

Faculty of Education

**THE CULTURE AND IMPROVEMENT OF WESTERN AUSTRALIAN
SENIOR SECONDARY SCHOOLS**

Robert Frederick Cavanagh

**'This thesis is presented as part of the requirements for
the award of the degree of Doctor of Philosophy
of the
Curtin University of Technology'**

February 1997

ABSTRACT

The operation and development of Western Australian senior secondary schools is based upon traditional theories of organisational management and school administration. The study sought to explore alternative conceptions of the nature of schools and the processes by which they can be improved.

Examination of research on school effectiveness revealed that student learning outcomes were consequential on the values and norms of the staff of schools. These values and norms constitute the culture of a school and govern the professional activity of teachers. School culture can be contrasted with the formal school organisation in which the work of teachers is prescribed by explicit rules and regulations. Viewing schools from a cultural rather than organisational perspective requires conceptualising the school as a learning community. A learning community is bonded together by common expectations about the roles of teachers and the learning of students. The predominant consideration is the educative mission of the school and not the requirements of the formal organisation. Organisational development is viewed as cultural transformation. The improvement of the school is facilitated by the growth of a school culture which is supportive of the professional needs of teachers and the educative needs of students.

The study utilised a developmental mixed-method research approach to investigate the nature, temporal stability and improvement of the culture of local senior secondary schools.

A quantitative instrument was developed to measure aspects of school culture identified in the school effectiveness literature. The School Cultural Elements Questionnaire (SCEQ) provided a measure of the level of teacher efficacy, emphasis on learning, collegiality, collaboration, shared planning and transformational leadership in local schools. The SCEQ data were supplemented by data from a stratified sample interview programme in two schools. Empirical findings indicated school culture was internally dynamic, in interaction with its external environment and capable of changing. Interview data provided examples of internal and external influences on the maintenance, growth and decline of school culture.

The results of the empirical phases of the study were applied in the development of a model of school culture, the School Improvement Model of School Culture. The model contained six cultural constructs which are characteristic of school culture and the processes by which it can be transformed. The model was then applied in a detailed examination of practical and theoretical aspects of Western Australian systemic school improvement initiatives. The effectiveness of these initiatives was explained as a consequence of implementation strategies and their interaction with the prevailing school culture.

The study is important for school level personnel, school improvement programme designers and educational researchers. In particular, the School Improvement Model of School Culture provides a significant alternative conception of the nature of schools and the processes by which they improve.

ACKNOWLEDGMENTS

The writer expresses his appreciation to Dr Graham B. Dellar, the thesis supervisor without whose counsel and support, the thesis would not have been possible. The supervision was characterised by the application of extensive knowledge, a sharp intellect and constructive criticism. Writing the thesis was a learning experience which was greatly enhanced by Dr Dellar continually challenging the writer's conceptual ability and skills of expression.

Mature age part-time study is difficult because of the conflicting demands of the study, work and the family. Over a three year period, Darryl Cormack, a fellow member of the Forrestfield Senior High School administration, relieved work pressures by encouragement and re-affirmation of the need to investigate alternative conceptions of schools and their improvement.

Family commitments have needed to be balanced with the demands of doctoral study which was essentially a solitary exercise. The forbearance of family members cannot be assumed and there is potential for neglect of family relationships and the maintenance of the family home. It is with relief that the thesis has been completed and the family unit has survived the experience. The writer is grateful for the prolonged tolerance of Linda, Melissa and Ryan.

CONTENTS

ABSTRACT	(ii)
ACKNOWLEDGMENTS	(iv)
TABLE OF CONTENTS	(v)
LIST OF TABLES	(xi)
LIST OF FIGURES	(xiii)
CHAPTER 1. INTRODUCTION	1
Overview	1
Background	1
Systemic Improvement Initiatives in Local Public Education	3
School Culture	6
Research Focus and Questions	7
Significance of the Study	9
Limitations of the Study	12
Organisation of the Thesis	13
Summary	16
CHAPTER 2. LITERATURE REVIEW	17
Overview	17
Introduction	17
Part 1: Organisational Management Theories and the School	22
Classical Organisational Theories	22
Social System Theories	27
Open Systems Theory	35
Relevance of the Organisational Management Theories	39

Table of Contents Continued

Management and Leadership	41
Organisational and School Development	46
School Improvement	48
Beyond the Organisational Management Theories	50
Part 2: The School as a Learning Community	52
The School as a Community	52
School Culture	54
Models of School Culture	55
Processes of Cultural Transformation	58
Conclusion	67

CHAPTER 3. THEORETICAL FRAMEWORKS AND THE

DESIGN OF THE STUDY	68
Overview	68
Introduction	68
Part 1: Conceptual Frameworks	70
Elements of School Culture	70
Cultural Elements Model of School Culture	75
Contextual Model of School Culture	78
Part 2: The Empirical Investigation	80
Research Approaches	81
Phases of the Research Endeavour	82
Summary	83

CHAPTER 4. THE SCHOOL CULTURAL ELEMENTS

QUESTIONNAIRE	84
Overview	84
Part 1: Instrumentation	84
Instrument Development	85
Sampling and Data Collection	90

Table of Contents Continued	
Data Processing, Analysis and Representation	91
Instrument Evaluation	93
Further Instrument Refinement	94
Refinement of the Cultural Element Definitions	95
Part 2: Quantitative Results	97
School Culture	97
Faculty Cultures	100
School Culture Profiles	101
Faculty Culture Profiles	104
Temporal Stability of School Culture	106
Temporal Stability of Faculty Culture	111
Summary	114
CHAPTER 5. QUALITATIVE INVESTIGATION	115
Introduction	115
Case Study Approach	115
Part 1: Data Collection	117
Site Selection	117
Interview Schedule Development	120
Interview Procedures	120
Data Analysis	121
Part 2: Qualitative Results	122
Case One: Woodview Senior High School	122
School Culture	123
Cultural Stability	125
Government Policy Initiatives and School Culture	126
Education Department Initiatives and School Culture	127
School Initiated Innovations and Culture	128
Faculty Cultures	130
School Improvement	134
Case Two: Landview Senior High School	137

Table of Contents Continued

School Culture	138
Cultural Stability	140
Government Policy Initiatives and School Culture	141
Education Department Initiatives and School Culture	143
School Initiated Innovations and Culture	144
Faculty Cultures	146
School Improvement	149
Summary	153
CHAPTER 6. ANALYSIS OF FINDINGS	155
Overview	155
School Culture	155
Stability of School Culture	158
Faculty Cultures	162
Woodview SHS	162
Landview SHS	165
Reliability of Faculty Culture Analysis	168
Stability of Faculty Culture	168
Contextual Influences on School Culture	172
Internal Conditions	172
The External Context	174
School Improvement	176
Evaluation of the Empirical Phases	178
Summary	180
CHAPTER 7. REFINEMENT AND APPLICATION OF THE	
THEORETICAL CONSTRUCTS	182
Overview	182
Part 1: School Improvement Model of School Culture	183
Definition of School Culture	183

Table of Contents Continued

Cultural Elements	184
The Model	185
Structural Features	185
School Culture Profiles	191
Cultural Stability	192
Internal Influences on Cultural Stability	193
External Influences on Cultural Stability	195
School Sub-Cultures	199
Part 2: School Improvement from a Cultural Perspective	201
Traditional School Improvement Programmes	202
School Improvement and Cultural Growth	204
Cultural Inertia	205
Cultural Elements: Vehicles for Cultural Growth	206
Cultural Stimulation and Intervention	209
Systemic Improvement Initiatives and Cultural Stimulation	210
School Improvement through Cultural Intervention	214
Conclusions	216

CHAPTER 8. CONCLUSIONS AND IMPLICATIONS FOR SCHOOL

IMPROVEMENT AND FUTURE RESEARCH	218
Overview	218
Aptness of the Research Procedures	218
Responses to the Research questions	220
Implications for School Improvement	224
Implications for Future Research	226
Conclusion	229

BIBLIOGRAPHY	231
---------------------	-----

APPENDICES

1. School Cultural Elements Questionnaire Scales	
---	--

Appendices Continued

- 2. School Cultural Elements Questionnaire**
- 3. Instrument Refinement**
- 4. Revised School Cultural Elements Questionnaire**

LIST OF TABLES

1	Trial Reliability of the SCEQ Scales	87
2	Reliability and Inter-scale Correlations of the SCEQ for Woodview SHS	89
3	Reliability and Inter-Scale Correlation of the SCEQ for Eight Schools	94
4	Reliability and Inter-Factor Correlations: Six Factor Structure	95
5	Scale Mean Scores for Eight Schools	97
6	Mean Inter-Scale Correlations for Eight Schools	98
7	Scale Mean Scores for 40 Secondary School Faculties	101
8	Woodview SHS Scale Mean Scores for 1995 and 1996	106
9	Mean Inter-Scale Correlations for Woodview SHS for 1995 and 1996	107
10	Landview SHS Scale Mean Scores for 1995 and 1996	108
11	Mean Inter-Scale Correlations for Landview SHS for 1995 and 1996	109
12	Rockview SHS Scale Mean Scores for 1995 and 1996	110

List of Tables Continued

13	Mean Inter-Scale Correlations for Rockview SHS for 1995 and 1996	111
14	Scale Mean Scores of Woodview SHS Faculties in 1995 and	112
15	Scale Mean Scores of Landview SHS and Rockview SHS Faculties in 1995 and 1996	113
16	1995 Woodview SHS Scale Mean Scores and Standard Deviations	163
17	1995 Landview SHS Faculty Scale Mean Scores and Standard Deviations	165
18	Woodview SHS Faculty Mean Scale Scores for 1995 and 1996	169
19	Landview SHS Faculty Scale Mean Scores for 1995 and 1996	171

LIST OF FIGURES

1	Cultural Elements Model of School Culture	76
2	Contextual Model of School Culture	79
3	Culture of Rockview SHS	93
4	Comparison of School Culture Profiles	102
5	Comparison of Cultural Element Inter-Relationships	103
6	Scottview SHS Faculty Sub-Culture Profiles	105
7	Riverview SHS Faculty Sub-Culture Profiles	105
8	Woodview SHS and Landview SHS Culture Profiles	156
9	Woodview SHS and Landview SHS Cultural Element Inter-Relationships	157
10	Woodview SHS Culture Profiles for 1995 and 1996	159
11	Woodview SHS Cultural Element Inter-Relationships for 1995 and 1996	159
12	Landview SHS Culture Profiles for 1995 and 1996	160
13	Landview SHS Cultural Element Inter-Relationships for 1995 and 1996	161

List of Figures Continued

14	Woodview SHS Faculty Sub-Culture Profiles	163
15	Landview SHS Faculty Sub-Culture Profiles	166
16	School Improvement Model of School Culture	185

CHAPTER 1

INTRODUCTION

OVERVIEW

This chapter introduces the major theoretical constructs and propositions of the study. Local public education reform initiatives are explained as providing the organisational context for the investigation. The notion of school improvement requiring transformation of school culture is introduced and related to the internal and external organisational aspects of the school. The specific objectives of the investigation are presented and the significance and limitations of the study are discussed. This is followed by an explanation of the structure of the thesis.

BACKGROUND

The senior secondary schools investigated in the study were Western Australian senior high schools. These schools provide a comprehensive secondary school education for students ranging from those who have just completed primary school to others who are preparing for university admission. The curriculum offering is a composite of academic and vocational programmes intended to meet the educative

needs of up to 1400 students. The organisation of the instructional programme and the teaching staff is based upon traditional subjects areas and faculties. School leadership includes a principal and two or three deputy principals. Faculties are administered by heads of department who have a combined curriculum and supervisory responsibility. The operations of these complex organisations is coordinated by a formal management hierarchy with well defined role statements and accountability mechanisms.

The senior high schools are part of the Western Australian public educational system which was undergoing major restructuring during the period of the investigation. The objective of this process was reformation of the operations of the Education Department and its schools to improve efficiency and effectiveness. The systemic restructuring initiatives were not embraced by school level personnel and the local teachers' union which organised industrial action in 1995. This turbulent organisational environment was expected to impact upon the progress and findings of the study.

Effecting long term changes in schools requires changing the attitudes and beliefs of teachers about their professional activity (Dalin, Rolff and Kleekamp, 1993; Fullan, 1993). The beliefs, values and norms shared by the members of an organisation was described by Gibson, Ivancevich and Donnelly (1985), as the culture of the organisation. The thesis of the study centred upon the proposition that sustained school improvement would only occur when the culture of a school was transformed. It was expected that the culture of schools was not independent of the formal school

organisation or of the educational system. School culture exists in an organisational context which has the potential to influence the process of cultural transformation.

The succeeding discussion examines specific aspects of the local educational reform initiatives and their impact upon schools. This is followed by a more detailed examination of school culture to substantiate the previous assertions about its relationship to school improvement and the organisational context.

Systemic Improvement Initiatives in Local Public Education

The overall process of educational reform in Western Australia was termed 'devolution'. Devolution was described by the Ministerial Assessment Group on Devolution as being 'the delegation of centrally held power' (Education Department of Western Australia, 1994 p.11). The Education Department promulgated policies and gazetted new regulations concerned with school development planning, school decision-making and school accountability. During the period of this study, local schools were attempting to incorporate the requirements of these policies into their operations

School development planning was proposed as the means by which schools were to demonstrate their effectiveness in educating children and incorporating government and community priorities into their operations (Ministry of Education, 1989). The school development plan was to include a statement of purpose, performance indicators, a management information system and a strategic plan, all couched in terms of student outcomes (Ministry of Education, 1989). The origins of this process

and its terminology result from the application of corporate quality management conceptions and practices to public sector organisations (Cuttance, 1990). The use of corporate business theoretical constructs and administrative practices in schools has been strongly criticised (Bates, 1987; Fullan 1992; Sergiovanni, 1993). In Western Australia, school development planning was advocated as the core process for increasing school effectiveness and efficiency (Ministry of Education, 1989). However, research evidence has seriously questioned the effectiveness of school development planning in influencing classroom level change and improvement in schools (Chadbourne and Clarke, 1994; MacGilchrist, 1995; Dellar, 1996). Stoll and Mortimer (1995) placed school development planning within an overall school improvement context and suggested that it was only one of many means of externally or internally stimulating school growth.

The requirement for participative decision making practices was intended to ensure that teachers and other members of the school community were included in major decisions concerning the school and its future (Ministry of Education, 1990). Principals were charged with the responsibility of 'enabling staff to participate in school decision making' and 'enabling parents to participate in the planning process' (Ministry of Education, 1990, p. 1). Implementation of the decision-making policy led to greater empowerment of teachers but did not result in significant parental involvement in school decision-making (Chadbourne and Clarke, 1994). Participatory decision-making practices have been identified as increasing the workload of principals and conflicting with the exercise of their formal authority (Beeson and Matthews, 1993; Chapman and Boyd, 1986).

The original accountability policy (Ministry of Education, 1991), and a more recent policy on improving and reporting schools' performance (Education Department of Western Australia, 1996) placed engagement in school development planning at the centre of the accountability process. The principal was responsible to the superintendent for ensuring that the school had a functional development plan. This responsibility was transmitted through the line management structure of the school to the classroom teacher who was required to demonstrate that the performance of students was consistent with school development plan objectives. The principal was also accountable to the superintendent for the school complying with all Education Department and government policies concerning the operation of the school. Although the devolution policies advocated school based and participative decision-making processes, they also strengthened accountability mechanisms within the school and between the school and the educational system. Local research (Chadbourne and Clarke, 1994) identified this issue as being of major concern to school principals in Western Australian secondary schools.

The Western Australian educational reform initiatives exemplified traditional approaches to organisational management. The emphasis on a hierarchical organisational structure, rational behaviour, coercive organisational change strategies, efficiency and accountability mechanisms built upon line management is consistent with classical organisation theory (Fayol, 1949; Taylor, 1911; Weber, 1947). The requirement for participative decision-making practices exemplifies the human relations approach to management (Follett, 1941; Roethlisberger and Dickson, 1939). Also, the need for schools to be responsive to systemic and government priorities is

an application of systems conceptions of organisations (Barnard, 1938; Getzels, 1968; Simon, 1957).

The following section examines the notion of school culture and provides an alternative perspective on school development.

School Culture

Donahoe (1993), described the culture of a community as the interaction between individuals and groups which leads to the development of common values, beliefs, behaviours, rules, products, signs and symbols which provide the community with cohesion. For the purposes of this study, school culture was preliminarily considered to result from the beliefs, values and norms of school administrators and teachers.

The mission of the school is to improve the educational outcomes of its students irrespective of their personal capacities, attributes or family background (Fullan, 1993). The study assumed that meeting the educative needs of students was a consequence of school staff attributes rather than student or family characteristics. From this perspective, the culture of the school is concerned with the attitudes and value systems of teachers which underpin the instructional programme of the school. The effectiveness of the school is gauged by the extent of improvements in student learning. The capacity of the school to achieve this goal is reliant upon a cooperative effort amongst teachers in which commonality of intentions and practices provides the instructional programme with consistency and coherence. An effective school culture derives its strength from collective activity, is focussed upon student learning and

supports a school development process focussed on improving the educational outcomes of students.

The interaction between the culture of a school and its organisational context also requires comment. Getzels and Gubas's model of the school as a social system (Getzel and Thelen, 1960), included the mutually interactive dimensions of the formal organisation, informal groups and the individual. This model suggests that internal organisational and cultural aspects of school would be in interaction. Viewing the school as an open social system (Katz and Kahn, 1966), allows consideration of the influence the external environment on the formal operations of the school and its culture.

The effectiveness of the school in realising its educative mission is dependent upon the culture of the school and its interaction with the organisation of the school and external influences.

RESEARCH FOCUS AND QUESTIONS

The study assumed that school growth required transformation of the school's culture. Testing this proposition required examination of the effect of both internal and external influences upon the culture of the school. In particular, there was a need to determine whether shifts in the policies of the educational system and the organisation of schools were influential on the culture of schools. If such influences were ineffectual, there would be a need to identify alternative more effective mechanisms for cultural transformation. The objectives of this study, as expressed in the research

questions, were to explain the nature of school culture, the influence of the organisational context and mechanisms for cultural growth.

Accordingly, the research questions were:

1. What is the nature of the culture in Western Australian senior high schools?
2. How does school culture interact with changes in the internal and external contexts of schools?
3. How can the culture of a school be improved?

As the design of the study progressed, these were supplemented by the writing of more specific subsidiary questions for each of the major questions. These were:

1. What is the nature of the culture in Western Australian senior high schools?
 - What aspects of the school comprise the culture of the school?
 - What would be the components and structure of a model of school culture based upon research on school improvement?
 - Can the culture of schools be measured reliably?
 - What is the significance of sub-cultures within a school?
 - What is the temporal stability of sub-system and overall school culture?
2. How does school culture interact with changes in the internal and external contexts of schools?

- In what ways does the prevailing school culture interact with internally initiated changes?
- How do changes in the policies and regulations of the educational system interact with the culture of a school?
- How do changes in the macro-political environment affect the culture of a school?

3. How can the culture of a school be improved?

- How does the prevailing culture of a school and sub-systems compare with that preferred by teachers?
- Are there school-wide and sub-system influences on cultural growth?
- What conditions are perceived by teachers as being necessary for cultural growth within the school?
- How are teacher and school development activities related to cultural growth?

SIGNIFICANCE OF THE STUDY

Schools and school systems throughout the world are being subjected to increased scrutiny of their effectiveness in educating children. Apart from the issue of public accountability, there is a significant movement in educational research towards providing explanations and understandings of how schools can become more effective. The development and implementation of school improvement programmes requires this research to provide knowledge which accurately describes the nature of

schools and the processes by which they improve. This study intended to make a contribution to this field of research by focussing on school cultural transformation which is recognised in the literature as being the key to successful school improvement.

The theoretical grounding of the study included examination of the literature on organisational management. Theories of organisational management have dominated the study of educational administration and the operations of educational systems and schools for decades. Apart from their historical relevance, these theories also provide an understanding of the organisational context of schools. The study acknowledged the importance of traditional conceptions of school organisation and management but investigated more contemporary explanations of the nature of schools and their development. The study is based upon the proposition that the findings of recent research on school effectiveness and improvement have required re-conceptualisation of the nature of schools. The resulting alternative conception portrays schools as learning communities and utilises cultural constructs to explain the work of teachers and the growth of schools. The orientation of the study is consistent with this conception of schools and cultural constructs were applied in the design and execution of the empirical investigation. The theoretical grounding of the study is consequential because it is inclusive of both traditional and contemporary explanations of the functioning of schools.

The design and implementation of improvement programmes requires an understanding of the phenomenon of school culture and the processes of cultural

transformation. Achievement of the objectives of the study required the development and empirical validation of a theoretical representation of school culture. It was assumed that the culture of a school was characterised by the presence of certain common beliefs, attitudes and norms within the school staff. Identification of these attributes and processes by which they developed were utilised in the development of a conceptual framework for describing the prevailing school culture. Furthermore, it was anticipated that the processes of cultural development were also likely to be the mechanisms of cultural transformation. A theoretical representation of school culture which addressed the characteristics of the prevailing culture and also the means of its transformation was expected to be of value to school improvement researchers and improvement programme designers.

The notion of a school being a learning community rather than a formal organisation requires consideration of issues including leadership and control of the school. The community conception assumes that responsibility for the operations of the school and its future growth lies with members of the school community and not necessarily the formal school leadership. The empowerment of teachers to assume this responsibility requires they have an understanding of their school's culture and the processes by which it develops and changes. The theoretical frameworks required for the study were designed to be comprehensible by school personnel lacking knowledge of educational administration or school improvement literature. There was also a requirement to develop a simple means of providing teachers with information about their school's culture. A survey type instrument was developed to allow schools to

profile their culture. The study was intended to be of relevance to classroom practitioners.

The study is significant because it was designed to utilise cultural rather than organisational constructs in the investigation of school improvement and to produce findings with practical application in schools.

LIMITATIONS OF THE STUDY

The development of the theoretical frameworks of the study was accomplished by distillation of the findings of previous research. This reductionist approach had the potential to reduce the construct validity of the resulting representation of the phenomena being studied. The distillation process required judgements to be made about the relevance of school effectiveness and improvement constructs and their subsequent use for describing school culture. The resulting frameworks could have been deficient as a result of certain constructs not being included.

A more general limitation of the study concerns the construct validity of the findings of previous research which provided the theoretical grounding for the study. This issue is essentially based upon the notion that school effectiveness and improvement research has not provided sufficiently inclusive models. West and Hopkins (1996) suggested that the amenability of certain aspects of schools to measurement has made these aspects the focus of school effectiveness research. They proposed that the resulting models may be deficient by not including other aspects of the school which were less amenable to quantitative investigation.

The concerns expressed by West and Hopkins (1996) about construct validity are also applicable to the design of this study. The choice of a mixed method design was intended to compensate for the limitations incumbent in the quantitative aspects of the investigation. However the need for a common paradigmatic framework necessitated development of theoretical frameworks which would facilitate the generation of instrument scales and questionnaire items. In this regard, the proposed theoretical frameworks had the potential to be lacking in construct validity. This limitation was addressed by developing an interview schedule which sought information consistent with the model but which was sufficiently open to allow exploration of other relevant issues.

The reliability of the empirical data which was collected by quantitative and qualitative methods, was expected to be dependent upon sample selection and size. The quantitative investigation gathered data from eight schools and 422 teachers. The qualitative investigation collected interview data from teachers in four faculties at two secondary school sites. The potential limitations of sample size were addressed by utilisation of complementary data collection procedures and analysis.

ORGANISATION OF THE THESIS

The thesis commences with an examination of existing theories about schools as organisations and extends these conceptions into consideration of the school as a learning community characterised by its culture. Chapter 2, the literature review, commences with a critique of organisational management theories. This includes discussion of the classical organisational, social system and open systems theories of

management. This is followed by examination of their implications for leadership, organisational development and school development. The second part of the chapter discusses the development of a community conceptualisation of the school including examination of school culture, models of school culture and school cultural processes.

Chapter 3 is an overview of the research methodology. It commences with an explanation of the development of the preliminary paradigmatic frameworks which provided the theoretical foundation of the study. These are followed by an examination of appropriate research approaches and their application in the design of the investigation.

The study utilised predominantly quantitative data collection procedures which were supplemented by a case study inquiry. Chapter 4 discusses the first phase of the investigation, the development and application of a survey type instrument. The first part of this chapter explains how the School Cultural Elements Questionnaire (SCEQ) was developed and used to gather data on school culture from a representative sample of teachers and schools. Following data processing, the reliability and construct validity of the instrument were evaluated. The findings of this process were utilised in further refinement of its scales and of the paradigmatic framework from which it was developed. The second part of the chapter presents the results of data processing based upon the re-configured scales and refined paradigmatic framework. Quantitative data on school culture, faculty culture and the temporal stability of school culture are presented.

The second phase of the investigation was a case study inquiry. The first part of Chapter 5 discusses the development and administration of an interview schedule to collect qualitative data on school culture. The second part of the chapter presents the results of the interview programme. The findings are presented as two case studies and contain information on the nature of school culture, its stability, contextual influences, faculty based sub-cultures and cultural improvement.

Chapter 6 is an analysis of the findings of the two empirical phases. The first part of the chapter is a concurrent analysis of complementary data from the two phases. The second part analyses data on aspects of school culture which were not quantifiable.

The paradigmatic frameworks presented in Chapter 3 embodied a set of propositions about school culture and school improvement derived from the literature review. The empirical investigation provided data to facilitate re-examination of these propositions. Chapter 7 presents a model of school culture based upon the preliminary theoretical constructs which were refined during the progress of the investigation. This chapter is a re-conceptualisation of earlier propositions about school culture in response to findings and issues which emerged during the investigation. The chapter concludes with the application of the revised constructs in an examination of school improvement practices based upon the notion of cultural growth.

The final chapter of the thesis critically examines the results of the investigation in consideration of the original research objectives. The chapter concludes with

suggestions about aspects of school culture and school improvement requiring further investigation.

SUMMARY

This chapter presented the thesis of the study, its objectives, and described features the educational system in which the investigation was conducted. The concept of school culture was introduced and placed within a school effectiveness and improvement context. The significance and limitations of the study were also addressed. The chapter concluded with an overview of the organisation of the thesis including the content of the eight chapters.

The following chapter is a review of the literature relevant to the study.

CHAPTER 2

LITERATURE REVIEW

OVERVIEW

This chapter commences with an introductory examination of traditional and contemporary approaches to understanding the organisation and functioning of schools. This preliminary discussion provides a structured view of the theories and research findings included in this review of literature pertinent to the study.. The remainder of the chapter is divided into two parts. Part 1 is an examination of organisational management theories including their historical development and influence upon the organisation of the school. Part 2 explores the notion that schools should be conceptualised as learning communities. Sociological constructs are utilised to provide a representation of the school which is able to accommodate contemporary educational research findings on school effectiveness and improvement.

INTRODUCTION

The literature on organisational management, including classical organisation theories, social system theories and open system theories, has strongly influenced the development of the school organisation. The classical theories described a rational and

efficient organisation which was characterised by division of labour, a hierarchy, goal definition, extrinsic rewards and formal rules. Social system theories portrayed the organisation as a set of inter-related parts including aspects of human relations. Open system theories provided management with an understanding of their organisation which placed it within an external environment to which it was responsive and dependent. The organisational management theories which were developed for application in the administration of business organisations were also applied in the study of educational administration. This has resulted in educational systems and schools having a similar organisational structure and operation to business organisations.

Whitaker (1993), stated that the structures and systems laid down in the earliest attempts to organise schooling had persisted and were 'virtually intact' in modern schools (Whitaker, 1993 p. 2). He also suggested educational reform had focussed upon structural change and curriculum modification and a 'dangerous neglect of the learning process' (Whitaker, 1993 p. 5). This assertion is consistent with the notion of organisational considerations dominating the educative purpose of schools (Fullan and Hargreaves, 1992; Fullan, 1993; Sergiovanni, 1993). Despite the entrenchment of traditional patterns of the organisation of people and learning in schools, educational research has sought to determine the effectiveness of schools in achieving their educative purpose. In particular, school effectiveness research has focussed on ascertaining whether or not differences in resourcing, processes and organisational arrangements in schools affect pupil outcomes (Stoll and Fink, 1996).

Initially, the school effectiveness research sought to establish cause-effect relationships between a multitude of personal and organisational factors and criteria nominated as indicators of organisational effectiveness. For example, Hanson (1987) identified four indicators of school effectiveness; adaptability, achievement, job satisfaction and central life interests. Although the theoretical basis for this research was grounded in organisational management concepts, its results questioned many of the assumptions underpinning the organisation of traditional schools. Over the last fifteen years there has been refinement in the specification of the indicators of school effectiveness, student achievement and learning criteria replaced more general organisational criteria. This change was significant because it affirmed the importance of the educative role of schools and signalled a move away from purely management perspectives of the school.

Another area of educational research which has also led to re-conceptualisation of the school originated from the social system organisational theories. Organisational theorists recognised the presence of groupings of people within an organisation which were not the result of prescribed organisational goals and relationships. These groupings were described as the 'informal organisation' with a separate structure, status, power and communication network from the formal organisation (Luthans, 1973). The potential power of the informal organisation in influencing the formal processes of the organisations was of particular concern to management (Knezevich, 1975). Resolution of the conceptual dichotomy between the formal and informal organisation was achieved by viewing the organisation as a system comprised of interactive informal and formal structures and processes (Hanson, 1987). In this

regard an organisational system was analogous to a biological ecosystem in which there is interaction between different species co-existing within a physical environment. Tagiuri (1968) described the 'environment' of the school organisation as a combination of ecology, milieu, social systems and culture. He used the term 'climate' to distinguish between the environments existing in different schools. Hoy and Miskel (1987, p.225) defined the organisational climate of a school as 'the set of internal characteristics that distinguishes one school from another and influences the behaviour of its members'. Research into organisational climate enabled examination of the working environment and its influence upon the achievement of organisational goals. As was the case with the school effectiveness research, the focus of the school climate research has become more concerned with the educative goals of schools and has sought to identify relationships between 'climatic' variables and student learning.

There has been a shift in emphasis from purely structural explanations of the school organisation to those more concerned with the behaviour of teachers and the learning of students. In recent times there has been a convergence between the school effectiveness and climate research. In both areas, and not surprisingly, the capacity of schools to improve the learning of students has been found to be a consequence of human factors within the organisation. These included the personalities, relationships, interactions, values, behaviour and experience of teachers (Whitaker, 1993). The continued use of classical and systems organisational management theories in providing theoretical frameworks for explaining and investigating the operations of schools requires questioning. These theories are applicable in describing the structural aspects of the school because they were influential in the development of the school as

a formal organisation. However, their applicability in providing conceptual frameworks for operational decisions and research concerning the organisational behaviour of teachers cannot be assumed. It is suggested that the use of these theories be restricted to historical explanations of the development of the school organisation and to description of the organisational structure of schools. Conceptions of the school in which student learning and social processes are the predominate considerations are proposed as being a more viable alternative.

Sergiovanni (1993,) criticised the continued use of organisational models to describe schools and in general, the organisational management theoretical grounding of educational administration. Sergiovanni concluded that a major shift was required in the way schools were conceptualised and suggested that this required the application of sociological constructs. According to Segiovanni (1993), the school needed to be viewed as a community with shared ideas, bonding between people and control being exercised through 'norms, purposes, values, professional socialisation, collegiality and natural interdependence' (Sergiovanni, 1993 p. 7). This assertion was consistent with the results of the school effectiveness and climate research which identified the importance of teachers and inter-personal relationships in realising the educative purpose of the school. Sergiovanni's proposition about re-conceptualising the nature of the school has provided a theoretical approach for understanding the nature and function of schools which is well aligned with contemporary research findings.

Within a community, the interaction between individuals and groups leads to the development of common values, beliefs, behaviours, rules, products, signs and

symbols which provide the community with cohesion. These constitute the culture of the community (Donahoe, 1993). Tagiuri (1968) proposed culture as being one of four dimensions of an organisational environment, the quality of this environment was termed climate. Anderson (1982) used Tagiuri's categorisation of climate to review the findings of school climate research. She also commented on the paucity of findings linking the ecology, milieu and social systems of school climate to student outcomes. The other dimension, culture, had been proven to influence student outcomes. Anderson (1982) described culture as a social dimension of the school concerned with belief systems, values, cognitive structures and meaning.

The following discussion of the school organisation will provide a detailed examination of organisational management theories as they have developed and were applied in schools. The proposition that these theories do not provide appropriate models for describing schools and their operation will be explored. The notion of schools being communities characterised by their culture will be proffered as a more realistic representation of the school and its functioning.

PART 1: ORGANISATIONAL MANAGEMENT THEORIES AND THE SCHOOL

Classical Organisation Theories

The Industrial Revolution and the development of mass production techniques produced large industrial organisations in which many workers were employed to perform specialised tasks. Workers were paid a wage and the economic efficiency of the overall organisation was dependent upon maximising their individual and

collective work output. The classical organisational theorists were challenged by a need to identify organisational structures and management principles which would lead to maximum efficiency.

Max Weber (1947) perceived efficiency as resulting from the control of human activity by an authority structure which assumed rational behaviour. The bureaucracy, Weber's ideal organisation, was characterised by specialisation and division of labour, hierarchy of positions, a system of rules and impersonal organisational behaviour. Analysis of the applicability of Weber's model of the bureaucracy in describing the functioning of real organisations required judgements to be made as to whether the functional attributes of the organisation outweighed those which were dysfunctional. Dysfunction was evidenced by organisational behaviour which was not aligned with maintenance of the structure or the achievement of organisational goals. Criticism of the bureaucratic model stemmed from its failure to accommodate the human complexity of its members and the assumption that provision of a rational organisational structure and operating principles would lead to rational individual behaviour.

Taylor (1911) was also concerned with organisational efficiency. He scientifically determined the quickest and cheapest means of accomplishing manufacturing tasks. Taylor emphasised human engineering; the ultimate limit of the worker was physiological which necessitated matching of the worker to the job and appropriate training for that job. Worker motivation was perceived as being economically driven and the level of the wage was consequential of work output. Taylor's scientific

approach also extended into management. Planning and supervision required the application of knowledge gained in a scientific manner and were not to be based upon managerial judgements. Fayol (1949) also proposed a scientific approach to administration and identified planning, organising, commanding, coordinating and controlling as the five functions of administrative behaviour. Other examples of scientifically based administrative process were provided by Gulick (1937), Mooney (1931) and Urwick (1937). Efficient public sector administration required planning, organising, staffing, directing, coordinating, reporting and budgeting (Gulick, 1937). The three principles of organisation were co-ordinative, scalar (leadership, delegation and functional task allocation to subordinates) and functional including the notion of an advisory staff function (Mooney, 1931). According to Luthans (1973), the scientific management approach to administration and its influence on the development of models of the administrative process was typified by Urwick's principles of public administration. These included unity of command, equal authority and responsibility, limited span of control and delegation of routine matters (Urwick, 1937). Unity of command referred to a subordinate being responsible to only one super-ordinate. Equality of authority and responsibility required that when a person is charged with responsibility for a task, the means by which this is to be done is left to the discretion of the individual. Limited span of control described the number of subordinates reporting to one superordinate. Delegation of routine matters described decisions of a routine nature being delegated to those in the lower levels of the organisation.

The principles of public administration allowed consideration of different organisational structures and the notions of centralisation, decentralisation and flat and tall structures. Decentralisation was achieved by making distinctions between various functions and establishing separate structures and responsibilities for each function. An example of this process is the creation of separate departments which gave personnel increased flexibility to focus on more specific goals. A decentralised organisation had a 'flatter' or more 'horizontal' structure with fewer organisational levels and more departments. These changes in organisational structure required re-specification of authority relationships within the organisation. The functional structure needed supporting by an appropriate staff structure. A combination of staff and line positions within the organisation provided a means of maintaining authority relationships, the line, while concurrently allowing other officers to exercise a more advisory and consultative role, the staff. The authority of a staff officer primarily resulted from technical expertise whereas the line officer had formal authority prescribed within the rules of the organisation.

The application of the classical principles of organisation is exemplified by the pyramidal structure of the administrative hierarchy and subject area specialisation in Western Australian secondary schools. Urwick's (1937) principles of public administration were exemplified in statements of roles and supervisory responsibilities contained within a document on 'promotions and transfers' (Education Department of Western Australia, 1996). Authority for the school is vested in the principal and extends through the deputy or vice-principals to heads of subject department who are in turn responsible for the actions of subject teachers. This authority structure includes

the notions of unity of command and span of control. Equality of authority and responsibility, and delegation of routine matters are also present. These are exemplified by the discrete areas of operational responsibility assigned to deputy principals, the latitude given to heads of department in the operations of the faculty and the independence of the individual teacher in the classroom.

The influence of scientific management has also affected the grouping of students, the instructional programme and school rules concerning student behaviour in these schools. This is evidenced by: classes being constituted according to student aptitude or prior achievement; performance being gauged through formal testing; curricula being designed around sequential stages of learning and divided into subject areas; progression of students through chronological grades or years; and the stipulation of acceptable standards of behaviour and an anticipation that these will be followed in all classes at all times.

The classical theorists assumed that the scientific basis of the principles of organisation and management would ensure universal applicability and the operation of the organisation would be independent of the influence of the sociological and psychological needs of members. The school development planning process mandated in Western Australia (Ministry of Education, 1989), is consistent with the classical scientific approach towards administration. It assumed educational outcomes could be measured and the resulting data could be used in a rational decision-making process to decide upon the allocation of resources and the planning of future programmes. The previous chapter of this dissertation included evidence of this process failing to

have a significant impact upon the work of the teacher within the classroom. The failure of school development planning indicates that the support of teachers for school programmes or new initiatives cannot be guaranteed by the application of the principles of scientific management. The logicity of the decision-making process or of a specific change in the operations of the school cannot be assumed as providing sufficient reason for ensuring the support of teachers.

Apart from incompatibility between the classical school organisation and the educative needs of students, its responsiveness to the psychological and social needs of teachers requires examination. The following discussion of social system theories examines this issue.

Social System Theories

The scientific approach used in the development of the classic theories of the organisation originated in the disciplines of the physical and biological sciences. The recognition of the behavioural sciences of psychology and sociology as scientific disciplines in their own right supported the emergence of new approaches to explaining organisational behaviour. The social systems theories of organisational management established that the satisfaction of the social and psychological needs of the worker was a legitimate concern of management and a determinant of organisational efficiency.

In 1927, Follett proposed that the productivity of an industrial organisation required an understanding of the motivation of individuals and groups as well as the means of

co-ordinating their efforts (Follett, 1941). Follett has been attributed as being a pioneer in questioning the mechanistic impersonal classical theories and recognising the importance of human factors in administration (Knezevich, 1975).

The Hawthorne studies (Roethlisberger and Dickson, 1939) also marked a significant point in the evolution of organisational management from the classical approach into the social systems approach. Commencing in 1927, Mayo and colleagues applied scientific methods in a five year study at the Hawthorne Works of the Western Electric Company. It was concluded that the individual worker was prepared to ignore the incentives for increased production in order to maintain relationships with co-workers and membership of the group. The Hawthorne studies also drew attention to the relationship between the nature of supervision and productivity. Perceptions of supervisory interest and attention was considered by the workers to have been a significant factor in motivating them to increase their productivity. Although the specific conclusions of the Hawthorne studies have been the subject of extensive debate, the studies provided a foundation for further research and development in organisational management by questioning existing assumptions about the influences of rewards and supervision upon productivity.

The work of Follett and Mayo led to the development of a new management ideology, human relations. The human relations approach to management required a participatory democratic management style by managers who were skilled in working with people. The aim of this approach was to produce a harmonious working environment in which both the needs of people were satisfied and organisational goals

were achieved. Although the concomitant requirement of satisfying both personal and organisational needs was in practice difficult to achieve, it was idealistically assumed that this was achievable and that management was capable of finding a mutually acceptable solution. The notion of fundamental differences existing between the needs of management and workers and the existence of unresolvable conflict was glossed over (Etzioni, 1964). The approach came to be perceived as a tool for use by management in facilitating the achievement of formal organisational goals and maintaining existing authority relationships.

Barnard (1938) approached the problem of incompatibility between the principles of human relations and classical management by analysing the relationship between the exercise and acceptance of authority in the organisation. Barnard proposed that before an individual accepted a communication as being authoritative, it needed to be understood and believed to be compatible with personal interests, within the mental and physical capacity of the individual and be consistent with the purpose of the organisation. The presence of formal and informal groups was acknowledged and the organisation was considered as a cooperative system in which the extent of cooperation in working towards a common purpose was contingent upon communication. Barnard (1937), also defined the concepts of effectiveness and efficiency and their relationship. Effectiveness was impersonal and related to the achievement of organisational goals. Efficiency had a personal orientation in which the motivation of the individual was dependent upon perceptions of the satisfaction gained from membership of the organisation and working towards organisational goals. In proposing the notion of the organisation being a cooperative system,

Barnard identified structural components and the mechanisms by which they interacted. Implicit in this model was the assumption that the organisation was dynamic and through interaction between the components, an equilibrium was established. From Barnard's perspective the organisation was created and perpetuated by the interaction between people and successful management necessitated focussing upon organisational processes, particularly communication and decision-making.

Simon (1957), utilised and extended Barnard's propositions about the nature of organisational processes. The motivation of an individual to participate in the activities of the organisation was perceived as a rational decision. The organisation itself was considered to be a pattern of communication and human relationships which shaped the information, assumptions, goals, attitudes and expectations considered by the individual when making this decision. The analytical unit for studying the organisation was the decision and Simon employed mathematical models in an attempt to provide a logical explanation of the decision-making process.

