?
14. When you became aware of the Oral English Programme in the Upper Great Southern did you check to see if it complied with the Education Department syllabus?

Yes/No

15. After hearing the Rationale for using the Oral English Programme did you feel that implementation of such a programme would increase or decrease your work load?

increase [ ] decrease [ ]

16. The following resources have been made available to support the Oral English Programme.

One Advisory Teacher
Three part-time teachers
One clerk typist
Funds for printing
Funds for inservice

Who do you think has been mainly responsible for providing them?

Your Principal [ ]
The Education Department [ ]
The Regional Superintendent [ ]
The Commonwealth Government [ ]

17. On a continuum ranging from clearly defined to broad guidelines, please indicate where you would place the new Oral English Programme.

clearly defined [ ] broad guidelines [ ]

18. Are you applying for permanent tenure this year?

Yes [ ] No [ ]

19. Where would you like the Oral English Programme to be placed on a scale ranging from broad guidelines to clearly defined instruction?

broad guidelines [ ] clearly defined [ ]
APPENDIX FIVE

Impromptu Talks Rating Scale
FIGURE I

SPEAKING ASSESSMENT INTRODUCTION

Hand out blank talk topic cards to children. Each card has a number on it. Place the talk topic chart at the front of the room.

You are now going to take part in a talk activity. Only six children will actually take part. The talks are concerned with sport. These ideas have been taken from topics suggested by children of your age.

Read through the topics on the chart and write down your choice. (Mention topics). You have a minute to think about what you will say if your number is chosen.

(Pause)

When I call out a number, will the person who has the number move quickly to the front of the room and present the talk to the rest of the class. Remember to attempt to talk for a minute.

Draw the first number from the box.

Repeat this procedure 5 times.
1st Term

The general theme of 'sport' was decided upon after getting approximately 100 children (year 6/7) to list three topics on which they would like to speak. Sport was a predominant theme throughout. The following 6 were chosen -

1. Olympic Games
2. The Rules of a Game of Sport
3. Sports Carnivals
4. Why I Like or Dislike Sport
5. Sport in Our Town
6. A Sport I Play

3rd Term

The theme of animals was selected by a different process. During second term I conducted a talk activity which required the children to list a topic for others to use. The children were asked not to include sport topics. Animals was the most common theme.

The following 6 topics were chosen. It has been attempted to keep them of a similar 'type' of topic. The six topics are -

1. Animals in Sport (or an animal)
2. The Care of Animals (or an animal)
3. The Circus
4. Why I Like or Dislike a Certain Animal
5. Farm Animals
6. My Favourite Animal
**FIGURE III**
**THOROUGH TALKS RATING SCALE**

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<thead>
<tr>
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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. USES A STIMULATING BEGINNING</strong></td>
<td>Instantly captures the audience; uses a surprise; goes into role; involves the audience.</td>
<td>Uses a stimulating sentence or sentences at the beginning.</td>
<td>Uses a sentence beginning.</td>
<td>Repeats the title</td>
<td>Totally inappropriate; no opening remarks.</td>
</tr>
<tr>
<td><strong>2. SPEAKS CLEARLY AND AUDIBLY, SPEAKS IN A CONTROLLED MANNER.</strong></td>
<td>Exceptionally clear, audible and well controlled; creates definite mood.</td>
<td>Uses variety in voice (volume, pitch, tone); some emotional use of voice (but not maintained).</td>
<td>Clear; suitable volume. Pauses do not detract from talk.</td>
<td>Audible. Too many pauses which detract from the talk.</td>
<td>Audible. Too many pauses which detract from the talk.</td>
</tr>
<tr>
<td><strong>3. USES EYE CONTACT EFFECTIVELY, AUDIENCE CONTACT.</strong></td>
<td>Continuously appealing to audience through eye contact. Is aware of total audience throughout speech.</td>
<td>Meaningful eye contact occurs for most of speech but lapses in part.</td>
<td>Looks at the audience 6 times.</td>
<td>Fixed gaze to a section of the audience (or individual) or makes several incorrect attempts to consider audience, then forgets.</td>
<td>Fixed gaze to one part of the room; avoids audience eye contact.</td>
</tr>
<tr>
<td><strong>4. USES GESTURES</strong></td>
<td>Uses 5 or more relevant gestures.</td>
<td>Uses 4 meaningful gestures.</td>
<td>Uses 3 meaningful gestures.</td>
<td>Uses 2 meaningful gestures.</td>
<td>No meaningful gestures.</td>
</tr>
<tr>
<td><strong>5. USES RELEVANT MATERIAL, USES APPROPRIATE LANGUAGE.</strong></td>
<td>Introduces technical vocabulary to a greater degree than everyday conversation.</td>
<td>Defines the topic and extends it with some relevant material.</td>
<td>Defines topic but proceeds to ramble.</td>
<td>Defines topic but proceeds to ramble.</td>
<td>Totally irrelevant.</td>
</tr>
<tr>
<td><strong>6. ORGANIZES IDEAS IN SEQUENCE</strong></td>
<td>There is a continuity of ideas throughout the whole talk.</td>
<td>There is one break in the sequence of the ideas.</td>
<td>A number of logical connections but no total continuity.</td>
<td>The first two ideas are logically connected.</td>
<td>No sequence whatsoever.</td>
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<tr>
<td><strong>7. SHOWS IMAGINATION</strong></td>
<td>Uses a parable.</td>
<td>Relates several adventure or high interest incidents to illustrate main points.</td>
<td>Uses one or more novel approaches to retelling of everyday events.</td>
<td>Retells everyday happenings with an attempt to use exciting words.</td>
<td>Retells everyday happenings in a simple but boring way.</td>
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<tr>
<td><strong>8. SHOWS ENTHUSIASM</strong></td>
<td>Very keen. Excitement showing in voice and body.</td>
<td>Shows some enthusiasm.</td>
<td>Accepts talk in a matter of fact manner.</td>
<td>Will speak but shows little enthusiasm - may indicate displeasure.</td>
<td>Will not speak.</td>
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<tr>
<td><strong>9. HAS A LOGICAL CONCLUSION</strong></td>
<td>Summarizes, recapitulates, proves a point.</td>
<td>Attempts a summing up of the talk.</td>
<td>Has an end point or sentence that sounds like the end.</td>
<td>Announces 'thank you' or 'that's the end.'</td>
<td>Just trails off embarrassed.</td>
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<tr>
<td><strong>10. ADHERES TO TIME.</strong></td>
<td>55-65 seconds</td>
<td>66-75 seconds.</td>
<td>76 and over</td>
<td>10-30 seconds</td>
<td>zero-ten.</td>
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<td>Comments</td>
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<tr>
<td>1. Stimulating beginning</td>
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<td>2. Speaks clearly and audibly</td>
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<td>3. Uses eye contact effectively</td>
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<td>4. Audiences contact</td>
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<td>5. Uses relevant material</td>
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<td>6. Organises ideas in sequence</td>
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<td>7. Shows imagination</td>
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<td>8. Shows enthusiasm</td>
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<td>9. Logical conclusion</td>
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<tr>
<td>10. Adheres to time</td>
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APPENDIX SIX

Listening Test
Here is a talk given to a school assembly by a scientist.

Textbooks are the storehouses of man's knowledge. They are presumed to contain all of the things we know to be true. If you are becoming a scientist, you will spend at least 18 years studying from books. It should be a matter of concern to you whether you have been told the truth for those 18 years. Just how bad are the textbooks we use? Let me take an example from the field of geology.

Did you know that until the year 1800 the highest scientific authorities thought that there was no such thing as a meteorite? After all, there are no stones in the sky; so stones cannot fall out of the sky. Only a superstitious person would believe in meteorites.

Some of you will be familiar with the research of Lavoisier. He was the founder of modern chemistry and one of the greatest scientists of all. In 1772, Lavoisier signed a report to the French Academy of Science in which he said he had examined a stone that was believed to have fallen from the heavens in a great blaze of light. Lavoisier said in his report that this was just an ordinary stone that had been struck by lightning and had melted partly into glass while lying on the ground.

Eventually, of course, the leaders of science decided that meteorites do come from outer space, and the textbook writers revised the books accordingly. But in doing so, they forgot to mention that there had ever been any controversy about the matter. So here we are, living in the space age, without realizing how hard it is to reveal the truth about even a simple thing like meteorites, which can be seen in the sky on any clear night, and which have been found upon the surface of the earth since the dawn of history.