Boulding (1956) proposed a unified framework intended to provide a general theoretical description of all scientific phenomena including the existing theories of the behavioural sciences. The unifying construct was the 'system', a composite of interrelated and interdependent structural elements and processes. The approach was in itself scientific, assuming the presence of order and structure in physical, biological and social systems. Scott (1961) applied systems theory to organisations and distinguished four aspects of an organisation which required explanation through a systems approach. Systems theory enabled identification of the strategic parts of the

system, their mutual dependency, processes of linkage and adjustment; and the goals sought by the organisation (Scott, 1961). Hanson (1987) described the elements of a social system as comprising belief, sentiment, goals, norms, status, power, rank, sanction, facility and stress-strain. He also described the master social system processes of communication, boundary maintenance, systemic linkage and institutionalisation.

Getzels (1968) visualised school administration as a social process and the school as an interactive two dimensional social system. The nomothetic or organisational dimension was constituted by the institution, role and expectation. The idiographic or personal dimension was constituted by the individual, personality and need disposition. The presence of only two dimensions, sociological and psychological, proved incapable of thoroughly explaining organisational behaviour and was subsequently extended by the addition of anthropological, biological and socio-psychological dimensions (Getzels and Thelen, 1960). The resulting five dimensional model assumed interaction between all dimensions and all of their components. The anthropological dimension was a significant addition because it assumed that the system of the school was part of a larger social system which was influential upon the school. The development of Getzel's model typified a shift in systems theory. The original model was an example of what Katz and Kahn (1966) described as a 'closed system', the school existed independently of an external environment. The revised model exemplified an 'open system' in which the organisation was in interaction with the external environment (Katz and Kahn, 1966).

Apart from the classification of systems as being closed or open, Scott (1981), suggested consideration of systems as being either rational or natural. The classical descriptions of the organisation and the administrative process provided by Weber, Taylor, Fayol, Gulick and Urwick exemplify the rational system. The rational organisation is characterised by the explicit specification of goals and rules and a strengthening of formal structures to co-ordinate and control organisational behaviour. Examples of management techniques developed to facilitate rational decision-making include the Planning, Programmemeing and Budgeting System (PPBS), Programme Evaluation and Review Technique (PERT) and Management by Objectives (MBO).

The human relations approach of Follett, Mayo and the early social systems theorists is consistent with the notion of the organisation being a natural system. The primary goal of a natural system is survival and the survival of the organisation cannot be assured by formal structures and processes. Satisfaction of the 'natural' psychological and social needs of individuals as facilitated by membership of informal groupings requires the presence of an organisational social system which meets these individual needs. The endurance of the social system is dependent upon it adapting and re-configuring in response to forces threatening its existence. The major difference between the rational system and the natural system lies in the mechanism by which the structure of the system is established. The rational system is the product of logical decisions made by management whereas the natural system has resulted from social interaction and the establishment of an equilibrium between competing needs, including those of the formal organisation. The notions of rational and natural systems

are not applicable to just closed systems, they also can be used in examining open systems.

The extent of coupling between the sub-systems within the overall system can be related to rational and natural systems. In a rational bureaucratic organisation, the line management process ensures strong linkage between the organisational sub-systems. In less bureaucratic organisations the strength of this linkage can be reduced by the presence of extensive staff relationships between sub-systems and individuals. Bidwell (1965) used the notion of 'structural looseness' to describe the degree to which organisational sub-systems function relatively independently of one another. Bidwell suggested that schools were loosely structured because the classroom teacher worked relatively independently of colleagues and direct supervision. The source of this autonomy could be explained as deliberate delegation of authority or could be a consequence of other organisational factors characteristic of schools. Meyer and Rowan (1978) asserted that the bureaucratic structure of schools was disconnected from the instruction of students. This was described by Meyer and Scott (1983) as an example of 'loose coupling'. From a natural systems perspective, the social group comprising the teacher and pupils in a classroom has its own needs which are best realised by the teacher being relatively independent of colleagues and the school hierarchy. This independence is a characteristic of the staff social sub-system and will affect the nature of the overall school social system and its interaction with the formal organisation. It will also be reflected in the system's social processes. This could include strengthening the boundaries around the classroom group, stronger alliances

between classroom practitioners or institutionalisation of the autonomy of the individual teacher.

In general, the influence of the social systems theories on schools has been significant. The shift from viewing the school as a formal organisation to that of a social system required a new approach in management and the conceptualisation of the school. The application of these theories upon the operations of Western Australian secondary schools provides specific examples of this influence. The traditional line management structure was augmented by the formation of executive and senior management teams with an advisory role including the capacity to make recommendations to the principal about school-wide issues. These were a coalition of middle and upper management personnel who worked together in a cooperative manner intended to balance personal, faculty and whole of school interests. Committees of teachers were also formed, faculty meetings allowed subject area specialists to discuss common matters and school staff association meetings operating with formal meeting procedures provided a democratic means for all staff to address school wide issues. In general, decision-making became more participatory and the leadership of schools was more sensitive to the concerns of teachers. Management was promoted as a consultative process and principals used terms such as the 'open door policy' to describe their approachability and concern for the welfare of staff. There was also an increased recognition of teacher professionalism and a reduced reliance upon traditional forms of control and accountability.

The human relations and social systems approach to school management provided administrators with an understanding of the social processes occurring within the school which was not possible from the classical perspective. The limitation of this approach lay in the difficulty of precisely specifying the boundaries between the school and external systems, the assumption that the school was not responsive to external influences. The corollary to this proposition is the difficulty in delineating the sub-systems and the assumption that their interaction will not substantially change their integrity. The open systems models of the organisation and management address these inadequacies by incorporating notions of adaptation and environmental responsiveness not possible from a closed system perspective.

Open Systems Theory

The notion of a closed system assumes an independent entity with internal resources, energy and mechanisms required for the achievement of pre-determined goals. The open system cannot exist in isolation from its environment, its reason for existence is consequential upon the needs of the environment. An open system organisation in its simplest form is comprised of environmental inputs, a transformation process and environmental outputs. Katz and Kahn (1966) provided the following four additional characteristics:

- Maintenance of internal order requiring the consumption of energy provided by the environment;
- Maintenance of a stable internal environment in a changing external environment facilitated by feedback of information from the environment;

- Differentiation between sub-systems resulting from their dynamic nature and the need for the organisation to be adaptive in order to survive; and
- Identification of a final state which can be achieved irrespective of initial conditions and paths of development.

The open system organisation is dynamic and its activity is a combination of cyclic processes within and between sub-systems in which the input is imported, transformed and exported back into the environment which then responds by feeding back further inputs. The feed-back process is the mechanism for informing the organisation of the success of the transformation in meeting the expectations of the environment. It also enables changes in environmental needs to be transmitted to the organisation. The survival of the organisation is dependent on the transformation process achieving its objective of meeting the environmental need and being sufficiently adaptable in changing to meet new environmental needs.

The open system organisation is in a state of equilibrium and when this is threatened, the organisation has the capacity to re-allocate energy or resources to re-establish the equilibrium. Organisational change occurs when this is not possible and a new equilibrium has to be established (Hanson, 1987). Contingency theories propose that the internal structure and processes within an organisation require matching to the degree of environmental turbulence. The capacity of an organisation to respond was found to be related to the degree of differentiation and integration of the sub-systems (Lawrence and Lorsch, 1967). Differentiation was concerned with differing controlling processes, interpersonal relationships, feed-back times and goal

orientation. Integration was concerned with collaboration between the sub-systems to establish unity between the purpose and processes of the sub-systems in meeting environmental demands. Fiedler (1967) applied contingency theory to leadership, proposing that leadership behaviour required matching to situational variables. Contingency theories suggest that successful organisations and management are able to adapt to the changes in the environment by the operation of the organisation and the behaviour of management being flexible and responsive.

The responsiveness of schools and teachers to changing environmental pressures cannot be assumed. Thompson (1967) viewed a lack of environmental responsiveness as an expression of the need to protect the technical core of the organisation. In schools this is concerned with instructional activity. Corbett, Firestone and Rossman (1987), commented on teachers' reputations for being resistant to change. They considered this to be the result of immutable cultural norms which were concerned with the professional identity of teachers and the meaning of teaching. Environmental pressures have the capacity to subvert the instructional purpose of schools (Hoy and Miskel, 1987). Schools respond to this pressure by adopting a closed systems approach and protecting the instructional process. Environmental pressures are dissipated by being channelled into other areas of organisational activity not directly related to student instruction.

Western Australian secondary schools display many open systems features. Interlocking cycles of activity are present in most school operations. Classroom instruction, scheduling of classes, reporting student achievement to parents, budgeting

and planning are cyclic processes within and between sub-systems, with time spans ranging from the length of a lesson to a year. The work of the individual teachers and faculties are differentiated according to student and subject area needs but integrated by an overall curriculum framework. School-wide integration occurs in decisions about the management of student behaviour, school priorities and the allocation of financial and physical resources. Environmental responsiveness is evidenced by the objectives of the school acknowledging the expectations of the government, the educational system, statutory and regulatory bodies, the local community and families. There are multiple means of achieving instructional and organisational goals; financial planning includes elements of both revenue and expenditure budgeting, student groupings can be homogeneous or heterogeneous, student assessment procedures can be normative or criterion referenced and teachers use a variety of teaching strategies in their classrooms.

The major external energy input comes from the educational system providing the school with funds, materials and services. Feed-back from the environment occurs through meetings with parents, financial auditing, monitoring by the superintendent and comparison of school and systemic data on student performance. Instructional feedback to the individual teacher comes from the expression of student opinion about their learning, contact with parents and discussion with colleagues about comparability of student achievement in different classes. The social interaction between teachers and the formation of social sub-systems is influenced by organisational and external pressures. These sub-systems are internally dynamic and mutually dependent, their composition and activity is not static, however the overall

staff social system has stability resulting from an equilibrium being established between the sub-systems.

Relevance of the Organisational Management Theories

The organisational and management principles of the classical, social system and open system theorists have been applied in most schools. They provide frameworks for describing and analysing the school as an organisation. It is simplistic to make judgements about the relative applicability of these frameworks or approaches in terms of their capacity to provide an accurate representation of the school. Schools are complex organisations existing in a changing external environment and the open systems theory provides a general framework for understanding this relationship. However the individual school at any one time may have bureaucratic, closed systems, rational systems, natural systems, open systems or combined characteristics.

The issue of the relevance of the organisational management theories can also be examined by considering the motives underlying their development. The original purpose of these theoretical frameworks was to provide administrators with an understanding of the school and its operations to enable efficient and effective management of the school. A knowledge of the frameworks increases the administrator's power and capacity to control the school including the behaviour of teachers and students. For this purpose the theories of organisational management are highly relevant.

It could be argued that teachers are also entitled to have power and control of the school, to have a leadership role. In a study of school restructuring, Prestine (1991) identified a shift in the power relationships in schools whereby power was shared throughout the school and not retained by the principal. The traditional bureaucratic power of the principal was replaced by the ability to support the restructuring process and develop collaborative relationships between the teachers. Karpol (1990) recognised a need for institutional empowerment in which conscious decisions were made about empowering teachers by delegating decision-making responsibilities. Leithwood (1992) also recognised a need for schools to be led by multiple leaders. From this perspective the organisational management theories are of concern because their orientation is towards affirmation of the traditional authority structures within the school.

Another motive for understanding the school organisation is concerned with the notion of organisational development and the management of change. Irrespective of the issue of where the responsibility for this process lies, a knowledge of the organisational conditions which are supportive of the achievement of the goals of the organisation is essential. Fullan (1993) viewed the purpose of schooling as a moral issue concerned with the enculturation of the young and also the provision of access to knowledge (Fullan, 1993). He perceived teachers as being agents of educational change and societal improvement. The utility of the organisational management theories as conceptual frameworks to guide school development is questionable. One inadequacy lies in their management rather than pedagogical orientation, they concentrate on the organisation and not the learning of students. Another inadequacy

is the locus of the change effort. In order that a school should develop there is a necessity for teachers to be actively engaged in their own learning and for the total school community to be a learning community (Boyd and Hord, 1993; Fullan, 1993; Southworth, 1993). The placement of teachers within an organisational rather than educational context is not conducive to their professional growth.

The organisational management theories have been influential in the development of specific theoretical approaches to leadership and organisational development. These approaches and their implications for schools require examination in more detail.

Management and Leadership

The perspective on leadership provided by the classical theories centred around the necessity for compliant organisational behaviour, the traits or personal characteristics of the leader and the formal structure of the organisation. Weber (1947) visualised leadership as authority and proposed that there were three sources of authority in an organisation. The authority of a leader could flow from traditional beliefs and the need for followers to preserve existing social structures, the leader being a person who was charismatic and possessed personal qualities which ensured loyalty, or alternatively as a consequence of the leader's position within a formal organisation such as a bureaucracy in which authority was the result of office. Weber used this taxonomy as an argument in support of the bureaucratic model of organisations.

The role of management in ensuring the efficient operation of the organisation was explained as engagement in administrative processes (Gulick, 1937; Mooney, 1931

and Urwick, 1937). Consistent with Weber's proposition of authority being linked to the personal qualities of the leader was the notion of some managers having specific personal characteristics which made them more skilled in the administrative processes. The rational scientific approach used in explaining organisational behaviour was applied in the study of leadership attributes. Stogdill (1948) analysed the results of 124 previous studies of leadership traits and reached conclusions about the intelligence, scholarship, dependability in exercising responsibilities, activity, social participation and socio-economic status of leaders compared to other members of the organisation. Stogdill also suggested that effective leadership made some traits more important than others in different situations.

The presence of specialised roles within the classical organisation assumed that individuals had differing abilities and skills which needed matching to the roles. Stogdill's findings supported the proposition that leaders were superior members of the organisation because their personal abilities and capacities were higher than those of their subordinates. The selection methods used in the promotion of personnel in schools and educational systems are based upon the principles of division of labour and a hierarchical structure reflective of ability and capacity to carry out more difficult tasks.

In Western Australian secondary schools, promotion from the classroom to head of department, deputy principal and to principal has been formalised by the development of selection procedures and position-related criteria. The knowledge, skills and abilities required of personnel at each level of the school have been specified within a

hierarchical framework of job descriptions and selection criteria. This framework was generated by an empirical process in which data was collected about the specific tasks carried out at each level. This was subsequently analysed to differentiate between the personal and professional attributes required to complete the respective tasks. This process identified the traits of the personnel and their behaviour in differing leadership positions within schools. The selection process seeks to match the traits of applicants to those which were identified as being characteristic of the incumbents who were investigated.

Stogdill's (1948) observation of the need for a match between the traits of the leader and the situation suggested that leadership was not an isolated phenomenon. Gibb (1954) also drew attention to the situational aspect of leadership. The leader's contribution to the mobilisation of the group towards achieving a recognised goal required consideration of the leadership traits which enabled this to occur in a particular situation, not on the traits of the leader as a person (Gibb, 1954). The systems approach to understanding organisational behaviour can be used in explaining leadership behaviour. Placing leadership within a social systems context provides an alternative conception in which the authority of the leader does not necessarily result from organisational status or personal traits, as was the case with the classical explanation. For example Getzels and Guba (1957) explained administration as a social process and described three types or styles of leadership. The nomothetic leader stresses conformity with organisational requirements and compliance with formal role expectations, the idiographic leader has a personal orientation concerned with the perceptions and dispositions of all organisational members and the transactional

leader, may at different times or concurrently, behave in a nomothetic or idiographic manner (Getzels and Guba, 1957).

Situational leadership research sought to identify situational variables which could be related to effective leadership (Filey and House, 1969). This was a shift in orientation from an emphasis of leadership style to one of the influence of the environment upon leadership behaviour. Contingency theory (Fiedler, 1967), provided an alternative approach in which both the leadership style and the situation could be accommodated. This assumed that the effectiveness of the organisation or sub-system was a function of the motivation of the leader as well as its interaction with the situational variables of the leader-member relations, the extent of the structure assigned to the common task and formal organisational power of the leader (Fiedler, 1967). The motivation of the leader was categorised as being relationship-motivated or task-motivated. Fiedler (1967), viewed this as a relatively stable attribute influenced by the leader's personality. The path-goal theory (House and Mitchell, 1974) proposed that leadership behaviour was not fixed and at different times could be directive, supportive, achievement oriented or participative. The performance of sub-ordinates was suggested as being moderated by the contingent variables of sub-ordinate characteristics and environmental factors.

All of the theories of leadership previously discussed assumed that the organisation was a closed system. Examination of leadership within an open system requires a markedly different conception of leadership. In the ideal open system, the organisational system and sub-systems need to be flexible in order to survive in a

changing external environment. The presence of fixed formal leadership roles and authority structures are potentially restrictive of the organisation's capacity to be responsive and adapt to the environment. With regard to the expectation of the school being an organisation focussed upon learning, Fullan (1993) stated that if the concept of schools being learning organisations was fully realised, the role of the principal as a leader would be unnecessary as leadership would be exercised by empowered teachers. The crucial issue in the application of the open systems approach to leadership in schools lies in assumptions about the role and persistence of a management structure. If the leadership function is concerned with the maintenance of existing authority relationships, a leader with knowledge of the open nature of the organisation can manipulate the internal conditions within the organisation to prevent the external influences threatening the hierarchical structure of the organisation. Alternatively, if the leadership has an orientation more consistent with the notion of adaptation to environmental pressure, this may require changes within the organisation, including re-configuration of the existing authority structure and relationships.

This description of leadership within organisations including schools has been based upon the assumptions about organisational behaviour as expressed in the organisational management theories. These assumptions will be re-examined in a subsequent section of the chapter in which the school organisation is presented from a community rather than organisational perspective.

Organisational and School Development

The classical organisational theorists (Weber, 1947; Taylor, 1911; Fayol, 1949; Gulick, 1937; Mooney, 1931; Urwick, 1937) viewed the need for an organisation to change as a consequence of improving efficiency. Management had the power to restructure the organisation and redefine roles to improve efficiency as gauged by the level of attainment of organisational goals. The application of a scientific approach to management assumed that the output of the organisation and its specialised departments could be measured to provide management with information upon which to make decisions about change (Taylor, 1911). The assumption of rationality caused the development process to be focussed on the structure of the organisation and formal roles. Organisational development was a restructuring process in which the principles of decentralisation and departmentalisation were applied to redefine authority relationships and the roles of organisational members. The authority of management resulting from organisational status and specialised knowledge gave managers control of this process.

The human relations approach to management which recognised the importance of the psychological and social needs of workers (Follett, 1927; Roethlisberger and Dickson, 1939), necessitated a different conceptualisation of the management of organisational development. For example, Barnard's proposition of the organisation being a cooperative system required decision-making to be a consultative process in which management was cognisant of the needs and expectations of workers (Barnard, 1939). Other social systems theorists (Getzels, 1968; Scott, 1961; Simon, 1957) also drew attention to the human and social aspects of the organisation, changes in the

formal aspects of the organisation or school could not be effected independently of the social system. Decisions about the development of the organisation required a consultative and participatory leadership style intended to gain the support of subordinates.

Systems theories proposed that the capacity for an organisation to change was dependent upon organisational variables or processes including decision-making, communication, control, technology, structure and people (Hanson, 1979; Luthans, 1973). If these were properly understood by management, it was possible to map out a plan for the change process. Planning change was a logical process in which specific strategies were selected and applied to stimulate different aspects of the organisation. The resistance of people towards change was recognised as being a major obstacle to successful organisational change (Firestone, Corbett and Rossman, 1987; Thompson, 1967). Hanson (1979) described three categories of change strategies. Empirical rational strategies present people with a logical explanation of the change and its projected consequences, with the expectation that its intrinsic value will ensure cooperation. Normative re-educative strategies accept that logical arguments are insufficient, the beliefs and values of people require identification and expression. This can be facilitated by organising group workshops, team building and consensus decision-making processes. Power-coercive strategies are less subtle, the threat of the imposition of sanctions for not co-operating is used to ensure compliance. However, the objective of organisational development was still improved effectiveness and the social systems theories provided management with alternative strategies for controlling the process (Etzioni, 1964).

The open systems representation of organisations and schools presented a more complex view of organisational change. In particular, the development of the school organisation cannot proceed independently of external environmental pressures. Caldwell (1993) identified six contemporary educational issues which were impacting on the development of schools; quality, effectiveness, equity, efficiency, accountability and adaptability. The quality of education was a world-wide issue concerned with the importance of the goals and outcomes of education to the quality of the life we lead (Chapman, 1993). School effectiveness was concerned with the effect of resources, processes and organisational arrangements on pupil outcomes (Stoll and Fink, 1996). Equity was concerned with ensuring that the individual student has access to resources and educational experiences best suited to individual needs (Dunstan, 1986). Efficiency related to matching limited resources to the needs of the system in delivering an acceptable level of service (Louden and Browne, 1993). Accountability was concerned with reviewing the roles of personnel and the application of sanctions if their actions fail to satisfy those with whom they are in an accountability relationship (Kogan, 1988). Adaptability assumed responsiveness to the demands of clients and the changing social environment in which they exist (Dunstan, 1986; Caldwell, 1993). These six issues were perceived by Caldwell as providing the context and rationale for the restructuring of schools and educational systems which was occurring world-wide.

School Improvement

The notion of 'school improvement' provided an alternative approach for understanding school development. 'School improvement is a systematic, sustained

effort aimed at change in learning conditions and other related internal conditions in one or more schools, with the ultimate aim of accomplishing educational goals more effectively' (Hillman and Stoll, 1994, p.1). Stoll and Mortimer (1995) synthesised the research findings on school effectiveness and improvement and identified eleven factors requiring consideration in the design of school improvement programmes. These were participatory leadership, shared vision and goals, teamwork, a learning environment, emphasis on teaching and learning, high expectations, positive reinforcement, monitoring and inquiry, pupil rights and responsibilities, learning for all and partnerships and support (Stoll and Mortimer, 1995 p. 5). These authors also suggested that school improvement could be stimulated by external agencies including school inspectors, local education authorities, certification bodies and business and industry organisations.

Examples of school improvement programmes include the Schools Make a Difference project (Myers, 1996), the Halton Effective Schools Project (Stoll and Fink, 1996) and the Learning Consortium (Fullan, Bennett and Rolheiser-Bennett, 1990). These programmes had certain common features. Firstly, their design was based upon educational research. The Schools Make a Difference project (Myers, 1996) utilised school effectiveness, school improvement and change management research findings in conjunction with an action research approach. Secondly, the theoretical knowledge was provided by educational researchers who were part of the project team. In Toronto, school improvement in four school districts was supported by the establishment of the learning consortium, a partnership between two higher education institutions and the school districts (Fullan, Bennett and Rolheiser-Bennett, 1990).

Thirdly, the overall projects were integrated with existing structures. The task force coordinating the Halton Effective Schools Project in Ontario initially developed four guiding principles, including the need for integration with existing supervision, planning and management systems (Stoll and Fink, 1996). Fourthly, these programmes recognised that successful improvement was a long term project and 'quick fixes' were inappropriate. The Halton project (Stoll and Fink, 1996) was expected to require more than five years for completion. The fifth common feature concerned the unit of change, in all three programmes the focus of the change effort was the school and the work of teachers.

Beyond the Organisational Management Theories

Sergiovanni (1993), suggested that a paradigm shift was required in the way schools were conceptualised. He described schools as formal organisations characterised by rationality, specialisation of knowledge, hierarchical distribution of power, rules, regulations and achievement being gauged against previously expressed goals (Sergiovanni, 1993). The preceding discussion of the development of the organisational theories and their application in the educational organisations has provided numerous examples of their influence upon the structure and operations of schools. Attention was drawn to the differences between organisational efficiency and school effectiveness, management and school leadership, organisational development and school improvement. Continued application of organisational management theories in describing schools perpetuates the notion that schools are formal organisations (Sergiovanni, 1993).

The discussion of school improvement including the eleven factors identified by Stoll and Mortimer (1995) suggested that the effectiveness of the school in improving student learning was more dependent upon the value systems of teachers than on formal organisational structure. The human relations movement and the social systems theorists had previously acknowledged the importance of psychological and social influences within the organisation. The open system theorists were cognisant of this aspect of the school and related it to influences emanating from the external environment. The systems approach assumed the presence of an underlying structure which could be utilised in explaining the interaction within groups, between groups and between the school and its environment. In the quest for a rational explanation, it was proposed that this structure was an open social system in a state of dynamic equilibrium. The notion of schools being an open social system is analogous to the conception of the school being a community.

Sergiovani's proposition of a paradigm shift from an organisational to community perspective towards schools avoids the contradictions and paradoxes incumbent in the traditional organisational approaches. Sergiovanni suggested that the school needed to be viewed as a community with shared ideas, bonding between people and control being exercised through 'norms, purposes, values, professional socialisation, collegiality and natural interdependence' (Sergiovanni, 1993 p. 7). This view of the school suggests that the value systems of teachers need to be considered independently of the formal organisational structure and the stipulation of rules governing organisational behaviour. The social processes which influence the value systems of teachers and lead to the development of common norms are seen as the

determinants of school effectiveness. The notion of school culture replaces the organisational conception of the school and allows due attention to be given to processes which develop, sustain and support the growth of this value system. From this perspective, school development needs to focus upon cultural transformation (Dalin, Rolff and Kleekamp, 1993; Fullan, 1993).

The second part of this review of the literature will discuss the school as a learning community rather than as an organisation.

PART 2: THE SCHOOL AS A LEARNING COMMUNITY

The School as a Community

Merrill (1969) described a community as a permanent group of persons located in a common area, interacting in both institutional and non-institutional roles and having a sense of identification with the community arising from this interaction. Merrill (1969) proposed that a social institution was characterised by general patterns of expectations governing behaviour and associated with a particular organisation or group of persons. Education is the social institution to which society has assigned a major role in the education of the young (Faber and Shearron, 1970). According to Fullan (1993, p.4) the moral purpose of education 'is to make a difference in the lives of students regardless of background, and to help produce citizens who can live and work productively in increasingly dynamic societies'. Merrill's description of a community can be applied to schools. School staff and students occupy the school during the hours of instruction, their behaviour and interaction results from the

expectations of the social institution of education in conjunction with personal and social needs and they identify themselves with their school.

The key construct in the concept of community is social interaction and communication between people. The existence and development of the community as an entity results from this interaction. This conception can be contrasted with a formal organisation in which the behaviour of people and their interaction is governed by organisational structure and specified roles. A community is the consequence of social interaction whereas in an organisation, social interaction can be considered a consequence of membership of the organisation. Viewing the school as a community provides an alternative perspective in which the behaviour and motivation of the individual result from the interdependencies and relationships which bind the community together (Sergiovanni, 1993).

The educative purpose of schools provides a means of differentiating between the school and other traditional societal communities. Schools are learning communities. Stoll and Mortimer (1995) provided a detailed explanation of 'facilitating conditions' within the school which would contribute to school effectiveness. In particular, they suggested there was a need for teachers to learn and practise new strategies for application in the classroom (Stoll and Mortimer, 1995 p. 5). This necessity for teachers themselves to be actively engaged in learning extends the notion of the school community being a learning community to include the learning of teachers (Boyd and Hord, 1993; Fullan, 1993; Southworth, 1993).

School Culture

Over time, the social interaction occurring within a society or community leads to the development of a characteristic 'culture' which sets parameters for this interaction and the actions of people (Parsons and Shils, 1951). Mitchell and Willower (1992), described culture as the way of life of a given collectivity (or organisation), and a reflection of shared values, norms, symbols and traditions. Culture is both the product of social interaction and an expression of expectations concerning future interaction (Krober, 1952). It is the culture of a community which provides cohesion and binds people together (Donahoe, 1993).

The notion of schools having a culture originated from research into 'school climate'. Halpin and Croft (1962) identified six profiles of organisational climate in elementary schools based upon data they collected on eight determinants of school climate. School climate was considered to be the qualitative aspects of the interpersonal relationships within the school organisation; it described individual perceptions of work, status and the behaviour of others (Faber and Shearron, 1970). In a review of research on school climate, Anderson (1982) discussed Tagiuri's (1968) definition and taxonomy of climate-related terms. Climate was described as 'the total environmental quality within an organisation' (Anderson, 1982 p.369). It was considered to be a broad construct including variables from the four dimensions of ecology, milieu, social system and culture. These dimensions comprised the physical and material aspects of the school; the presence of persons and groups; the patterned relationships of these persons and groups; and belief systems, values, cognitive structures and meaning.

Research into the phenomenon of school climate provided empirical evidence on the existence of school culture and found relationships between cultural aspects of the school and the learning of students (Anderson, 1982). Subsequent research into school effectiveness and school improvement has confirmed these relationships (Whitaker, 1993; Hillman and Stoll, 1994). Sammons, Thomas and Mortimer (1995), identified nine factors which provided 'pointers concerning the mechanism of school and departmental effectiveness' (p. 48). These were: high expectations, strong academic emphasis, shared vision/goals, clear leadership, an effective senior management team, consistency in approach, quality of teaching, student centred approach and parental involvement and support. It is significant that these nine factors were of a cultural rather than organisational nature.

The recent findings of the school effectiveness and improvement research gives weight to Sergiovanni's proposition of conceptualising schools as communities. The concept of school culture being the shared values, norms, symbols and traditions of the school community provides a contemporary theoretical approach for examining schools.

Models of School Culture

Fullan and Hargreaves (1992), described school and sub-school culture in terms of separation, connection and integration. In a separate or individualised culture, teachers have withdrawn from collective activities and work independently of one another. Cultures of connection included balkanisation, comfortable collaboration and contrived collegiality. Balkanisation is the result of strong allegiances to different

groups within the school characterised by their divergent views of learning and the tendency towards insulation from the influences of other groups. Comfortable collaboration is driven by personal needs for a warm and friendly working environment, it is not the result of organisational or professional expectations. Contrived collegiality is the result of formal bureaucratic procedures which have been imposed on teachers to facilitate increased collaboration and shared decision-making. A culture of integration or fully collaborative culture values both the needs of the individual and the collective needs of groups. Hargreaves (1994) proposed a similar construct, the moving mosaic cultural form. This is characterised by collaboration, opportunism, adaptable partnerships and alliances directed by an orientation towards continuous learning and improvement.

Hargreaves (1995) proposed a model of school culture based upon expressive and instrumental domains. In the expressive domain, social cohesion is generated through maintenance of positive relationships. The instrumental domain concerns social control and task orientation. The model identifies four types of school culture; traditional with low cohesion and high control, welfarist with high cohesion and low control, hot-house with high cohesion and control, and anomic with low cohesion and low control. He also proposed a fifth type of culture, effective, which includes optimal cohesion, optimal control and the presence of high expectations and support in facilitating achievement of the expectations.

Erikson (1987), addressed the issue of the development of cultural knowledge. School culture was presented as an interpretive framework containing three different

conceptions about the possession and sharing of cultural knowledge. Firstly, cultural knowledge exists in small bits spread throughout the school, secondly there are larger chunks of common knowledge which underpin collective behaviour and thirdly, the sharing of the knowledge is related to power and status. The knowledge bits conception proposes that the school community collectively possesses a large pool of bits of information, the individual pieces being contributed by specific members and groups. No single member or group has learned the total body of knowledge. Another conception portrays culture as a conceptual structure with the presence of central organising constructs and core symbols that are widely shared throughout the school and provide cohesion and consistency of behaviour. The third concept recognises that there is a systematic variation in cultural knowledge between the groups and that the organisation of the differences has resulted from social interaction including conflict. This political struggle conception views culture as being in a state of change, new culture is continuously being created. A further consideration is of the effect that the social environment surrounding individuals and groups has on their specific cultural knowledge, not on the total body of knowledge itself. Collectively, these conceptions of Erikson portrayed school culture as a dynamic combination of shared and individual knowledge with new frameworks and knowledge being continuously learned and applied.

Alternatively, Maxwell and Thomas (1991) suggested that culture is expressed through the behaviour of groups and individuals. There is a concurrent process by which ideas, beliefs and values are developed to give meaning for the behaviour. The 'interactive model of culture' (Maxwell and Thomas, 1991) has four reciprocal

elements. The central element is the belief system which embodies the tacit assumptions and understandings of the group. This influences the group value system, an expression of common judgments about the relative importance of issues and matters of concern. The group value system influences the development of norms that express behavioural expectations and associated standards which set the limits for consequent behaviour. The last element of the model is the resulting behaviour. Maxwell and Thomas suggested that each of the latter three elements will interact with and influence the preceding element. The overall system interacts with the temporal and socio-political environment in which the organisation exists and will be responsive to external influences. This model does not suggest simple one way cause-effect relationships between behaviour and the other cultural constructs, all are present and all affect each other.

The preceding explanations of school culture described types of school cultures and provided an insight into the interactive and dynamic nature of the phenomenon. The following section will concentrate on the interactive processes which shape and change the culture of the school.

Processes of Cultural Transformation

The culture of a school is an expression of the shared values and norms of the school community. This review of the literature has indicated the importance of the prevailing state of a school's culture to the effectiveness of that school in facilitating student learning. It has also suggested that the development of the school as it adapts to an ever changing external environment requires positive transformation of the

culture. School culture was presented as being dynamic and the maintenance of the equilibrium within the prevailing culture occurred through social processes in which teachers exchanged and shared their values and norms. It is proposed that these social processes which shaped and maintain the prevailing culture, also provide the means by which it undergoes transformation. Investigating cultural transformation requires that these processes to be identified and examined.

Delineating the interactive processes within the culture from the values which support engagement in these process and the results of this engagement is potentially difficult. The processes themselves are representative of the culture. Stoll and Mortimer (1995) addressed this issue by describing the culture of a school as a series of 'facilitating conditions' which were expected to make it educationally effective. These facilitating conditions were a combination of processes and shared value systems. The following discussion is based upon this approach and utilises the findings of literature on school effectiveness and improvement. Initially, the notions of collaboration, shared visions, school-wide planning, collegiality, mutual empowerment and teachers being learners are examined. It then explores the interaction between teacher knowledge, teacher beliefs and school leadership with school culture.

Collaboration within a school is intended to facilitate the sharing of knowledge, wisdom and counsel amongst colleagues (Regan, 1992). Regan also suggested that collaboration increases productivity, develops expertise, leads to more positive interpersonal relationships, develops cohesion and enhances self esteem. Southworth (1993), described the culture of collaboration, a school culture which enables staff to

work more closely together. Such a culture rests on the beliefs of valuing individuals, fostering and valuing groups, developing a sense of mutual security and fostering openness amongst staff (Southworth, 1993). Fullan proposed that there was a need for principals to develop collaborative school cultures which are characterised by co-operation so that staff and not just the principal control the development and implementation of innovations (Fullan, 1992). Collaborative practices are a means of enabling the teacher to receive and give ideas and assistance in a process of teacher learning (Fullan, Bennett and Rolheiser-Bennett, 1990). Collaboration allows teachers and the various groups operating in the school community to be used for policy making, planning, resource allocation and evaluation (Marsh, 1990; Marshall, 1993).

One outcome of collaboration between all the staff of a school is that visions for the future development of the school are shared, thus producing a schoolwide sense of ownership (Southworth, 1993). Values that are shared unite the school community, create the community's vision and provide everyone with a common sense of purpose (Sergiovanni, 1992; Fullan 1992). This can be contrasted with a school in which the leader creates the vision, in such situations it is the leader who is followed, not the vision (Sergiovanni, 1992). Fullan refers to shared purpose as vision, mission, goals, objectives and unity of purpose, making the comment that these are not static and are continuously in interaction with other determinants of school improvement (Fullan, 1990). Moore suggested that when sufficient numbers of a school staff have a belief that a particular school policy will broaden and not constrict their professional activities, a critical mass of visionary leadership is formed which is essential for the occurrence of change or restructuring (Moore, 1987). The findings of Miles and

Lewis showed that successful improvement in schools was guided by broad, ennobling, passionate images of what the school should become (Miles and Lewis, 1990).

Collaboration is also important in ensuring that planning processes are school-wide. School-wide planning allows administrators and teachers to transform common concerns into specific achievement oriented development goals (Johnson, 1993). There is a need for organisational goals to be internalised, which requires that goal-setting should be highly participatory and ongoing so that teachers have an understanding and commitment to the resulting goals (Leithwood, Jantzi and Fernandez, 1993).

Collegiality describes the development and maintenance of interpersonal relationships between teachers. It can be contrasted with isolation, in which individual teachers spend the majority of work time in a one teacher one class situation and do not engage in integrated programmes or team activities with colleagues. There is often a need to provide more complex learning experiences for students and the experience and expertise of the individual teacher may be insufficient. In such instances several teachers are required to work as a team in the planning and delivery of an integrated programme of learning tasks (Dalin, Rolff and Kleekamp, 1993). Collegiality also promotes sharing, mutual assistance and joint efforts amongst teachers when working towards common goals (Fullan 1990). When conceptualising schools as communities rather than organisations, Sergiovanni considered that bonding between teachers in a collegial relationship is due to felt interdependencies, mutual obligations and other

emotional and normative ties (Sergiovanni, 1993). This can be compared with organisational collegiality, in which the composition of teams and the structuring of tasks are often imposed upon individuals by super-ordinates or the requirements of the organisation.

Teachers' perceptions of the influence of collaboration within the school on developing supportive, trusting and sharing interpersonal relationships and providing professional growth opportunities can strengthen their capacity beliefs (Leithwood, Jantzi and Fernandez, 1993). Lee (1991) discussed the need for sense-making in schools. Teachers need to be supported in the conscious articulation of their understanding of the teaching-learning process in the school, to make sense of their work. Karpol considered the need for teachers and principals to be mutually empowered and proposed that this was dependent on collaboration and shared decision-making (Karpol, 1990). The teacher characteristics of capacity beliefs, sense making and empowerment can be considered as part of, or even outcomes of the culture of a school. However their development may require more than the teacher's immersion in a collaborative school culture. The effective and meaningful participation of teachers in the culture of their school would be enhanced by teachers having an understanding of the concept of school culture and of the culture of their own school (Benjamin and Gard, 1993; Fullan, 1993; Maxwell and Thomas, 1991).

In order that a school should develop there is a necessity for its teachers themselves to be actively engaged in learning and for the total school community to be a learning community (Boyd and Hord, 1993; Fullan, 1993; Southworth, 1993). In a learning

consortium project concerned with school improvement, Fullan, Bennett and Rolheiser-Bennett (1990) produced a model which had as its centrepiece, the concept of teachers as learners. This concept included the aspects of technical repertoire, reflective practices, teachers as researchers and collaboration. They concluded that although these aspects could be considered as separate elements of the concept, there was a need for teachers to internalise all four and apply them continuously in their work.

A common finding of research into schools which were perceived as being successful or which had demonstrated a capacity for change and development, concerns the belief of teachers in their mission of educating students (Mitchell and Willower, 1992; Prestine, 1991; Regan 1992; Southworth, 1993). Fullan described this belief as the moral purpose of the individual educator and suggested that it concerns the enculturation of the young as well as the provision of access to knowledge (Fullan, 1993). He perceived teachers as agents of educational change and societal improvement. In a study of schools that had successfully restructured, Moore (1987) concluded that such schools valued students and there was a feeling of respect, safety and support for learning. The expression of these beliefs as curriculum goals is significant. Traditionally secondary schools have focussed on covering subject area content rather than on developing deep mastery of important ideas and intellectual skills (Prestine, 1991). In order that the latter may occur, teachers need to have the conviction that every child can learn (Regan 1992), value creativity (Moore, 1987), value student learning not grades (Mitchell, 1992), value student effort (Mitchell, 1992) and not place excessive emphasis on measurable educational outcomes

(Friedman, 1991). Another traditional belief of teachers is manifest in the predominance of teacher-centred instruction in schools (Cuban, 1987). Cuban suggested that the endurance of this practice is due to historical organisational constraints and the lack of control teachers have over the settings in which they work. Changing such firmly entrenched teacher beliefs is possible, but may take considerable time (Kenney and Butler, 1993). Effecting a change in teacher beliefs requires changing the culture of the school, because teacher beliefs do not exist in isolation, they influence and are influenced by other aspects of the culture of the school (Dalin, Rolff and Kleekamp, 1993).

The knowledge of teachers guides their behaviour and beliefs (Regan, 1992). Regan identified five categories of teacher knowledge that are relevant to the professional development of teachers. These are content knowledge, general pedagogical knowledge, curriculum knowledge, pedagogical content knowledge and knowledge of learners. Fullan (1993) emphasised the importance of teachers having a deep knowledge of pedagogy in order that they could influence the development of a professional culture in their schools. He also stressed the relationship between knowledge and empowerment. For teachers to be empowered members of the school community, they need a knowledge base which encompasses the professional community, education policy and subject area. Schmuck (1992) proposed the concept of clinical knowledge, knowledge which is holistic, created from practice and is the result of a cycle of experience, feedback, reflection and conceptualisation. The transformation of knowledge into action was investigated by Miles and Lewis (1990) who suggested that there are certain key issues concerning the nature of knowledge

and the attributes of those engaged in the transformation. The knowledge needs to have clarity, relevance and be able to be exemplified into identifiable actions. Also, practitioners need to have sufficient will or motivation and the skill or behavioural ability to apply the knowledge.

The conceptualisation of schools as communities not organisations, the use of cultural and not organisational models to describe their functioning, has changed the way in which school leadership needs to be conceptualised. In a study of school restructuring, Prestine (1991) identified a shift in the power relationships in schools. Power was shared throughout the school and not retained by the principal. The traditional bureaucratic power of the principal was replaced by the ability to support the restructuring process and develop collaborative relationships between the teachers. Karpol (1990) recognised a need for institutional empowerment in which conscious decisions were made about empowering teachers by delegating decision-making responsibilities. Fullan's (1993) conception of the distribution of power in school has moved even further away from the bureaucratic model. He suggested that if the concept of schools as learning organisations was fully realised the role of the principal as a leader would be unnecessary as leadership would be exercised by empowered teachers. Leithwood (1992) recognised a need for schools to be led by multiple leaders. Such leaders would be concerned with helping staff members develop and maintain a collaborative professional school culture, fostering teacher development and helping teachers solve problems more effectively. Such a leadership role is termed transformative.