**Question 112**: Why did early scientists not accept the idea that meteorites came from outer space?

(A) Only superstitious people believed it.
(B) Scientists believed they must have come from another place on earth.
(C) Scientists could not understand where in space they might come from.
(D) Scientists thought they were made of ordinary stone.

**Question 113**: What did Lavoisier report about the stone he examined?

(A) It was a real meteorite.
(B) It had never left the ground.
(C) It came in a blaze of light.
(D) It was an ordinary piece of glass.

**Question 114**: Why did the speaker say that the textbook writers forgot to mention that there had been any argument about meteorites?

(A) He wishes to give credit to those who discovered the truth.
(B) He wishes to criticize writers of science books.
(C) He thinks debate is a necessary part of science.
(D) He thinks these omissions mislead the reader.

**Question 115**: What is the main purpose of the speaker?

(A) To show that Lavoisier was only human.
(B) To challenge our faith in the knowledge contained in textbooks.
(C) To undermine our assumptions about the origin of meteorites.
(D) To convince his audience that textbooks are worthless.

**Question 116**: What point do you think the speaker is likely to make next in his talk?

(A) There must be many such uncertainties in our textbooks today.
(B) Textbooks are not worth the paper they are written on.
(C) Lavoisier may have been a great man, but he was only human.
(D) The discovery of meteorites makes a fascinating story.

**Question 117**: Which of these statements is least important in his talk?

(A) You will spend 18 years studying from textbooks.
(B) Before 1800, scientists thought meteorites did not exist.
(C) Lavoisier did not believe in meteorites.
(D) We don't realize how hard it is to discover the truth.
An experienced skier describes a memorable day in the Southern Alps.

We left the hut early. It was a windless day and the whole of our world looked cold and blue as we started across the rocky moraine. Once out onto the Tasman Glacier, we put on our skis and trudged off in the dry powdery snow. Far ahead the twin peaks of the Minarets shone brightly in the first rays of the sun and for a moment we stopped, spellbound.

The rocky moraine at the foot of the Minarets where the Rudolf Glacier flows into the Tasman seemed an impossible distance away. The Tasman is actually longer than any glacier in Europe and it was a tiring trek up that endless river of ice, but the wonderful panorama of peaks that unfolded on our left inspired our efforts and made the distance seem bearable. Later we passed under the great precipices of Mt. Cook which towered 9,000 feet above us and soon we could see the tangled maze of the Hochstetter ice-fall. For 2,000 feet the Hochstetter grinds ponderously down between the rock cliffs in a mass of jagged ice split by fathomless crevasses. At the beginning of this century a party of climbers was caught by an avalanche high on Mt. Cook and swept into a huge crevasse at the top of the ice-fall. Eventually, almost fourteen years later, their remains were thrown up onto the surface of the Tasman, broken into fragments after their long passage through this terrific ice-fall.

We plodded on, up one side of the ice-ridges and down the other, sometimes crossing small streams welling up from seepage beneath the glacier. We passed under ice precipices and blue hanging glaciers and at last, turning a corner, saw at the head of the Tasman the wonderful ski slopes of the Hochstetter Dome. By then we were well and truly in the sun; our skis felt like lead and we cursed our heavy packs as we sweated up the long gradual slope leading to our goal. At last, when we were almost opposite the Minarets, we edged over to the right and thankfully climbed the last stretch until we stood with the great length of the glacier behind us.

PAUSE

Open your booklet. Find Question 118.

PAUSE

Question 118. Which view first impressed the skiers on their trek?
(A) The Hochstetter ice-fall.
(B) The precipices of Mt. Cook.
(C) The twin peaks of the Minarets.
(D) The moraine of the Tasman Glacier.

Question 119. Where was the party making for?
(A) The Minarets.
(B) The slopes of Mt. Cook.
(C) The moraine of the Rudolf Glacier.
(D) The head of the Tasman Glacier.

Question 120. What does the Hochstetter ice-fall flow into?
(A) The Tasman Glacier.
(B) The Hochstetter Dome.
(C) The upper slopes of Mt. Cook.
(D) The snowfields of the Minarets.

Question 121. Why does the speaker mention the death of the climbers on Mt. Cook?
(A) To warn his audience about the dangers of skiing.
(B) To introduce a gruesome element to his talk.
(C) To illustrate the preservative power of ice.
(D) To show how slowly the ice-fall moved.

Question 122. How did the skiers feel about their climb?
(A) They were fascinated by the strange new sights.
(B) They found it tiring but full of interest.
(C) They were delighted to reach their destination in safety.
(D) They thought it almost unbearable.

Question 123. Which title best sums up the theme of this talk?
(A) "High in the Mountain Peaks"
(B) "A Difficult Climb in the Southern Alps"
(C) "Skiing on the Southern Glaciers"
(D) "A Long Climb on the Tasman Glacier"

Put your Answer Sheet inside your booklet. Close your booklet.

PAUSE. THEN SAY:

Now listen to the next selection.
READING TIME: 2 MINS. 30 SECS.

Here is an extract from a T.V. discussion on the death penalty for murder. Listen to the arguments raised by the speakers on each side.

Chairman: Now, Mr. Dyer, you insist that justice can be done only if the murderer loses his life, and that justice must be done if we are to have a well-ordered society. What is your opinion, Mr. Church?

Mrs. Church: I won't disagree with the point that justice is essential, but I can't see what that has to do with the case. Justice is served just as well, and society is in no great danger, if our murderer is merely removed from society for a period and given an opportunity to reform, to become a useful citizen again. I am convinced that many murders are acts of passion, provoked by an intolerable situation which is never likely to recur.

But what is more important in this debate, Mr. Dyer, is this. For the state to take one life for another is not only a barbarous method of exacting justice, but it is unchristian; it is deplorable, in fact. It lowers civilized man to the level of his caveman ancestors.

Mr. Dyer: I'm afraid you are resorting to emotional arguments, Mrs. Church. Let's look at it another way. A murderer kept alive is not only a further threat to society, but, what is often overlooked, he is also a drain on society's funds. It costs our country over $400,000 dollars per annum to provide shelter, food and supervision for the 20 convicted murderers in our jails. And remember, Mr. Church, that many of these offenders are guilty of horrible, premeditated crimes. Moreover, this sum is increasing each year as our crime rate goes up, but we refuse to take the necessary steps to stop it. Certainly the hangman's task is unpleasant, but so are many other essential functions.

Chairman: You imply, Mr. Dyer, that capital punishment is necessary to keep down the murder rate. Do you accept this, Mrs. Church?

Mrs. Church: On the contrary. If Mr. Dyer would only consult statistics on the subject he would find that the abolition of capital punishment in other countries has not, contrary to public expectation, been followed by a sensational orgy of crime and corruption. Quite the opposite. It was just the same when the death penalty was removed for proven cases of kidnapping, treason and mutiny last century. Statistics showed that there was less crime as a result of the reduced penalty.

Mr. Dyer: Aha! You can do anything you like with statistics—this is not a matter of statistics—it's a matter of commonsense and justice!

PAUSE
Open your booklet. Find Question 124.

PAUSE

Question 124. On what did Mrs. Church and Mr. Dyer agree?
(A) Murderers cost the state too much.
(B) Justice is essential to a civilized community.
(C) It is both undesirable and wrong to take life.
(D) None of the above.

Question 125. What is Mrs. Church's chief argument against the death penalty?
(A) It does not permit justice to be done.
(B) It requires the hangman to commit another murder.
(C) It is an uncivilized form of punishment.
(D) It does not give murderers a chance to reform.

Question 126. Which argument did Mr. Dyer raise that he says is often overlooked?
(A) Murderers in jail cost society much money.
(B) Capital punishment should reduce the crime rate.
(C) Justice can only be done if the murderer loses his life.
(D) Murderers are not likely to be reformed.

Question 127. For which crimes would Mr. Dyer like to see the death penalty applied?
(A) Murders of passion.
(B) Kidnapping, treason and mutiny.
(C) All serious crimes.
(D) We cannot tell.

Question 128. What is Mrs. Church suggesting when she says that many murders are "acts of passion"?
(A) Many murderers do not plan their crimes carefully enough.
(B) There is no point in punishing them.
(C) They can usually be reformed in prison.
(D) They are unlikely to repeat their crime.