Sergiovanni (1990) compared transactional leadership with transformational leadership. Transactional leadership embodies a leadership style based upon bartering. It initiates school improvement in accord with organisationally related objectives and has the effect of ensuring that the performance of all parties is consistent with the parameters set in the original bargaining process. Although the physical, security, social and ego needs of the followers are met, their involvement was pre-determined in a calculated manner consistent with the expectations of the leader. The transformational leadership model is based upon a leadership style which may be described, depending on the stage of school improvement, as building, bonding or banking. School improvement proceeds through three stages. Initially there is uncertainty, human potential is aroused, expectations are raised and both the leader and followers are motivated to higher levels of commitment and performance. This is followed by the transformative stage in which there is an elevation of organisational goals to a level at which there is a shared covenant, bonding between people and a moral commitment. The final stage is routinisation, the improvements have been turned into routines that are second nature to the leader and followers. Stoll and Fink (1996) considered the notion of transformational leadership to be 'more consistent with school improvement literature and its emphasis on process and school culture' (Stoll and Fink, 1996 p. 106).

The preceding discussion of cultural processes and the beliefs and values of teachers presents a complex, yet rich view of the phenomenon of school culture. The eight aspects of culture which were identified include collaboration, shared visions, school-wide planning, collegiality, mutual empowerment; teachers being learners, teacher

knowledge and beliefs and transformational leadership. The conceptions of school culture presented earlier in this chapter suggest these eight aspects are interactive and mutually dependent.

CONCLUSION

This chapter has examined the influence of the organisational management theories upon the way schools are organised and traditionally conceptualised. It has provided an alternative conception of the school based upon the notion of the school being a learning community in which the formal organisation of the school was re-conceptualised as school culture.

The following chapter discusses the development of theoretical frameworks to represent school culture and their application in the design of an empirical investigation of this phenomenon.

CHAPTER 3

THEORETICAL FRAMEWORKS AND THE DESIGN OF THE STUDY

OVERVIEW

This chapter is divided into two parts. The first part discusses how the information from the review of the literature was utilised in identifying and operationally defining the elements of a school culture conducive to school improvement. It then explains how these cultural elements were incorporated in a preliminary model to represent school culture. It also includes a second model which places school culture within an external environmental context. The second part discusses the design of an empirical investigation to validate the previously developed theoretical propositions. This includes examination of the case study and mixed method inquiry approaches and their capacity to provide reliable and valid data pertinent to the study.

INTRODUCTION

The literature review presented a wide range of conceptions about the organisation, improvement and culture of schools. Achieving the research objectives of the study

required that these be organised into a coherent structure to underpin the design of the investigation.

The findings from the previous research are supportive of the following assertions about school culture and school improvement:

- School culture and improvement programmes need to enhance the educative mission of schools;
- School improvement necessitates cultural change;
- The culture of a school is the result of interpersonal interaction between individuals and groups of teachers;
- School culture is a subjective phenomenon resulting from common perceptions within the school community;
- The culture of a school is characterised by common beliefs, attitudes and values of the school staff;
- There are external and internal influences on school culture which may be accommodated or resisted by the prevailing culture; and
- School culture is in a state of dynamic equilibrium.

The seven assertions guided the development of theoretical frameworks and the design of the empirical investigation.

PART 1: CONCEPTUAL FRAMEWORKS

Elements of School Culture

The school is a learning community with a culture that provides cohesion amongst individuals and groups and ensures commonality of intentions and actions. The literature review indicated that school culture developed and was maintained by interaction between members of the school staff. Examination of the processes by which personal, social and professional value systems were expressed was expected to provide a representation of the school culture. Alternatively, another view of school culture could be obtained by considering personal and group values and norms in isolation from the processes by which they are shared. Both representations require concurrent examination because the interactive processes result from a need to share the values and norms, are shaped by specific values and norms and lead to the development of new collective values and norms. Thus the elements of school culture need to include value systems, norms and also the processes by which these are expressed, exchanged and ameliorated.

School effectiveness and improvement literature was examined to identify elements of school culture which past research indicated were supportive of the educational purpose of schools. The study required that these elements be sufficiently discrete to facilitate independent investigation of the phenomena, but were collectively representative of a school culture conducive to improved educational outcomes for students. Identification of cultural elements which met these two requirements was complicated by the somewhat divergent nature of previous research on school effectiveness, improvement and culture. This lack of integration was compounded by

the use of common terminology in different contexts. The meaning ascribed to specific terms was inconsistent and varied between different studies which tended to focus on individual constructs.

The literature was searched for terms and constructs which appeared to be examples of value systems and cultural processes which related to improving student learning. For each individual source of information, a list was made of the key terms and constructs. Although there were inconsistencies across different sources, there was evidence of recurrent propositions about aspects of school culture and school effectiveness. These propositions were analysed and distilled into a preliminary list of cultural constructs or elements. This list of potential cultural elements provided a structure for re-examination of the literature. A matrix was generated to indicate the frequency of reference to each element across all of the individual sources of research evidence. This procedure provided confirmation of the significance of each element in the literature. During this process, the elements were also re-examined and refined to ensure that each represented a discrete cultural construct and was inclusive of a set of common sub-constructs. The cultural elements of collaboration, shared visions, school-wide planning, collegiality, mutual empowerment, teachers being learners, teacher knowledge and beliefs and transformational leadership were proposed as the components of school culture.

In developing the list of eight cultural elements, the inconsistencies and ambiguities of terminology within the literature had been accommodated but not resolved. This matter was addressed by operationally defining each of the elements. During this

exercise, 'teacher knowledge and beliefs' was redefined as 'professional values' and the previous ordering of the elements was re-arranged into a more logical sequence. The new sequence provided a progression of constructs moving from individual values through collective values to organisational values and ultimately to leadership. The revised order was professional values, teachers as learners, collegiality, mutual empowerment, collaboration, shared visions, school-wide planning and transformational leadership. The following operational definitions describe the eight elements and their respective sub-constructs.

Professional values concern the importance of the application of pedagogical principles and practices to effect changes in the development of children. These included recognition of the role of education in facilitating societal development, recognition of the need to enculturate students, a belief in the importance of educating children and a commitment to providing students with the skills necessary for future educational or vocational experiences. The construct of professional values also included teachers having the conviction that every child can learn, considering learning as a developmental process, valuing the creativity of students, and respecting the individual differences between students.

The notion of the school being a learning community requires that teachers perceive themselves are learners. **Teachers as learners** need to be committed to their own learning and professional growth. The dimensions of this construct included teachers being responsive to societal changes, perceiving the school as a learning community, recognising the importance of professional growth, having a knowledge of relevant

educational research, engaging in self reflection, being receptive to advice from colleagues, learning from students and experimenting with new teaching strategies.

Collegiality was defined as the interaction between individuals resulting from a need to maintain or develop inter-personal relationships. This construct included teachers accepting the need for interdependency, seeking the assistance of colleagues when faced with problems, supporting the cohesion of groups, understanding their obligations to colleagues, developing bonding with colleagues, being committed to maintaining personal relationships, respecting the different personalities of colleagues and helping each other meet individual needs.

The need for teachers to feel empowered was expressed through the construct of **mutual empowerment**, the deliberate motivation, affirmation and confirmation of the ability of colleagues to exercise professional judgements. This included teachers supporting the professional judgements of each other, expecting that colleagues will support their own professional judgements encouraging each other to make professional decisions, acknowledging the professional achievements of colleagues, encouraging the professional growth of colleagues, knowing the boundaries between individual and group necessitated decisions, having confidence to make decisions which may have consequences for colleagues and encouraging each other to accept responsibility for particular projects.

Collaboration was defined in terms of organisational behaviour, the interaction between teachers as a consequence of organisational needs. The dimensions of

collaboration included participation in meetings, contributing items for meeting agendas, engaging in debate during meetings, working together to implement the decisions of meetings, sharing knowledge of the structure and content of the curriculum, discussing teaching strategies, reaching common agreement on assessment procedures and developing common understandings about student management procedures.

Shared vision was defined as commonly developed, accepted and implemented expressions of the future direction of the school. The development of shared visions was proposed to include teachers contemplating personal visions of the school's future, discussing their own visions with colleagues, accepting that school visions need to be the result of consensus, developing common visions of the future direction of the school, understanding their own role in achieving school-wide visions, contributing to the implementation of school-wide visions, cooperating in the implementation of school-wide visions and reflecting upon the appropriateness of the current visions.

School-wide planning was defined as a process of cyclical school improvement in response to the needs of the school and the educational system. This process requires that teachers collectively consider the policy and regulatory requirements of the educational system, identify a set of comprehensive goals for the school, specify how the level of goal attainment can be gauged, collect relevant information on current school programmes and student achievement, make judgements about existing

programmes, decide upon strategies to improve current practices, implement new or modified programmes and evaluate the progress of innovations.

Transformational leaders were envisaged to share power and facilitate a school development process that engages the human potential and commitment of teachers. This construct included the leader sharing power and influence, obtaining support for school programmes by non-bureaucratic methods, encouraging others to accept leadership roles, supporting teachers and encouraging their professional growth, relating to teachers in a personalised manner, demonstrating respect for the self esteem and autonomy of teachers, generating a personal commitment from teachers for school improvement activities and consolidating these improvements by maintaining support.

The eight cultural elements were considered to be the components of a school culture which would support improved student outcomes. From a school improvement perspective in which cultural transformation is paramount, these cultural elements represent aspects of the school which need to be the focus of an improvement programmes.

Cultural Elements Model of School Culture

Development of a preliminary model of school culture from the list of cultural elements required consideration of the relationships between the elements. Erikson (1987), portrayed school culture as being dynamic with new culture being continuously created. Maxwell and Thomas (1991), also emphasised the dynamic

nature of school culture and suggested that its elements were interactive. These conceptions influenced the development of the model presented in Figure 1.

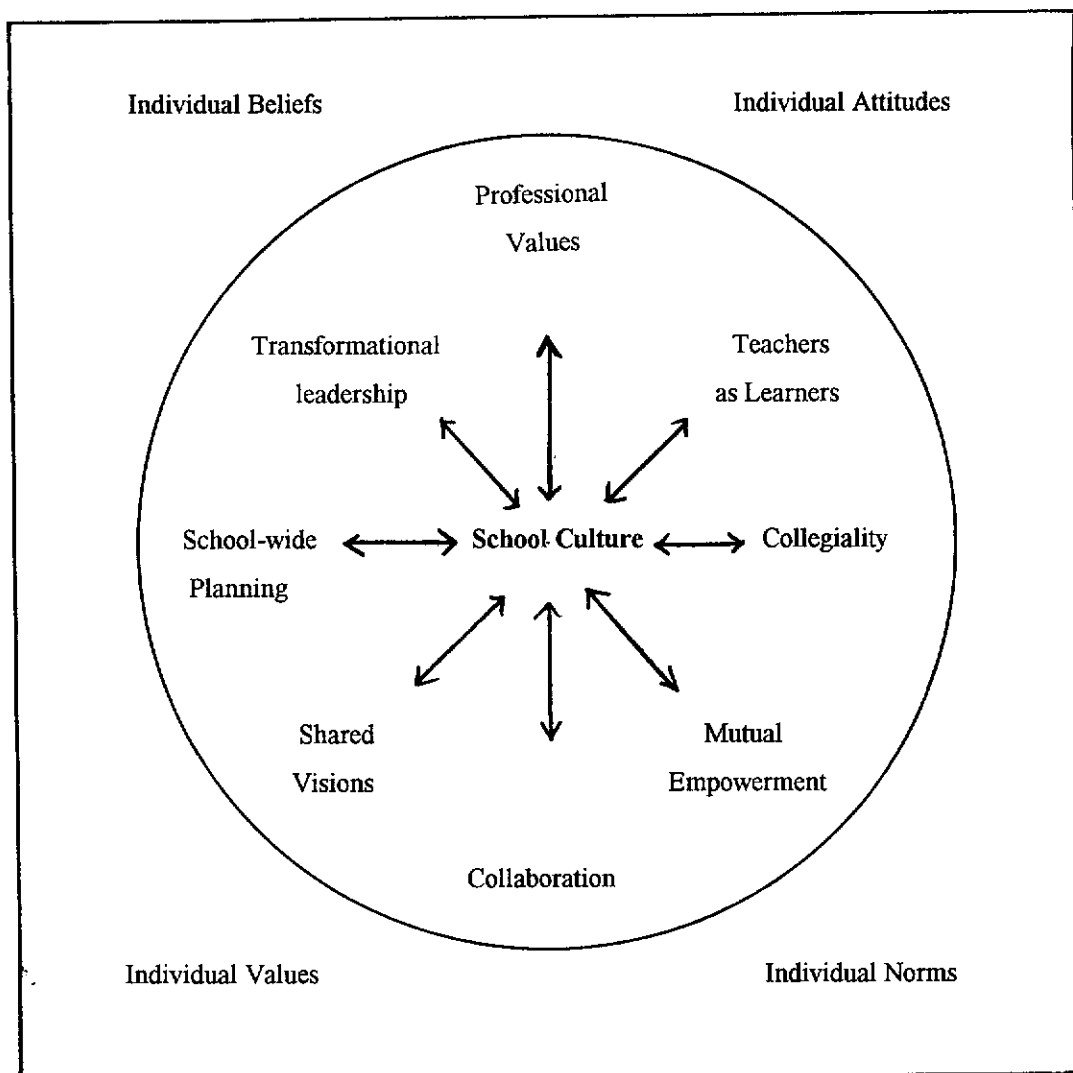


Figure 1. Cultural Elements Model of School Culture

The core construct of school culture is situated at the centre of the model. It is a unified entity characterised by the collective values and norms of the school staff. The cultural elements are the components of school culture. Each element describes a particular aspect of school culture and represents a discrete set of beliefs, values and

norms. The elements are descriptors of the prevailing culture which is characterised by the relative strength of the eight elements. Certain elements are also vehicles for cultural development. These describe mechanisms of social interaction through which teachers can express and exchange their individual beliefs and values leading to the formation of a common value system and norms. For example, through collaboration, teachers share information on their individual teaching programmes and instructional strategies which can lead to the development of common approaches to student learning throughout the school. The model portrays cultural development as a process in which disparate teacher beliefs, attitudes and values and norms coalesce and form the school's culture. Thus the model allows consideration of the state of the prevailing culture and also of the processes which develop school culture.

Another application of the model is in representing the dynamic nature of school culture. There is interaction between the core culture and individual dispositions of teachers. The elements can be considered as radial continuums between collectivity and individualism. It is assumed that fluctuations in the culture could be explained as movement along these continuums. The stability of the culture requires maintenance of a balance in these fluctuations in which weakening of certain elements would be compensated for by the strengthening others. It is envisaged that a stable school culture was in a state dynamic equilibrium.

A further application of the model is in explaining cultural growth and decline. In these instances it is envisaged that the equilibrium between the elements would not be maintained and a new culture formed. For cultural growth to occur, it is proposed that

an increase in the overall contribution of the eight elements to school culture is required. Increases in individual elements are not countered by a decrease in others and there is net improvement. The reverse situation occurs when a diminishing contribution from some elements is not countered by an increased contribution from others resulting in net degradation and cultural declination.

The Cultural Elements Model of School Culture can be used to examine the components of school culture and also its maintenance, growth and decline. Although it does not deny the possibility of pressures from outside of the school influencing culture, the model is focussed upon internal cultural characteristics and processes.

Contextual Model of School Culture

Maxwell and Thomas (1991), proposed that school culture was in interaction with an external temporal and socio-political environment. The Contextual Model of School Culture presented in Figure 2 places school culture within an overall macro-environmental context and suggests it is in interaction with the formal school organisation and the educational system.

The model differentiates between the cultural or informal aspects of the school and those which are characteristic of the formal organisation of the school. This distinction is comparable to the Getzels and Thelen (1960), conception of the school as a social system, the culture is the socio-psychological dimension and the organisation is the nomothetic dimension. The educational system is presented as a

separate entity on the assumption that at certain times, its intentions and operations may not be congruent with the culture or organisation of the school.

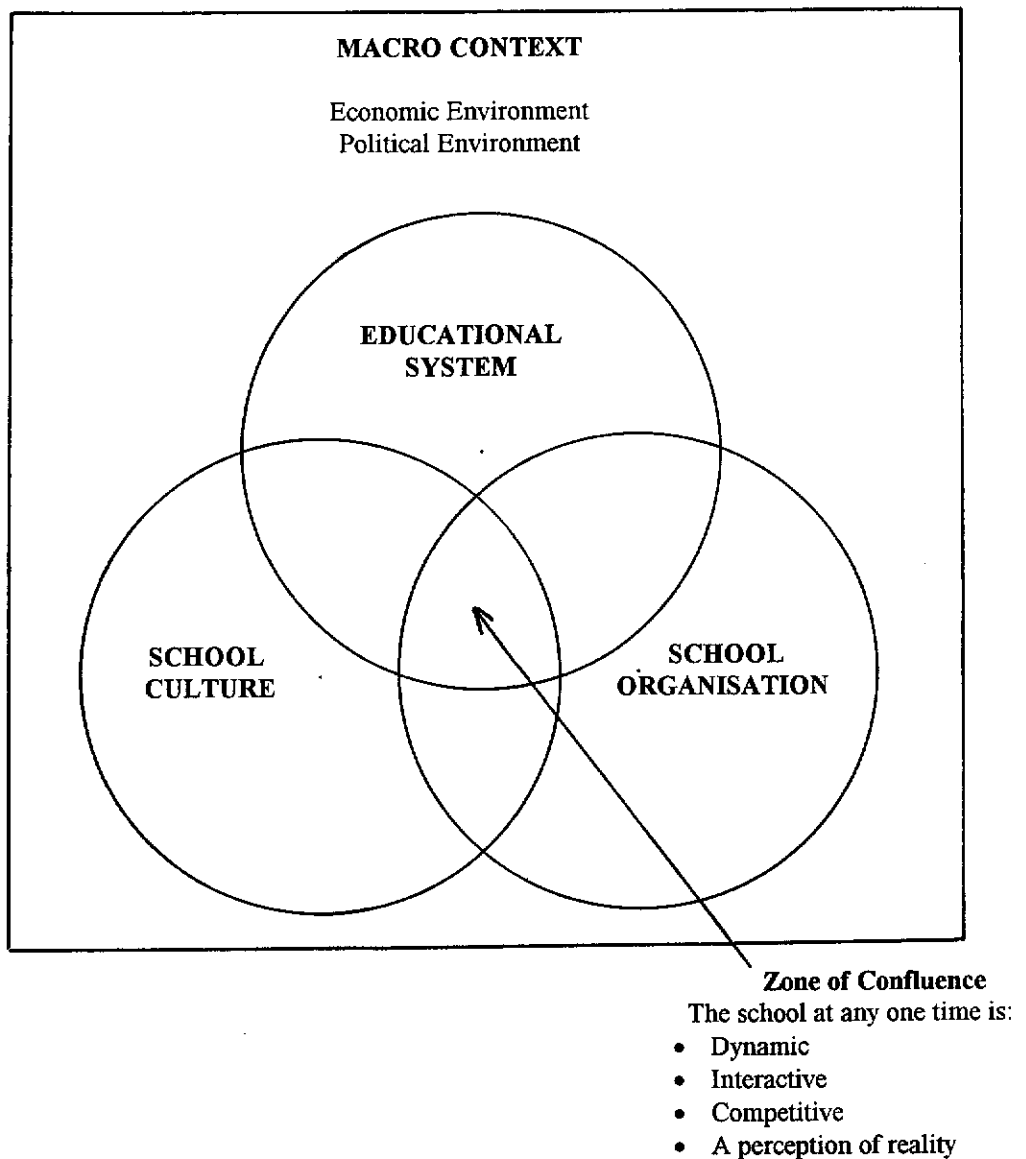


Figure 2. Contextual Model of School Culture.

The 'zone of confluence' in the model is the result of congruency between the school culture, school organisation and educational system. This zone is a representation of the school inclusive of its interpersonal and organisational features and also of its role

as part of an overall educational system. In this regard, the school is characterised by interaction and competition between these three influences. The school is dynamic as a result of changes in the relative level of influence of the three dimensions.

The final proposition embodied in the model concerns the objectivity and subjectivity associated with examining and describing the components of the model. It assumes the value systems of individuals and groups will influence their perceptions of the school and its contexts. This assumption has implications for the study of school culture and its contextual influences. For example, personnel at different levels within a school's organisational hierarchy may differ in their perceptions of the impact of new programmes on the staff of the school.

The two models provided preliminary theoretical representations of the nature of school culture and its environmental context developed from the literature on school culture, effectiveness and improvement. The second part of the chapter will discuss the issues associated with collecting data to test the validity of the models and further explore the phenomenon of school culture.

PART 2: THE EMPIRICAL INVESTIGATION

The development of the models was a precursor to the design of the empirical investigation. The models encapsulated a variety of theoretical propositions about the nature of school culture which required consideration in the selection of data collection methods. The Cultural Elements Model of School Culture was amenable to quantitative investigation. The notion of the eight elements being descriptors of

school culture could be investigated by measuring the extent of the eight elements within schools. Investigation of the dynamic nature of school culture and its interaction with contextual factors and school culture was more complex and required an exploratory approach in the collection of data. Imposition of the structure required in a quantitative inquiry was likely to be a constraint in providing data which would adequately describe the complexity of contextual influences upon school culture. For these reasons, the empirical investigation needed to include a combination of quantitative and qualitative data collection methods.

Research Approaches

The choice of an appropriate research strategy is dependent on the nature of the phenomenon being investigated. Yin (1989), described a variety of research strategies and the situations in which they should be applied. In particular, Yin defined the case study strategy as 'an empirical inquiry that: investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used (Yin, 1989 p.23). The temporal and contextual nature of school culture is typical of the phenomena for which Yin (1989), recommended use of the case study strategy.

Greene, Caracelli and Graham (1989), developed a conceptual framework for mixed-method inquiries and proposed classification of these approaches as being either triangulation, complementarity, development, initiation or expansion. Their framework was based upon an empirical study of 57 mixed-method examinations of educational programmes. They identified relevant design characteristics and on the

basis of their results, suggested how these could be successfully combined in any single approach. The purpose of the combination of methods chosen for this particular study was to use the results of implementation of the quantitative method in the design of the qualitative investigation. It was intended that the qualitative data could then be used to validate the quantitative findings and provide a more comprehensive description of the phenomenon under investigation. This is a developmental approach. According to Greene, Caracelli and Graham (1989) such an approach requires both methods be used to examine overlapping phenomena or different aspects of the same phenomenon, they have a similar paradigmatic framework, are given the same status, are interactive and are implemented sequentially. The research design of this study was based upon these five recommendations.

Phases of the Research Endeavour

The developmental nature of the study and the combination of quantitative and qualitative approaches necessitated the empirical investigation being conducted in two phases. Although the two phases were part of an overall research design and investigated a common phenomenon, each phase had a distinct methodology and each was essentially a separate investigation conducted sequentially.

The first phase of the investigation intended to produce quantitative data which could be utilised in validating and refining the Cultural Elements Model of School Culture. It was intended to develop a questionnaire with instrument scales based upon the eight cultural elements. The data from instrument administration in a sufficiently representative sample of schools was then to be subjected to exploratory factor

analysis to facilitate instrument refinement. The refined instrument scales were to provide the basis for further development of the cultural element constructs. This phase of the investigation also intended to concurrently provide valid and reliable quantitative data which could be utilised in describing school culture.

The second phase of the investigation intended to gather qualitative data through an interview programme. This was to be designed around the revised constructs and in consideration of the research objectives of the study which could not be adequately addressed by quantitative methods. The interview schedule, which was to be developed to provide data complementary to that from the first phase, also needed to be sufficiently flexible to allow exploration of emergent issues.

SUMMARY

This chapter presented the theoretical constructs and models developed from the review of the literature. This was followed by a brief discussion of the means by which data were to be obtained to achieve the objectives of the study and substantiate its theoretical propositions. The overall methodology was a combination of complementary quantitative and qualitative approaches which were designed in consideration of the need to provide reliable and valid data.

The following chapter is a detailed description of the quantitative phase of the empirical investigation.

CHAPTER 4

THE SCHOOL CULTURAL ELEMENTS QUESTIONNAIRE

OVERVIEW

This chapter describes the development and refinement of an instrument for measuring the culture of schools. This is followed by an examination of the results of its application in eight schools including profiling the cultures and sub-cultures of schools and examining their temporal stability.

PART 1: INSTRUMENTATION

The cultural elements model included eight elements and proposed that the prevailing culture was the result of the level of development of each individual element. It assumed that in different cultures or at different times in the same culture, there would be a variation in these levels of development. One means of confirming this assumption was to measure the levels and engage in quantitative comparisons. This phase of the investigation centred upon the development of a survey instrument which could measure the extent of each element in schools and sub-systems.

The use of a quantitative approach was also intended to provide a broad representative view of the phenomenon across secondary schools and to also facilitate

statistical examination of the cultural growth model. This phase of the study was followed by case studies of two schools in which there was a combination of quantitative and qualitative research strategies. This required the development of an instrument which was both reliable and valid in providing quantitative data which could be considered in conjunction with qualitative data.

Instrument Development

Survey instruments had been used over many years in the investigation of school climate factors and provided a reliable means of collecting data from a large sample of schools and teachers. Although, as has been previously discussed in Chapter 2, there are significant differences between the concepts of school climate and school culture, climate instruments have proven to be capable of measuring some cultural aspects of the school.

During the preliminary stages of this study, the applicability of school climate instruments in measuring school culture was investigated. The limitation of these instruments for this purpose appeared to be a consequence of the content of their conceptual frameworks and not the procedures by which the instruments were designed, developed and administered. The climate instruments were developed from conceptual frameworks structurally similar to the Cultural Elements Model of School Culture and which also assumed the presence of relatively discrete variables. There was a need for a new instrument which focussed on only the cultural aspects of schools, but which incorporated the design features of the climate instruments

The School Cultural Elements Questionnaire (SCEQ) was developed in collaboration with the researchers who developed the School Organisational Climate Questionnaire (Dellar, 1990; Dellar and Giddings, 1991). The utility of this climate instrument, and specific classroom environment questionnaires developed by these researchers, was a consequence of the scale structuring and a simple system for respondents to profile their responses. These features were included in the SCEQ.

The definitions of the eight cultural elements of the Cultural Elements Model of School Culture presented in the previous chapter, were used to write specific descriptors of teacher behaviour or beliefs which exemplified each construct. These were the instrument scales from which questionnaire items were developed. There were eight items in each scale making a total of 64 items. The number of descriptors for each element was a consequence of the need to comprehensively define each element. As the descriptors were being developed it was considered that six could do this adequately. A further two were included on the assumption that subsequent statistical analysis of the questionnaire data could indicate that some items were not reliable and would need to be deleted. Another consideration was the structuring of the self scoring device, having the same number of items for each element made it easier for respondents to process their own data. The operational definitions and instrument scales are presented in Appendix 1 (School Cultural Elements Questionnaire Scales).

Questionnaire items were written and developed in collaboration with two researchers experienced in school climate instrument development (Dellar and Giddings, 1991).

Half the items were written in a negative form. The trial items were given to 16 teachers in one senior high school who commented on the appropriateness of the vocabulary, syntax and inter-item independence. Following revision, a trial instrument was administered in four schools to a combined sample of 50 teachers. The responses were entered into a computer statistical programme, SPSS (SPSS Inc., 1993), and the scales were subjected to statistical analysis of reliability. The results of the analysis of the trial administration data are presented in Table 1.

Analysis of the trial data revealed that the collegiality, teachers as learners, professional values and transformational leadership scales were not sufficiently reliable. One item from each of the collegiality and teachers as learners scales was reworded.

Table 1. Trial Reliability of the SCEQ Scales

Scale	Internal Reliability of Scales (Cronbach Alpha) (n = 50)
1. Professional Values	0.28
2. Teachers as Learners	0.37
3. Collegiality	0.54
4. Mutual Empowerment	0.64
5. Collaboration	0.63
6. Shared visions	0.71
7. School-wide Planning	0.82
8. Transformational Leadership	0.52

Seven of the professional values items and all of the transformational leadership items were re-worded. These modifications were made with the assistance of respondents from the trial administration. Three of the trial teachers were asked for detailed comments on the instrument and they were able to identify problems in the wording of specific items and inconsistencies in the scales. The revised items were developed during discussion with these teachers and were only considered appropriate when consensus was reached. Examples of revised questionnaire items which were typical of their respective scales are as follows:

Scale	Sample Item
• Professional Values	‘We believe that every child can learn’;
• Teachers as Learners	‘Teachers learn from each other’;
• Collegiality	‘Teachers do not have respect for the personal qualities of colleagues’;
• Mutual Empowerment	‘I always praise colleagues who have done something special at school’;
• Collaboration	‘We frequently discuss what should be taught in particular curricula or courses’;
• Shared visions	‘We talk amongst each other about the future direction of the school’;
• School-wide Planning	‘We have identified ways of determining if school priorities are achieved’; and
• Transformational Leadership	‘The school administration does not encourage others to take control of new projects’

The revised instrument was then administered to 68 teachers from one senior high school. The results of the analysis of the data is presented in Table 2. The statistical analysis of the data including determination of inter-scale correlation coefficients (Spearman) from the second trial revealed that the reliability of the scales had generally been improved and that the scales were relatively independent of one another.

Table 2. Reliability and Inter-scale Correlations of the SCEQ for Woodview SHS

Scale	Internal Reliability of Scales (Cronbach Alpha) (n = 68)	Range of Correlations with other Scales (Spearman) (n = 68)
1. Professional values	0.71	0.12 -0.50
2. Teachers as Learners	0.68	0.19 - 0.59
3. Collegiality	0.63	0.15 -0.632
4. Mutual Empowerment	0.67	0.24 - 0.61
5. Collaboration	0.75	0.25 - 0.63
6. Shared visions	0.61	0.32 - 0.69
7. School-wide Planning	0.72	0.32 - 0.69
8. Transformational Leadership	0.57	0.12 - 0.45

The relatively high inter-scale correlations also requires explanation. Although the instrument scales were developed to be independent of each other, higher inter-scale correlations were indicative of commonality between the respective scales. This finding is consistent with the theoretical model upon which the instrument was based. A well developed school culture would be high in all eight elements and all the elements would interdependent upon each other.

Following the trial of the revised instrument with a relatively small sample, the instrument was considered sufficiently well developed to warrant further testing with a much larger sample. The complete revised instrument is presented in Appendix 2 (School Cultural Elements Questionnaire).

Sampling and Data Collection

The instrument was administered to 422 teachers in six senior high schools and two primary schools over a period of eight months. The primary school sample was included to test the applicability of the SCEQ in elementary school settings and to facilitate comparisons with the secondary schools. Deciding upon selection criteria for the choice of the eight schools was difficult. Information on student academic performance and local community socio-economic factors was readily available but was not considered as being relevant to school culture as defined in this study. Another approach was to assume that the choice of teachers to join a particular school may have been related to cultural aspects of the chosen school. The Western Australian Education Department is geographically large and utilised a centralised state-wide transfer processes to appoint teachers to specific schools. In applying for transfer or appointment, teachers needed to nominate preferred regions of the state before nomination of individual schools. In general, the likelihood of a school staff being comprised of teachers with common school cultural expectations was remote. For these reasons the eight schools were chosen for geographic reasons. The population of Western Australia is predominantly located within the Perth metropolitan area as are the majority of schools. The sample of eight schools was representative of the geographic distribution of teachers and schools throughout the

educational system. Six of the schools were located in the Perth metropolitan region and two were located in large towns in geographically remote areas. Of the six Perth schools, three were from outer suburban semi-rural areas.

In seven of the schools the sample of teachers surveyed was all of the staff present on the day of administration. In the other school the instrument was distributed to staff and collected at a later date resulting in a sixty per cent response rate. In three schools, the instrument was re-administered eight months after the initial administration to a representative sample in excess of three quarters of the total staff.

Data Processing, Analysis and Representation

The instrument contained 64 items structured into eight scales and arranged in a cyclic pattern throughout the questionnaire. Respondents selected from a five point Likert scale with an 'uncertain' mid-point category and entered their responses directly onto the questionnaire sheets. Respondents were also requested to indicate their major teaching area within the school. Differentiation of data from individual schools was effected by coding during data entry. The data to be processed from each questionnaire comprised responses from the 64 items plus school name and teaching area. The raw data was entered into a computer statistical programme, SPSS (SPSS Inc., 1993), for processing and analysis.

The theoretical conceptualisation of school culture suggested that there would be certain commonalities and differences between the cultural perceptions of the individual teachers, between sub-systems and between schools. The level of

development of each cultural element within a school or sub-system was measured by calculating mean scores for each scale. The aggregation of data to produce sub-system and school-wide composite data could provide a misleading representation of the culture by screening out internal differences. For this reason the variation of scale data within each school sample and sub-sample needed to be considered in conjunction with the scale means. Consequently the variance as well as scale means, was calculated for each school sample and sub-sample on each of the eight scales. Another issue concerned the influence of each cultural element on the others. The theoretical model suggested the eight elements were not independent phenomena. Mean inter-scale Spearman correlation coefficients were accepted as being a measure of the degree of influence of one cultural element over the others and on the overall school culture. These were calculated for each school.

The issue of how to represent the results of the data analysis for each sample and sub-sample was resolved by generating radial graphs with a structure similar to the cultural elements model in Chapter 3. Figure 3 presents the Rockview SHS data in this format. Mean scores were calculated for each of the eight scales of the SCEQ for the school. The score is represented by the distance from the centre on each of the eight axes. This aspect of graphical representation was different from the cultural elements model which proposed that a well developed cultural element would be located close to the centre of the model. This issue will be addressed in a subsequent chapter in which the cultural elements model is further developed in the light of the empirical findings of the study.

The maximum possible score for each of the eight scales was 40 and the minimum possible score was eight. ANOVA single factor analysis of variance was calculated between data from different schools for each of the eight scales. In general, a difference of mean scale score of 2.5 or more had a probability value of less than 0.05. Accordingly the graph ranges have been set so that differences between scale means of the order of 2.5 are obvious. The labelling of each axis is according to the respective cultural elements.

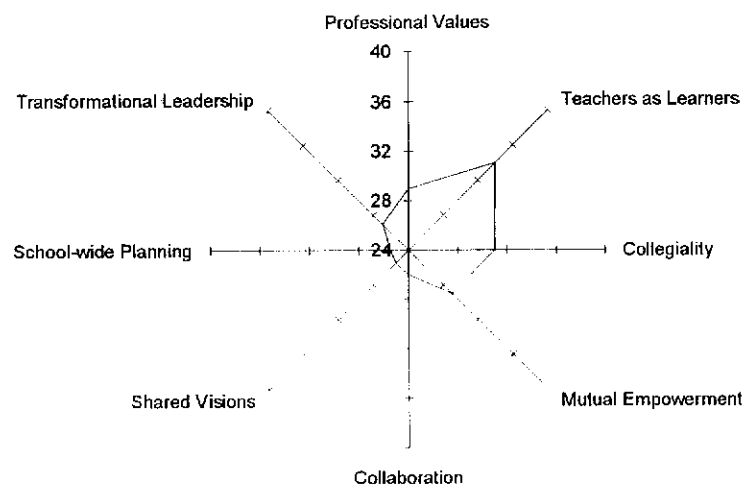


Figure 3. Culture of Rockview SHS

Instrument Evaluation

The reliability of the instrument was ascertained by calculating Cronbach Alpha reliability values for each scale and the relative independence of the scales by calculating inter-scale Spearman correlation coefficients for the total population surveyed. These are presented in Table 3.

The reliability and inter-scale correlation of the data from the eight schools and 422 teachers requires comment. The range of reliability values for the scales (0.62 - 0.70)

was considered a source of concern about the instrument scales, higher values would have been preferable. The range of inter-scale correlation values for the scales (0.29 - 0.67) could be explained as a consequence of commonality between the cultural elements and the presence of comprehensive cultures in the school.

Table 3. Reliability and Inter-scale Correlation of the SCEQ for Eight Schools

Scale	Internal Reliability of Scales (Cronbach Alpha) (n = 422)	Range of Correlations with other Scales (Spearman) (n = 422)
1. Professional Values	0.69	0.42 -0.51
2. Teachers as Learners	0.70	0.29 - 0.45
3. Collegiality	0.62	0.40 - 0.56
4. Mutual Empowerment	0.65	0.42 -0.56
5. Collaboration	0.69	0.35 - 0.57
6. Shared visions	0.67	0.38 - 0.67
7. School-wide Planning	0.65	0.31 - 0.67
8. Transformational Leadership	0.66	0.29- 0.56

At this stage of the investigation, with data available from 422 respondents, it was decided to utilise factor analysis to explore the data. There was a possibility that within the data there was an alternative structure of constructs which could be more reliable and valid.

Further Instrument Refinement

The data from the SCEQ were subjected to factor analysis utilising SPSS (SPSS, 1993). Exploratory procedures including generation of a correlation matrix for all 64 variables. A Bartlett test of sphericity and factor extraction followed by varimax

rotation provided evidence of the existence of five common factors. These five factors were examined and seven items were selected to represent each factor. The residual items were subjected to further exploratory analysis which produced a sixth factor. A more detailed explanation of the factor analysis including supplemental oblique rotations has been provided in Appendix 3. The reliability and range of inter-scale correlations of each of the six new instrument scales are presented in Table 4.

Table 4. Reliability and Inter-factor Correlations: Six Factor Structure

Scale	Internal Reliability of Scales (Cronbach Alpha) (n = 422)	Range of Correlations with other Scales (Spearman) (n = 422)
1.	0.71	0.28 - 0.53
2.	0.75	0.20 - 0.40
3.	0.72	0.25 - 0.55
4.	0.70	0.25 - 0.56
5.	0.81	0.28- 0.56
6.	0.74	0.24 -0.49

The reliability of the six new scales was higher than for the original eight and the range of inter-scale correlations were also improved. This six factor structure was considered as superior to the original eight element structure which necessitated reconsideration of the original eight constructs.

Refinement of Cultural Element Definitions

The six factors resulting from the factor analysis process needed to be redefined in consideration of the new instrument scales. Writing these definitions required

examination of the specific items which comprised the new instrument scales in conjunction with the conceptions of cultural improvement in the literature. The following definitions and construct names were produced.

Professional values concern the importance of the social institution of education and the need for school growth which is grounded on pedagogical principles.

An emphasis on learning produces a learning community in which there is a commitment to professional growth and improved outcomes for students.

Collegiality empowers teachers to exercise professional judgements through the development of supportive inter-personal relationships.

Collaboration is interaction between teachers in which information is shared on school operational matters including the instructional programme.

Shared planning is a collective process whereby a common vision of the school is actualised by logical planning.

Transformational leaders share power and facilitate a school development process that engages the human potential and commitment of teachers.

The further refinement of the instrument scales and the operational definitions had provided a means of measuring the culture of schools. The original SCEQ data were reprocessed using the six new scales and subsequently used in a quantitative

examination of the cultures of eight schools based upon the six revised cultural elements.

PART 2: QUANTITATIVE RESULTS

School Culture

Utilising descriptive statistics, the mean scores on the six scales and their variances were calculated for each of the eight schools.

Table 5. Scale Mean Scores for the Eight Schools

School	Type	Sample Size	Scale Means, Variance and LSD Test					
			Profess'l Values	Emph's on Lrng	Colleg'y	Collab'n	Shared Plan'g	Trans'l Ldrshp
1	Secondary	70	25.0	31.0	27.1	24.1	22.2	22.7
			20.8	11.1	16.3	25.9	22.8	16.3
2	Secondary	47	24.3	31.5	24.9	22.2	22.2	22.9
			21.2	6.5	23.9	30.0	24.3	29.1
3	Secondary	73	23.5	30.3	25.7	23.0	21.8	24.0
			24.77	6.5	14.7	16.7	23.4	25.5
4	Primary	14	27.1	32.7	28.2	25.0	25.6	27.6
			17.8	3.8	29.3	31.2	26.6	21.2
5	Secondary	41	25.8	30.8	26.5	23.7	23.0	25.0
			14.0	6.2	15.2	24.9	21.4	18.6
6	Secondary	85	24.8	29.9	27.0	24.5	24.1	26.4
			17.4	27.8	21.1	22.3	24.2	17.5
7	Secondary	70	23.9	30.1	26.4	24.1	22.1	23.4
			14.4	13.5	14.0	13.9	17.6	14.0
8	Primary	22	26.0	30.8	26.0	23.5	25.4	25.3
			13.9	9.2	11.8	23.6	25.1	18.0

The range of scores on each scale was from 5 to 35. Multiple range testing (Least Significant Difference Test) was also undertaken to identify schools which were significantly different at the 0.05 level for the six scales. Table 5 includes the type of

school, sample size, scale means and variance for each school. Significant differences between scales for schools as identified by the multiple range test are marked with an asterisk.

Four of the schools had statistically significant different cultures. School 1 had higher levels of professional values, emphasis on learning collegiality and collaboration. School 4 had higher levels on all eight scales. School 6 had higher levels of collegiality, collaboration, shared planning and transformational leadership. School 8 had higher levels of professional values, shared planning and transformational leadership.

Inter-scale correlation coefficients were also calculated for each of the eight schools for the scale data. The mean value of these inter-scale correlation coefficients are presented in Table 6.