Question 129. Which of these points would Mrs. Church be likely to raise as the debate proceeds?
(A) Murderers are difficult to reform.
(B) The state must protect its citizens.
(C) Society must see that justice is done.
(D) People are sometimes wrongly condemned.

Put your Answer Sheet inside your booklet. Close your booklet.

PART EIGHT STOPS HERE
85. (A) He had lost his way.
    (B) He was admiring the scene.
    (C) He was sheltering from the snow.
    (D) He had promised to meet someone.

86. (A) The soft wind in the trees.
    (B) The echo of his own voice.
    (C) The sleigh bells in the distance.
    (D) Someone sweeping up the snow.

87. (A) To keep warm.
    (B) He was puzzled.
    (C) To show he was ready to go.
    (D) He was weary of travelling.

88. (A) Sleep for a while.
    (B) Continue his journey.
    (C) Gallop on into the woods.
    (D) Explore the woods on foot.

89. (A) "Lost in the Woods"
    (B) "The Silent Darkness"
    (C) "Snowfall in the Woods"
    (D) "A Cold Night for Travelling"

90. (A) Persuading the others to let him cook the eggs.
    (B) Finding the stove and frying-pan.
    (C) Breaking the eggs.
    (D) Getting the eggs into the pan.

91. (A) was boastful and clumsy.
    (B) was careless but persistent.
    (C) was better at cooking indoors.
    (D) would never scramble eggs again.

92. (A) Harris said he would cook the eggs.
    (B) Harris dropped everything and danced around the stove.
    (C) Six eggs went into the frying-pan at last.
    (D) Several eggs had smashed in the hammer.

93. (A) Tolerant amusement.
    (B) Bitter sarcasm.
    (C) Growing anger.
    (D) Mild interest.

94. (A) reveal Harris's sense of humour.
    (B) explain the difficulties of scrambling eggs on picnics.
    (C) entertain us with a description of Harris's cooking efforts.
    (D) show what a hindrance Harris was on a camping trip.
95. (A) To see whether it is part of a human skeleton.
   (B) To work out how much care will be needed in lifting it.
   (C) To determine whether the skeleton is likely to be damaged.
   (D) To decide which bone is likely to be exposed next.

96. (A) Test it for brittleness.
   (B) Brush it perfectly clean.
   (C) Free it from the surrounding soil.
   (D) See that it is properly classified first.

97. (A) Allow extra drying time in the sun.
   (B) Keep brushing to a minimum.
   (C) Remove the surrounding earth and bones together.
   (D) Take extra care in using the trowel to clean exposed edges.

98. (A) the vault from fracturing.
   (B) the nose opening from breaking away.
   (C) the earth inside the skull from falling out.
   (D) any loose teeth in the lower jaw from being lost.

99. (A) which are particularly ancient.
   (B) which have some bones missing.
   (C) which are lying in unusual positions.
   (D) in which the bones have been disorganised.

100. (A) To describe the condition of the skeletons likely to be found.
    (B) To explain how bones should be excavated.
    (C) To teach the basic principles of archeology.
    (D) To describe how to clean and preserve archaeological finds.

101. (A) harbour disease and dangers.
     (B) overrun good land.
     (C) restrict the growth of other marine plants.
     (D) be useless for anything.

102. (A) helps consolidate mud flats.
     (B) prevents erosion of land by sea and river.
     (C) provides shelter for marine creatures.
     (D) helps prevent flooding.

103. (A) live, provided that its roots have moisture.
     (B) float until its trailing roots catch on something.
     (C) survive on minerals dissolved in the water.
     (D) exist on the stored food in its leaves.

104. (A) floats until it finds suitable soil.
     (B) sprouts before it falls from the tree.
     (C) has a tough covering which prevents it rotting in the mud.
     (D) is able to grow underwater.

105. (A) To provide a detailed botanical description of the mangrove.
     (B) To outline the most suitable habitat for the mangrove.
     (C) To describe some of the unusual features of the mangrove.
     (D) To persuade people that the mangrove should be more widely grown.

106. (A) “A Rare New Zealand Plant”
     (B) “How the Mangrove Lives in Water”
     (C) “How Mangroves Survive”
     (D) “The Wonderful Mangrove Tree”

PART SIX STOPS HERE
OTHER PARTS GO ON
107. (A) It was swept by fire.  
(B) It exploded and sank.  
(C) It was towed to Toulon.  
(D) It was beached on the Mediterranean coast.