Table 6. Mean Inter-scale Correlations for Eight Schools

School	Mean Inter-scale Correlations (Spearman)					
	Profess'l Values	Emph's on Lrng	Colleg'y	Collab'n	Shared Plan'g	Trans'l Ldrshp
1	0.40	0.32	0.44	0.40	0.48	0.29
2	0.45	0.12	0.41	0.39	0.44	0.48
3	0.55	0.39	0.40	0.46	0.49	0.45
4	0.74	0.58	0.71	0.76	0.87	0.84
5	0.54	0.34	0.53	0.51	0.58	0.35
6	0.58	0.46	0.55	0.59	0.52	0.56
7	0.53	0.31	0.43	0.47	0.59	0.42
8	0.71	0.38	0.69	0.64	0.64	0.66

The mean inter-scale correlations are an indication of the commonality between a particular scale and the other scales. High inter-scale correlation coefficients for the data from an individual school are evidence of the teachers within the school viewing a cultural element similarly to the other five elements. It is proposed that inter-scale correlation data provides a measure of teachers' perceptions about the commonality between different cultural elements . These data require consideration in conjunction with the scale mean scores for specific cultural elements in individual schools.

School 4 produced the highest mean inter-scale correlations across all elements and statistically significant higher scale mean scores. The teachers of this elementary school were unified in their perceptions of higher levels of presence of all the cultural elements in their school. Alternatively, Schools 1, 2 and 7 produced low mean inter-scale correlations and a high scale mean scores for the emphasis on learning element. It appears that although teachers perceived an emphasis on learning to be characteristic of their school, it was also perceived as being relatively independent of the other cultural elements. School 1 produced a low mean inter-scale correlation and a low scale mean score for transformational leadership. The teachers perceived transformational leadership to be uncharacteristic of their school and also relatively independent of the other cultural elements.

The emphasis on learning data requires further comment. The overall data from the eight schools revealed comparatively high scale mean scores for the emphasis on learning element in comparison to those of the other five elements. Also, the mean inter-scale correlation values for this elements were also generally lower in

comparison to those of the other elements. Although teachers perceived this to be a characteristic of their schools, it was also considered to be relatively independent of other aspects of their schools' culture. This finding may be indicative of schools' instructional programmes and the professional learning of teachers being perceived by teachers as important, but also relatively isolated from the other aspects of their schools which were measured by the SCEQ.

Six of the eight schools were senior high schools in which faculty based sub-cultures were likely to be important. The following analysis of the data for these schools examines faculty level differences.

Faculty Cultures

The data from the SCEQ for 40 secondary school faculties was processed and analysed to reveal differences between the forty different faculty samples in the six secondary schools for each of the six cultural elements. Scale mean scores and standard deviations were calculated for the data from each individual faculty. To identify faculties which produced statistically significant scale mean scores from other faculties for each cultural element, one way ANOVA analysis of variance with post-hoc multiple comparisons was undertaken. The post-hoc analysis utilised multiple range t-tests, least significant difference (LSD) test with a controlled overall error rate (Bonferroni). Table 7 presents the range of scale mean scores and standard deviations on the six SCEQ scales for the 40 faculties. This table also contains the number of faculties with statistically significant (0.05 level) scale mean scores for each of the cultural elements.

Table 7. Scale Mean Scores for 40 Secondary School Faculties

Cultural element	Range of Mean Scale Scores	Range of Standard Deviations	LSD Test Identification
Professional Values	20.8 - 28.0	0.19 - 7.5	21 faculties
Emphasis on Learning	25.3 - 34.0	0.71 - 7.5	28 faculties
Collegiality	15.0 - 21.3	0.96 - 6.7	38 faculties
Collaboration	19.0 - 29.0	1.7 - 3.1	22 faculties
Shared Planning	16.0 - 30.0	2.5 - 6.4	31 faculties
Transformational Leadership	13.0 - 31.7	1.4 - 6.1	39 faculties

The LSD test results presented in Table 7 revealed that approximately half of the 40 faculties were significantly different from the overall 40 for the cultural elements of professional values and collaboration.

Alternatively, collegiality and transformational leadership were significantly different for most of the faculties. The remaining elements of emphasis on learning and shared planning were significantly different for about three quarters of the faculties. The six factor model as expressed through the instrument data revealed that secondary school faculties varied considerably in their individual cultures.

School Culture Profiles

The results presented in the two preceding sections of this chapter were classified according to the six cultural elements. The notion of a school or faculty having its

own culture requires presentation of the quantitative data for specific schools. The three schools examined are those which were identified by the LSD test as being statistically significantly different from the others five. Figure 4 presents the scale mean scores for School 1 (pseudonym Woodview SHS), School 4 (pseudonym Dellview Primary) and School 6 (pseudonym Scottview SHS) from Table 5.

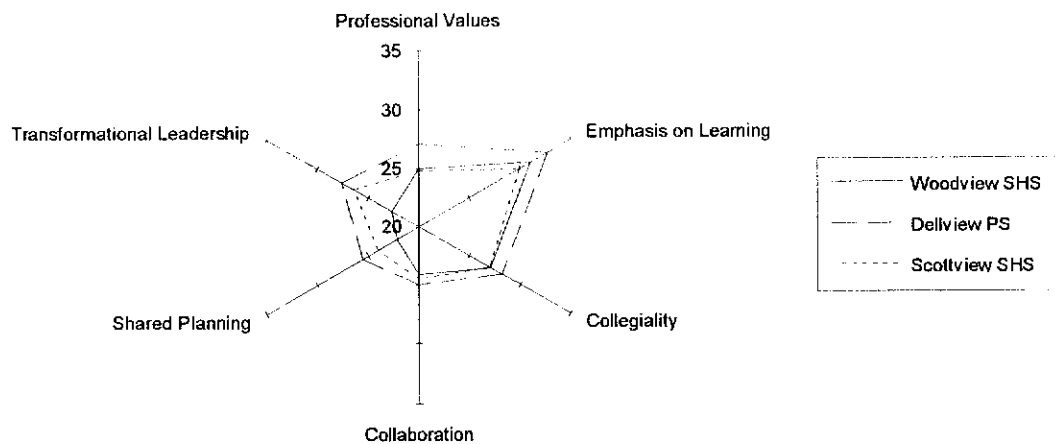


Figure 4. Comparison of School Culture Profiles

Dellview Primary had higher mean scores for all of the six cultural elements. The transformational leadership and shared planning elements for Scottview SHS was the major difference between the two secondary schools.

Figure 5 presents the mean inter-scale correlations for the same three schools. Dellview Primary had the highest mean inter-scale correlations for all of cultural elements. The teachers of this school perceived a high level of commonality between the six cultural elements. The values for Woodview SHS and Scottview SHS generally indicates a balance in the inter-relationships of five cultural elements within

the school's culture. The exception is the leadership element from Woodview SHS which was relatively low and indicative of teachers perceiving the school's leadership to be independent of the other cultural elements.

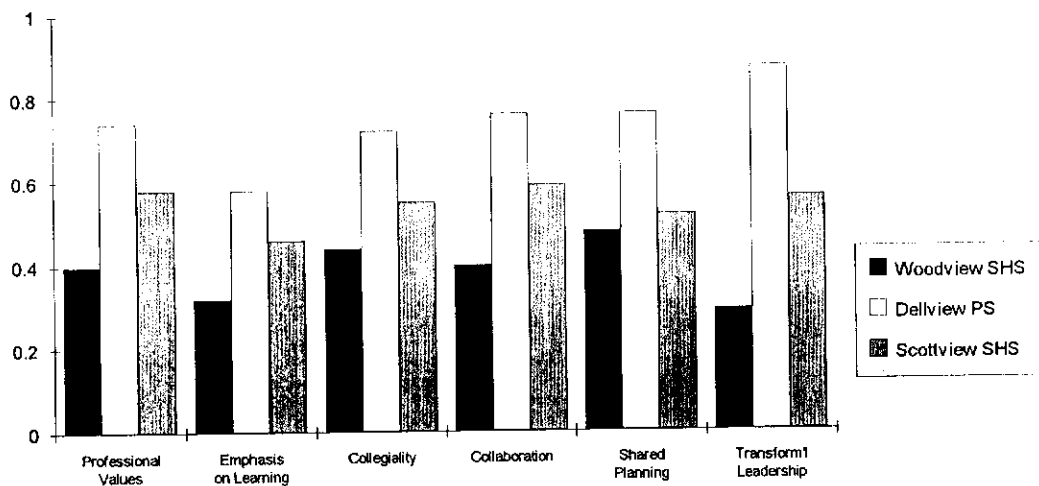


Figure 5. Comparison of Cultural Element Inter-relationships

Concurrent scrutiny of the scale mean scores and mean inter-scale correlations for the three schools has implications for the identification of aspects of these schools requiring targeting in school improvement programs. The relative levels of the scale mean scores and mean inter-scale correlation values can indicate aspects of school culture which could be further developed. For example, in this sample of three schools, Woodview SHS had comparatively low levels of shared planning and transformational leadership. Also, the transformational leadership element was perceived by teachers as being comparatively independent of the other elements. These findings suggest that according to the perceptions of the overall school staff, the activities of this school's leadership require examination and improvement.

The data from the other two schools is indicative of their teachers perceiving the cultural elements to be well developed and inter-related. Thus it is difficult to identify areas of improvement. From a school improvement perspective, the challenge for these schools is to maintain their existing cultures.

Faculty Culture Profiles

Presentation of the scale mean scores for particular school faculties provides a representation of their cultures. The following radial graphs present this data for three large faculties in two of the secondary schools. These are examples of the use of the cultural elements model and the instrument in profiling school sub-cultures.

These graphs illustrate the differences in secondary school sub-cultures. Faculties with low scale mean scores and a radial graph area which is small do not have well developed cultures. Apart from an emphasis on learning, Faculty 1 from Scottview SHS and Faculty 2 from Riverview SHS had scale mean scores of 21 or lower. Mean scores of this order were the result of an average 'uncertain' category response to the questionnaire items. These two faculties did not contain teachers with professional values and the engagement of their staff in interaction leading to collegiality, collaboration and shared planning was low.

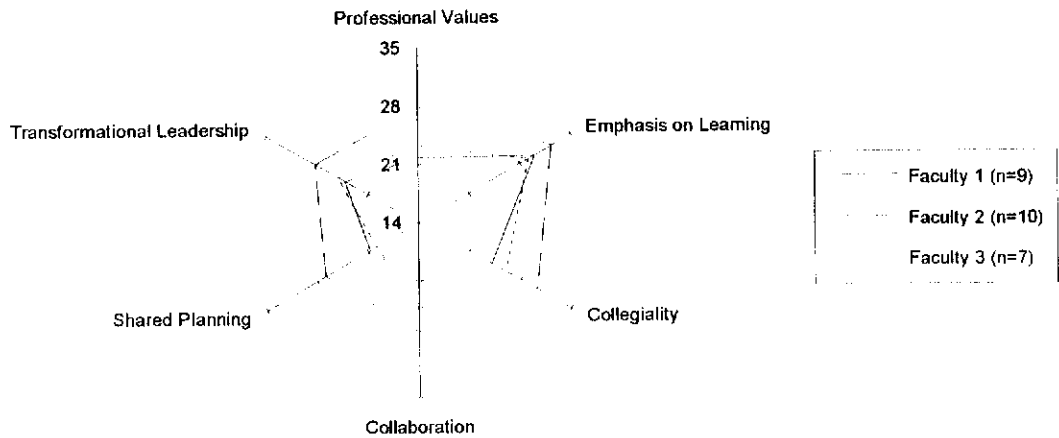


Figure 6. Scottview SHS Faculty Sub-Culture Profiles

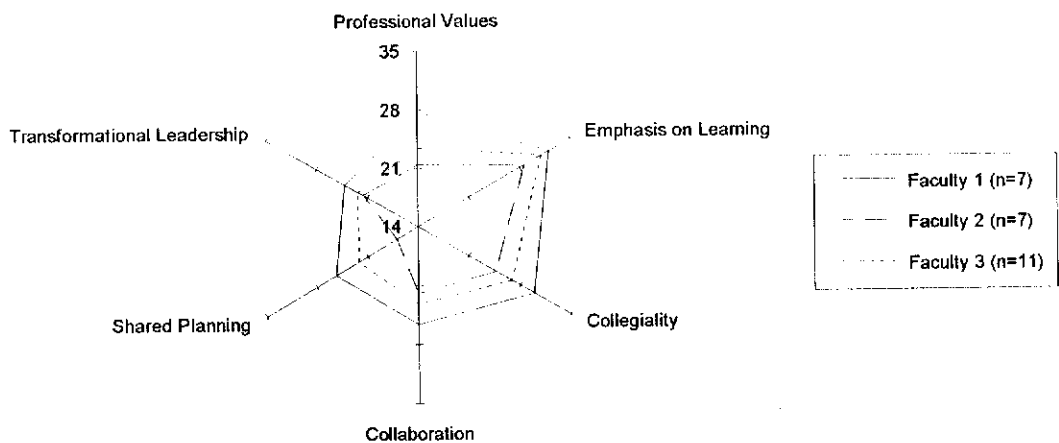


Figure 7. Riverview SHS Faculty Sub-Culture Profiles

The application of sub-culture data for school improvement requires comment. The faculties with under-developed cultures are likely to have a limited capability to support school-wide improvement programs. For example, low levels on the collegiality, collaboration and shared planning scales is indicative of a lack of cohesion amongst faculty members. This would be expected to reduce the capacity of the

faculty to respond in a coordinated manner to the demands of participation in new programs. School improvement programs in Scottview SHS and Riverview SHS are unlikely to be successful across the whole school because of the presence of a large faculty which is not unified. It is suggested that in these schools, development of the weak sub-cultures needs to precede overall school improvement.

Temporal Stability of School Culture

This section examines the results of SCEQ administration and re-administration in three secondary schools. Scale mean scores and mean inter-scale correlations for each school are utilised in an examination of the stability of overall school culture over a period of one year. Table 8 contains the results of single factor ANOVA analysis of variance in data from Woodview SHS obtained in 1995 and 1996. It includes the scale mean scores, standard deviations and levels of significance.

Table 8. Woodview SHS Scale Mean Scores for 1995 and 1996

Cultural Element	1995 Mean Scale Score (n = 70)	1996 Mean Scale Score (n = 47)	Level of Significance
Professional Values	25.00 4.6	25.26 3.9	0.75
Emphasis on Learning	31.04 3.3	30.72 2.1	0.56
Collegiality	27.14 4.0	26.75 3.6	0.59
Collaboration	24.09 5.1	23.85 3.0	0.79
Shared Planning	22.24 4.7	22.32 4.3	0.93
Transformational Leadership	22.73 4.0	24.19 3.4	0.04

The difference in sample sizes is due to different methods of instrument administration. In 1995, all the staff completed the survey during a meeting. In 1996 survey forms were distributed to staff for independent completion resulting in a response rate of approximately 75%.

Apart from the transformational leadership element, the similar scale mean scores and high significance levels are indicative of only minor changes in the culture of Woodview SHS over a one year period.

This result was confirmed by the results of inter-scale correlation analysis which gave a measure of the commonality between the six cultural elements and the influence of each upon the overall culture. Table 9 presents these results for the 1995 and 1996 data.

Table 9. Mean Inter-scale Correlations for Woodview SHS for 1995 and 1996

Cultural Element	1995 Mean Inter-scale Correlations (Spearman)	1996 Mean Inter-scale Correlations (Spearman)
Professional Values	0.40	0.45
Emphasis on Learning	0.32	0.28
Collegiality	0.44	0.40
Collaboration	0.40	0.49
Shared Planning	0.48	0.46
Transformational Leadership	0.29	0.31

Apart from the increased correlation for collaboration, the coefficients for the scales are relatively similar. The comparatively low values for emphasis on learning and transformational leadership were also consistent from year to year. The results presented in Tables 8 and 9 suggest that the culture of Woodview SHS was essentially the same in 1996 as it was in 1995. The only significant difference was that the teachers' perceived the school administration to be more transformative in the second year.

Table 10 presents the scale mean scores for Landview SHS in 1995 and 1996.

Table 10. Landview SHS Scale Mean Scores for 1995 and 1996

Cultural Element	1995 Mean Scale Score (n = 47)	1996 Mean Scale Score (n = 47)	Level of Significance
Professional Values	24.34 4.6	25.57 3.2	0.14
Emphasis on Learning	31.5 2.8	29.53 2.8	0.002
Collegiality	24.87 4.9	26.19 3.9	0.15
Collaboration	22.17 5.5	24.13 4.4	0.06
Shared Planning	22.17 4.9	23.57 4.7	0.16
Transformational Leadership	22.89 5.4	25.68 4.5	0.008

Apart from the emphasis on learning, there was an increase in the mean scores for all the scales. The increases in collaboration and transformational leadership were statistically significant.

Table 11 presents the mean inter-scale correlation values for Landview SHS in 1995 and 1996. The increases in all of the scales is indicative of the 1996 culture containing elements which are more closely linked to each other. Consideration of this finding in conjunction with the general increase in scale mean scores suggests that Landview SHS had undergone cultural growth from 1995 to 1996.

Table 11. Mean Inter-scale Correlations for Landview SHS for 1995 and 1996

Cultural Element	1995 Mean Inter-scale Correlations (Spearman)	1996 Mean Inter-scale Correlations (Spearman)
Professional Values	0.45	0.53
Emphasis on Learning	0.12	0.33
Collegiality	0.41	0.54
Collaboration	0.39	0.62
Shared Planning	0.44	0.61
Transformational Leadership	0.48	0.59

The decrease in the mean score for the emphasis on learning scale requires comment. It is possible that the overall growth in the culture has resulted in teachers reducing the attention given to the school's instructional programme and their own learning. The low correlation value for this scale in 1995 suggests that teacher and student learning existed in relative isolation from the other five cultural elements. The increased correlation in 1996 is supportive of the notion that although the emphasis on learning within the school decreased, it had become more integrated with other aspects of the culture.

Table 12 presents the scale mean scores for Rockview SHS for 1995 and 1996. During this period, the school's culture improved for the elements of professional values and transformational leadership. The fluctuations in the other four elements were not statistically significant indicating that these did not change.

Table 12. Rockview SHS Scale Mean Scores for 1995 and 1996

Cultural Element	1995 Mean Scale Score (n = 73)	1996 Mean Scale Score (n = 72)	Level of Significance
Professional Values	23.5 4.9	25.4 4.1	0.01
Emphasis on Learning	30.3 2.6	29.6 3.0	0.16
Collegiality	25.7 3.8	26.2 3.9	0.51
Collaboration	23.0 4.0	22.6 3.8	0.55
Shared Planning	21.8 4.8	22.3 4.2	0.52
Transformational Leadership	24.0 5.1	25.5 4.2	0.06

Table 13 presents the mean inter-scale correlation coefficients for Rockview SHS for 1995 and 1996. The changes in these values are not consistent, a mixture of stability, decreases and increases. Consideration of these values in conjunction with the mean scale score data suggests that the culture had improved and the different pattern of correlation values in 1996 is evidence of changing inter-relationships between the six elements.

Table 13. Mean Inter-scale Correlations for Rockview SHS for 1995 and 1996

Cultural Element	1995 Mean Inter-scale Correlations (Spearman)	1996 Mean Inter-scale Correlations (Spearman)
Professional Values	0.55	0.48
Emphasis on Learning	0.39	0.31
Collegiality	0.40	0.45
Collaboration	0.46	0.46
Shared Planning	0.49	0.49
Transformational Leadership	0.45	0.39

Temporal Stability of Faculty Culture

The aggregation of cultural data across an entire school has the potential to mask out differences between individual faculties. The variance between 1995 and 1996 data for faculties was examined by independent sample t-tests and application of Levene's test for equality of variance. Table 14 presents the mean scales scores for 1995 and 1996 data for five faculties at Woodview SHS. Although the school-wide data for Woodview SHS indicated that the overall school culture was stable, the data in Table 14 indicates that faculty cultures were more dynamic.

Consideration of the level of significance of the variance between the 1995 and 1996 data and also the differences in scale mean scores, enables identification of significant changes in faculties. However, the small sample size makes this data less reliable. The Woodview SHS faculties typically contain ten teachers.

**Table 14. Scale Mean Scores of Woodview SHS Faculties in 1995 and 1996
(1995 Scale Mean Scores, Scale 1996 Mean Score and Level of Significance)**

Cultural Element	Faculty	1	2	3	4	5
Professional Values		27.3	27.3	21.6	22.5	25.4
		26.0	21.8	25.3	26.7	26.1
		0.72	0.16	0.18	0.03	0.27
Emphasis on Learning		30.0	33.2	29.3	30.5	31.9
		28.8	30.5	30.3	30.0	31.1
		0.91	0.93	0.23	0.05	0.67
Collegiality		24.7	29.5	23.3	26.9	26.8
		25.5	26.5	25.7	27.9	27.3
		0.03	0.19	0.14	0.12	0.87
Collaboration		25.0	22.3	19.4	27.3	23.8
		24.8	23.3	20.8	27.0	24.6
		0.23	0.81	0.05	0.18	0.63
Shared Planning		23.3	22.2	16.0	22.2	22.5
		24.3	23.3	21.5	24.4	23.9
		0.47	0.24	0.96	0.69	0.30
Transformational Leadership		24.7	22.3	21.4	21.5	23.5
		25.3	23.3	23.2	24.7	24.3
		0.24	0.13	0.61	0.55	0.04

Tables 15 presents the faculty data for Landview SHS and Rockview SHS respectively. As was the case with the Woodview SHS faculty data, the size of the sample is critical for the reliability of the data. Landview SHS is a relatively small school and the faculties typically contain no more than 5 teachers. Similarly, although Rockview SHS is a large school and the faculties typically contain more than 10 teachers, the sample size is still too small to produce reliable data.

**Table 15. Scale Mean Scores of Landview SHS and Rockview SHS Faculties in 1995 and 1996
(1995 Mean Scale Scores, 1996 Mean Scale Score and Level of Significance)**

Landview SHS								
	Faculty	1	2	3	4	5		
Professional Values		25.0	26.2	22.0	24.9	20.4		
		25.4	25.7	25.0	25.5	24.8		
		0.72	0.26	1.00	0.12	0.32		
Emphasis on Learning		31.8	30.2	32.0	31.1	29.6		
		29.4	29.5	28.8	29.2	30.8		
		0.21	0.73	0.05	0.77	0.41		
Collegiality		26.8	27.7	26.8	20.1	21.4		
		25.6	27.5	23.8	26.0	25.5		
		0.99	0.63	0.70	0.91	0.001		
Collaboration		28.8	25.7	25.5	17.6	19.6		
		23.6	27.2	21.5	24.2	21.8		
		0.05	0.43	0.57	0.20	0.48		
Shared Planning		24.5	27.0	21.0	21.4	18.0		
		21.6	27.7	20.0	22.5	22.3		
		0.92	0.21	0.77	0.14	0.54		
Transformational Leadership		25.3	27.0	20.5	17.1	19.8		
		24.2	28.3	21.3	24.5	24.5		
		0.09	0.70	0.80	0.35	0.28		
Rockview SHS								
	Faculty	1	2	3	4	5	6	7
Professional Values		21.3	26.3	24.3	20.4	24.2	28.0	23.7
		23.1	24.7	24.3	27.0	23.0	27.0	25.0
		0.71	0.41	0.99	0.08	0.90	0.49	0.11
Emphasis on Learning		30.0	30.3	30.5	28.5	29.2	31.3	31.0
		31.1	27.5	30.3	29.7	27.6	31.7	30.0
		0.86	0.75	0.76	0.73	0.94	1.00	0.36
Collegiality		26.55	25.5	24.4	21.4	24.2	30.0	27.7
		23.5	26.1	26.6	25.3	24.6	28.0	28.0
		0.53	0.11	0.03	0.36	0.56	0.12	0.33
Collaboration		22.6	23.8	22.8	21.5	25.0	24.7	21.7
		21.5	22.4	21.6	21.9	24.2	27.0	21.6
		0.43	0.86	0.71	0.43	0.15	0.07	0.56
Shared Planning		17.9	23.5	22.8	20.1	22.4	26.0	21.8
		21.3	22.1	21.5	21.1	18.4	28.7	22.6
		0.67	0.57	0.80	0.58	0.26	0.04	0.58
Transformational Leadership		21.9	24.9	21.3	21.8	26.6	28.3	26.3
		24.5	24.2	23.4	23.3	28.6	27.0	27.2
		0.02	0.65	0.19	0.99	0.05	0.36	0.03

SUMMARY

This chapter has described the quantitative phase of the study which concentrated on the development and administration of a survey type instrument to measure the culture of schools. The results showed that the SCEQ could identify between the cultures of individual schools and faculties. The instrument was also capable of identifying changes in school culture over a period of one year.

The next chapter is concerned with the collection of qualitative data to supplement and corroborate the quantitative findings.

CHAPTER 5

QUALITATIVE INVESTIGATION

INTRODUCTION

This chapter describes the second phase of the investigation. It commences with an examination of the requirements of designing a case study investigation and leads on to a description of the development of an interview schedule based upon these requirements and the research objectives of the study. The second part of the chapter presents the results of interviewing a stratified sample of teachers at Woodview Senior High School and Landview Senior High School. Qualitative information was obtained on the characteristics, contextual influences and improvement of the cultures of these schools.

CASE STUDY APPROACH

Phase Two of the empirical investigation examined the culture of two secondary schools by interviewing teachers from four large faculties. The decision to focus this phase on two schools was based on the requirement for a manageable data collection process and the assumption that a well-designed study with carefully chosen multiple cases would provide reliable and valid data. Although the major purpose of

interviewing teachers was to obtain detailed descriptions of school and faculty cultures, the interviewing process was also intended to facilitate corroboration of the quantitative results and the validity of the instrument. Accordingly, the design of this phase of the study was based upon case study research design principles.

Yin (1989), identified four research design criteria for case studies and the phase of the study in which each is critical. The criteria were construct validity, internal validity, external validity and reliability. Construct validity was concerned with data collection and the use of multiple sources of evidence. Internal validity required addressing during data analysis to ensure that influences or causal relationships are well established. External validity is dependent upon the research design incorporating replication to facilitate generalisation. Reliability is achieved if subsequent investigations of the same phenomena produce the same results. The availability of complementary quantitative data for the case study phase of this investigation provided a supplementary means of meeting these requirements and also reduced the need for multiple qualitative strategies.

In particular, the investigation: collected quantitative and qualitative data based upon a common conceptual framework; repeated quantitative data collection after a one year interval; gathered qualitative data between the quantitative data collection events; collected data independently from three schools; compared the findings from the two schools; and compared the findings of the quantitative and qualitative investigations. This combined methodological approach and sequential data collection addressed three of Yin's four criteria, the exception being internal validity. The establishment of

influences or causal relationships between school culture and environmental influences relied upon consistencies within the qualitative data. During interviews, perceived relationships were solicited from respondents and the presence of common perceptions was accepted as being an indication of the existence of a relationship.

PART 1: DATA COLLECTION

Site Selection

Of the six senior high schools which had subject to quantitative investigation, three had provided longitudinal data from repeat administrations of the instrument. The quantitative data from these schools was more extensive than for the other three since it had been collected twice over a one year period. The case study type investigation required obtaining supplementary qualitative information and accordingly, two of these schools were selected for interviewing. It was considered that a two school sample would provide a sufficient amount of data for the investigation. Another consideration in this decision was the need for interviewing and data analysis procedures which were manageable and within the logistical parameters of the overall mixed-method investigation.

Woodview SHS is located in the Perth metropolitan area and Landview SHS in a remote town 2000 kilometres from Perth. The metropolitan school was considered as being typical of Perth schools in terms of the size, turn-over and experience of the staff. Alternatively, Landview SHS was characterised by a staff which was relatively inexperienced and an annual turn-over of about 40%. This school was typical of remote country schools in which lack of experience and continuity of staff could be

expected to produce a school culture markedly different from the more stable metropolitan schools.

Approximately one third of the teachers in the faculties of English, Mathematics, Science and Social Studies were interviewed in each school. This provided qualitative data on eight faculties. This stratified sample was considered sufficiently large and representative to provide reliable results. Another requirement was that the teachers interviewed were selected from the pool who had been in the school during both administrations of the SCEQ.

Interview Schedule Development

The development of the interview schedule was based upon the need for further investigation of aspects of school culture which were not quantifiable. Potential interview items were written in consideration of the subsidiary research questions of the study. Eight items were developed in a process which included trialing and rewriting.

The subsidiary research questions and the related interview items were:

- The significance of school-wide and faculty cultures within a school.:
Most of your life at school is spent within the faculty. Thinking back to last year, what can you tell me about how it was running then? How did this faculty fit in with what was happening around the rest of the school?
- The temporal stability of sub-system and overall school culture;
In what ways has the faculty changed since last year? In what ways has the school changed since last year?

- The relationship between the prevailing school culture and internally initiated changes:

It is likely that when a faculty decides to make some changes, the views and needs of people are important. Can you describe a faculty based change and the implications for how the teachers work together?
- The interaction between changes in the policies and regulations of the educational system and the culture of a school:

In recent times, the Education Department has produced a lot of new policies and programmes for schools. How have these impacted on the way teachers here work together?
- The effect of changes in the macro-political environment on the culture of a school:

The government has made some strong moves to change schools and the professional lives of teachers. How have these affected the way teachers here work together?
- The influence of school-wide and sub-system factors on cultural growth:

Are there any changes that you would like see occur in the way people get on with each other and work together at this school? What is preventing these changes from occurring?
- The conditions within a school which are perceived by teachers as being necessary for cultural transformation:

We were just discussing changing relationships between teachers. Can you think of any structures or processes within this school that may also be influential?
- The effect of teacher and school development activities on cultural growth:

In what ways have school and professional development activities had a lasting effect on the school? How do school and professional development activities need to be changed?

Interview Procedures

Although the results of the 1995 SCEQ administration was available for the schools and faculties in which interviewing was conducted, this information was not presented during interviewing. The reliability of the overall mixed method investigation required independent data collection procedures, it was considered that the interview data could have been compromised by the presentation of SCEQ data prior to or during interviews.

Prior to the interviewer asking the specific questions, the interviewee was provided with the operational definitions of the elements which were discussed to ensure commonality of meaning between the interviewer and interviewee. The cultural element terminology was continually used during interviewing and specific responses were collaboratively restructured to utilise the terms. For example the comment 'we are not taken notice of' was able to be extended into discussion of leadership and collaboration. Apart from being a test of the theoretical framework's capacity to represent what had happened within the school, this process facilitated comparison of data from different respondents. A further benefit in using the model in this way was in shifting the focus from comment on specific personalities to discussion of cultural processes.

Each interview was of approximately 40 minutes duration and was recorded by note taking and audio taping. Interviewees were assured of the confidentiality of their responses and their permission to tape the interviews was obtained.

Data Analysis

The tapes were played and the responses from each interviewee were summarised for each of the 12 interview items. The data were classified by faculty and school to allow comparisons of cultural perceptions. Analysis of the data from individual interviewees was structured around the three major research questions of the study and the associated subsidiary questions. This provided a common structure for comparing the data. The use of the cultural elements terminology during the interviews also facilitated comparisons between the data and was intended to provide a common framework for subsequent cross-phase data analysis in which the qualitative and quantitative data would be examined concurrently.

The first area of investigation concerned the nature and temporal stability of school and faculty cultures. The interviews were intended to provide descriptions of culture and cultural change in terms of the behaviour of teachers. Accordingly, data analysis was structured upon the cultural elements and their contribution to the culture.

The second area of investigation focussed on the environmental influences upon school culture as represented in the environmental context model. Analysis of the data relating to these was focussed upon identifying cause-effect relationships between environmental change and the prevailing culture. The interviewees were asked to identify examples of recent internally and externally initiated changes with which they were familiar. The interaction between these innovations and culture was examined by further questions about the effect of the prevailing culture in supporting or impeding implementation and whether or not participation in implementation had changed the

culture. Interviewing also sought examples of the impact of systemic and government policies on the school. In this instance attention was given to the cultural influences upon the level of implementation.

The third area of investigation examined school conditions and specific strategies which could influence cultural transformation. This required identification of cultural and organisational aspects of the school which were considered conducive or restrictive of positive cultural change. Data processing assumed respondents would identify specific common elements of their culture and the operations of the school which were influential on cultural growth. The relevance of professional and school development programmes to this process was also examined on the assumption that the data would include common perceptions.

PART 2: QUALITATIVE RESULTS

Case One: Woodview Senior High School

Woodview Senior High School is located in a semi-rural area in the Perth metropolitan area. In 1995 the school had 1100 students spread over five years of secondary schooling. The staff of 70 was organised around subject centred faculties. The staff turn-over from year to year is usually about 20% including an annual decrease of about 10% due to declining student enrolments. The students are from predominantly working class backgrounds and their academic level of performance is average for Western Australian secondary schools.

Document analysis and interviewing indicated that the extent of implementation of the Education Department's restructuring policies was varied. The participative decision-making policy was well implemented through the formation of a school council involving parents, faculty committees and cross-faculty committees concerned with school priorities. In 1995, teacher union bans on extra-curricular activities severely restricted the activity of these groups with some committees not meeting and others conducting short meetings. The school development planning and accountability policies were only partially implemented and not given a high priority by the school's administration.

School Culture

Positive comments about **professional values** were made from teachers in all the four faculties in which interviews were conducted. Professional values were perceived as being an important influence upon the motivation of teachers and their contribution to new programmes in the English faculty. In the Mathematics faculty, comments were made about it being 'characteristic of most of the staff' and 'an essential teacher attribute for working with the type of students in the school'. It was considered as being strong in the Science faculty and it was evidenced in the Social Studies faculty by the willingness of staff to assume extra responsibilities and leadership roles outside of the faculty.

Evidence was provided of an **emphasis on learning** within the school. Positive comments were made about the level of participation of teachers in school programmes focussing on improving the literacy of students and the utilisation of 'student centred' teaching strategies in the classroom. The engagement of some

teachers in tertiary study was also identified, although one interviewee expressed concern about colleagues' scepticism of her motives for undertaking a Masters Degree programme of study.

Collegiality was identified by all the interviewees as being well developed in their faculties and throughout the school. Although, within the English faculty, it was considered to be 'cliquey' with 'certain cohorts' having strong internal collegiality.

Collaboration was perceived as being characteristic of the Mathematics, Science and Social Studies faculties. The presence of the sub-groups in the English faculty and a lack of formal meetings were suggested as contributing factors to collaboration being 'informal'.

Shared planning was generally considered to be a weak feature of the school. Comments on shared planning included: 'our faculty should have been given more consideration'; 'shared visions, are these from the administration, when are they decided upon?'; 'we are isolated and let down by other parts of the school'; 'school-wide planning links are not there, only when required by the administration' and 'at times we are isolated'.

Transformational leadership was also generally considered lacking. Comments about leadership included; 'the leadership is not concerned with the rest of the school'; 'the leadership pulls rank'; 'transformational leadership in the school is lacking'; and 'we don't get a say in what happens'. These views of the non-

transformative style of the school leadership are consistent with the perceptions of a low level of shared planning in the school.

The overall findings of interviewing Woodview SHS teachers were that relatively high levels of professional values, an emphasis on learning, collegiality and collaboration were characteristic of their school culture. Alternatively, shared planning and transformational leadership were not identified as strong features.

Cultural Stability

The teachers interviewed were asked for their perceptions of changes in the culture of the school from 1995 to 1996. Of the teachers interviewed, only one considered there had been any changes. He considered that the administration appeared to have become 'more concerted, less divisive and apparently more united' than in the previous year. Comments from the other teachers about the extent of change were not specifically related to any particular aspects of the school's culture. These general statements included: 'possibly not changed'; 'nope'; 'same'; 'not to a large degree'; 'not particularly, not dramatic'; 'hasn't changed much'; 'no manifestation of improvement or regression'; and 'no'.

The inconsistent findings on leadership required further examination. The comments about the school leadership showed that the majority of interviewees considered it as being low in terms of transformative criteria. This negative perception may have overshadowed the interviewees' sensitivity to the possible changes. This matter was further investigated by interviewing five senior members of the staff and discussing the

data from the initial interviews. The second round interviews revealed that in 1995, there had been widespread dissatisfaction amongst the school's staff with the cohesion within the senior management team and its support of teachers. This situation had led to the formation of a committee of senior teachers which had recommended that the principal and three deputy principals needed to reconcile their personal differences and work together in the interests of the school. The interviewees suggested that the senior management team had taken heed of the recommendations and in 1996, appeared to be superficially more sensitive to the needs and opinions of the teaching staff.

Government Policy Initiatives and School Culture

The devolution policies and the resulting dispute between the teachers' union and the Education Department was identified by all the interviewees as an issue of consequence. In particular, two specific initiatives were viewed with concern. These were moves to replace a union negotiated salary and conditions award with individual contracts of employment and the requirement for teachers to undertake a proportion of their professional development out of school hours. These matters were complicated by some of the staff not being members of the union or not following union work bans, and differences in tenure. Some teachers were employed on a limited tenure basis as 'temporary teachers' whereas others were tenured and employed as 'permanent teachers'. These differences in unionism and tenure had the potential to influence the culture of Woodview SHS.

The interviewees were divided in their opinions of the impact of the government policies on the school. Concern about the effect of the policies on the school was

expressed: 'work place agreements will impact upon collegiality and collaboration'; 'collegiality within the faculty between union members and non-union members was down'; 'professional values were down, proving that in the past we had worked above and beyond what was required'; 'we do the bare minimum, professional values are down'; 'we resent being told we need professional development'; 'school-wide planning has decreased because we are reluctant to give more'; and 'professional development in our own time was voluntary, it is now enforced'. These views on the impact of the policies on the school can be compared with the views of other interviewees: 'nothing, we are strong'; 'we were not affected, we were cohesive'; 'there is collaboration and collegiality of resentment'; 'no overall effect, plenty of talk'; and 'no, previous initiatives have caused us to be school-goal centred'.

Education Department Initiatives and School Culture

Teachers were asked to comment on the impact of new Education Department policies and programmes on the school culture. The general response was that teachers at Woodview SHS were reluctant to gain a knowledge of, or implement recent systemic policy initiatives. Comments included: 'I am unaware of the policies, I trust the head of department to pass on such information'; 'student outcome statements, not happening, we are cynical'; 'no impact, holding back and waiting'; and 'cynical of top-down initiatives, for example student outcome statements'.

The situation in the English faculty was different. It had implemented the new outcomes based student assessment programme and had also been very supportive of an Education Department sponsored school-wide literacy programme. Interviewing revealed that these programmes were perceived as being capable of improving student

learning and were supported by the faculty's efficacious staff and its emphasis on learning. This faculty did not display the cynicism expressed in other faculties and the teachers interviewed were positive towards Education Department initiatives which had the potential to improve their instructional programmes.

School Initiated Innovations and Culture

The interaction between school level changes and culture was investigated by asking interviewees for an example of a recent school initiated innovation. This was followed by a second question concerned with the influence of the prevailing culture on implementation and whether or not the innovation changed the culture.

The English faculty teachers identified the development of faculty-wide programmes in theatre visitation, managing student behaviour and participatory faculty decision-making. The motivation for initiating the theatre visit programme was perceived by the interviewees as resulting from common efficacious beliefs amongst the teachers. Teachers considered that student attendance at theatrical productions and movies would enhance their enculturation and learning. The development of a faculty program for student behaviour management was driven by a common concern for a coordinated approach which would provide support for the individual teacher in the classroom. The success of classroom instructional programmes was being hampered by poorly behaved students and the inability of the individual teacher to control their behaviour. The cultural motivation for this programme centred upon the teachers' emphasis on improving student learning. The participatory decision-making initiative was a response to concerns about the lack of faculty-wide collaboration.

The successful implementation of these three innovations was initially dependent on the professional values of certain individuals and the presence of collegiality which provided the vehicle for gaining the support of colleagues. Continued implementation required coordination across the faculty through collaboration. When the interviewees were asked about the impact of these three new programmes on the culture of the faculty, comments were made about an improvement in collegiality and collaboration, a decrease in individualism.

The Mathematics faculty had recently undertaken a review of the allocation of students to the lower school mathematics classes and the revision of the programming and student assessment in specific upper school subjects. The impetus for changing the lower school mathematics centred common concerns about the workload of teachers working with the lower ability students. One interviewee suggested that maintenance of collegiality required 'equity' between workloads. The review led to the redistribution of students in a large number of classes requiring widespread collaboration between all the Mathematics staff. This change in the lower school was not perceived as producing any significant changes in the faculty culture. However, it was commented that it did cause 'minor polarisation' between the faculty leader and some of the teachers. The Mathematics head of department who had recently joined the school, was seen by the interviewees as being 'stronger', 'less collegiate' and 'more direct' than his predecessor. The influence of the faculty leadership upon the changes in the upper school subjects was different. His role in this process was perceived as being 'transformative', 'the boss empowered teachers' and a 'shared vision' of the upper school mathematics programme resulted. The interview

information on the progress of these two innovations within the Mathematics faculty suggests that this group of teachers have a culture which is supportive of change when common concerns emerge.

Interviewing teachers from the Science and Social Studies faculties failed to identify any substantial changes in their programmes and operations.

Faculty Cultures

Examination of the interview data for the Woodview SHS faculties centred upon three aspects of their cultures. These were the relative influences of the cultural elements, the stability of the faculty's culture and the relationship between the faculty's culture and the overall school culture. The following discussion will be structured upon each of the four faculties sequentially and will build upon the previously presented information.

Within the English faculty, professional values was considered to be strong and provided the motivation for committed work within individual classrooms. The teachers were not united in 1995 as evidenced by the comments about 'informal collaboration', 'cliquey collegiality' and 'individualism'. The English faculty is led by two heads of department, one of whom left the school at the end of 1995. The continuing head of department commented upon: 'a vast transformation in the relationship between the heads of department'; continuously high levels of collegiality and collaboration within the faculty'; and 'the presence of a shared vision for the faculty which is manifest in our practice'. When asked about changes in their faculty

since the previous year, the English faculty interviewees all commented upon increased levels of collegiality, collaboration and shared planning.

The change of leadership in the English faculty, and the role of a core of teachers as 'change agents' in supporting internally and externally initiated projects and changes to its decision-making processes, were significant features of this faculty. These factors facilitated strengthening the faculty culture and successful implementation of new projects. This faculty was also perceived as 'being in the vanguard of initiating school-wide projects', 'an integral part of school social activities' and 'structurally linked to school projects including student literacy'. The English faculty culture was portrayed as having high levels of all six cultural elements, undergoing cultural growth and as being a positive influence on the overall school culture.