108. (A) It occurred without warning.  
(B) It could not have been avoided.  
(C) It happened in bright moonlight and calm seas.  
(D) It occurred after an explosion aboard the tanker.

109. (A) They would probably be found along the French coast.  
(B) They definitely sank with the tanker.  
(C) They stood little chance of survival.  
(D) They were probably picked up by the French ship.

110. (A) Bodies.  
(B) Floating wreckage.  
(C) Swimming survivor.  
(D) The Norwegian tanker.

111. (A) "Tragedy at Sea"  
(B) "Tanker Sinks with Loss of Life"  
(C) "Report of a Collision at Sea"  
(D) "Many People Feared Drowned"

112. (A) Only superstitious people believed it.  
(B) Scientists believed they must have come from another place on earth.  
(C) Scientists could not understand where in space they might come from.  
(D) Scientists thought they were made of ordinary stone.

113. (A) It was a real meteorite.  
(B) It had never left the ground.  
(C) It came in a blaze of light.  
(D) It was an ordinary piece of glass.

114. (A) He wishes to give credit to those who discovered the truth.  
(B) He wishes to criticize writers of science books.  
(C) He thinks debate is a necessary part of science.  
(D) He thinks these omissions mislead the reader.

115. (A) To show that Lavoisier was only human.  
(B) To challenge our faith in the knowledge contained in textbooks.  
(C) To undermine our assumptions about the origin of meteorites.  
(D) To convince his audience that textbooks are worthless.

116. (A) There must be many such uncertainties in our textbooks today.  
(B) Textbooks are not worth the paper they are written on.  
(C) Lavoisier may have been a great man, but he was only human.  
(D) The discovery of meteorites makes a fascinating story.

117. (A) You will spend 18 years studying from textbooks.  
(B) Before 1800, scientists thought meteorites did not exist.  
(C) Lavoisier did not believe in meteorites.  
(D) We do not realize how hard it is to discover the truth.

PART SEVEN STOPS HERE

PART EIGHT GOES ON
118. (A) The Hochstetter ice-fall.
(B) The precipices of Mt. Cook.
(C) The twin peaks of the Minarets.
(D) The moraine of the Tasman Glacier.

119. (A) The Minarets.
(B) The slopes of Mt. Cook.
(C) The moraine of the Rudolf Glacier.
(D) The head of the Tasman Glacier.

120. (A) The Tasman Glacier.
(B) The Hochstetter Dome.
(C) The upper slopes of Mt. Cook.
(D) The snowfields of the Minarets.

121. (A) To warn his audience about the dangers of skiing.
(B) To introduce a gruesome element to his talk.
(C) To illustrate the preservative power of ice.
(D) To show how slowly the ice-fall moved.

122. (A) They were fascinated by the strange new sights.
(B) They found it tiring but full of interest.
(C) They were delighted to reach their destination in safety.
(D) They thought it almost unbearable.

123. (A) "High in the Mountain Peaks"
(B) "A Difficult Climb in the Southern Alps"
(C) "Skiing on the Southern Glaciers"
(D) "A Long Climb on the Tasman Glacier"

124. (A) Murderers cost the state too much.
(B) Justice is essential to a civilized community.
(C) It is both undesirable and wrong to take life.
(D) None of the above.

125. (A) It does not permit justice to be done.
(B) It requires the hangman to commit another murder.
(C) It is an uncivilized form of punishment.
(D) It does not give murderers a chance to reform.

126. (A) Murderers in jail cost society much money.
(B) Capital punishment should reduce the crime rate.
(C) Justice can only be done if the murderer loses his life.
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127. (A) Murders of passion.
(B) Kidnapping, treason and mutiny.
(C) All serious crimes.
(D) We cannot tell.

128. (A) Many murderers do not plan their crimes carefully enough.
(B) There is no point in punishing them.
(C) They can usually be reformed in prison.
(D) They are unlikely to repeat their crime.

129. (A) Murderers are difficult to reform.
(B) The state must protect its citizens.
(C) Society must see that justice is done.
(D) People are sometimes wrongly condemned.

PART EIGHT STOPS HERE
# LISTENING COMPREHENSION

**Answer Sheet Form A Part 8**

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