The Mathematics faculty was characterised by high levels of professional values, collegiality and collaboration in 1995, but was not actively involved in school-wide programmes, 'we were isolated at times from the rest of the school'. In particular, the faculty leader was 'not concerned with the rest of the school' and the faculty was 'not at the front' of school programmes. The leadership change in this faculty was significant and was seen as 'tightening up on vision', 'increasing linkages to the rest of the school' and 'wanting involvement in what happens around the rest of the school'. However, the interviewees considered that in promoting the role of the faculty school-wide, the new leader had contributed to a decrease in collegiality and collaboration.

The Mathematics faculty appeared to have undergone internal cultural changes with some elements increasing and others decreasing. The role of the new leadership in the changes to faculty operations provides another perspective this matter. The support of the leader for changing the upper school mathematics programme was seen to support the development of a 'shared vision' within the faculty and as being 'transformative'. Although collegiality and collaboration were perceived as having decreased, these may have been compensated for by increases in shared planning and faculty transformational leadership. The faculty was undergoing a 'settling in period' during which the inter-personal relationships within the faculty and its cultural elements were re-adjusting due to personnel changes. The absence of a comprehensive shift in all the cultural elements could be considered as evidence of a faculty culture which was essentially cohesive and well balanced. When faced with a change of leadership and the need to undertake new programmes, this culture was able accommodate these pressures by establishing a new equilibrium between the cultural elements. It is proposed that this is an example of cultural 'maintenance' and not cultural growth.

The Science faculty interviewees identified professional values, collegiality, collaboration and faculty level transformational leadership as important elements of the faculty culture in 1995. There was a general opinion that changes in faculty personnel may have led to a decrease of collegiality, collaboration and faculty level shared planning in 1996. 'New staff have reduced the shared vision' and 'we are not going forward together like last year'. The faculty was perceived as being supportive of school policies but it was considered that their efforts in this area were not typical of other faculties and did not receive reciprocal support from the school

administration. The faculty had not embarked upon implementation of any substantial internally or externally initiated new programmes. In particular, the union dispute of 1995 was seen to have had a detrimental effect on the teachers' motivation to take on new projects; 'bitterness is still present', 'we are holding back and waiting' and 'we have more practical problems'.

The interviewees identified that their colleagues were still co-operating in matters related to the instructional programme and did not provide any specific examples a lack of unity or dis-harmony between colleagues. However, the absence of substantial new programmes and the level of cynicism expressed about other faculties and the educational system suggests that this faculty was currently not responding in a positive manner to external influences. It is proposed that this faculty was undergoing cultural 'retrogression', it was still internally cohesive, but was distancing itself from the rest of the school. The Woodview SHS Science faculty culture was still contributing to the overall school culture however this contribution appeared to be waning.

The interview data from the Social Studies faculty evidenced utilisation of collaborative procedures and delegation of responsibility for faculty operational procedures. There was no evidence of its members being divided on internal matters and the majority of them were strongly committed to school-wide programs. Three were year co-ordinators, actively involved in student pastoral care programmes and part of well organised team of student welfare staff. A fourth member co-ordinated the school's Academic Extension programme. The majority of the Social Studies staff,

including the two heads of department who were active members of the school's senior management team, had responsibilities of a school-wide nature. As a consequence, the cultural perceptions of this faculty were tempered by a whole-of-school orientation. The culture of this faculty is proposed as being 'articulated', it is strongly linked to other sub-cultures in the school which has made its own identity somewhat diffuse.

The preceding examination of four Woodview SHS faculty cultures can be considered in the light of the data on the overall school culture and its stability. The faculties all displayed cultural features consistent with the overall school culture. The stability of the school's culture over the period of investigation was also reflected in the faculty cultures which, with the exception of the English faculty, did not appear to be undergoing any major changes.

School Improvement

The notion of school improvement includes the proposition that cultural growth is necessary and this can be facilitated through teachers participating in school improvement programmes. The final series of interview questions focussed on aspects of the Woodview SHS culture which required changing, the impediments to the change process and the effectiveness of professional and school development activities in effecting school improvement.

The Woodview SHS interviewees were generally consistent in their preferences for increases in the levels of all the cultural elements with the exception of professional

values. They also produced consistent opinions on cultural impediments to change. The style of school leadership and a lack of shared planning were seen as the major issues. Comments included: 'more staff involvement needed'; 'staff do not make the decisions'; 'decisions are made without collaboration'; 'policies aren't followed or enforced'; 'decision-making is made in haste and isolation'; 'there is a lack of planning and organisation'; 'school-wide planning is not meaningful, not owned and not encouraged'; 'what are the school priorities?'; 'planning does not lead to integration'; 'lack of a real focus'; and 'the school is disjointed'.

The perceived organisational impediments were more varied. The need for temporary teachers to undergo an annual appraisal resulting in a numerical score was seen to produce tensions within faculties which damaged collegiality between staff. Budgeting and financial allocation procedures drew criticism of inequities due to monies not being allocated to identified areas of priority. The staff allocation procedures were also criticised for similar reasons. A general lack of discussion in school staff meetings and the small proportion of time spent discussing school matters in these meetings was also identified as an impediment to change. Apart from the temporary teacher appraisal issue, all the other perceived organisational impediments were within the control of the school. There was an absence of expressions of concern about students, parents or systemic issues including staffing and financial allocation to the school.

Teachers were asked about the effect of professional and school development activities on Woodview SHS. Five of the interviewees were highly critical of previous

school development activities. Comments included; 'poor record, the last ten were ad hoc'; 'waste of time, heard it before'; 'generally no effect'; 'have not made any real difference'; and 'can't remember what we did'. Other teachers identified specific aspects of school development activities which were considered effective. The most favourable comments were made about activities which provided teachers with knowledge or skills for use in the classroom. These included learning about drug abuse, in-servicing on a school-wide literacy programme and participating in a 'student centred learning' project. Other comments were on the success of activities which increased the bonding amongst teachers and facilitated the development of shared visions amongst the staff. Several of the interviewees expressed support for a recently formed professional development committee which had been given responsibility for planning and conducting major staff development programmes in the school.

The final interview question solicited opinions of preferred objectives, organisation and presentation of professional and school development programmes. There was general consensus that teachers preferred professional development which had a practical orientation, was relevant to the classroom and focussed on students. Another common view was that there was a need for a certain amount of cross-faculty and whole of staff professional development which could focus on school-wide issues including planning, build up staff-wide collegiality, foster teamwork and encourage ownership of school-wide programmes. The organisation and presentation comments centred on the need for teachers to choose their own professional development

activities, high quality presentations and the involvement of teachers in planning and organising development programmes.

The Woodview SHS interviewees identified aspects of professional and school development programmes which would be expected to support cultural growth within their school. Their preference for instructional related programmes would be expected to be supportive of the staff having an emphasis on learning. The other cultural elements which would be encouraged if the teachers' preferences for development activities were implemented include collegiality, collaboration and shared planning.

This examination of school cultural improvement at Woodview SHS revealed that teachers' perceptions of previously successful professional and school development activities, and their preferences for future activities, were centred upon cultural aspects of the school.

Case Two: Landview Senior High School

Landview Senior High School is located in the North-west of the state about 2000 kilometres from Perth, the state capital. In 1995 the school had 600 students in Years Eight to Twelve and 50 teachers in subject centred faculties. The student population is multi-racial with a relatively high proportion of students of Aboriginal or Asian descent. The academic performance of the students is generally lower than in most Western Australian secondary schools. The annual turn-over of teaching staff is approximately 40% with the majority of replacement staff being graduate teachers. Of the total school staff, approximately 50% were in their first three years of teaching.

Staff welfare, support for inexperienced teachers who were isolated from their families and the professional networks available in Perth was a major concern in the school. Another priority of the school was centred upon the needs of the student body. Considerable effort was made towards improving levels of literacy and the development of socially acceptable patterns of behaviour and interaction. The student body contained a significant number of students who displayed anti-social behaviour and disrupted classroom instruction and school activities. In 1995, the work of the principal and two deputy principals was dominated by disciplinary action directed at this group of students. The school administration was experiencing stress from this role and the requirements of their normal administrative duties.

School Culture

The interview findings on **professional values** at Landview SHS in 1995 were inconclusive. Only three interviewees commented upon this cultural element. Two of these teachers who were from the same faculty made positive comments, one from a different faculty suggested it was lacking in the school

An emphasis on learning was generally perceived as being characteristic of teachers at Landview SHS in 1995 by interviewees from three of the four faculties. The exception was the Social Studies faculty in which the professional growth of teachers was suggested as being low.

Collegiality was generally identified as an important aspect of the school's culture by interviewees from all four faculties, 'the turmoil brought people together'. However

this response was not uniform. Within the English faculty, one interviewee considered it to be restricted to 'small groups or pockets'. Collegiality within the Social Studies faculty was suggested by one teacher as being fragmented, 'a two to three split' and another stated that in 1995, 'it was a nightmare'.

Perceptions of **collaboration** were similar to those of collegiality. It was suggested as being widespread but not uniform. Positive comments included; 'we have effective meetings'; 'it allows us to vent our feelings'; and 'it is especially strong with graduates'. Again, the Social Studies faculty was the exception: 'no collaboration'; and 'minimal collaboration, the head of department directed the student assessment policy'.

Interview findings on **shared planning** indicated that it was essentially restricted to faculty level planning and short term goals. The high staff turn-over and problems with students were identified as a restriction on long term planning and visions; 'our shared vision was of survival, coping with violence'; and 'we attempt school-wide planning, but are just re-arranging the deck chairs'.

Perceptions of **transformational leadership** within the school were varied. Science faculty interviewees identified its presence and English faculty teachers commented: 'we were told what to do to a point'; 'not strong at the start but improved'; and 'it was there last year'. Another interviewee stated that 'the school was out of control and there was lots of imposed changes'.

The interview results from Landview SHS suggested that the culture of the school was characterised by varied levels of an emphasis on learning, collegiality and collaboration. Evidence of the presence of the other cultural elements was limited. In general, the variations in the interview data which were evident for the more prominent cultural elements is suggestive of an overall school culture in 1995 which was not well developed.

Cultural Stability

The majority of the Landview SHS interviewees commented on how the school had changed from 1995 to 1996. They identified higher levels of the cultural elements within their faculties and across the whole school. The faculty changes will be discussed when the faculty cultures are examined in a subsequent section of this report.

Two new deputy principals were appointed to the school in 1996. They were perceived by teachers as being 'stronger', 'more supportive' and 'more empowering' than their predecessors. These changes in the administration received favourable comment from the staff and resulted in markedly different perceptions of the 1996 school leadership. Comments included: 'we are given more freedom and responsibility'; 'praise and support is provided'; 'strength at the top'; 'staff have improvement opportunities'; 'enthusiasm is provided'; things are better linked together'; and 'they spend time helping and talking with us'.

Another change at Landview SHS was the development of a school-wide programme for managing the behaviour of students (MSB). This was planned in 1995 and resulted in the creation of a new senior position in 1996 with a role statement centred upon coordinating and enforcing student discipline school-wide. The MSB programme coordinator worked closely with the deputy principals and this collaboration was seen as a contribution to more cohesive school leadership.

The interviewees also commented upon increased levels of the other five cultural elements in 1996; 'collaboration includes more from individual teachers'; 'a more positive environment'; 'more empowerment'; 'a shared vision has developed'; 'less cliques, more collegiality'; 'overall culture is developing'; school-wide planning has increased'; 'increased professional values'; and 'more inter-faculty collaboration'. All of the teachers interviewed considered that the school culture had changed. This unequivocal finding is indicative of Land view SHS having undergone a major cultural transformation.

Government Policy Initiatives and School Culture

All of the interviewees identified that government moves to place teachers on individual workplace agreement and the resulting dispute with the union as an issue of major concern in 1995. Another issue of concern was competition between limited tenure teachers for permanent positions. This was exacerbated by a recent local announcement by the Minister of Education that it was likely no more temporary teachers were to be given permanent tenure.

The impact of the dispute between the union and the government on Landview SHS was viewed in different ways. Some of the teachers emphasised the tension it produced within the staff: 'caused conflict'; 'across the school it was divisive'; 'caused a lack of direction'; 'divided the staff, nastiness and bitterness'; 'split unionists and non-unionists'; 'some individuals were ostracised,' and 'the culture was polarised'. These teachers also saw the dispute as reducing the value teachers placed on their work: 'it lowered professional values'; 'damaged professional values, job not valued'; 'reduced professional values'; and 'decreased professional values'. However, there was strong evidence that the dispute did not weaken the school's culture: 'collegiality staff-wide was maintained independently of the dispute'; 'collegiality increased'; 'increased collegiality compensated for decreases in professional values and shared planning'; 'we were not divided'; 'widespread resentment'; 'we bonded together'; 'solidarity with some individuals being isolated'; 'not a big split'; 'more collaboration'; and 'a good thing, we came together'. The capacity of the staff culture to persist during the dispute was typified by the comments of one of the English faculty members: 'the changes were seen as being outside of the school and we could stay separate'; and 'there were forces and pressures out there trying to get in'. The consensus of opinion was that the Landview SHS culture had been severely tested by the dispute but had the capacity to be resilient.

The issue of temporary employment and the announcement of no future offers of permanent tenure was particularly relevant to the Landview SHS staff. Many of the teachers were temporary teachers and expected that their service in the school would lead to permanent employment. This situation was seen as: 'increasing competition

between teachers in faculties and across the school'; and 'decreasing professional values, but compensated for by increasing collegiality'. The principal identified this issue as producing tension within the school during the second half of the year during which the temporary teachers were formally assessed and given a numerical rating. Despite the concerns, there was limited evidence of this situation having a major effect on the school's culture.

Education Department Initiatives and School Culture

Student outcome statements emerged during the interviews as an example of an Education Department initiative which had the potential to impact upon the school. Some of the teachers were sceptical of this initiative or were resisting involvement: 'a head-ache, constant changes'; 'driven by them, doing what we have to do'; 'stress levels up, professional values down'; 'teething problems, not time to collaborate'; 'culture is resisting'; 'trepidation, more work'; 'terrified, ignore it if possible'; 'there is team apathy'; and 'no choice in this faculty'.

The teachers who were implementing the student outcome statements commented: 'more dependence on collegiality and collaboration to survive'; 'professional values driven'; 'lots of collaboration, sharing of problems and asking each other for help'; 'we are in it together and supportive of each other'; 'there is more collaboration'; 'increased collaboration, collegiality compensates the problems'; and 'we are running with it, it is good and applicable to lower school'.

The inter-relationship between externally initiated programs and school culture was also evidenced by comments about an Education Department sponsored literacy program in the school. Supportive conditions for the programme included: 'teacher concerns about student literacy, teacher enthusiasm and professional values'; 'motivated staff, enthusiasm, supportive faculty culture'; and 'school-wide planning, an emphasis on learning, collaboration, professional values and the leadership of Anne, the leading literacy teacher'. Participation in the programme was perceived to have produced: 'a sense of achievement in teachers'; 'increased collaboration and vision'; 'teachers teaching themselves'; 'more collaboration'; 'more professional values, teacher empowerment, school-wide planning and integration across the school'.

The student outcome statements and the literacy programme at Landview SHS provided examples of how the culture of a school can support or impede the implementation of external initiatives. They also evidenced the reciprocal phenomenon of programme implementation changing the school culture.

School Initiated Innovations and Culture

The previous discussion of development of a school-wide programme for managing student behaviour included examples of the influence of the prevailing school culture on the motivation for innovation and the progress of the innovation. Interviewees from three Landview SHS faculties provided further examples of the relationship between school initiated innovations and culture.

The English faculty interviewees identified updating their book resources and changes to the lower school curriculum structure as recent faculty initiated innovations. The resource project was identified as a consequence of the professional values of the teachers who wanted to 'improve student literacy' and supported by this motive being 'shared' and also by 'collaboration' between the teachers. The widespread involvement of faculty staff in the project was perceived to have strengthened all six cultural elements within the faculty culture. The changes to the lower school curriculum structure were supported by collaboration, 'it was too big for one person'; and by collegiality, 'we needed to support each other'. This project was not considered to have led to any changes in the faculty culture.

The Mathematics faculty modified course structures and student assessment procedures. This was supported by 'collaboration' and 'the development of a common vision'; and resulted in 'more collaboration', 'an increased vision' and 'more professional values'. Another innovation was setting up after-school-hours homework classes. This was supported by; 'everyone wanting it', 'collaboration' and 'professional values'. The interviewees were unable to identify any changes that this caused in the faculty culture.

The Science faculty also embarked upon a curriculum modification project. The decision to re-write the Year Eight course was the result of discussion within the faculty. 'Collaboration' facilitated the staff developing a 'shared vision' of what was required. The possibility of the project failing and affecting 'collegiality' was addressed by a decision to share responsibility for the project amongst all the teachers

and to view the project as a 'trial'. It was commented that the exploratory nature of this exercise necessitated teachers learning during the project and the new faculty leader having to accept the innovation, 'coming to grips with the change'.

The involvement of the Social Studies faculty in school initiated projects was at a whole-of-school level. They were actively involved in supporting the school literacy programme and the student behaviour management programme, 'the MSB changes were grounded in the Social Studies faculty'.

Faculty Cultures

In 1995, the English faculty appeared disunited. Comments about this situation included, 'divisions within the department'; different attitudes, values, moral judgements and philosophies about education'; 'isolation from the rest of the school'; and 'no time for much else than survival'. Other faculty members were more positive and suggested that with the exception of faculty leadership which was 'not strong at the start but improved', the faculty culture was strong for all the other five elements.

This difference of opinion was not evident in comments about how the faculty had changed. Collegiality improved: 'we got to know each other over this year'; 'new people have fitted in' and 'bonds are developing'. Other positive comments included; 'we now have time to take on more'; there is multiple leadership'; 'we have a shared vision of literacy'; 'a more positive environment'; 'continued growth'; and 'MSB/violence programme changes are working well and the problem children are

handled within the faculty'. The interview data suggests that the English faculty culture had undergone growth since 1995.

The Mathematics faculty had a change of leadership from 1995 to 1996. The new head of department was perceived as: 'establishing a school-wide reputation'; 'establishing a linkage with other heads of department' and ensuring that 'school projects are supported by Maths'. The faculty was considered by one teacher to have: 'not changed much, but improved' and by another to be showing 'increased levels of collegiality, collaboration and transformational leadership'. The successful engagement of this faculty in changing course structures, student assessments and implementing home-work classes is likely evidence of a culture which has the capacity to accommodate change. Although there is some evidence that the faculty culture had improved, this did not appear to have been a major change. It is difficult to judge whether this faculty was undergoing cultural growth or alternatively was maintaining the existing culture.

The Science faculty also had a leadership change and two female graduate teachers were recently appointed. The remaining staff members who were interviewed were relatively guarded in their comments about the faculty. The new head of department was considered to be less transformative; 'more direct' and 'listens then makes a decision'. The presence of female teachers, two interviewees specifically referred to their gender, may also have affected the faculty culture: 'last year there was humorous antagonism'; this year 'there is less collaboration across the faculty'; and 'the graduates are not empowered and are uncomfortable'. The relationship between the

faculty and the rest of the school was difficult to ascertain due to conflicting comments: 'we are part of the overall school team' and 'we are fairly independent but will help others'. The previous explanation of the faculty's involvement in new programmes provides additional information on its culture. The tentative implementation of the Year Eight course revision project and student outcome statements may be indicative of a faculty culture which was experiencing some cultural instability. Also, this faculty did not appear to be engaged in a cultural maintenance process by re-configuration of an existing culture. The changes were more substantial and it is proposed that this faculty culture was undergoing 'regeneration', the previous culture was being re-built.

In previous sections of this report, evidence from the interviews was provided about the Social Studies faculty. This indicated that in 1995, the faculty was not cohesive and was characterised by low levels of most of the cultural elements. Specific comments about the 1995 culture included; 'collegiality, a nightmare'; 'no empowerment of teachers'; 'no collaboration'; 'minimal collaboration'; and 'no vision'. This faculty also underwent personnel changes from 1995 to 1996 including a change of leadership. The previous head of department was perceived as: being dominant'; keeping the faculty isolated, his empire'; and having a 'school-wide influence in his own right'. The faculty 'was un-cooperative with other faculties' and 'did not fit in with the rest of the school'. In 1995, the Social Studies faculty was in a state of disintegration. The engagement of its members in school-wide activities was probably due to these teachers having to join social groupings outside of the faculty to satisfy their personal and social needs. In 1996 the faculty was perceived as having

learning and collegiality which were not widespread concerns, and shared planning and transformational leadership which were more frequently identified. These suggestions require consideration in the light of other more general comments about the school's culture; 'all OK'; 'pleasant place most of time, culture is in good shape'; and 'well advanced, being worked on'.

Aspects of collegiality perceived as requiring improvement were empowerment of the graduate teachers and teachers generally being more supportive of each other. Comments included: 'graduates lack confidence and do not have a voice'; 'personality problems not addressed'; 'more mutual empowerment needed'. The reference to an emphasis on learning centred upon graduates 'not being seen as being able to contribute as much'.

Expressions for higher levels of shared planning emphasised a need for more school-wide planning and the development of a shared vision for the school. Comments included: 'everyone should support the hat policy'; 'school-wide planning is controlled by a select few'; 'decision-making requires more input'; 'shared visions needs to improve'; and 'there is a difference between the shared vision and outcomes'. The comments on leadership were more emphatic: 'bottom-up please'; 'more transformational leadership please'; 'still top heavy, manipulated by the heads of department and the administration'; 'top down decisions'; 'not enough consultation, not overall, some do some don't'; and 'leadership needs to be more transformative'.

The main impediments to cultural improvement at Landview SHS were seen to centre on the conditions and continuity of employment of the staff and school decision-making processes. The staffing impediments included: 'temporary teachers lack confidence'; 'the status of temporary teachers reduces their power and they do not ask their appraisers for help'; 'collegiality is damaged by temporary teacher appraisal'; 'transiency - low commitment to the school'; 'we are a collection of bits and pieces'; 'staff turn-over, staff inexperience in a difficult student situation'; and 'long term programs are not possible'. Previous expressions of concern about shared planning and leadership were reflected in perceptions of organisational impediments: 'decision-making is the province of the heads of department and the administration, preventing the culture improving'; 'staff meetings are 80% professional development and school programmes, little staff input or general business'; 'frequent policy writing from the top'; 'the staff are not consulted enough, for example student reporting timelines'; and 'not enough time to engage in school-wide planning'.

Interviewees also suggested aspects of the school's culture and organisation which they considered as supportive of cultural improvement. They identified: 'an opening-up of decision-making in the senior staff meetings'; 'the MSB policy is an example of improved consistency and policy agreement'; and 'although some decisions could be referred to staff, there is still a need non-participatory decision-making'. Notwithstanding these comments, the employment conditions of the temporary teachers, staff transiency and a lack of participatory decision-making emerged as the major impediments to cultural growth at Landview SHS.

The effectiveness of professional development and school development programs in improving Landview SHS was also investigated during the interviews. Comments were generally negative: 'overall not effective'; 'my music professional development had a lasting effect'; 'generally, no'; 'just starting to be effective'; 'no'; 'prattle, not applicable in the classroom'; 'silly things, an evil necessity'; 'absolute waste of time'; 'waste of time, give faculties time to work on their own problems'; 'can't remember what we did'; 'boring'; 'waste of time usually'; and 'a joke'.

The final interview item was concerned with identifying effective professional and school development practices. The responses covered three aspects. Firstly, the content of development programmes was preferred to relate to classroom instruction: 'things which relate directly to my teaching are successful'; 'applicability to the classroom'; 'applicability in the classroom'; 'practical based'; 'emphasis on the personal development of kids'; 'relevant to classroom activity and the faculty'; 'strategies that work in the classroom'; 'student centred'; and 'right to the grass roots of improving the classroom'. The second aspect concerned preferences in the presentation of development activities: 'mixture of delivery and approaches'; 'provision of informed information'; 'collaboration and small group work'; 'role playing'; 'staff teach each other'; 'small groups'; 'sharing of examples between teachers'; 'group work hands on'; 'some listening, some group work'; 'people doing things'; and 'staff involvement, not being talked at'. The third aspect focussed on participatory planning of development activities: 'lack of involvement of staff in planning professional development'; 'the senior staff control the planning and execution of professional development'; and 'collaborative planning'.

The Landview SHS interviewees preferred professional development programmes which had applicability in the classroom, were 'hands on' workshop activities and had been planned in consultation with the participants. From a cultural perspective, these findings are consistent with the earlier information provided on cultural improvement. Preferred professional development programs emphasised student learning, fostered collegiality and utilised shared planning procedures supported by transformative leaders. It would be expected that if these preferences were realised in the planning and execution of future professional development programmes at Landview SHS, these programmes would be conducive of cultural improvement.

SUMMARY

This chapter has described how interviewing was used to gather data on the culture of two senior high schools. This process provided examples of school cultural phenomena and facilitated examination of the issues of contextual influences upon school culture and cultural improvement. The qualitative results showed that Woodview SHS and Landview SHS had cultures which were markedly different in the level of presence of the cultural elements and the extent of cultural change. However, the data on contextual influences and cultural improvement displayed similarities. Both school cultures were resilient when confronted with the pressures from the industrial dispute and responded in a similar manner. The teachers in these schools also expressed common concerns about the effectiveness of school improvement programmes and identified similar culturally oriented strategies for redressing the inadequacies.

The following chapter will provide an analysis and comparison of the findings from this phase of the study with that from the quantitative investigation.

CHAPTER 6

ANALYSIS OF FINDINGS

OVERVIEW

This chapter presents the analysis and interpretation of data from the empirical phases of the study. The qualitative data from the case studies is considered in conjunction with findings of the quantitative investigation which was the study's central method of data collection. The nature and the stability of Woodview SHS and Landview SHS school and faculty cultures are examined. This is followed by the application of the case study data in examining the issues and processes associated with school cultural improvement.

SCHOOL CULTURE

The data from the initial administration of the SCEQ at Woodview SHS and Landview SHS in 1995 are presented in Figure 8. The mean score on each scale is plotted within a range from 21 to 35. A score of 21 or lower resulted from an average 'uncertain' response to the relevant SCEQ scale. A score of 28 would indicate average 'agreement'.

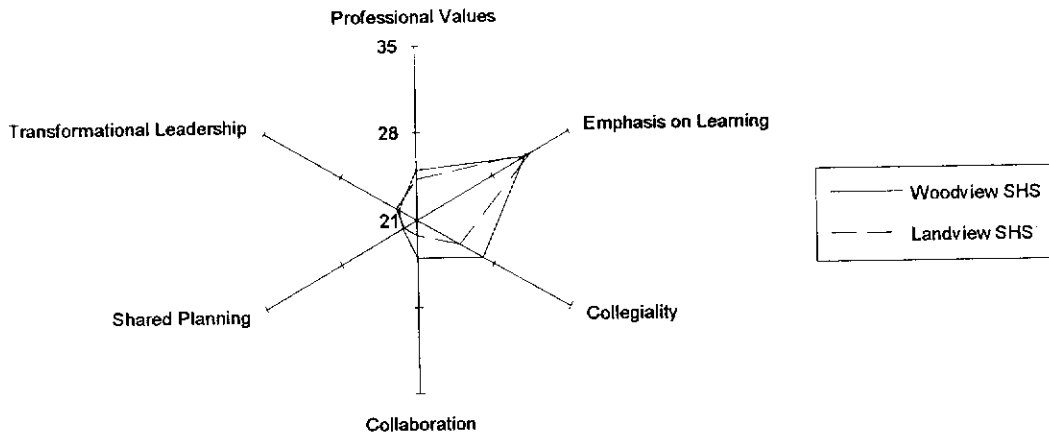


Figure 8. Woodview SHS and Landview SHS Culture Profiles

For Woodview SHS, the low levels of shared planning and transformational leadership in Figure 8 were corroborated by the interview data which also confirmed the higher levels of professional values, emphasis on learning, collegiality and collaboration. The Landview SHS interview data were relatively consistent with the SCEQ data for only the teachers' perceptions of a high emphasis on learning and a low level of shared planning. Collegiality and collaboration were identified during the interviews as being present, but their presence was not uniform across the four faculties interviewed.

Another representation of school culture requires consideration of the relationships between the cultural elements as evidenced by the mean inter-scale correlation coefficients for the SCEQ data. Figure 9 presents this information for the two

schools. High correlation coefficients are an indication of the interaction between elements and their contribution to the school culture.

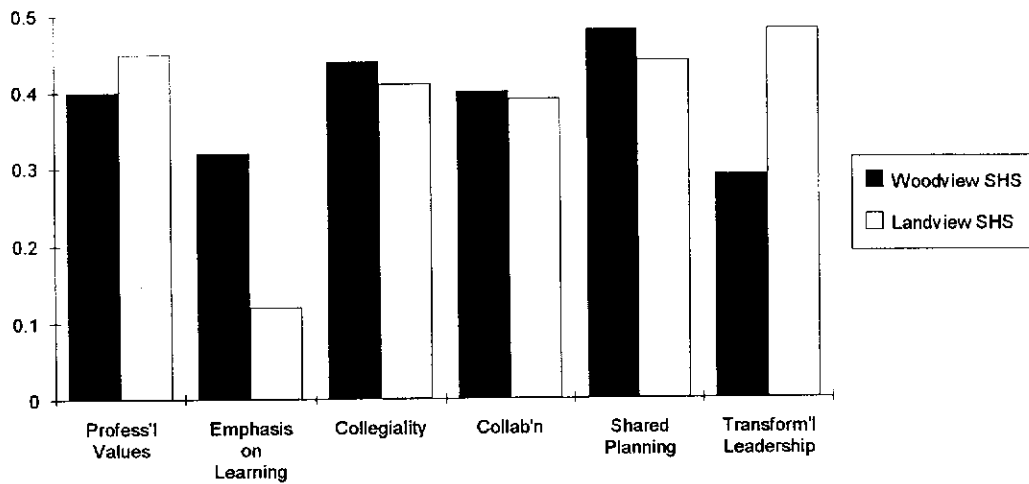


Figure 9. Woodview SHS and Landview SHS Cultural Element Inter-relationships

The Woodview SHS correlation coefficients had lower values for an emphasis on learning and transformational leadership in comparison to the other elements. Although the SCEQ scale mean scores and interview data suggested that there was a strong emphasis on learning within the school, the relatively low correlation coefficient is suggestive of this element of school culture being somewhat independent. The interview data did not provide an explanation of this matter. Alternatively, the interview comments about the leadership of the school corroborated the low correlation value. Teachers generally considered that the school leadership were isolated and making decisions independently of the rest of the school.

The Landview SHS correlation coefficients indicate that an emphasis on learning within the school was independent of the culture, although, as was the case with

Woodview SHS, this was perceived as a strong aspect of school culture. The interviews provided no direct evidence of its independence from the other cultural elements. In 1995, there was evidence from the interviewees that the culture of Landview SHS was weak and the school faced some major problems. It is possible that in such an environment, maintenance of the instructional programme was isolated from school-wide activity and the teachers worked independently of each other in their classrooms. The high correlation value for transformational leadership can be explained from the interview data which provided evidence of strong leadership in 1995. Responsibility for resolving the problems of the school was assumed by the leadership. In particular, responsibility for the development of new procedures for managing the behaviour of students lay with the school administration. The continuation of programmes was dependent on the senior management team who were on a three year term of appointment in comparison to the teachers who had no specified period of appointment and were generally keen to transfer out of the school.

STABILITY OF SCHOOL CULTURE

Administration of the SCEQ in 1995 and 1996 at Woodview SHS and Landview SHS provided longitudinal data on the culture of these schools. The Woodview data is presented in Figures 10 and 11. Figure 10 presents the mean scores for the six cultural element scales and Figure 11 presents the mean inter-scale correlation coefficients for this school.

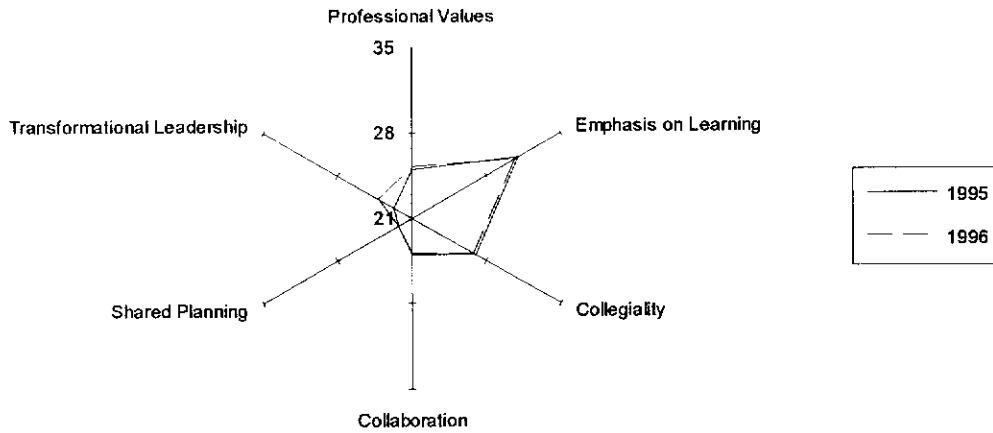


Figure 10. Woodview SHS Culture Profiles 1995 and 1996

Apart from transformational leadership, the SCEQ results suggest that the culture of the school had not changed. The results of single factor Anova analysis presented in Table 8 (Chapter 4) showed that the change in transformational leadership was statistically significant with a significance level of 0.04. The quantitative results were confirmed by the interview data.

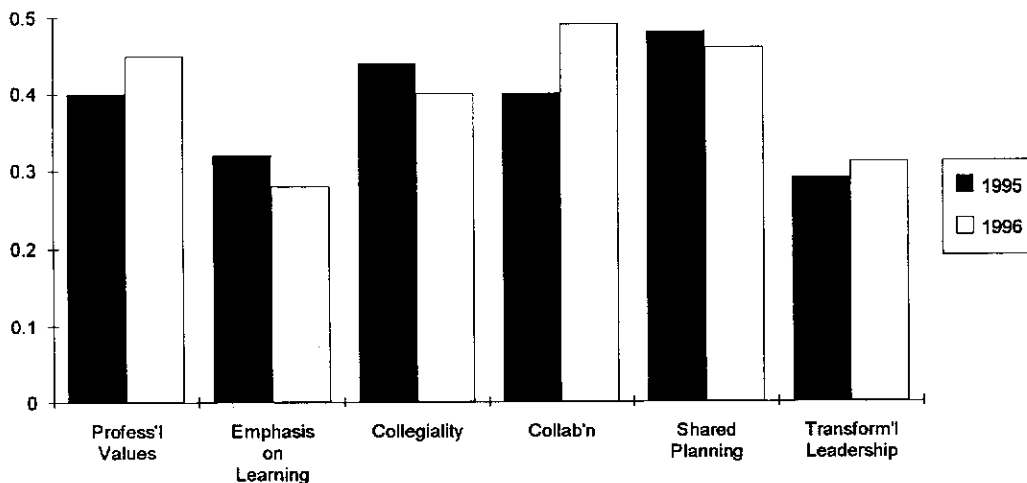


Figure 11. Woodview SHS Cultural Element Inter-relationships for 1995 and 1996

The correlation values have also not changed markedly from 1995 to 1996. This is further evidence of the stability of the Woodview SHS culture over the period of investigation

Figures 12 and 13 present the Landview SHS scale mean scores and mean inter-scale correlation values for 1995 and 1996.

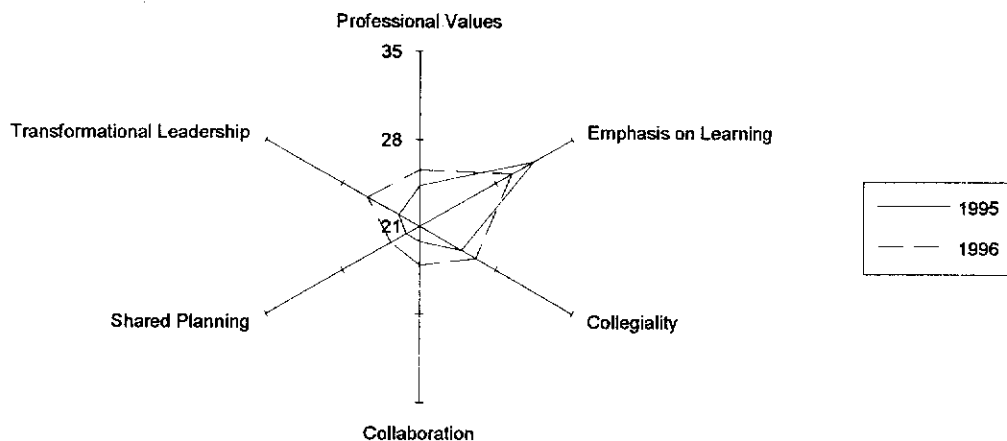


Figure 12. Landview SHS Culture Profiles for 1995 and 1996

With the exception of emphasis on learning, all of the cultural elements were stronger in 1996 than in 1995. The single factor Annova analysis data presented in Table 10 (Chapter 4) identified statistically significant changes for three of the cultural elements. The change in the emphasis on learning in the school had a significance level of 0.002, the collaboration level was 0.059 and transformational leadership level was 0.008. These changes in the SCEQ results were confirmed during the interviews. The student behaviour management problems facing the school in 1995 were addressed by the administration in their planning for 1996. This resulted in more

positive perceptions of leadership support by the teachers and also enabled the energies of all school staff to be re-directed into other aspects of the school's operations. The decrease in the emphasis on learning is likely due to an increase in school-wide activity in comparison to the 1995 situation which student learning centred upon work occurring in individual classrooms. This explanation is supported by the large increase in the mean inter-scale correlation value for the emphasis on learning element presented in Figure 13.

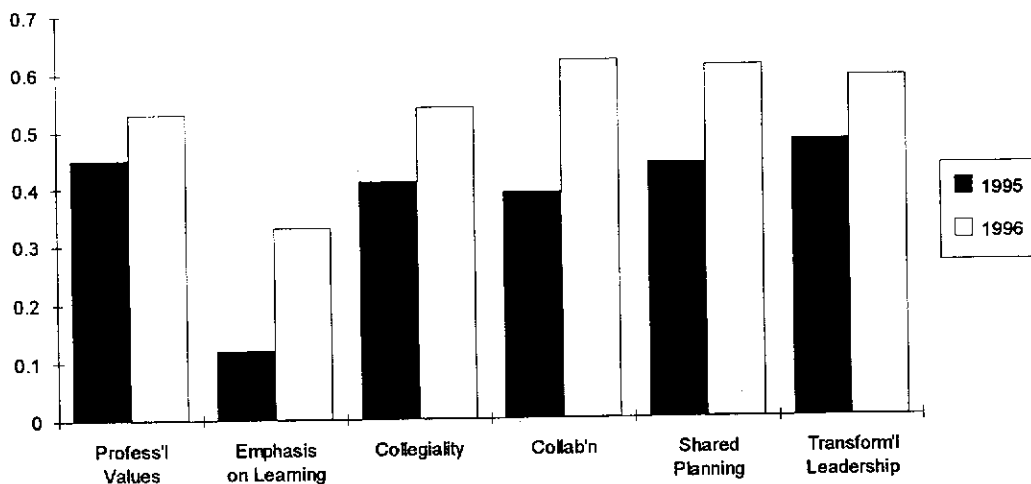


Figure 13. Landview SHS Cultural Element Inter-relationships for 1995 and 1996

The mean inter-scale correlation values for Landview SHS all increased from 1995 to 1996. Apart from the emphasis on learning, the increased levels of the cultural elements presented in Figure 12 were accompanied by stronger inter-relationships between the elements. The higher correlation values suggest that the 1996 school culture resulted from strong contributions from all six elements. This finding is also

consistent with the Landview SHS interview data which provided evidence of cultural growth over the period of investigation.

FACULTY CULTURES

As was previously discussed, the quantitative faculty data is less reliable than that for the whole school because of the small sample sizes. A further consideration concerns the specificity of particular SCEQ scales and items. The shared planning transformational leadership questionnaire items solicited information which was not faculty specific. In particular, the leadership items specifically referred to the senior management team of the school and the SCEQ data does not relate to faculty leadership. The shared planning SCEQ items also have a school-wide orientation. Although there are aspects of this process which relate directly to faculty activity, the items in this scale focus upon school-wide visions and planning.

Interpretation of SCEQ faculty data requires consideration of both the nature of specific scales and also the limitation of small sample size. The lack of reliability of the quantitative data arising from the reduced sample size was compensated for by the application of the qualitative data collection methods.

Woodview SHS

Table 16 presents 1995 SCEQ data from the English, Mathematics, Science and Social Studies faculties at Woodview SHS. These four faculties were the largest in the school and were also subject to qualitative investigation. Figure 14 presents the scale mean scores for these faculties in the form of sub-culture profiles

Table 16. 1995 Woodview SHS Scale Mean Scores and Standard Deviations

Cultural Element	Profess'l Values	Emph's on Lrng	Colleg'y	Collab'n	Shared Plan'g	Trans'l Ldrshp
English (n = 8)	25.4 4.1	31.9 2.0	26.8 4.5	23.8 3.9	22.5 4.6	23.5 1.6
Mathematics (n = 7)	25.7 2.1	32.0 1.9	29.0 3.3	25.4 3.3	24.3 2.4	23.9 3.3
Science (n = 11)	22.5 5.8	30.6 3.2	26.9 3.5	27.3 4.3	22.2 4.7	21.5 4.1
Social Studies (n = 6)	27.2 1.9	32.5 2.1	31.2 3.1	28.2 4.1	26.3 3.8	22.0 3.5

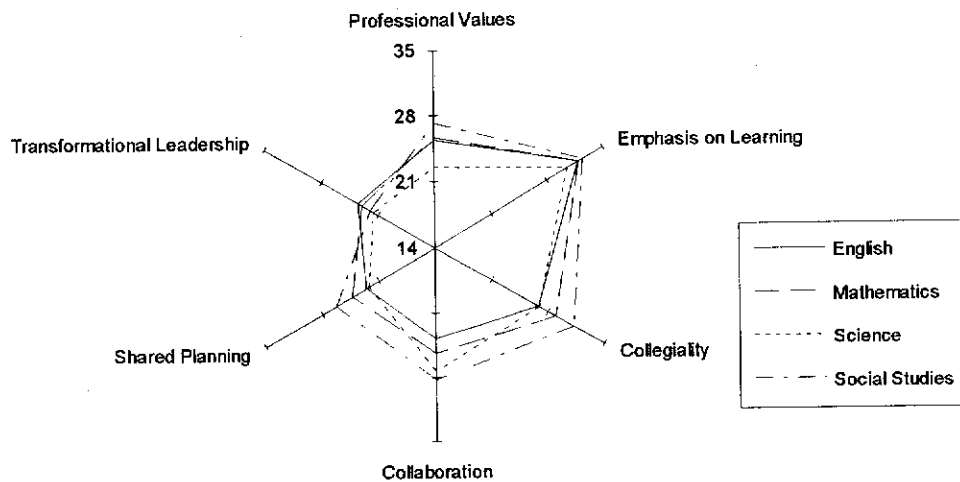


Figure 14. Woodview SHS Faculty Sub-Culture Profiles

The interview data revealed that the 1995 Woodview SHS English faculty was disunited through the presence of cliques and teachers preferring to channel their energies into classroom rather than faculty activities. Professional values and an

emphasis on learning were suggested as being important influences on the motivation of individual teachers. The comparatively high score and the small standard deviation for emphasis on learning in Table 17 is supportive of the comments about the emphasis on learning within the faculty.

The Mathematics faculty data in Table 17 had small standard deviations for professional values, an emphasis on learning and shared planning. The emphasis on learning scale score was comparatively high in contrast to shared planning which was lower. Three of the teachers in this faculty were engaged in post-graduate studies in 1995 and the interview results provided examples of curriculum restructuring designed to improve student achievement. The low score for shared planning is consistent with interview comments about the relative isolation of the faculty from the rest of the school in 1995 as a consequence of the head of department being disinterested in school-wide programmes.

The Science faculty SCEQ data for 1995 shows more internal variation for specific cultural elements than for other faculties. Although professional values had a high standard deviation, the scale score was comparatively low. This result was not supported by interview data. It is possible that the three teachers interviewed were not representative of the diversity within the faculty.

The Social Studies faculty in 1995 provided quantitative data containing relatively high scores for all cultural elements with the exception of transformational leadership. The low variation in the professional values and emphasis on learning data indicates

these elements were perceived by the majority of the teachers in a consonant manner. The interview data was consistent with the quantitative findings and provided evidence of a well developed faculty culture.

In general, despite the variation between the four Woodview SHS faculties for the SCEQ and interview data, the overall results are relatively consistent with the school-wide findings.

Landview SHS

The Landview SHS SCEQ and interview data indicated that the culture of this school and its faculties were markedly different from Woodview SHS. Apart from an emphasis on learning which had a high scale score but low correlation value, the Landview SHS culture was less developed. The Landview SHS faculty data presented in Table 17, Figure 15 and the interview results assist in explaining this finding.

Table 17. 1995 Landview SHS Faculty Scale Mean Scores and Standard Deviations

Cultural Element	Profess'l Values	Emph's on Lrng	Colleg'y	Collab'n	Shared Plan'g	Trans'l Ldrshp
English (n = 4)	25.0	31.8	26.8	28.8	24.5	25.3
	2.6	1.0	3.1	4.7	3.7	0.9
Mathematics (n = 6)	26.2	30.2	27.7	25.7	27.0	27.0
	3.8	2.9	4.2	3.1	2.1	4.5
Science (n = 4)	22.0	30.5	26.8	27.3	21.0	20.5
	3.2	0.8	4.2	4.5	4.1	4.6
Social Studies (n = 5)	24.9	31.1	20.1	17.6	21.4	17.4
	4.3	3.0	5.5	3.6	5.5	5.7

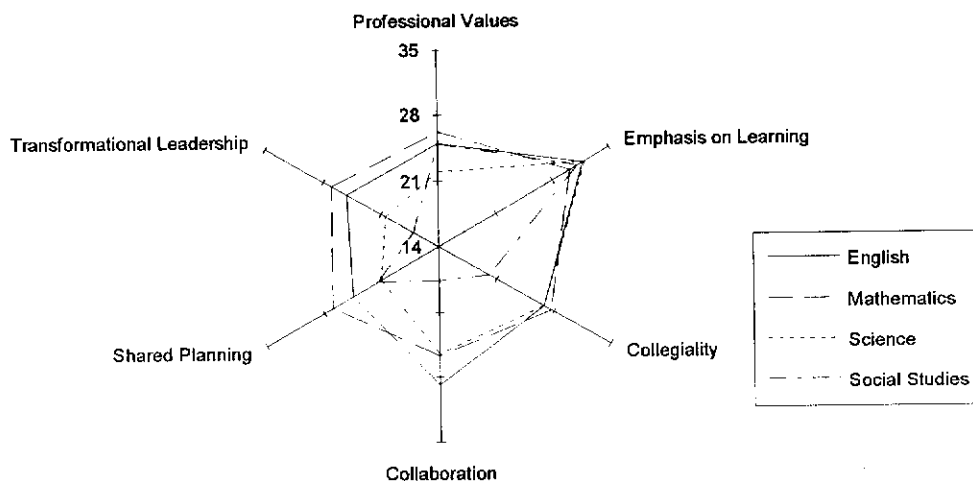


Figure 15. Landview SHS Faculty Sub-Culture Profiles

The Landview SHS English faculty interview results were not consistent, but there was evidence of the six elements being relatively well developed. The SCEQ data showed a small variation in perceptions of the emphasis on learning and transformational leadership which confirms the importance of these two elements in the faculty culture.

The Mathematics faculty 1995 SCEQ data and the interview results suggested that this faculty had a culture in which all six elements were relatively well developed. The high score and low standard deviation for shared planning were not directly confirmed during interviewing. It was perceived by one interview as being strong as were all the other five elements.

The Science faculty interviewees were guarded in their comments about the 1995 faculty culture and somewhat reluctant to make specific comments. However

collegiality and collaboration were identified as being features of the 1995 faculty culture. One interviewee also suggested professional values was lacking in 1995. The data in Table 18 is supportive of these views. The high score and low standard deviation from the SCEQ emphasis on learning data was not consistently confirmed during the interviews, only one teacher made reference to its presence in 1995.

The Landview SHS Social Studies faculty culture as represented by the SCEQ and interview data was poorly developed in 1995. The relatively high standard deviations in Table 15 reflect the relatively large variation in teachers' perceptions of the level of the six elements. The low scale mean scores for collegiality, collaboration, shared planning and transformational leadership are indicative of low levels of inter-personal and professional interaction between teachers. The interview results were consistent with that from the SCEQ data and provided strong evidence of a faculty which was divided and not functioning as a team.

Figure 15 allows comparison of the sub-culture profiles of the Landview SHS faculties. The English and Mathematics faculties, in comparison to the Science and Social Studies, had cultures relatively strong in all the six elements. Scale mean scores of 21 or below in the graph resulted from SCEQ responses which were in the 'uncertain' or disagree categories. For the Social Studies faculty, collegiality, collaboration, shared planning and transformational leadership were on the average, not perceived as being characteristics of this faculty's culture. The culture of Landview SHS was characterised by divergent sub-cultures.

Reliability of Faculty Culture Analysis

Reducing the unit of analysis from the school to the faculty provides an understanding of school culture which is more detailed and yet more diverse. In analysing the SCEQ and interview data, it was assumed that faculties would have distinctive cultures. The data from Woodview SHS and Landview SHS on the presence of the cultural elements within faculties indicates that level of development of faculty cultures is varied. The Landview SHS Social Studies faculty could be considered as an agglomeration of individuals with their own values and norms which are not related to membership of the faculty. Alternatively, the other seven faculties could be considered as mini-communities in which the inter-action between teachers had developed common values and norms, a faculty culture. Making a distinction between the presence or absence of culture within a faculty is further complicated by the inappropriateness of utilising statistical procedures to provide a measure of the differences between cultural elements and faculties, the sample is too small. It is proposed that interpretation of faculty data should be undertaken with caution.

STABILITY OF FACULTY CULTURE

Table 18 presents scale mean scores of the cultural elements for Woodview SHS faculties in 1995 and 1996. The data indicates that the faculty cultures changed little over these period.

The English faculty showed small increases in all elements with the exception of an emphasis on learning. During interviewing it was suggested by the teachers that this

faculty was undergoing cultural growth. The SCEQ data indicates that this growth was present , but small.

Table 18. Woodview SHS Faculty Mean Scale Scores for 1995 and 1996

		English	Mathematics	Science	Social Studies
Professional values	1995	25.4	25.7	22.5	27.2
	1996	26.1	24.4	26.7	27.3
Emphasis on Learning	1995	31.9	32.0	30.5	32.5
	1996	31.1	31.0	30.0	33.3
Collegiality	1995	26.8	29.0	26.9	31.3
	1996	27.3	28.9	27.9	29.3
Collaboration	1995	23.8	25.4	27.3	28.2
	1996	24.6	24.1	27.0	28.3
Shared Planning	1995	22.5	24.3	22.2	26.3
	1996	23.9	21.6	24.4	21.7
Transformational Leadership	1995	23.5	23.9	21.5	22.0
	1996	24.3	25.9	24.7	20.0

The Mathematics faculty interview data suggested that this faculty had undergone minor changes. The decrease in shared planning SCEQ data is most likely a reflection upon the school and not the faculty. The SCEQ Social Studies data shows a similar pattern of perceptions of change to the Mathematics faculty, shared planning also decreased. The Science faculty SCEQ data shows relatively large increases in professional values and transformational leadership. The professional values change

was not identified during interviewing which may have been due to the interview sample not being representative of the whole faculty. The change in the leadership data does not indicate that the faculty leadership had changed, it represents perceptions of a change in school leadership.

In general, the Woodview SHS faculty cultures were relatively stable which is consistent with the stability of the overall school culture.

The interview data from Landview SHS suggested there had been school and faculty change from 1995 to 1996. The SCEQ data in Table 19 provides further evidence of these changes.

The English faculty interviewees considered their faculty culture to have grown since 1995, however the SCEQ data shows overall decreases and a particularly large decrease for collaboration. This inconsistency between the qualitative and quantitative results does not have an obvious explanation. The interview data was internally consistent which does not support the possibility of the sample not being representative. It could be argued that the SCEQ data was unreliable, however the probability value of 0.05 obtained from Levene's test for equality of variance (Table 15) does not support this proposition. It is possible that the perceptions of the English faculty interviewees were influenced by perceived improvements in other aspects of their faculty which were not measured by the SCEQ.

The SCEQ data from the Mathematics faculty was similar in 1995 and 1996. Interviewing also suggested that over this period, the faculty culture had not undergone any major changes.

Table 19. Landview SHS Faculty Scale Mean Scores for 1995 and 1996

		English	Mathematics	Science	Social Studies
Professional values	1995	25.0	26.2	22.0	24.9
	1996	25.4	25.7	25.0	25.5
Emphasis on Learning	1995	31.8	30.2	32.0	31.5
	1996	29.4	29.5	28.8	29.2
Collegiality	1995	26.8	27.7	26.8	20.1
	1996	25.6	27.5	23.8	26.0
Collaboration	1995	28.8	25.7	25.5	17.6
	1996	23.6	27.2	21.5	24.2
Shared Planning	1995	24.5	27.0	21.0	21.4
	1996	21.6	27.7	20.0	22.5
Transformational Leadership	1995	25.3	27.0	20.5	17.1
	1996	24.2	28.3	21.3	24.5

The Science faculty interview data suggested some instability in the faculty culture and it was proposed that the culture was in a state of regeneration. In 1996, the faculty members were uncertain about their relationships and were approaching new projects in a tentative manner. The SCEQ data revealed an increase in professional values and decreases in collegiality and collaboration. The faculty culture was changing and a new culture was being developed. The decreases in collegiality and

collaboration is indicative of this process being incomplete and the faculty not yet being a cohesive unit.

The Social Studies Faculty had undergone a high staff turnover from 1995 to 1996 and there were only two teachers who had not transferred. The interview data presented the 1995 faculty as being fragmented and it was proposed that there was an absence of culture. These data also showed that in 1996, a new culture had developed in which the teachers were working cooperatively and harmoniously. This view is supported by the SCEQ data which shows large increases in collegiality and collaboration.

The quantitative and qualitative findings on the temporal stability of Landview SHS faculty provide a more detailed view of how faculty level change contributed to the overall growth of the school's culture.

CONTEXTUAL INFLUENCES ON SCHOOL CULTURE

Internal Conditions

Woodview SHS interview and SCEQ data revealed that the school leadership was perceived as having become more transformative during the period of investigation. This improvement resulted from the leadership's sensitivity to teacher concerns about leadership unity in 1995.

Landview SHS underwent major changes driven by widespread concerns within the school in 1995 about the behaviour of the students and its impact on classroom

instruction. The 1995 culture was not strong because individual teachers were focussed on their own work and faculty issues and were collectively incapable of addressing school-wide problems. This was a desperate situation which had the potential to worsen if the student management problems were not resolved. The weak culture of the school was a further limitation on the staff's capacity to confront and overcome the problem. The inter-relationship between the weak culture and difficult internal school conditions reinforced the dilemma.

The Landview SHS problems were addressed by the intervention of the school leadership. New student behaviour management processes were developed including the creation of a programme coordinator position and the employment of a specialist with experience in this area. This change was of a structural and procedural nature which was relatively independent of the teaching staff. Responsibility was assumed by the principal who recognised that the teachers did not have the capacity to solve the problem at the classroom or faculty level. As the initiative was implemented, pressure was removed from all members of the staff including the administration. Consequently, teachers were able to work more effectively in their classrooms and collaborate with colleagues. The SCEQ results presented in Figures 12 and 13 and the interview data indicated the influence of this process on the school's culture.

The internal condition of the absence of effective student behaviour management practices in 1995 was restricting the growth of the culture. The resulting structural and procedural changes provided a new internal context in which the culture could develop. The subsequent growth of the culture was evidenced by the increased levels

of professional values, collegiality, collaboration, shared planning and transformational leadership. Furthermore, the strength of the 1996 culture has the capacity to support school level initiatives and effect changes in other internal conditions.

The External Context

Woodview SHS and Landview SHS were both subject to strong external influences by the industrial dispute between the union and the government over school restructuring. In both schools, the existing cultures were able to resist the pressure.

At Woodview SHS, the teachers expressed concern about the impact of the government restructuring policies on the school and their impact on the school's culture. Opinions were divided on the extent of rifts between unionists and non-unionists but no examples of conflict were forthcoming. In general, there was little evidence of any permanent effect on the culture in either the SCEQ or interview results. The response of the Landview SHS staff to the government policies was more extreme than at Woodview SHS. Resistance to the proposed changes was stronger leading to higher levels of tension amongst the teachers. Interview data referred to ostracism of certain non-unionists and bitterness between colleagues. It is possible that the weaker 1995 school culture was more susceptible to external influences. However, this situation was transitory, the culture accommodated the pressure and was stronger in 1996.

The capacity of the cultures of Woodview SHS and Landview SHS to resist government policies requires further comment. The Woodview SHS culture was essentially stable over the period of investigation and persisted during a period of industrial turmoil. The Landview SHS culture was more vulnerable in 1995 as was evidenced by the level of impact of the policies on the school. A weak school culture is susceptible to internal and external contextual pressures which could further weaken or alternatively, improve the culture. It is receptive to contextual influences. The industrial dispute and student management problems in the school both impacted on the culture of the school in 1995 but had differential long term effects. The government policies were rejected because they were inconsistent with the prevailing attitudes and values of the majority of the teachers. Alternatively, the student behaviour management programme was embraced because it was consistent with existing teacher attitudes and values.

Another external contextual influence upon both schools was the implementation of an Education Department programme on student outcome statements. Apart from the English faculty, Woodview SHS teachers were not supportive of the initiative and expressed reservations and cynicism. The Woodview SHS culture was characterised by a high value on learning within the school, presumably the teachers did not consider student outcome statements as being consistent with this value. Their capacity to resist immediate implementation of the outcome statements programme was also a consequence of their collegiality and collaboration which enabled a collective response to common concerns. Alternatively, student outcomes statements were being implemented at Landview SHS. The interview comments revealed much

concern about this initiative, but it was still being implemented. It is likely that the weaker culture was not conducive to the teachers developing a common stance on this initiative.

The preceding examination of external contextual influences on school culture highlights the capacity of a school to resist externally initiated programmes which are perceived as not benefiting the school. There are two aspects of this phenomenon. Firstly, the attitudes and beliefs which comprise the culture need to be aligned with the intentions of the innovation. If this alignment is not obvious, the teachers will not be receptive to participation. Secondly, if the staff are sufficiently negatively disposed towards the innovation, a strong culture allows the negative concerns to be unified and teachers will support each other in resisting implementation.

SCHOOL IMPROVEMENT

In Western Australian schools the improvement of schools has centred upon the school development planning process and internal professional development programmes.

The SCEQ shared planning scale was constructed upon assumptions about teachers working together to develop common goals and assess the progress of the school in attaining these goals. The resulting data from Woodview SHS and Landview SHS indicated that shared planning was not perceived as being well developed in either school. This finding was supported during the interviews. The SCEQ shared planning items were written to be consistent with propositions included in the Education

Department's policies on school development. In both schools, the formal processes of school development was not being implemented and the teachers did not have a common vision of the their school's operations and future. During interviewing, teachers were also asked about the effectiveness of staff development programmes. Comments were generally negative suggesting that the programmes were having a limited effect on the professional growth of teachers and improvement of the school. Criticisms concerned top-down organisation of the programmes, lack of relevance to classroom instruction and poor quality presentation.

The interviewing revealed that teachers perceived there was alack of attention being given to school cultural growth issues in current school development planning and staff development programmes. Successful development programmes needed to relate to the curriculum and classroom practice. This preference was consistent with the relatively high level of emphasis on learning in the SCEQ data for both schools. Development programmes also needed to utilise strategies of a collegiate and collaborative nature including workshops, small groups and hands on activities. Another common preference was for the planning of development programmes to be collaborative and shared so that teachers had control of the content and presentation strategies. In general, these opinions suggest that teachers value culturally oriented school development programmes.

EVALUATION OF THE EMPIRICAL PHASES

The research strategy was an example of a case study approach Yin (1989), and the design of the investigation was typical of the developmental mixed-method inquiry described by Greene, Caracelli and Graham (1989). Evaluation of the empirical phases of the investigation required consideration of construct validity, internal validity, external validity and reliability (Yin, 1989).

Both phases of the investigation were based upon the original cultural elements model of school culture. Development and refinement of the SCEQ instrument facilitated statistical examination of the validity of this initial theoretical framework. Mean inter-scale correlation coefficients were used to assess the validity of the original eight constructs and the six refined constructs. The correlation values for the scales showed that the cultural elements had varying degrees of inter-dependence in the cultures investigated. Low correlation coefficients were an indication of specific elements being discrete aspects of a school's culture and supported the proposition that school culture was comprised of separate components. Alternatively, high values are supportive of the notion that school culture has unity and results from integration of the cultural elements. Yin (1989), suggested that construct validity was enhanced by the use of multiple sources of evidence. SCEQ data were collected from two administrations of the instrument in the case study schools over a one year period and complemented by interviewing a stratified sample of their staff.

According to Yin (1989), assessment of the internal validity of the results requires consideration of the degree to which influences or causal relationships were

established. The cultural elements model assumed the elements were related and influenced school culture. The SCEQ correlation coefficients indicated the extent of influence of the cultural elements on school culture and also of their inter-relationships. The contextual model proposed that school culture was influenced by aspects of the school organisation, the educational system and the macro-political environment. The validity of the data relating school culture and the school organisation was evidenced by consistencies in the interview results within schools and faculty samples. The validity of data on the influence of the educational system and the government on school culture was evidenced by consistent interview results across both the case study schools.

The external validity of the investigation was dependent on the replication of data collection to facilitate generalisation of the findings and their application beyond the sample investigated. This required selection of a sample of schools for each phase of the investigation which were representative of Western Australian government secondary schools. The geographical location of the six high schools in which SCEQ data were collected met this criteria. Similarly, the two case study schools were chosen for geographical reasons and also because of other characteristics including the experience and transiency of their staff.

The reliability of the investigation required that repeated data collection produced the same results. The high Cronbach Alpha values for the SCEQ scales indicate that the items in each scale measured a set of common sub-constructs. The commonality of responses within in each scale from administration to a sample of 422 teachers is

evidence of the reliability of the data to represent teachers' perceptions of the cultural elements of their school. Instrument re-administration in three schools to 166 teachers and Anova single factor analysis of variance enabled examination of the reliability of the instrument and the stability of school culture over a one year period. There were six instances of statically significant changes for individual cultural elements and twelve instances of negligible change. These results suggest that the SCEQ was both reliable and also sensitive to school cultural change. Corroboration of reliability was provided by supporting interview evidence.

Analysis of the results of the two empirical phases of the investigation confirmed that the research design and data collection procedures produced valid and reliable findings.

SUMMARY

This chapter concurrently examined SCEQ data and interview results on the nature and temporal stability of two senior high schools and their four largest faculties. This analysis revealed differences in the culture of the two schools including their relative stability. Faculty sub-cultures were also examined and although they varied, they were generally characteristic of the overall school culture.

The influence of internal conditions within the school and of the external environment on school culture were also discussed. The culture of the school was shown to have the capacity to both accommodate and resist pressures for change emanating from within or outside of the school. The implications of the empirical findings for school

improvement were examined. Teachers did not generally display confidence in the effectiveness of existing school development and professional development activities programmes. Alternatively, they had a preference for activities of a cultural nature or which related to classroom instruction.

In the following chapter, the theoretical propositions about school culture which were embodied in the research questions, developed during the literature review and which guided the investigation, are re-examined in consideration of the empirical findings. It presents a refined model of school culture which is applied in a discussion of theoretical and practical issues associated with school culture and school improvement.

CHAPTER 7

REFINEMENT AND APPLICATION OF THE THEORETICAL CONSTRUCTS

OVERVIEW

This chapter utilises the theoretical and empirical findings of the study in the development of a model of school culture and its application in examining school improvement. The first part of the chapter commences with a specific definition of school culture followed by presentation of the School Improvement Model of School Culture. The model's elements, structure and application in profiling prevailing school culture are discussed. The model is then used to provide a theoretical basis for examining four propositional statements about school culture. The stability of school culture is explained as a consequence of the strength of the culture and its susceptibility to influence from internal and external pressures. The presence of sub-cultures within schools is also examined

The second part of the chapter applies the previously developed cultural constructs in an examination of school improvement. This examination is based upon a further seven

propositional statements about school improvement and school culture. Traditional school improvement programmes are critiqued and the notion of school improvement requiring cultural growth is proposed as a viable alternative. Cultural growth mechanisms are discussed and applied in an examination of cultural stimulation and intervention. The chapter concludes with propositions about stimulation of the growth of weak school cultures through educational policy initiatives and cultural intervention.

PART 1: SCHOOL IMPROVEMENT MODEL OF SCHOOL CULTURE

Definition of School Culture

The following definition is a general statement about the nature of a school culture which is supportive of school improvement and the learning of students.

The culture of a learning community is manifested, developed, maintained and transformed by the sharing of beliefs, values and norms amongst teachers resulting in commonality of purpose and actions intended to improve the learning of both students and teachers.

This definition recognises the sociological conception of culture as being an expression of common values and norms which provides a community with cohesion and which ensures consistency of behaviour. It also addresses the developmental nature of school culture, interaction between individuals and groups facilitates the development of the common values and norms. The inclusion of reference to the educative mission of schools places school culture and improvement within the context of improved student learning outcomes.

Cultural Elements

This study identified six elements of school culture related to improved educational outcomes for students:

- Professional values;
- An Emphasis on Learning;
- Collegiality;
- Collaboration;
- Shared Planning; and
- Transformational Leadership.

These elements have a combined descriptive and developmental nature. Collectively, they provide a framework for describing the prevailing culture of a school. Examination of teachers' perceptions of the extent of the six elements within their schools provides a description of the culture. Alternatively, the elements may be considered as the mechanisms by which inter-personal interaction between teachers occurs within the school. This conceptualisation focuses upon the processes of cultural development rather than on the specific values and norms which characterise the prevailing culture.

The capacity of individual elements to represent cultural processes is varied. In particular, professional values and an emphasis on learning are more concerned with specific beliefs and attitudes than the processes by which these are shared. It is proposed that the six elements be considered as vehicles of cultural growth rather than as purely cultural processes. This proposition accommodates both the descriptive and

transformative nature of the elements and provides the rationale for developing a school improvement model of school culture.

The Model

The School Improvement Model of Culture presented in Figure 16 was developed to provide a representation of the relationships between the cultural elements and their contribution to the overall school culture.

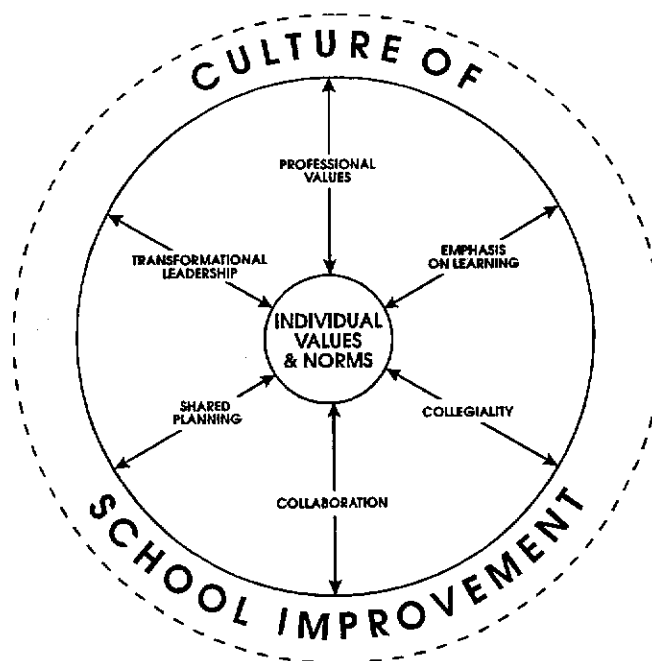


Figure 16. School Improvement Model of School Culture

Structural Features

The hub of the model represents the values and norms of individual teachers. The model suggests that these values and norms are the building blocks of school culture which develops as they are shared between colleagues. If the sharing process is not present, individual teachers remain professionally and socially isolated from one

another and there is an absence of school-wide values and norms. Teachers work independently in their own classrooms without common goals and the instructional program results from the application of individual knowledge and skills. When problems arise, there is no collegiate support and individual teachers are responsible for solving their own problems. The celebration of success does not extend beyond the classroom and encouragement and rewards from colleagues are not forthcoming. Professional growth of teachers is a personal responsibility and they do not have access to the knowledge and experiences of immediate colleagues.

Radiating from the hub of the model are the six cultural elements. These are the vehicles for the development of school culture and the improvement of the school. Interpersonal interaction between teachers allows expression of individual needs, beliefs and attitudes. Dialogue enables these to be shared and personal expectations are ameliorated in consideration of the expectations of others. This process leads to the development of the common values and norms which are the school's culture.

The conception of the school being a learning community as distinct from sociological communities was a major consideration in the development of the model. The existence of the school and the social institution of education is a consequence of societal recognition of the importance of educating and enculturating children. The six cultural elements in the model are vehicles for developing a culture whose purpose is improved educational outcomes for students. Another aspect of the conception of schools being learning communities centre on the differences between communities and organisations.

Educational systems and the school organisation were developed to realise societal expectations about educating children. Historically, this development occurred at a time in which it was believed that the most effective and efficient means of realising such societal expectations was to formally organise the workers or practitioners into bureaucratic organisations. The establishment of educational bureaucracies based upon classical theories of management influenced the organisation, operations of schools and conceptions about schooling. The accumulation of school effectiveness research findings has questioned this emphasis on the formal aspects of the school organisation and its relationship to the educative mission of schools. The six cultural elements in the model were chosen and developed to be relatively independent of the formal school organisation. They focus upon the beliefs and attitudes of teachers about their school and the mechanisms by which these informal aspects of the school contribute to the culture.

Reading clockwise, the order in which the six elements are arranged is deliberate. The professional values element concerns the value which teachers place on the social institution of education and the application of pedagogical principles in their work. It also includes a commitment to the mission of their own school. The second element, emphasis on learning, is school specific and centres upon the individual school's learning programme including the learning of teachers. This element concerns application of the efficacious values within the school and the extent to which the school is a learning community. Collegiality includes propositions about interpersonal relationships between teachers and the need for teachers to be empowered. Collaboration also concerns the interaction between teachers but focuses on discourse

of a more formal nature related to the operations of the school. Shared planning is a school-wide construct which assumes teachers have a mutual understanding of their school's goals and participate in programmes to evaluate and implement these goals. The sixth element, transformational leadership, is concerned with the role of the principal and deputy principals in supporting teachers and school programmes. This sequence progresses from: the professional values teachers bring into the school; to the learning programme of the school; the interpersonal relationships between teachers; participation in decision-making processes and discussion of the instructional programme; involvement in the future development of the school; and ultimately, to the role of the school leadership.

The rim of the model is school culture. This is comprised of the six cultural elements and is consequential on their level of development within the school. The model assumes that a strong school culture is evidenced by a high level of development of all six elements. The elements have transformed the values and norms of individual teachers and produced a set of common values and norms which govern collective behaviour. The school effectiveness and improvement orientation of the elements produces a school culture which is expected to be conducive of improved student learning within the school and school growth directed at this objective.

A school culture with well developed cultural elements is expected to produce a professional working environment with certain features. The teachers do not work in isolation from their colleagues and are bonded together by common needs and expectations. Their efficacious values are given effect by membership of a community

which emphasises the learning of students. Collegiality provides the teachers with support from colleagues which increases their confidence in their capacity to educate students and to be active participants in innovations. There is an atmosphere of trust and empowerment which is non-judgemental and accommodative of mistakes. Problems and successes are shared, the professional growth of teachers builds upon the experiences of others and the resulting increased pool of knowledge.

Collaboration provides school wide consistency in instructional approaches and the socialisation of students. As students move from class to class and progress from year to year, previous learning experiences are reinforced and extended through a sequential and coordinated curriculum. A school-wide instructional programme developed and refined through collaboration between teachers is also well understood by these teachers thus enhancing the effectiveness of its delivery.

Shared planning enables teachers to develop a shared vision of the school's future and to collectively plan how this is to be realised. There is unity of purpose and commonality of action. This is facilitated by the planning process being well organised and based upon rational decision-making principles. Active participation in school-wide decision-making requires teachers to understand the procedures by which the effectiveness of current programmes is assessed and new programmes are planned. Teachers have the knowledge and resulting power to be equal partners in decisions concerning the future of the school and their work.

Transformative leadership nurtures and reinforces the culture of the school community. Control of the school is transferred from the formal leadership to the community by leadership behaviour focuses on the growth of teachers and the school. Responsibility for the operation of the school is not abrogated by transformational leaders, but is shared with teachers so the school community assumes responsibility for the successes and failures of the school. The growth of the school occurs through a process of learning in which all members of the staff are initially exposed to the problems facing the school and share the uncertainty about how these are to be addressed. The immersion of teachers in school issues and problems challenges their understanding of the school and their own work. This engagement stimulates their personal and professional capacities which are then brought to bear on the problem. Possible solutions are widely discussed leading to the development of consensus on subsequent action. This process harnesses the energy and expertise of teachers and by challenging their existing professional knowledge, facilitates professional growth. The school culture is strengthened because transformational leadership increases the bonding and inter-dependency between teachers.

The preceding discussion of a school with well developed cultural elements assumes that each element contributes to the school culture and is in turn influenced by the culture and the five other elements. The model assumes that the six elements are inter-independent and inter-active. The school culture is in a state of dynamic equilibrium which is responsive to internal pressures and those emanating from the formal organisation of the school and external agencies. The stability of the prevailing culture results from maintenance of the existing equilibrium. Cultural growth occurs when

internal or external pressures eventually produce an overall strengthening of the six elements and result the establishment of a new equilibrium. It is proposed that in such instances, the establishment of a new equilibrium is likely preceded by a temporary state of disequilibrium. Alternatively, the culture may decline when there is a weakening of specific elements which is not compensated for by other elements becoming stronger and the previous equilibrium not being re-established. In this case a new equilibrium is established with weaker cultural elements. Cultural disintegration may occur when there is an overall weakening of all elements of sufficient extent to prevent the establishment of a new equilibrium. In this instance, the school becomes an agglomeration of individuals who do not have common values or norms. Such a situation is not necessarily permanent and the culture may be regenerated if teachers perceive a need for a collective response to common needs or problems. This response, which may be initially be concentrated upon one or more cultural elements, is likely to stimulate development of the other elements and lead to a new culture being generated.

School Culture Profiles

The School Improvement Model of School Culture also provides a framework for profiling the prevailing culture of a school. The model has six radial axes corresponding to the six cultural elements. Quantification of teachers' perceptions of the presence of the six cultural elements in a school by administration the School Cultural Elements Questionnaire (SCEQ) allows the school's culture to be profiled.

In a strong culture, the six elements are well developed and the radial plot is closer to the rim of the model. Alternatively, a weak culture produces a radial plot closer to the

centre of the model. Comparison of the relative distances from the centre of the model for specific cultural elements indicates the relative strength and weakness of particular cultural elements. Therefore, the shape and area bounded by the radial plot is a visual representation of school culture.

The growth of a school's culture is dependent upon teachers having an understanding of the nature of school culture and being well informed about their own school's culture. School culture profiles are a simple and effective means of providing teachers with information about the culture of their school including aspects which are relatively weak and require developing. By plotting SCEQ data in the same radial format, teachers engaged in school improvement activities are provided with both empirical data and a conceptual framework for interpretation of the data.

Cultural Stability

Proposition 1: The stability of a school's culture results from the culture being able to maintain itself when subject to pressures from inside or outside of the school.

The six cultural elements provide mechanisms for the school staff to discuss and evaluate demands being placed upon the school. They are able to make collective decisions about acceptance or rejection of new programmes and policies and these decisions will have widespread support within the school. The capacity of the teachers to decide upon a common response is dependent upon the school culture being well developed. If the cultural elements are weak, the pressure for change will fall on

individual teachers producing a diversity of individual responses including both rejection and acceptance. This inconsistency of response has the capacity to further divide the staff and in turn weaken and de-stabilise the culture.

A culture with weak elements also has the potential for growth. Stimulation of particular elements and their subsequent development can lead to the formation of a new equilibrium between the six elements. This will occur when the stimulus is perceived by sufficient numbers of teachers to be of personal or professional consequence. Although the culture is weak, there are latent common beliefs and attitudes amongst the staff which may emerge with sufficient stimulation. In particular, the cultural elements of professional values and emphasis on learning are expected to be responsive to changes which may impact upon the school's instructional programme. Similarly innovations which may affect interpersonal relationships within the school could trigger changes in the level of collegiality within the school.

Internal Influences on Cultural Stability

Proposition 2: Internal aspects of a school's culture can induce cultural change.

Changes in the internal conditions of the culture have the potential to stimulate changes in the overall culture because the beliefs and attitudes of teachers which are collectively expressed through the school's culture are not static. The culture is susceptible to influences of an internal nature through changes in value systems and norms resulting from the interaction between individuals and groups within the school. This appears to be a cyclical evolutionary process in which individual and group needs influence the

development of collective values and norms which in turn govern behaviour and professional activity. If the original needs are not realised in the new patterns of behaviour and work, another cycle commences. The culture is continuously being regenerated by adjusting to changing internal conditions.

Changes in the culture including growth and decline can be stimulated by specific changes in the internal conditions of the culture. If interaction between teachers results in personal and group needs being satisfied the interactive behaviour will be reinforced and the culture will grow. Alternatively if the interaction does not satisfy needs, the interactive behaviour is not reinforced and the culture may decline. The cultural elements of professional values, emphasis on learning and collegiality are an expression of beliefs and values concerning the education of students and mutually supportive interpersonal relationships. These three elements are the key elements of internal cultural stimulation because they their focus is upon fundamental professional and social values. The other three elements are also expressions of beliefs and values, but these are more oriented towards the needs of the school rather than those of the individual teacher.

Cultural change can be stimulated when teachers express their own professional and personal needs to colleagues. If this discourse reveals commonality of needs and results in collective values being established, there is potential for cultural growth. However, if there is no commonality of needs and collective values are not established, there is potential for cultural decline. A school in which teachers are not efficacious, do not value learning and do not feel a need for collegiality, does not have internal conditions

conducive to cultural maintenance or growth. In such schools, cultural change is dependent upon influences emanating from the formal school organisation and external agencies. These influences may facilitate cultural maintenance or stimulate cultural growth, they may also result in cultural decline.

External Influences on Cultural Stability

Proposition 3: Cultural change can be induced by participation in externally instigated innovations.

The susceptibility of a school's culture to external influence is consequent on the strength of the culture and also upon the congruency between the existing culture and the external demands. The strong culture is stable irrespective of the congruency between external demands and the inherent beliefs and values of the teachers which constitute the culture. In a weak culture, congruent demands have the potential to stimulate growth, whereas incongruent demands may cause the culture to further decline.

A strong school culture has the capacity to accommodate or reject specific external demands because of the presence of mechanisms which facilitate the development of collective attitudes towards the demands. If there is congruency between existing values and the requirements of an externally instigated innovation, it is likely that teachers will accept and implement the innovation. If the requirements of the innovation conflict with the prevailing culture, teachers may reject the innovation and resist implementation. In this instance, the common values and bonding between

teachers produce unified opposition. The resulting resistance is given increased momentum by the resolve of individuals being strengthened through the support of their colleagues. There is resonance within the culture which amplifies the original level of resistance.

It is also possible for a strong culture to eventually accept an innovation which was originally inconsistent with prevailing attitudes. For this to occur, the existing attitudes of teachers towards the innovation need to change. The cultural elements which strengthen the culture also have capacity to facilitate this process. An external influence can stimulate the elements, increase the interaction between teachers and lead to reconsideration of existing attitudes. Superficially, this phenomenon could be described as cultural change. However a shift in teachers' attitudes towards a particular change in their professional activity does not necessarily change the culture of the school. The notion that changing the school requires changing the culture of the school is questionable. The six cultural elements are fundamental components of school culture and in a strong culture it is likely they will persist even when subjected to severe externally driven stress. The acceptance of external innovations which were initially perceived by teachers to be inconsistent with existing attitudes, requires that implementation does not cause a major dislocation in the school's culture. A strong culture will allow changes in the school which are peripheral to the culture and do not threaten the core beliefs and values of the culture.

A school culture in which the six elements are not well developed can be destabilised when subjected to external pressures. There is potential for either cultural growth or

decline and it is the beliefs and values of individual teachers which will determine the nature of the response. If an external demand causes teachers to come together and develop common attitudes, the culture will grow. The trigger for this process occurring is the formation of a critical mass of individual attitudes. When a sufficient number of teachers have independently evaluated the consequences of accepting or rejecting an innovation and there is consistency of opinion amongst the staff, the critical mass has been formed. By sharing their opinions with colleagues, the commonality of needs and expectations become evident and teachers with a similar disposition group together. Membership of this group reinforces individual attitudes and colleagues support each other in responding to the external demand. Teachers experience the benefits of participation in collective activity including collegiality and collaboration which strengthen bonding and professional relationships. The culture grows and is intensified as teachers appreciate the power of collective activity and a unified response to common concerns. From the initial presence of common attitudes towards an external demand a new value system has developed within the school, teachers value their culture.

External demands also have the capacity cause further fragmentation of a weak school culture by increasing the disparity between the beliefs and values of individual teachers. The teachers in a weak culture are relatively independent of one another and focus their energies on the classroom and not on school-wide matters. Their knowledge and skills centre upon student instruction and they may be naive when confronted with initiatives requiring an understanding of non-instructional issues. The notion of a critical mass of teacher opinion can be used to explain cultural decline. An external

demand may of consequence for teachers, but in a weak culture it is possible that the critical mass will not form. When the teachers perceive the existence of disparate attitudes concerning implementation of an externally instigated innovation it is likely there will be reluctance to openly express opinions. Expressions of acceptance or resistance will be made in a confidential manner to colleagues who are perceived to have a similar disposition. The lack of empowerment and collegiality necessitates caution when discussing controversial matters because of the likelihood of criticism or conflict. Although in reality, common ground may exist, teachers will not take the risk of having their views questioned or rejected. The formation of the critical mass of common opinion is frustrated by entrenched beliefs about the protection provided by isolation and the security of membership of a cadre of like minds. The fragmentation of the school staff is compounded by the cohesion within these cadres and their capacity to reinforce a value system which is opposed to school-wide collegiality and collaboration. The school culture declines and sub-cultures are strengthened.

A school with a weak culture is vulnerable when placed under stress from external demands. If pressures from the formal school organisation or the educational system stimulate one or more of the cultural elements, teachers will be unified in their acceptance or rejection of the demand. Alternatively, the implementation strategy of an externally generated initiative could have been designed to divide the school staff and prevent a unified response. For example, initiatives which consolidate the hierarchical structure of the school organisation and emphasise specialisation of knowledge and skills within the hierarchy, threaten the maintenance and growth of a school's culture.

In the previous discussion of strong school cultures, it was proposed that these have the capacity to accommodate external demands which may have been initially inconsistent with existing beliefs and values of teachers. Acceptance of the requirements of external demands in a strong school culture is not superficial because the culture is sufficiently robust to persist and adapt to external pressures. Imposition of external demands on a weak culture which does not effect cultural growth may produce changes in the school. However, the permanence of the change is not guaranteed because it has not been embedded in the culture and the inherent instability of the weak culture which has allowed its acceptance may also facilitate future rejection. Weak school cultures provide an uncertain environment for the implementation of external initiatives. Successful implementation of change in a weak culture is dependant upon effecting growth of the culture.

School Sub-Cultures

Proposition 4: School communities contain sub-cultures cultures which are influential on overall school culture.

The School Improvement Model of School Culture, is also applicable in examining the cultures of groupings of teachers within a school. The notion of sub-cultures is based upon the premise that within the school, there are groups or sub-communities of teachers who share a common purpose which is specific to that sub-community.

In secondary schools, the activity within a subject area faculty is focussed upon curriculum objectives and pedagogical practices specific to that area of learning.

Although the rationale for the presence of faculties derives from assumptions about the structure of the secondary school curriculum, it is also based upon the organisational management conception of specialisation of knowledge and labour. Alternative groupings of teachers can result from the application of pedagogical rather than organisational principles. For example, dividing the student population into sub-schools which are taught by a team of teachers is based upon assumptions about student learning being more effective when the student population is separated into sub-communities. It is likely that the teachers who work within a sub-school will develop their own culture with common goals related to the needs of this group of students.

Sub-communities may also develop when teachers form informal groups which have not resulted from the structure of the school organisation or that of the curriculum. Dissatisfaction with existing operational procedures or instructional programmes may provide the catalyst for certain teachers spending time together to discuss common concerns about the school. This reinforces individual beliefs and values resulting in the group developing its own culture which is different from the overall school culture. It is also possible that sub-cultures may form when teachers bond together as a consequence of attitudes and values not related to the school or the instructional programme. These groups are still given cohesion by a common value system, but it is independent of the school and based upon beliefs about matters external to the school. These could include common political, family, recreational, religious or ethnic interests.

Sub-cultures within a school will be interactive and influential on the state of prevailing school culture. If the sub-cultures are diverse, the overall school culture will be weak and the school staff will not be cohesive. This situation will be exacerbated if the value systems and norms of sub-cultures are of non-educative nature. Sub-cultures resulting from membership of groups which have been formed by organisational requirements or interests external to the school are potentially limiting to the development of the school's culture. The School Improvement Model of School Culture and its six elements provides a framework for assessing the potential of a sub-culture to be a positive influence upon school culture. Irrespective of the underlying values of a particular sub-culture and the reasons for its formation, if its members still believe in the importance of the six cultural elements, the sub-cultures will reinforce the school culture.

The preceding part of this chapter examined the School Improvement Model of School Culture and its application in describing the prevailing culture and the processes by which this can change. It also compared strong and weak school cultures and discussed their susceptibility to influence from internal aspects of the school and external agencies. The second part of the chapter explores the relevance of these constructs to school improvement.

PART 2: SCHOOL IMPROVEMENT FROM A CULTURAL PERSPECTIVE

School improvement programmes are developed in consideration of theoretical and practical issues associated with the nature of schools and how they change. Prior to

discussing school improvement from a cultural perspective, traditional concepts of school improvement require examination.

Traditional School Improvement Programmes

Proposition 5: The effectiveness of traditional school improvement programmes is restricted by the influence of organisational management conceptions of the nature of schools and organisational change.

The traditional conception of school improvement is exemplified in Hillman and Stoll's (1994) definition of school improvement. 'School improvement is a systematic, sustained effort aimed at change in learning conditions and other related internal conditions in one or more schools, with the ultimate aim of accomplishing educational goals more effectively' (Hillman and Stoll, 1994 p. 1). Traditional school improvement programmes can be criticised on three grounds.

Firstly, the aim of school improvement is expressed in terms of educational goals being accomplished more effectively. It is assumed that it is possible to identify specific educational goals which are expressed in advance of the improvement process and the improvement programme is planned to facilitate their achievement. Predetermination of specific educational goals and the strategies by which they will be accomplished is a potentially restrictive practice because improvement programmes are long term exercises over a time span typically in excess of three years. It is likely that over the period of improvement, changes in the school and its external environment may render some of the original goals and strategies irrelevant. Exploration of emergent issues and

redirection of the improvement programme may be stifled by adherence to the original intentions and planning.

Secondly, the systematic nature of traditional improvement programmes is based upon assumptions about the control and rationality of human behaviour. Even when the goals and structure of the programme have initially been developed by collaborative processes, it is assumed that teachers will comply with the requirements of the programme. The design of programmes to ensure compatibility with existing organisational structures and practices further reinforces the need for compliance and predictable behaviour. The presence of initial enthusiasm of teachers for scrutiny of existing practices and changing the school to improve the learning of their students will wane over time if the programme leads to a new set of constraints on their work. Alternatively, an evolutionary improvement program which continuously questions existing and emergent practices facilitates the learning and professional growth of teachers. The success of improvement initiatives is dependent on the empowerment of teachers which requires de-emphasising the structure of the programme and not making assumptions about the responsiveness of teachers. The progress of a school improvement programme will at times be frustrated by unexpected events and unanticipated teacher behaviour. The perseverance of a programme requires acceptance of uncertainty and a flexible approach which is responsive to the changing personal and professional needs of teachers.

The third criticism of traditional improvement programmes concerns the focus of the change effort. The difficulty of effecting long term changes in classroom practices and

the resistance of teachers to change may result in improvement initiatives being directed at formal aspects of the school. Instead of attempting to change the attitudes of teachers and their instructional practices, improvement strategies centre upon restructuring the school organisation or the curriculum. Organisational restructuring changes the roles and responsibilities of school personnel and is usually accompanied by the rewriting of role statements and policies concerning operational matters. Curriculum restructuring is typically a process of 'repackaging' in which existing educational objectives are retained but re-arranged within a new framework. These types of school improvement can be considered as being peripheral to the educative mission of the school and have the potential to channel resources and the time of teachers into non-instructional activities. School improvement focussed on restructuring is likely to be ineffectual in improving the learning of students and may be detrimental to the instructional programme by diverting teachers from their classroom work.

The effectiveness of traditional school improvement programmes in improving educational outcomes within schools is limited by the application of organisational management principles. These principles include logical planning, the control of teachers and an emphasis on the formal aspects of the school. The application of community and cultural constructs in conceptualising school improvement overcomes these limitations.

School Improvement and Cultural Growth

Proposition 6: School improvement is a process of cultural growth

The concept of a school being a learning community is predicated on two propositions. Firstly, the purpose of the school is educative and its mission is to improve the learning of students. Secondly, the school community is both characterised and unified by common values and norms about student learning. The school is a learning community with a culture grounded in beliefs about improved educational outcomes for students.

School improvement occurs through the growth of the learning community's culture and perpetuation of the common values which bond the community. School culture is a culture of school improvement and the six elements in the School Improvement Model of School Culture are vehicles for both cultural growth and school improvement. In this regard, the model is dualist with both cultural growth and school improvement sharing a common purpose of improving student learning. The following discussion will utilise the model in an examination of issues associated with school cultural improvement. This will be structured upon features of the model including the stability of the dynamic equilibrium between elements, the transformation of individual values and norms into school culture and the stimulation of cultural change by contextual influences.

Cultural Inertia

Proposition 7: A well developed school culture has inertia resulting from internal stability and common perceptions of the school's mission.

The six cultural elements are in a state of dynamic equilibrium which gives the school culture overall stability. This stability is important because it ensures the maintenance

of the culture under conditions which may threaten the persistence of the common values and norms towards student learning and professional interaction which characterise the culture. The interdependency of the six cultural elements allows dissipation of pressure on individual elements by the equilibrium being re-established with a re-configured internal balance.

Cultural growth and school improvement results from improvement initiatives which are perceived by teachers to be consistent with the values expressed in one or more of the cultural elements. The influence of the initiative is not dissipated within the culture, instead it reinforces the culture, increases stability and may cause cultural growth. The key requirement for this process to occur is congruency between the initiative and the cultural elements. The six cultural elements were operationally defined to be conducive of improved student outcomes and initiatives which strengthen the elements are supportive of school improvement.

Cultural Elements: Vehicles for Cultural Growth

Proposition 8: The growth of a school's culture is effected by school improvement strategies which focus on prevailing teacher beliefs, values and norms and also upon the processes of cultural development and maintenance.

The six cultural elements are vehicles for the transformation of individual values and norms into a school culture conducive to improvements in student learning. School improvement programmes which incorporate strategies to increase teacher participation in collaboration and shared planning, reinforce professional values about

teaching and learning, promote collegiality and transformative leadership, are likely to effect a positive transformation in the culture. An understanding of the cultural elements provides strategic information for use in the design of school improvement programmes.

School improvement activities which are perceived by teachers to improve student learning and have application within the classroom harness the values incumbent in the elements of professional values and emphasis on learning. This is exemplified by the preference of secondary school teachers for professional development which is relevant to their classroom work. The motivation of teachers to participate in school improvement activities appears very dependent upon teachers believing their teaching knowledge and skills will be enhanced through participation. Professional development activities focussed upon non-instructional aspects of the school or the requirements of the educational system or government policies are likely to be viewed with scepticism.

The personal and social needs of teachers are satisfied in a school culture which emphasises collegiality. Incorporation of collegiate activities within school improvement programmes is a subtle exercise because collegiality is of a personal nature and cannot be imposed upon teachers. School improvement activities which improve collegiality need to be relatively informal and sufficiently flexible to allow participants to express their own feelings and beliefs to colleagues. If organisational requirements or the objectives of the activity are predominant, the development of collegiate relationships will be restricted. School improvement programme designers need to be cognisant of the nature of collegiality and provide the time and

opportunities for teachers to engage in discussion of matters of personal importance and to develop bonding. Collegiality is an expression of basic social needs which cannot be controlled or manipulated. Support of the development of collegiate relationships requires sensitivity to the personal needs of colleagues in a culture which respects individual differences and empowers teachers.

Successful school improvement is dependent upon collaboration between teachers to ensure commonality of understanding of issues concerned with the school curriculum and the operation of the school. The motivation of teachers to engage in collaborative activities is dependent upon their perceptions of the benefits of such activity. For example, participation in meetings to discuss faculty or school matters needs to be meaningful. This requires meetings to be run in a manner which allows full participation and on the understanding that the decisions will be implemented. Meaningful collaboration produces decisions of benefit to the school and individual teachers, it is supportive of school improvement. Alternatively, contrived collaboration is a tokenistic exercise in which people share opinions and reach decisions which are not put into practice. Similarly, the effectiveness of shared planning requires application of participative decision-making processes to produce a shared vision of the school and to decide upon the means by which this will be actualised.

Transformational leadership focuses upon the maintenance and growth of the school culture. Transformational leaders support individual teachers and also ensure that organisational pressures do not conflict with the values and social processes which provide the school community with cohesion. They understand the culture of the

school and are committed to a school improvement process based upon cultural growth. Other members of the school community are encouraged accept responsibility for school programmes and assume a leadership role within the school community.

School culture is dynamic and the interaction between teachers and groups occurs continuously every working day throughout the whole school. The maintenance and development of the culture is ongoing and not restricted to the occasions in which formal school improvement activities are organised. School improvement grounded in cultural growth is a continuous pervasive process underpinning all school activity. The improvement of the school requires that the six cultural elements are given attention at all levels of the school at all times. It cannot be assumed that neglect of cultural maintenance is easily rectified or can be reversed by 'quick fix' responses to cultural decline.

Cultural Stimulation and Intervention

Proposition 9: Positive cultural stimulation by external agencies can be considered as a process of intervention.

School culture does not exist in isolation of the organisational aspects of the school and the external environment. School improvement initiatives resulting from changing expectations of the school organisation, the educational system or the macro-political environment have the potential to stimulate changes in school culture. The notion of cultural intervention assumes a school improvement process which is directly focussed on positively stimulating the culture of schools.

The following discussion will examine specific organisational and external pressures and their capacity to stimulate cultural change. It will be asserted that current Western Australian Education Department school improvement policies have the capacity to stimulate changes in school culture but do not necessarily effect cultural growth.

Systemic Improvement Initiatives and Cultural Stimulation

Proposition 10: Systemic school improvement initiatives can stimulate either growth or the decline of school culture.

Western Australian Education Department school improvement policies and initiatives include school development planning, participative decision-making and accountability.

School development planning was intended to provide a rational decision-making framework for the evaluation and improvement of school instructional programmes. The school development planning process commences with collaborative identification of the mission of the school and the writing of performance indicator statements to specify expectations of the instructional programme. This is followed by a cyclical process of collecting and analysing data on student performance, making judgements about the effectiveness of existing programmes and finally the identification of strategies for improvement. The collaborative nature of the process and its emphasis on the school's instructional programme have the potential to stimulate cultural growth and effect school improvement. Realisation of this potential is dependent on the process supporting development of the cultural elements. If school development planning is implemented in a highly formal manner which imposes excessive structure

on the work of teachers and the operation of the school, the school culture is likely to be neglected. Alternatively, if the process is perceived by teachers to be supportive of their classroom activity and provides a means of increasing collegiality and collaboration, it can stimulate cultural growth. School development planning needs to be considered from a cultural perspective in which implementation strategies are designed in cognisance of their potential to reinforce or restrict cultural growth.

The practice of participative decision-making would be expected to increase collaboration and shared planning within a school and is an integral facet of transformative leadership. Promulgation of policies which mandate participative decision-making in schools is a powerful cultural stimulus and when implemented with fidelity, should ensure cultural growth. However, faithful implementation of education department policies within schools cannot be assumed because of prevailing attitudes and established organisational practices. In the case of policies on participative decision-making, the hierarchical structure of the school organisation may conflict with the intentions of the policy. In a school with a weak culture resulting from low levels of collegiality, collaboration, shared planning and transformational leadership, the cultural benefits of the policy could be over-shadowed by existing organisational arrangements. Although the policy expectations may be congruent with intrinsic cultural attitudes and values, the requirements of the formal school organisation could subvert policy implementation and frustrate cultural growth.

The extent of influence of a systemic initiative upon school culture is determined by perceptions of the nature of the initiative and its potential impact upon the school. If the participative decision-making policy is perceived as pertaining to the school

organisation, cultural stimulation is unlikely to occur. Alternatively, if teachers view the policy from a cultural perspective, it is more likely to be accepted and effect growth in the school's culture. Clarification of this issue in the minds of teachers is further complicated by the mandatory nature of education department policies. Although the policy expectations are of cultural relevance, the implementation process is based upon compliance with systemic requirements. It is likely that cultural growth cannot be mandated because mandation reaffirms the formal school organisation and disregards the culture of the school. In the case of the participative decision-making policy, its capacity to stimulate cultural growth is restricted by a policy implementation process which is essentially inconsistent with the underlying principles of cultural growth.

Accountability is an organisational management conception concerned with teachers demonstrating to super-ordinates that they are working towards achievement of the school's organisational and instructional goals. The implementation of accountability policies at the school level has the potential to reinforce the formal organisation and conflict with the school culture. Accountability processes designed around the line management structure of the school and the retention of control by super-ordinates will restrict the development of collegiate relationships within the school. Such processes are also inconsistent with the notion of transformational leadership because of their emphasis on controlling rather than empowering teachers. The incongruity between accountability and school culture superficially supports the proposition that implementation of accountability policies will not stimulate cultural growth.

A further consideration concerns school sub-cultures. If accountability practices cause tensions within a school staff between classroom practitioners and supervisory staff, it is possible for these two groups to develop disparate values and norms. Superordinates who share a common responsibility for implementation of an accountability programme and expectations of the behaviour of subordinates may develop their own sub-culture. Concurrently, the subordinates may also bond together to ward off the impact of accountability requirements on their professional activity and develop an opposing sub-culture based upon common resistance. Although the formation of conflicting sub-cultures is divisive of the prevailing school culture, stimulation of the cultural activity within such sub-cultures may effect long term cultural growth. For example, resistance to accountability procedures could result in teachers collaborating and developing a common understanding of their work and professional priorities. This is likely to trigger cultural growth by reaffirming the educative mission of the school and demonstrating the benefits of collective activity.

The accountability requirements of the formal organisation which have stimulated the cultural growth also have the potential to destroy the emergent culture. Cultural growth stimulated by collective resistance to external policy initiatives is occurring within a hostile organisational environment which will not be supportive of the emergent culture. Furthermore, if the emergent culture is perceived by line management staff to be a serious impediment to successful policy implementation, management strategies could be utilised to frustrate cultural growth. The endurance of cultural growth is dependent on the robustness of the emergent culture. The common teacher beliefs and attitudes which galvanised cultural growth need to have strength

sufficient to persist over the period of policy implementation. If this not the case, the emergent culture will fragment and the school culture will revert to its prior condition of weakness.

School Improvement through Cultural Intervention

Proposition 11: School improvement effected by cultural intervention relies upon teachers being knowledgeable about their school's culture and empowered to assume control of its growth.

In the preceding discussion of the influence of three systemic school improvement initiatives on school culture, school culture was portrayed as being reactive to external stimulation. The initiatives were essentially directed at improving the school by changing its organisation and operations. Effecting school improvement by cultural growth requires the target of improvement initiatives to be the culture itself and for the improvement process to be based upon cultural intervention. The objective of cultural intervention is clearly cultural growth, however the means by which it is to be facilitated and who is to assume responsibility for intervention are less obvious.

The community conception of schools is supportive of the notion of the culture being owned by the school community which also needs to be responsible for its maintenance and growth. The fundamental issue in cultural intervention is whether or not the members of a school community with a weak culture have the inclination or capacity to take control of the intervention process. It could be assumed that formal school leadership will assume responsibility for improvement of the school and the growth of

Conclusion

The School Improvement Model of School Culture provides a representation of culture consistent with the literature on school culture, school effectiveness, school improvement and the results of the empirical phases of this study.

The chapter examined eleven propositional statements about school culture, school improvement and their contextual influences:

- The stability of a school's culture results from the culture being able to maintain itself when subject to pressures from inside or outside of the school.
- Internal aspects of a school's culture can induce cultural change.
- Cultural change can be induced by participation in externally instigated innovations.
- School communities contain sub-cultures which are influential on overall school culture.
- The effectiveness of traditional school improvement programmes is restricted by the influence of organisational management conceptions of the nature of schools and organisational change.
- School improvement is a process of cultural growth.
- A well developed school culture has inertia resulting from internal stability and common perceptions of the school's mission.

- The growth of a school's culture is effected by school improvement strategies which focus on prevailing teacher beliefs, values and norms and also upon the processes of cultural development and maintenance.
- Positive cultural stimulation by external agencies can be considered as a process of intervention.
- Systemic school improvement initiatives can stimulate either growth or the decline of school culture.
- School improvement effected by cultural intervention relies upon teachers being knowledgable about their school's culture and empowered to assume control of its growth.

These eleven propositions were defended in consideration of the theoretical constructs of the School Improvement Model of School Culture and the empirical findings of the study.

The following chapter will evaluate the extent to which the study achieved its objectives and discuss emergent issues requiring further investigation.

CHAPTER 8

CONCLUSIONS AND IMPLICATIONS FOR SCHOOL IMPROVEMENT AND FUTURE RESEARCH

OVERVIEW

This final chapter examines the extent to which the research methods facilitated achievement of the objectives of the study. It also summarises findings of consequence for school improvement programme design and implementation. The chapter concludes with suggestions for the application of the results of the study in future research of school culture and improvement.

APTNESS OF THE RESEARCH PROCEDURES

The design of the study included the development of two preliminary models incorporating relevant theoretical considerations from the review of organisational and educational literature. The diversity of constructs in this literature and the paucity of comprehensive findings on school culture required the development of these theoretical frameworks. It needs to be emphasised that the cultural element and contextual model were developed to provide a theoretical structure for the study and

it was anticipated that as the study progressed, they would require refinement. This expectation was consistent with the developmental nature of the research design.

The Cultural Elements Model of School Culture portrayed the formation of school culture as a process of contraction in which the beliefs and values of individual teachers coalesced into a common and set of beliefs and values which characterised the culture. Articulation of school culture with the organisational and external environments could not be accommodated in this model because it placed school culture at the centre of the structure. This feature necessitated development of the contextual model which viewed school culture as an open system in interaction with the formal school organisation, the education system and the macro-political environment.

The evolution of the original cultural elements model into the School Improvement Model of School Culture presented in the previous chapter commenced in the quantitative phase of the investigation when radial graphs were utilised to profile school culture. A strong culture was evidenced by a symmetrical radial plot situated at the extremities of the axes. The growth of the culture resulted from development of the cultural elements which was represented by outwards progression along all the axes. This required placement of school culture at the extremities of the axes rather than the centre as was the case with the original model. A further benefit of this representation was its capacity to accommodate the notion of contextual influences because the rim of the structure, school culture, was accessible to influences external to the culture.

Notwithstanding the limitations of the two preliminary models, they provided utilitarian representations of cultural constructs for application in the design of the two empirical phases and gave the overall study theoretical consistency. Addressing the emergent inadequacies of the models was deferred until the completion of the empirical investigation and the availability of comprehensive data on the phenomenon.

The development and refinement of the School Cultural Elements Questionnaire was a major aspect of the study. The revised instrument scales were reasonably internally reliable and measured relatively independent aspects of school culture. The instrument was also sufficiently sensitive to reveal cultural variations in different schools and over time. The quantitative investigation was complemented by an interview programme. This provided internally reliable qualitative data exemplifying specific features of school culture, its contextual influences and school improvement related issues. The mixed-method design of the study was initially evaluated by comparison of the quantitative and qualitative data on the cultural elements and their temporal stability. The appropriateness of the research design was further tested by examination of the applicability of the interview data in explaining how the culture of schools interacted with internally and externally instigated school development initiatives. These findings were consistent with the theoretical propositions of the study which questioned the effectiveness of contemporary school and professional development programmes.

RESPONSES TO THE RESEARCH QUESTIONS

The study investigated the proposition that the improvement of schools was dependent upon transformation of school culture. The first research objective was

concerned with the nature and stability of Western Australian senior high school cultures.

1. What is the nature of the culture in Western Australian senior high schools?

- What aspects of the school comprise the culture of the school?
- What would be the components and structure of a model of school culture based upon research on school improvement?
- Can the culture of schools be measured?
- What is the significance of sub-cultures within a school?
- What is the temporal stability of sub-system and overall school culture?

School culture was summatively defined following completion of the empirical investigation and the analysis of its findings.

The culture of a learning community is manifested, developed, maintained and transformed by the sharing of beliefs, values and norms amongst teachers resulting in commonality of purpose and actions intended to improve the learning of both students and teachers.

The study identified six elements of school culture; professional values, emphasis on learning, collegiality, collaboration, shared planning and transformational leadership. These elements were the components of the School Improvement Model of School Culture. The School Cultural Elements Questionnaire was used to measure the culture of six senior high schools. SCEQ administration was supplemented by interviewing in the two case study schools. The combined findings revealed that faculty based sub-cultures displayed different characteristics but were generally consistent with overall school culture. The findings on temporal stability indicated that aspects of the culture of schools and their faculties changed over the period of investigation.

The second research objective focussed on the interaction of school culture with changes in the internal conditions of the school, educational system initiatives and the macro-political environment.

2. How does school culture interact with changes in the internal and external contexts of schools?

- In what ways does the prevailing school culture affect interact with internally initiated changes?
- How do changes in the policies and regulations of the educational system interact with the culture of a school?
- How do changes in the macro-political environment affect the culture of a school?

These questions were explored through the interview programme. School initiatives intended to improve student learning emerged as being influential on cultural development. Non-instructional operationally oriented school programmes were also influential on cultural change, but did not necessarily lead to cultural development. Interviewees perceived that their school's culture had the capacity to either accommodate or resist externally imposed innovations. The local systemic restructuring policies did not effect changes in school culture supportive of the policy intentions. Instead, there was evidence that the policies stimulated strengthening of cultural elements which increased the capacity of the culture to resist implementation. The policy implementation strategy of mandation was shown to be ineffective because it re-affirmed formal organisational aspects of schools and did not stimulate cultural growth.

The third research objective was concerned with identifying specific school conditions including school and professional development strategies which were supportive of cultural growth.

3. How can the culture of a school be improved?

- How does the prevailing culture of a school and sub-systems compare with that preferred by teachers?
- Are there school-wide and sub-system influences on cultural growth?
- What conditions are perceived by teachers as being necessary for cultural growth within the school?
- How are teacher and school development activities related to cultural growth?

Interviewing indicated that teachers had an appetite for school development activities which facilitated cultural growth. Previous school improvement initiatives perceived to improve student learning outcomes and increase levels of professional values, collegiality, collaboration, shared planning and transformational leadership, were favourably commented upon by teachers.

The theoretical propositions embodied in the research questions and developed during the investigation about cultural growth and effective school improvement were confirmed during the investigation.

IMPLICATIONS FOR SCHOOL IMPROVEMENT

The results of the study are significant for educators and educational researchers concerned with school improvement.

In order that school improvement initiatives should effect cultural growth, school personnel need to be in control of school improvement programmes and their school's culture. Exercise of control requires a theoretical and practical understanding of cultural transformation processes consistent with improved educational outcomes. The School Improvement Model of School Culture and the operational definitions of the cultural elements provide a relatively simple representation of key theoretical constructs. These constructs were utilised during the interview programme and incorporated into the school improvement programme which accompanied SCEQ administration. The structure and terminology of the two original models and the revised model were easily understood by teachers and stimulated vigorous discussion about the operation and future growth of their school.

The SCEQ also proved to be an effective vehicle for informing teachers of their prevailing and preferred school culture. Utilisation of a survey instrument to collect this information is essentially an objective process and although the data from individual respondents is subjective, the aggregated data is relatively impersonal. Comparison of actual and preferred form data by teachers is a convincing exercise, particularly when the preferred data is markedly different from the actual data. The utility of the SCEQ is enhanced by the theoretical model which places the data within a theoretical structure inclusive of propositions about contextual influences.

The School Improvement Model of School Culture provides a comprehensive perspective on school culture which was lacking in the research literature. The cultural elements describe both the values and norms which characterise the culture and also the processes by which the culture has developed. The six elements provide a six factor framework for classifying school culture which is more detailed than existing typologies. The process orientation of the model is applicable to development programmes by identifying desirable school practices. The six elements embody propositions about the behaviour and professional conduct of administrators and teachers. The cultural elements and the model were developed in cognisance of the research evidence on school effectiveness and improvement. The rationale for developing the model was to facilitate examination of cultural aspects of schools which were expected to be influential on the educative mission of schools. The model represents a departure from traditional approaches to examining school culture by placing the phenomenon within a school improvement context. This aspect of the model is strengthened by its development being undertaken in consideration of sociological and organisational management conceptions of schools. The model builds upon and extends existing conceptions of schools and how they change, it provides a unifying framework for school improvement research.

The School Cultural Elements Questionnaire provides researchers with a tool for collecting quantitative information on the learning environment existing within schools. Instrument development was based upon the design features of school climate instruments, however, its theoretical basis was deliberately focussed on school effectiveness and improvement constructs. The limiting of the SCEQ scales to cultural

and effectiveness constructs in comparison to the greater range of constructs measured by learning environment and school climate instruments could be considered restrictive. However, by concentrating on aspects of schools which were expected to enhance student learning, the SCEQ can be considered as a refinement and extension of previous instruments and their theoretical backgrounds. The SCEQ is a research tool designed in consideration of contemporary conceptions of schools and the influences upon their improvement.

IMPLICATIONS FOR FUTURE RESEARCH

The study investigated senior high schools in Western Australia. Although some elementary school data were collected during SCEQ development, the instrument and the constructs in the School Improvement Model of School Culture require testing in a large sample of elementary schools. The restriction of data collection to local schools could be addressed by investigation of schools in other Australian states and overseas. A national and international sample of several thousand teachers would facilitate a second round of factor analysis of SCEQ data and further refinement of the instrument and the theoretical constructs.

Longitudinal school effectiveness research includes measurement of school environmental factors and the investigation of their relationship to student learning outcomes. The SCEQ has application in this area of research by providing a reliable means of collecting data on school cultural variables. The cultural elements were identified from the findings of previous research and there is a need to confirm their influence on the effectiveness of school instructional programmes. Employment of the

SCEQ in a school effectiveness investigation would facilitate examination of relationships between its scales and student learning outcomes

The organisational management background of the study which underpinned the requirement for investigating school culture also makes the findings of the study potentially relevant to non-educational organisations. The cultural elements provide a framework for examining organisational culture, it is likely that many of the constructs and sub-constructs used in the development of the SCEQ have applicability in non-educational settings. Replication of the study in other types of organisations could make a contribution to the study of public and business administration and the general field of organisational change.

It is likely that the constructs have application in classroom environment research. Instructional practices based upon the notion of 'student centred learning' are consistent with the proposition of the classroom being a mini-community with its own culture. The six cultural elements could be redefined in terms of classroom values and norms. For example: professional values could be replaced by student values; transformational leadership by transformative teaching; collaboration and shared planning would focus on curriculum and instructional organisation; an emphasis on learning would concern student values about learning; and collegiality would centre upon the development of collegial relationships within the classroom and the empowerment of students. The underlying assumption would be that a classroom culture comprising these elements would facilitate improved student learning.

Another possible application of the study's findings is in the investigation of parental and local community perceptions of schools. Parental participation in schools has been identified as an indicator of school effectiveness. The notion of school culture could be extended to be inclusive of the values and norms of the wider school community towards the school and its operations. The notion of students and parents being clients of the school would be replaced by community conception which is inclusive of all persons involved with the school and its educative function. The six cultural elements could be redefined in terms of parental and community values and norms. For example, parental values could concern responsibility for the education and development of their children; an emphasis on learning could relate to the school's instructional programme; collegiality could centre upon parent-staff relationships; collaboration and shared planning could include parental involvement in formal school activities including decision-making and planning; and transformational leadership could relate to perceptions of the school leadership's role in school growth.

The findings of the study concerning school improvement are of consequence to the planning implementation and evaluation of school improvement initiatives. Apart from the requirement to give attention to the prevailing and preferred school culture in the design and execution of improvement strategies, the SCEQ also provides a means of quantifying changes in school culture. Longitudinal SCEQ administration is a simple alternative to traditional school effectiveness research which utilises relatively complex statistical procedures to identify long term changes in student learning outcomes. The SCEQ has proven sufficiently sensitive to measure statistically significant changes in the cultural elements over a one year period.

The School Improvement Model of School Culture and the School Cultural Elements Questionnaire are expected to have application in school effectiveness and improvement research. It is also possible that a refined model and instrument could be utilised in investigation of classroom environments, parental perceptions of school culture and the culture of non-educational organisations.

Conclusion

The study has questioned the applicability of organisational management theory in describing schools and how they change. It has demonstrated the utility of an alternative theoretical approach based upon the notion of the school being reconceptualised as a learning community. The study identified differences between this representation of schools and the traditional organisational management conception of schools. These were:

Organisational Constructs

Management theory
 Formal organisation
 Organisational climate
 Roles and responsibilities
 Administrative processes
 Organisational effectiveness
 Organisational development
 Professional development
 Leadership

 Organisational objectives
 Curriculum

Learning Community Constructs

Pedagogy
 Learning community
 School culture
 Natural interdependencies
 Cultural processes
 Improved student outcomes
 Cultural growth
 Teacher learning
 Facilitation of cultural transformation
 Learning outcomes
 Student centred learning

The design and implementation of successful school improvement programmes need to be undertaken in cognisance of the characteristics of these two theoretical approaches. Furthermore, the study has evidenced the importance of effecting cultural change in school improvement activities. Sustained school improvement which improves the learning outcomes of students requires changing the beliefs, attitudes and norms of teachers.

The study identified professional values, an emphasis on learning, collegiality, collaboration, shared planning and transformational leadership as the elements of a school culture oriented towards school improvement. These elements were included in a model which can be applied by practitioners and researchers in describing the prevailing culture of schools and the processes by which that culture has developed, is maintained and can be transformed. By identifying and clarifying theoretical constructs pertinent to contemporary conceptions of schools and school improvement, the study has provided a foundation for future research. Research applications include the study of learning environments, organisational theory and organisational change.

BIBLIOGRAPHY

- Anderson, C. S. (1982) . The search for school climate: a review of the research.
Review of Educational Research, 52(3), 368-420.
- Barnard, C. I. (1938) . *The functions of the executive*. Cambridge Massachusetts:
Harvard University Press.
- Bates, R. J. (1987) . Corporate culture, schooling and educational administration.
Educational Administration Quarterly, 23(4), 79-115.
- Beeson, G. W. and Matthews, R. J. (1993) . *Collaborative decision making between
new principals and teachers: policy and practice*. Reports - Speeches/
Conference Papers (150). (ERIC Document Reproduction Service No ED 361
837).
- Benjamin, S. and Gard, J. (1993) . Creating a climate for change: students, teachers,
administrators working together. *NASSP Bulletin*, 77(552), 63-67.
- Bidwell, C. E. (1965) . *The school as a formal organisation*. Handbook of
Organisations. March, J. G. (Ed). Illinios. Rand McNally and Company.
- Boudling, K. (1956) . General systems theory: the skeletons of science. *Management
and Science*, 1956, (April), 197-208.

- Boyd, V. and Hord, S. M. (1993) . *Principals and the new paradigm: schools as learning communities*. Presented paper, American Educational Research Association, Atlanta, Georgia.
- Caldwell, B. J. (1993) . Paradox and uncertainty in the governance of education. Beare, H. and Boyd, W. L. (Eds) , *Restructuring schools: an international perspective on the movement to transfer the control and performance of schools* (158-173) London: The Falmer Press.
- Chadbourne, R. and Clarke, R. (1994) . *Devolution, 'the next phase' WASPA response*. Perth: Western Australian Secondary Principals' Association.
- Chapman, J. (1993) . Leadership, management and 'the effectiveness of schooling': A response to Mr Gradgrind. *Journal of Educational Administration*, 31(4), 4-18.
- Chapman, J. and Boyd, W. L. (1986) . Decentralisation, devolution and the school principal: Australian lessons on Statewide educational reform. *Educational Administration Quarterly*, 22(4), 28-58.
- Corbett, H. D. , Firestone, W. A. and Rossman, G. B (1987) . Resistance to planned change and the sacred in school cultures. *Educational Administration Quarterly*, 23(4), 36-59.

- Cuban, L. (1987) . Cultures of teaching: a puzzle. *Educational Administration Quarterly*, 23,(4), 25-35.
- Cuttance, P. (1990) . *Performance indicators and the management of quality in education*. Reports - Speeches/Conference Papers (150). (ERIC Document Reproduction Service No ED 333 575).
- Dalin, P. , Rolff, H. and Kleekamp, B. (1993) . *Changing the school culture*. London: Cassell.
- Dellar, G. B. (1996) . *School-development plans: are they having an impact on teaching?* Presented paper, American Educational Research Association, New York.
- Dellar, G. B. and Giddings, G. J. (1991) . *School organisational climate and school improvement*. Speeches/Conference Papers (150). (ERIC Document Reproduction Service No ED 333 563).
- Donahoe, T. (1993) . Finding the way: structure, time and culture in school improvement. *Phi Delta Kappan*, 75(4), 298-306.
- Dunstan, J. F. (1986) . *The impact of changing values on organisational structures in education*. Reports - Speeches/Conference Papers (150). (ERIC Document Reproduction Service No ED 275 075).

- Education Department of Western Australia. (1996) . *Improving and reporting schools' performance*. Perth: Education Department.
- Education Department of Western Australia. (1996) . *Promotions and transfers*. Perth: Education Department of Western Australia.
- Education Policy and Coordination Bureau. (1994) . *Devolution of decision-making authority in the government school system of Western Australia*. Perth: Education Policy and Coordination Bureau.
- Erikson, F. E. (1987) . Conceptions of school culture: an overview. *Educational Administration Quarterly*, 23(4), 11-24.
- Etzioni, A. (1964) . *Modern organisations*. New Jersey: Prentice-Hall.
- Faber, C. F. and Shearron, G. F. (1970) . *Elementary school administration*. New York: Holt, Rinehart and Winston, Inc.
- Fayol, H. (1949) . *General and industrial management*. London: Sir Isaac Pitman and Sons Ltd.
- Fiedler, F. E. (1967) . *A theory of leadership effectiveness*. New York: McGraw-Hill Book Company.

- Filey, A. C. and House, R. J. (1969) . *Managerial process and organisational behaviour*. Illinois. Scott, Foreman and Company.
- Follett, M. P. (1941) . *Dynamic administration: the collected papers of Mary Parker Follett*. Metcalfe, H, C. and Urwick, L. (Eds). New York: Harper and Brothers.
- Friedman, I. A. (1991) . High and low burnout schools: school culture aspects of teacher burnout. *Journal of Educational Research*, 84(6), 325-333.
- Fullan, M. G. (1993) . *Change forces probing the depths of educational reform*. London: The Falmer Press.
- Fullan, M. G. and Hargreaves, A. (1992) . *What's worth fighting for in your school?* Buckingham: Open University Press.
- Fullan, M. G. (1992) . Visions that blind. *Educational Leadership*, 49(5), 19-20.
- Fullan, M. G. , Bennett, B. and Rolheiser-Bennett, C. (1990) . Linking classroom and school improvement. *Educational Leadership*, 47(8), 13-19.
- Getzels, J. W. , Lipham, J. M. and Campbell, R. F. (1968) . *Educational administration as a social process*. New York: Harper and Row, Publishers.

- Getzels, J. W. and Guba, E. G. (1957) . Social behaviour and the administrative process. *School Review*, 65(12), 423-441.
- Getzels, J. W. and Thelen, H. A. (1960) . The classroom group as a unique social system. *NSSE Yearbook*, 49 (2), 80. Chicago: National Society for the Study of Education.
- Gibb, C. A. (1954) . Leadership. *Handbook of Social Psychology, Vol 11*, G. Lindzey Ed. Massachusetts: Addison-Wesley Publishing Company, Inc.
- Gibson, J. L. , Ivancevich, J. M. and Donnelly, J. H. (1985) . *Organisations: behaviour, structure and processes*. Plano, Texas: Business Publications, Inc.
- Greene, J. C., Caracelli, V. J. and Graham, W. F. (1989) . Towards a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis*, 11(3) , 255-274.
- Gulick, L. (1937) *Papers on the science of administration*. Gulick, L. and Urwick, L. (Eds). New York: Institute of Public Administration.
- Halpin, A. W. and Croft, D. B. (1962) . *The organisational climate of schools*. Washington DC: Office of Education.

- Hanson, E. M. (1979) . *Educational administration and organisational behaviour*.
Boston: Allyn and Bacon, Inc.
- Hargreaves, A. (1994) . *Changing teachers, changing times: teachers' work and culture in the postmodern age*. London: Cassell.
- Hargreaves, D. (1995) . School culture, school improvement and school effectiveness. *School Effectiveness and School Improvement*, 6(1), 23-46.
- Hillman, J. and Stoll, L. (1994). *Research matters No. 1: understanding school improvement*. London: Institute of Education.
- House, R. J. and Mitchell, T. R. (1974) . Path-goal theory of leadership. *Journal of Contemporary Business*, 1974,(3), 81-97.
- Hoy, W. K. and Miskel, C. G. (1987) . *Educational administration theory research and practice*. New York: Random House.
- Johnson, W. L. (1993) . *The school work culture profile: a factorial analysis and strategy*. Reports - Research and Technical (143). (ERIC Document Reproduction Service No ED 360 336).
- Kampol, B. (1990) . Utilising curriculum, classroom practice, culture and climate. *NASSP Bulletin*, 74(529), 39-43.

Katz, D. and Kahn, R. L. (1966) . *The social psychology of organisations*. New York: John Wiley and Sons, Inc.

Kenney, G. E. and Butler, E. D. (1992) . *The relationship between school climate, PATS programme participation, and organisational level*. Speeches/ Conference Papers (150). (ERIC Document Reproduction Service No ED 364 944).

Knezecich, S. J. (1975) . *Administration of public education*. New York: Harper & Row Publishers Inc.

Kogan, M. (1988) . *Education accountability. an analytic overview*. London: Hutchinson.

Krober, A. L. (1952) . *The nature of culture*. Chicago: University of Chicago Press.

Lawrence, P. R. and Lorsch, J. W. (1967) *Organisation and environment*. Boston: Harvard School of Business Administration.

Lee, G. V. (1991) . Instructional leadership as sense-making. *Theory into Practice*, 30,(2), 83-90.

Leithwood, K. , Jantzi, D. and Fernandez, A. (1993) . *Secondary school teachers' commitment to change: the contributions of transformational leadership.*

Presented paper, American Educational Research Association, Atlanta, Georgia.

Leithwood, K. A. (1992) . The move towards transformational leadership.

Educational Leadership, 49(5), 8-12.

Louden, L. W. and Browne, R. K. (1993) . Developments in education policy in

Australia: a perspective on the 1980s. Beare, H. and Boyd, W. L. (Eds) ,

Restructuring schools: an international perspective on the movement to

transfer the control and performance of schools (106-135) London: The

Falmer Press.

Luthans, F. L. (1973). *Organisational behaviour*. Tokyo: McGraw-Hill Kogakusha,

Ltd.

MacGilchrist, B. (1995) . *School development planning*. SIN Research Matters No.

4. London: Institute of Education.

Marsh, C. J. (1990) . Managing for total school improvement. Chapman, J. D. (Ed)

School decision-making and management. (pp 147-161) Hampshire The

Falmer Press.

Marshall, S. J. (1993) . Managing the culture; the key to effective school change.

School Organisation, 13(3), 255-268.

Maxwell, T. W. and Thomas, A. R. (1991) . School climate and school culture.

Journal of Educational Administration, 29(2), 72-82.

Merrill, F. E. (1969) . *Society and culture: an introduction to sociology*. New Jersey:

Prentice-Hall, Inc.

Meyer, J. W. and Rowan, B. (1965) . The structure of educational organisations.

Meyer, M. W. (Ed). *Environments and organisations*. San Francisco: Jossey-

Bass.

Meyer, J. W. and Scott, W. R. (1983) . *Organisational environments: rituals and*

rationality. California. Sage.

Miles, M. B. and Lewis, S. K. (1990) . Mustering the will and skill for change.

Educational Leadership, 47(8), 57-61.

Ministry of Education. (1989) . *School development plans: policy and guidelines*.

Perth: Western Australian Ministry of Education.

Ministry of Education. (1990) . *School decision making: policy and guidelines*. Perth:

Western Australian Ministry of Education.

- Ministry of Education. (1991) . *School accountability: policy and guidelines*. Perth:
Western Australian Ministry of Education.
- Mitchell, J. T. and Willower, D. J. (1992) . Organisational culture in a good high
school. *Journal of Educational Administration*, 30(1), 6-16.
- Mooney, J. D. and Reiley, A. C. (1931) . *Onward industry!* New York: Harper and
Brothers.
- Moore, C. E. (1987) . Restructured schools: how, why do they work. *NASSP
Bulletin*, 77(553), 64-69.
- Myers, K. (1996) . *School improvement in practice*. London: Falmer Press.
- Parson, T. and Shills, E. A. (1951) . *Towards a general theory of action*. Cambridge:
Harvard University Press.
- Prestine, N. A. (1991) . Shared decision making in restructuring essential schools: the
role of the principal. *Planning and Changing*, 22(3/4), 160-176.
- Regan H. B. (1992) . *Teacher: a new definition and model for development and
evaluation*. Reports - Descriptive (141). (ERIC Document Reproduction
Service No Ed 362 502).

Roethlisberger, F. J. and Dickson, W. J. (1939) . *Management and the worker*.

Cambridge Massachusetts: Harvard University Press.

Sammons, P. , Thomas, S. and Mortimore, P. (1995) . *Accounting for variations in academic effectiveness between schools and departments*. Presented paper 1995, European Conference on Educational Research, Bath.

Schmuck, P. A. (1992) . Educating the new generation of superintendents.

Educational Leadership, 49(5), 66-71.

Scott, W. G. (1961) . Organisation theory: an overview and approach. *Academy of Management Journal*, 1961 (April), 15.

Scott, W. G. (1981) . *Organisations: rational, natural and open systems*. New Jersey: Prentice-Hall.

Sergiovanni, T. J. (1990) . Adding value to leadership gets extraordinary results.

Educational Leadership, 47(5), 23-27.

Sergiovanni, T. J. (1992) . Why we should seek substitutes for leadership.

Educational Leadership, 49(5), 41-45.

- Sergiovanni, T. J. (1993) . *Organisations or communities? changing the metaphor changes the theory*. Invited address, American Educational Research Association, Atlanta, Georgia.
- Simon, H. A. (1957) . *Administrative behaviour*. New York: The Macmillan Company.
- Southworth, G. (1993) . School leadership and school development: reflections from research. *School Organisation*, 13(1), 73-87.
- SPSS. (1993) . *SPSS for windows*. Chicago: SPSS Inc.
- Stogdill, R. M. (1948) . Personal factors associated with leadership. *Journal of Psychology*, 25(1), 35-71.
- Stoll, L. and Fink, D. (1996) . *Changing our schools*. Buckingham: Open University Press.
- Stoll, L. and Mortimer, P. (1995) . *Viewpoint no 2: school effectiveness and school improvement*. London: Institute of Education.

- Tagiuri, R. (1968) . The concept of organisational climate. *Organisational climate: Exploration of a concept*. Tagiuri, R. and Litwin, G. H. (Eds). Boston: Harvard University, Division of Research, Graduate School of Business Administration.
- Taylor, F. W. (1911) . *The principles of scientific management*. New York: Harper and Brothers.
- Thompson, J. D. (1967) . *Organisations in action*. New York: McGraw-Hill.
- Urwick, L. (1937) *Papers on the science of administration*. Gulick, L. and Urwick, L. (Eds). New York: Institute of Public Administration.
- Weber, M. (1947) . *The theory of social and economic organisation*, Talcott Parsons (Ed). New York: Free Press.
- West, M. and Hopkins, D. (1996) . *Re-conceptualising school effectiveness and school improvement*. Presented paper, American Educational Research Association, New York.
- Whitaker, P. (1993) . *Managing change in schools*. Buckingham: Open University Press.

Yin, R. K. (1989) . *Case study research design and methods*. Newbury Park London:
Sage Publications.

APPENDIX 1

SCHOOL CULTURAL ELEMENTS QUESTIONNAIRE SCALES

Professional Values

Professional values concern the importance of the application of pedagogical principles and practices to effect changes in the development of children. Teachers with strong professional values:

- Believe in the importance of educating children
- Are committed to improving the quality of education
- Believe that they contribute to the enculturation of students
- Recognise the role of education in contributing to the development of society
- Value the creativity of students
- Respect the individual differences between students
- Have a conviction that every child can learn
- Conceptualise learning as a developmental process

Teachers as Learners

Teachers who are learners have a commitment to their own learning and professional growth. Teachers who believe that they should be learners:

- Engage in self reflection
- Have a knowledge of relevant educational research
- Recognise the importance of professional growth
- Perceive the school as a learning community
- Are receptive to advice from colleagues
- Learn from students
- Experiment with new teaching strategies
- Are responsive to societal changes

Collegiality

Collegiality is interaction between individuals resulting from a need to maintain or develop inter-personal relationships. Teachers who value collegiality:

- Accept the need for interdependency
- Understand their obligations to colleagues
- Are committed to maintaining personal relationships
- Respect the different personalities of colleagues

- Help each other meet individual needs
- Seek the assistance of colleagues when faced with problems
- Support the cohesion of groups
- Develop bonding with colleagues

Mutual Empowerment

Mutual empowerment is the deliberate motivation, affirmation and confirmation of the ability of colleagues to exercise professional judgements. Teachers who believe in empowering colleagues:

- Encourage the professional growth of colleagues
- Know the boundaries between individual and group necessitated decisions
- Acknowledge the professional achievements of colleagues
- Support the professional judgements of each other
- Encourage each other to make professional decisions
- Encourage each other to accept responsibility for particular projects
- Have confidence to make decisions which may have consequences for colleagues
- Expect that colleagues will support their own professional judgements

Collaboration

Collaboration is interaction between teachers as a consequence of organisational needs.

Teachers who collaborate:

- Participate in meetings
- Contribute items for meeting agendas
- Engage in debate during meetings
- Work together to implement the decisions of meetings
- Share knowledge of the structure and content of the curriculum
- Discuss teaching strategies
- Reach common agreement on assessment procedures
- Develop common understandings about student management procedures

Shared visions

Shared visions are commonly developed, accepted and implemented expressions of the future direction of the school. Teachers with shared visions:

- Contemplate personal visions of the school's future
- Discuss their own visions with colleagues
- Accept that school visions need to be the result of consensus
- Develop common visions of the future direction of the school
- Understand their own role in achieving school-wide visions
- Contribute to the implementation of school-wide visions
- Co-operate in the implementation of school-wide visions
- Reflect upon the appropriateness of the current visions

School-wide Planning

School-wide planning is a formal process of cyclical school improvement in response to the needs of the school and the educational system. The school staff collectively:

- Consider the policy and regulatory requirements of the educational system
- Identify a set of comprehensive goals for the school
- Specify how the level of goal attainment can be gauged
- Collect relevant information on current school programs and student achievement
- Make judgements about existing programs
- Decide upon strategies to improve current practices
- Implement new or modified programs
- Evaluate the progress of innovations

Transformational Leadership

Transformational leaders share power and facilitate a school development process that engages the human potential and commitment of teachers. Transformational leaders:

- Share power and influence
- Obtain support for school programs by non-bureaucratic methods
- Encourage others to accept leadership roles
- Support teachers and encourage their professional growth

- Relate to teachers in a personalised manner
- Demonstrate respect for the self esteem and autonomy of teachers
- Generate a personal commitment from teachers for school improvement activities
- Consolidate improvements by maintaining support

APPENDIX 2

SCHOOL CULTURAL ELEMENTS QUESTIONNAIRE

SCHOOL CULTURAL ELEMENTS QUESTIONNAIRE

This questionnaire is likely to take you about 30 minutes to complete.

To ensure that your individual responses will be anonymous do not write your name on the form. However, to assist with research please indicate whether you work in a primary or secondary situation and if secondary, your main teaching area.

Type of school _____

Teaching area _____

Section 1 Actual Form of Cultural Elements

This section contains a number of alternative statements about things which occur in some schools. After reading each of the statements carefully, indicate to what extent you agree or disagree that each of the statements **actually** applies to **your school**.

Some statements in this section are fairly similar to other statements. Don't worry about this - simply select the response which best describes your agreement or disagreement by drawing a **circle** around:

- | | |
|---|--|
| 5 | if you Strongly Agree with the statement |
| 4 | if you Agree with the statement |
| 3 | if you are Uncertain about the statement |
| 2 | if you Disagree with the statement |
| 1 | if you Strongly Disagree with the statement |

Please respond to all the statements but do **not** circle more than **one** response to each.

- | | | | | | |
|--|---|---|---|---|---|
| 1. I am proud to be an educator. | 5 | 4 | 3 | 2 | 1 |
| 2. I spend time in personal reflection about my work. | 5 | 4 | 3 | 2 | 1 |
| 3. I accept the need for support from colleagues. | 5 | 4 | 3 | 2 | 1 |
| 4. I always provide encouragement for colleagues who are studying or involved in professional development. | 5 | 4 | 3 | 2 | 1 |
| 5. Participation in meetings is always high. | 5 | 4 | 3 | 2 | 1 |
| 6. I do not have a personal vision of how I would like the school to be. | 5 | 4 | 3 | 2 | 1 |
| 7. Education Department priorities are incorporated into school priorities. | 5 | 4 | 3 | 2 | 1 |
| 8. The principal and deputies are the most influential members of the staff. | 5 | 4 | 3 | 2 | 1 |
| 9. Students are not provided with the skills needed for future educational or vocational experiences. | 5 | 4 | 3 | 2 | 1 |
| 10. The findings of educational research have not influenced my teaching. | 5 | 4 | 3 | 2 | 1 |
| 11. Teachers have an understanding of how to support each other. | 5 | 4 | 3 | 2 | 1 |
| 12. I am unsure of how strongly I should express my own opinions with colleagues. | 5 | 4 | 3 | 2 | 1 |
| 13. Items for discussion at meetings always come from the same people. | 5 | 4 | 3 | 2 | 1 |
| 14. We talk amongst each other about the future direction of the school. | 5 | 4 | 3 | 2 | 1 |

15. The school staff have not identified a set of priorities for future development. 5 4 3 2 1
16. The hierarchical rank of the principal and deputies ensures the cooperation of teachers. 5 4 3 2 1
17. Developing the social skills of students is important. 5 4 3 2 1
18. The professional growth of teachers does not improve the school. 5 4 3 2 1
19. Teachers do not make an effort to maintain positive relationships with colleagues. 5 4 3 2 1
20. I always praise colleagues who have done something special at school. 5 4 3 2 1
21. There is little debate in meetings. 5 4 3 2 1
22. Expressions of the school's future vision do not reflect staff consensus. 5 4 3 2 1
23. We have identified ways of determining if school priorities are achieved. 5 4 3 2 1
24. The school administration does not encourage others to take control of new projects. 5 4 3 2 1
25. Educational programs don't contribute to improving the quality of life in our society. 5 4 3 2 1
26. Teachers learn from each other. 5 4 3 2 1
27. Teachers do not have respect for the personal qualities of colleagues. 5 4 3 2 1
28. My professional decisions are not usually supported by colleagues. 5 4 3 2 1
29. We work together to implement the decisions of meetings. 5 4 3 2 1

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	4
30. We have not developed a common vision for the school's future.				5 4 3 2 1	
31. We do not gather data for gauging the success of school programs.				5 4 3 2 1	
32. The principal and deputies do not encourage the professional growth of teachers.				5 4 3 2 1	
33. The creative potential of students is not realised.				5 4 3 2 1	
34. I am receptive to advice from colleagues about my teaching.				5 4 3 2 1	
35. We are willing to help each other when problems arise.				5 4 3 2 1	
36. We always encourage each other to exercise our professional judgements.				5 4 3 2 1	
37. We frequently discuss what should be taught in particular curricula or courses.				5 4 3 2 1	
38. I have a clear understanding of how I can contribute to realising the future vision for the school.				5 4 3 2 1	
39. We do not always evaluate the success of existing school programs.				5 4 3 2 1	
40. Members of the administration show a genuine concern for me as a person.				5 4 3 2 1	
41. Individual differences between students are not catered for.				5 4 3 2 1	
42. Classroom experience has not improved my understanding of student learning.				5 4 3 2 1	
43. Teachers are reluctant to share problems with each other.				5 4 3 2 1	
44. We encourage each other to take responsibility for new projects.				5 4 3 2 1	

45. Teaching methods and strategies are not discussed sufficiently. 5 4 3 2 1
46. I work towards achieving the school vision. 5 4 3 2 1
47. We have recognised procedures for deciding upon new projects. 5 4 3 2 1
48. The principal and deputies give teachers sufficient "space" to get on with their work. 5 4 3 2 1
49. We believe that every child can learn. 5 4 3 2 1
50. I still find new ways to improve my teaching. 5 4 3 2 1
51. The cohesion of the staff team is not of consequence to teachers. 5 4 3 2 1
52. I do not trust my own judgement to make decisions which may have consequences for colleagues. 5 4 3 2 1
53. We often compare how we assess student achievement. 5 4 3 2 1
54. Teachers are not unified in working towards the school's future vision. 5 4 3 2 1
55. Teachers have not implemented school priorities. 5 4 3 2 1
56. Members of the administration generate a personal commitment from teachers that ensures the success of innovations. 5 4 3 2 1
57. Improvements in student achievement are rewarded. 5 4 3 2 1
58. Changes in society have not changed my teaching. 5 4 3 2 1
59. Teachers value the development of friendships between colleagues. 5 4 3 2 1

60. I do not expect colleagues to acknowledge my efforts and endeavours. 5 4 3 2 1

61. Student behaviour management strategies are not discussed sufficiently. 5 4 3 2 1

62. The appropriateness of current expressions of visions for the school's future is questioned. 5 4 3 2 1

63. The progress of innovations is subject to careful scrutiny. 5 4 3 2 1

64. The persistence of successful innovations is assisted by visible ongoing support from the administration. 5 4 3 2 1

Please take a break of one minute before answering Section 2 of the questionnaire

Section 2: Preferred Form of Cultural Elements

This section contains a number of statements about the school in which you would wish to work. You are asked to give your opinion about how well each statement describes what you would **prefer** this school to be like.

Some statements in this section are fairly similar to other statements. Don't worry about this - simply indicate how well each statement describes your **preference** for your ideal school by drawing a **circle** around:

- 5 if you **Strongly Agree** that this would be preferable for your school
- 4 if you **Agree** that this would be preferable for your school
- 3 if you are **Uncertain** that this would be preferable for your school
- 2 if you **Disagree** that this would be preferable for your school
- 1 if you **Strongly Disagree** that this would be preferable for your school

Please respond to all the statements but do **not** circle more than **one** response to each.

- | | | | | | |
|--|---|---|---|---|---|
| 1. I would be proud to be an educator. | 5 | 4 | 3 | 2 | 1 |
| 2. I would spend time in personal reflection about my work. | 5 | 4 | 3 | 2 | 1 |
| 3. I would accept the need for support from colleagues. | 5 | 4 | 3 | 2 | 1 |
| 4. I would always provide encouragement for colleagues who are studying or involved in professional development. | 5 | 4 | 3 | 2 | 1 |
| 5. Participation in meetings would always be high. | 5 | 4 | 3 | 2 | 1 |
| 6. I would not have a personal vision of how I would like the school to be. | 5 | 4 | 3 | 2 | 1 |
| 7. Education Department priorities would be incorporated into school priorities. | 5 | 4 | 3 | 2 | 1 |
| 8. The principal and deputies would be the most influential members of the staff. | 5 | 4 | 3 | 2 | 1 |
| 9. Students would not be provided with the skills needed for future educational or vocational experiences. | 5 | 4 | 3 | 2 | 1 |
| 10. The findings of educational research would not influence my teaching. | 5 | 4 | 3 | 2 | 1 |
| 11. Teachers would have an understanding of how to support each other. | 5 | 4 | 3 | 2 | 1 |
| 12. I would be unsure of how strongly I should express my own opinions with colleagues. | 5 | 4 | 3 | 2 | 1 |
| 13. Items for discussion at meetings would always come from the same people. | 5 | 4 | 3 | 2 | 1 |

14. We would talk amongst each other about the future direction of the school. 5 4 3 2 1
15. The school staff would not have identified a set of priorities for future development. 5 4 3 2 1
16. The hierarchical rank of the principal and deputies would ensure the cooperation of teachers. 5 4 3 2 1
17. Developing the social skills of students would be important. 5 4 3 2 1
18. The professional growth of teachers would not improve the school. 5 4 3 2 1
19. Teachers would not make an effort to maintain positive relationships with colleagues. 5 4 3 2 1
20. I would always praise colleagues who have done something special at school. 5 4 3 2 1
21. There would be little debate in meetings. 5 4 3 2 1
22. Expressions of the school's future vision would not reflect staff consensus. 5 4 3 2 1
23. We would have identified ways of determining if school priorities are achieved. 5 4 3 2 1
24. The school administration would not encourage others to take control of new projects. 5 4 3 2 1
25. Educational programs would not contribute to improving the quality of life in our society. 5 4 3 2 1
26. Teachers would learn from each other. 5 4 3 2 1
27. Teachers would not have respect for the personal qualities of colleagues. 5 4 3 2 1

28. My professional decisions would not usually be supported by colleagues. 5 4 3 2 1
29. We would work together to implement the decisions of meetings. 5 4 3 2 1
30. We would not developed a common vision for the school's future. 5 4 3 2 1
31. We would not gather data for gauging the success of school programs. 5 4 3 2 1
32. The principal and deputies would not encourage the professional growth of teachers. 5 4 3 2 1
33. The creative potential of students would not be realised. 5 4 3 2 1
34. I would be receptive to advice from colleagues about my teaching. 5 4 3 2 1
35. We would be willing to help each other when problems arise. 5 4 3 2 1
36. We would always encourage each other to exercise our professional judgements. 5 4 3 2 1
37. We would frequently discuss what should be taught in particular curricula or courses. 5 4 3 2 1
38. I would have a clear understanding of how I could contribute to realising the future vision for the school. 5 4 3 2 1
39. We would not always evaluate the success of existing school programs. 5 4 3 2 1
40. Members of the administration would show a genuine concern for me as a person. 5 4 3 2 1
41. Individual differences between students would not be catered for. 5 4 3 2 1

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	10
42. Classroom experience would not have improved my understanding of student learning.	5	4	3	2	1	
43. Teachers would be reluctant to share problems with each other.	5	4	3	2	1	
44. We would encourage each other to take responsibility for new projects.	5	4	3	2	1	
45. Teaching methods and strategies would not be discussed.	5	4	3	2	1	
46. I would work towards achieving the school vision.	5	4	3	2	1	
47. We would have recognised procedures for deciding upon new projects.	5	4	3	2	1	
48. The principal and deputies would give teachers sufficient "space" to get on with their work.	5	4	3	2	1	
49. We would believe that every child can learn.	5	4	3	2	1	
50. I would find new ways to improve my teaching.	5	4	3	2	1	
51. The cohesion of the staff team would not be of consequence to teachers.	5	4	3	2	1	
52. I would not trust my own judgement to make decisions which may have consequences for colleagues.	5	4	3	2	1	
53. We would often compare how we assess student achievement.	5	4	3	2	1	
54. Teachers would not be unified in working towards the school's future vision.	5	4	3	2	1	
55. Teachers would not have implemented school priorities.	5	4	3	2	1	

56. Members of the administration would generate a personal commitment from teachers that ensured the success of innovations.	5	4	3	2	1
57. Improvements in student achievement would be rewarded.	5	4	3	2	1
58. Changes in society would not have changed my teaching.	5	4	3	2	1
59. Teachers would value the development of friendships between colleagues.	5	4	3	2	1
60. I would not expect colleagues to acknowledge my efforts and endeavours.	5	4	3	2	1
61. Student behaviour management strategies would not be discussed sufficiently.	5	4	3	2	1
62. The appropriateness of current expressions of visions for the school's future would be questioned.	5	4	3	2	1
63. The progress of innovations would be subject to careful scrutiny.	5	4	3	2	1
64. The persistence of successful innovations would be assisted by visible ongoing support from the administration.	5	4	3	2	1

Thank you for taking the time to complete this survey

SCEQ SCORING SHEET

Enter your score for each item on the table below by starting at item 1 and moving from left to right across the page

Where an Asterisk(*) occurs, this indicates that the value of your score needs to be reversed.

That is 5 = 1, 4 = 2, 3 = 3, 2 = 4 and 1 = 5

For example if for item 4* you circled 5 (strongly agree) enter 1

Actual Form

1	2	3	4	5	6*	7	8*
9*	10*	11	12*	13*	14	15*	16*
17	18*	19*	20	21*	22*	23	24*
25*	26	27*	28*	29	30*	31*	32*
33*	34	35	36	37	38	39*	40
41*	42*	43*	44	45*	46	47	48
49	50	51*	52*	53	54*	55*	56
57	58*	59	60*	61*	62	63	64
+	+	+	+	+	+	+	+
Professional Values	Teachers as Learners	Collegiality	Mutual Empowerment	Collaboration	Shared Visions	School-wide Planning	Transformational Leadership

Preferred Form

1	2	3	4	5	6*	7	8*
9*	10*	11	12*	13*	14	15*	16*
17	18*	19*	20	21*	22*	23	24*
25*	26	27*	28*	29	30*	31*	32*
33*	34	35	36	37	38	39*	40
41*	42*	43*	44	45*	46	47	48
49	50	51*	52*	53	54*	55*	56
57	58*	59	60*	61*	62	63	64
+	+	+	+	+	+	+	+
Professional Values	Teachers as Learners	Collegiality	Mutual Empowerment	Collaboration	Shared Visions	School-wide Planning	Transformational Leadership

APPENDIX 3

INSTRUMENT REFINEMENT

EXPLORATORY FACTOR ANALYSIS

Orthogonal (Varimax) rotations were performed on the data from the administration of the SCEQ to 422 respondents. A five factor model converged in 9 iterations. Table 1 presents the resulting factor matrix and item loadings. The order and vertical grouping of the instrument items is according to the original instrument's eight scales and the numbering of the items is as presented in Appendix 2.

The decision-making rules for retaining items on factors were as follows:

1. The minimum factor loading for retention was 0.33; and
2. Items loading above 0.33 on more than one factor were placed on the factor with the highest loading, provided the difference in the squared loading values was at least 10%.

Items which met the above criteria have been identified by bold type in Table 1.

Supplemental oblique rotations were also carried out on the assumption that the factors may not be completely independent of one another. Table 2 presents the results of this process. Decision-making rules similar to that for the orthogonal rotations were applied. The factor solution to both forms of rotation were essentially similar.

REFINEMENT OF INSTRUMENT SCALES

The objectives of refining the original instrument were to:

1. Reduce the number of items;
2. Improve the reliability of the scales;
3. Retain symmetry between the scales by each scale containing the same number of items; and
4. Retain theoretical constructs similar to those used in the development of the original instrument where ever possible.

The exploratory factor analysis revealed four factors which appeared to describe internally consistent constructs.

Factor 1 contained 14 items from the original 'professional values', 'shared visions' and 'school-wide planning' scales. Examination of the specific items indicated that the 'shared visions' and 'school-wide planning' items related to shared school planning. Alternatively, the three items from the 'professional values' scale concerned values about student learning. Items 22, 30, 54, 23, 31, 39 and 55 were selected as items for an instrument scale on shared planning.

Factor 2 contained 13 items from the original 'professional values', 'teachers as learners', 'collegiality', 'mutual empowerment' and 'school-wide planning' scales. Seven of these items, items 1, 17, 49, 57, 2, 26, 34 and 50 concerned student and teacher learning. The other five items appeared to concern a variety of dissimilar sub-constructs. Items 1, 17, 49, 2, 26, 34 and 50 were selected as items for an instrument scale on emphasis on learning.

Factor 3 contained eight items, six of which were from the original 'transformational leadership' scale. These items were retained as an instrument scale on 'transformational leadership'. An additional item, item 8, was included because it was considered germane to the notion of transformational leadership.

Factor 4 contained nine items of which seven were from the original 'collegiality' and 'mutual empowerment' scales. Items 11, 19, 35, 43, 28, 36 and 44 were selected as items for a revised 'collegiality' scale in which the construct of collegiality was to be inclusive of the notion of mutual empowerment.

Examination of the eight items in the fifth factor failed to reveal commonality in the sub-constructs described by the items.

In summary, factor analysis revealed four factors; 'shared planning', 'emphasis on learning', 'transformational leadership' and 'collegiality'.

The residual items were re-examined in consideration of the sub-constructs each was intended to measure in an attempt to conceptually identify further clusters of items which could be internally related. This process was undertaken on the assumption that the factor structure could be complex and inclusive of higher order factors which could permeate the four factors previously identified.

The original 'collaboration' scale had a Cronbach Alpha reliability value of 0.68 and the range of correlations (Spearman) with other scales was from 0.35 - 0.57. The exploratory factor analysis results indicated that for the sample of teachers surveyed, the original set of eight items were likely inter-rated to other items and the four factors identified in the factor analysis. Seven of these items, items 13, 21, 29, 37, 45, 53 and 61 were retained

Items in the original 'professional values' and 'shared visions' scales appeared to be indicative of professional values about education in general and the growth of the school. It was likely these items were inter-related to other items and the four factors identified in the factor analysis. Seven of these items, items 1, 9, 33, 41, 57, 38 and 46, were proposed as being a measure of professional values. This set of items had a Cronbach Alpha reliability value of 0.69 and the range of correlations (Spearman) with other scales was from 0.42 - 0.51.

The original 'collaboration' scale and the revised 'professional values' scale were accepted as additional cultural elements to be used in the investigation of the culture of individual schools. This decision was based on the frequency of reference to the constructs in the literature on school culture and effectiveness. It is anticipated that further development and refinement of the instrument will be undertaken including writing new items and validation with a much larger and more diverse sample of schools.

Table 1. Varimax Rotation Factor Matrix

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Professional Values					
A1	.20285	.51365	.05907	-.03920	.22397
A9	.44374	.18015	.01987	.11305	.11239
A17	.01272	.45805	.15474	.01266	.19126
A25	.17912	.21684	.25578	.08234	.39083
A33	.57175	.05755	.07505	.14594	.03803
A41	.56577	.11728	-.03072	.04171	.05593
A49	.08263	.44231	.18361	.07295	-.00366
A57	.33303	.40746	.23192	.10229	-.11633
Teachers as Learners					
A2	.00300	.55540	.07700	.10757	.20432
A10	.13200	.16438	.01851	-.04477	.42708
A18	.06121	.16937	.22597	-.04381	.49047
A26	.04962	.59736	.04848	.21093	.11421
A34	.07816	.60193	-.15381	.12100	.11400
A42	.00575	.23274	.12486	.12322	.50612
A50	-.09765	.70434	.09970	.08096	.26367
A58	.11610	.11401	.09964	.07682	.46455
Collegiality					
A3	.01807	.63999	.00383	.09852	.14258
A11	.26234	.19450	.09256	.50876	-.12339
A19	.27632	.18905	.13889	.32811	.15140
A27	.13068	.02847	.06186	.23523	.09171
A35	.07968	.50928	.23328	.57570	-.05924
A43	.28651	.07751	.04347	.47096	.15612
A51	.01275	.22873	.19030	.08875	.42200
A59	.11389	.48153	.12823	.20637	-.03085
Mutual Empowerment					
A4	.13796	.54868	.00421	-.03567	.24422
A12	.20104	.04097	.01387	.24010	.25979
A20	.19859	.35897	.10494	-.01238	.15360
A28	.13145	.10100	.28163	.46943	.31015
A36	.08259	.42810	.24443	.60256	.02573
A44	.32824	.21056	.17092	.42960	-.01019
A52	.14368	.09899	.04824	.10750	.42809
A60	.10995	.14709	-.14855	.13201	.32209

Table 1 Cont'd**Collaboration**

A5	.20405	.21643	.09185	.00573	.17613
A13	.41243	-.00440	.07175	.19445	.16312
A21	.07026	.05907	.36879	.17426	.20032
A29	.36139	.16623	.36480	.40643	.03648
A37	.15459	.20453	.13780	.67158	.01812
A45	.40496	-.05546	.02392	.38998	.19648
A53	.10433	.13268	.06194	.55565	.20598
A61	.36415	-.13659	.27097	.33793	.19936

Shared Visions

A6	.12088	.02223	-.09355	.03720	.48960
A14	.41741	.04592	-.05025	.33107	.12841
A22	.46534	.15085	.35634	.00420	.06436
A30	.57143	.04843	.33218	.09996	.11773
A38	.49468	.23169	.18136	.15847	.06933
A46	.52188	.35312	.22818	-.10440	.13022
A54	.57596	.04626	.37396	.20886	.12699
A62	-.01197	-.03914	-.08647	.15765	-.03304

School-wide Planning

A7	.23273	.33676	.10919	.01711	.01628
A15	.23187	.03119	.49184	.01768	.26476
A23	.32546	.09395	.15139	.07850	-.10462
A31	.54700	.10440	.18085	.11933	.18404
A39	.56704	-.05737	.07757	.07621	.13431
A47	.41109	.16294	.41486	.17933	-.03737
A55	.55306	.18505	.23320	.14157	.20183
A63	.35993	-.01552	.26478	.08956	-.02958

Transformational Leadership

A8	-.04286	-.04181	.07123	.22257	.15482
A16	-.16111	.07947	-.23906	.12444	.42732
A24	.19346	-.00704	.66298	.19128	.17072
A32	.22229	.06691	.58491	.17344	.25141
A40	.15109	.22525	.65125	.06003	-.00118
A48	.08826	.28087	.57506	.19553	-.04189
A56	.39641	.15193	.49996	-.01926	-.23105
A64	.29025	.21560	.55557	.00194	-.11897

Table 2. Oblique Rotation Structure Matrix

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Professional Values					
A1	.27843	.55504	.26407	-.02619	-.17357
A9	.47841	.25110	.15059	-.17861	-.14887
A17	.10662	.49067	.22068	-.05450	-.22424
A25	.28524	.31579	.40703	-.14904	-.35397
A33	.59449	.14585	.07219	-.21602	-.20887
A41	.56692	.18488	.09008	-.11282	-.10392
A49	.16617	.46766	.03264	-.10761	-.25016
A57	.40516	.45606	-.07239	-.15610	-.33310
Teachers as Learners					
A2	.10992	.58503	.25261	-.15021	-.16929
A10	.18409	.22591	.43653	-.01047	-.10113
A18	.15414	.25454	.48821	-.01536	-.29436
A26	.16035	.62545	.17846	-.25193	-.15686
A34	.14551	.60238	.18073	-.15964	.04103
A42	.11569	.31415	.52563	-.17518	-.21159
A50	.03455	.72673	.31633	-.12474	-.19179
A58	.19539	.19890	.47608	-.13215	-.18648
Collegiality					
A3	.11544	.65256	.20106	-.13982	-.10413
A11	.34537	.25683	-.05753	-.53540	-.20083
A19	.36794	.27712	.19733	-.38001	-.25742
A27	.17932	.08020	.11553	-.25748	-.12120
A35	.23985	.57301	.02406	-.60527	-.34973
A43	.37039	.17076	.21008	-.51450	-.16958
A51	.11932	.30545	.43632	-.13757	-.26357
A59	.20740	.51073	.02389	-.24104	-.21792
Mutual Empowerment					
A4	.21349	.57837	.28729	-.02378	-.11443
A12	.25838	.11573	.28822	-.28166	-.10766
A20	.26107	.40252	.18221	-.04138	-.19495
A28	.27403	.22237	.34850	-.51619	-.38700
A36	.24724	.50800	.10381	-.63513	-.36315
A44	.42336	.29626	.04807	-.47619	-.29460
A52	.21313	.17950	.44464	-.16045	-.13999
A60	.14862	.18903	.35289	-.16875	.05909

APPENDIX 4

REVISED SCHOOL CULTURAL ELEMENTS QUESTIONNAIRE

SCHOOL CULTURAL ELEMENTS QUESTIONNAIRE

This questionnaire is likely to take you about 15 minutes to complete.

To ensure that your individual responses will be anonymous do not write your name on the form. However, to assist with research please indicate the name of your school and your main teaching area.

Name of school _____

Teaching area _____

This questionnaire contains a number of alternative statements about things which occur in some schools. After reading each of the statements carefully, indicate to what extent you agree or disagree that each of the statements **actually** applies to **your school**.

Some statements in this section are fairly similar to other statements. Don't worry about this - simply select the response which best describes your agreement or disagreement by drawing a **circle** around:

- | | |
|---|--|
| 5 | if you Strongly Agree with the statement |
| 4 | if you Agree with the statement |
| 3 | if you are Uncertain about the statement |
| 2 | if you Disagree with the statement |
| 1 | if you Strongly Disagree with the statement |

Please respond to all the statements but do **not** circle more than **one** response to each.

- | | | | | | |
|---|---|---|---|---|---|
| 1. Students are not provided with the skills needed for future educational or vocational experiences. | 5 | 4 | 3 | 2 | 1 |
| 2. I am proud to be an educator. | 5 | 4 | 3 | 2 | 1 |
| 3. Teachers have an understanding of how to support each other. | 5 | 4 | 3 | 2 | 1 |
| 4. Items for discussion at meetings always come from the same people. | 5 | 4 | 3 | 2 | 1 |
| 5. Expressions of the school's future vision do not reflect staff consensus. | 5 | 4 | 3 | 2 | 1 |
| 6. The principal and deputies are the most influential members of the staff. | 5 | 4 | 3 | 2 | 1 |
| 7. Educational programs don't contribute to improving the quality of life in our society. | 5 | 4 | 3 | 2 | 1 |
| 8. I spend time in personal reflection about my work. | 5 | 4 | 3 | 2 | 1 |
| 9. Teachers are reluctant to share problems with each other. | 5 | 4 | 3 | 2 | 1 |
| 10. There is little debate in meetings. | 5 | 4 | 3 | 2 | 1 |
| 11. We have not developed a common vision for the school's future. | 5 | 4 | 3 | 2 | 1 |
| 12. The school administration does not encourage others to take control of new projects. | 5 | 4 | 3 | 2 | 1 |
| 13. The creative potential of students is not realised. | 5 | 4 | 3 | 2 | 1 |
| 14. Developing the social skills of students is important. | 5 | 4 | 3 | 2 | 1 |
| 15. Teachers do not make an effort to maintain positive relationships with colleagues. | 5 | 4 | 3 | 2 | 1 |

- | | | | | | |
|---|---|---|---|---|---|
| 16. We work together to implement the decisions of meetings. | 5 | 4 | 3 | 2 | 1 |
| 17. We do not gather data for gauging the success of school programs. | 5 | 4 | 3 | 2 | 1 |
| 18. The principal and deputies do not encourage the professional growth of teachers. | 5 | 4 | 3 | 2 | 1 |
| 19. I have a clear understanding of how I can contribute to realising the future vision for the school. | 5 | 4 | 3 | 2 | 1 |
| 20. Teachers learn from each other. | 5 | 4 | 3 | 2 | 1 |
| 21. My professional decisions are not usually supported by colleagues. | 5 | 4 | 3 | 2 | 1 |
| 22. We frequently discuss what should be taught in particular curricula or courses. | 5 | 4 | 3 | 2 | 1 |
| 23. We do not always evaluate the success of existing school programs. | 5 | 4 | 3 | 2 | 1 |
| 24. Members of the administration show a genuine concern for me as a person. | 5 | 4 | 3 | 2 | 1 |
| 25. Individual differences between students are not catered for. | 5 | 4 | 3 | 2 | 1 |
| 26. I am receptive to advice from colleagues about my teaching. | 5 | 4 | 3 | 2 | 1 |
| 27. We are willing to help each other when problems arise. | 5 | 4 | 3 | 2 | 1 |
| 28. Teaching methods and strategies are not discussed sufficiently. | 5 | 4 | 3 | 2 | 1 |
| 29. We have identified ways of determining if school priorities are achieved. | 5 | 4 | 3 | 2 | 1 |
| 30. The principal and deputies give teachers sufficient "space" to get on with their work. | 5 | 4 | 3 | 2 | 1 |

- | | | | | | |
|---|---|---|---|---|---|
| 31. I work towards achieving the school vision. | 5 | 4 | 3 | 2 | 1 |
| 32. We believe that every child can learn. | 5 | 4 | 3 | 2 | 1 |
| 33. We always encourage each other to exercise our professional judgements. | 5 | 4 | 3 | 2 | 1 |
| 34. We often compare how we assess student achievement. | 5 | 4 | 3 | 2 | 1 |
| 35. Teachers are not unified in working towards the school's future vision. | 5 | 4 | 3 | 2 | 1 |
| 36. Members of the administration generate a personal commitment from teachers that ensures the success of innovations. | 5 | 4 | 3 | 2 | 1 |
| 37. Improvements in student achievement are rewarded. | 5 | 4 | 3 | 2 | 1 |
| 38. I still find new ways to improve my teaching. | 5 | 4 | 3 | 2 | 1 |
| 39. We encourage each other to take responsibility for new projects. | 5 | 4 | 3 | 2 | 1 |
| 40. Student behaviour management strategies are not discussed sufficiently. | 5 | 4 | 3 | 2 | 1 |
| 41. Teachers have not implemented school priorities. | 5 | 4 | 3 | 2 | 1 |
| 42. The persistence of successful innovations is assisted by visible ongoing support from the administration. | 5 | 4 | 3 | 2 | 1 |

Please take a break of one minute before answering Section 2 of the questionnaire

Section 2: Preferred Form of Cultural Elements

This section contains a number of statements about the school in which you would wish to work. You are asked to give your opinion about how well each statement describes what you would **prefer** this school to be like.

Some statements in this section are fairly similar to other statements. Don't worry about this - simply indicate how well each statement describes your **preference** for your ideal school by drawing a **circle** around:

- 5 if you **Strongly Agree** that this would be preferable for your school
- 4 if you **Agree** that this would be preferable for your school
- 3 if you are **Uncertain** that this would be preferable for your school
- 2 if you **Disagree** that this would be preferable for your school
- 1 if you **Strongly Disagree** that this would be preferable for your school

Please respond to all the statements but do **not** circle more than **one** response to each.

- | | | | | | |
|--|---|---|---|---|---|
| 1. Students would not be provided with the skills needed for future educational or vocational experiences. | 5 | 4 | 3 | 2 | 1 |
| 2. I would b proud to be an educator. | 5 | 4 | 3 | 2 | 1 |
| 3. Teachers would have an understanding of how to support each other. | 5 | 4 | 3 | 2 | 1 |
| 4. Items for discussion at meetings would always come from the same people. | 5 | 4 | 3 | 2 | 1 |
| 5. Expressions of the school's future vision would not reflect staff consensus. | 5 | 4 | 3 | 2 | 1 |
| 6. The principal and deputies would be the most influential members of the staff. | 5 | 4 | 3 | 2 | 1 |

- | | | | | | |
|---|---|---|---|---|---|
| 7. Educational programs wouldn't contribute to improving the quality of life in our society. | 5 | 4 | 3 | 2 | 1 |
| 8. I would spend time in personal reflection about my work. | 5 | 4 | 3 | 2 | 1 |
| 9. Teachers would be reluctant to share problems with each other. | 5 | 4 | 3 | 2 | 1 |
| 10. There would be little debate in meetings. | 5 | 4 | 3 | 2 | 1 |
| 11. We would not have developed a common vision for the school's future. | 5 | 4 | 3 | 2 | 1 |
| 12. The school administration would not encourage others to take control of new projects. | 5 | 4 | 3 | 2 | 1 |
| 13. The creative potential of students would not be realised. | 5 | 4 | 3 | 2 | 1 |
| 14. Developing the social skills of students would be important. | 5 | 4 | 3 | 2 | 1 |
| 15. Teachers would not make an effort to maintain positive relationships with colleagues. | 5 | 4 | 3 | 2 | 1 |
| 16. We would work together to implement the decisions of meetings. | 5 | 4 | 3 | 2 | 1 |
| 17. We would not gather data for gauging the success of school programs. | 5 | 4 | 3 | 2 | 1 |
| 18. The principal and deputies would not encourage the professional growth of teachers. | 5 | 4 | 3 | 2 | 1 |
| 19. I would have a clear understanding of how I can contribute to realising the future vision for the school. | 5 | 4 | 3 | 2 | 1 |
| 20. Teachers would learn from each other. | 5 | 4 | 3 | 2 | 1 |

- | | | | | | |
|--|---|---|---|---|---|
| 21. My professional decisions would not be usually supported by colleagues. | 5 | 4 | 3 | 2 | 1 |
| 22. We would frequently discuss what should be taught in particular curricula or courses. | 5 | 4 | 3 | 2 | 1 |
| 23. We would not always evaluate the success of existing school programs. | 5 | 4 | 3 | 2 | 1 |
| 24. Members of the administration would show a genuine concern for me as a person. | 5 | 4 | 3 | 2 | 1 |
| 25. Individual differences between students would not be catered for. | 5 | 4 | 3 | 2 | 1 |
| 26. I would be receptive to advice from colleagues about my teaching. | 5 | 4 | 3 | 2 | 1 |
| 27. We would be willing to help each other when problems arise. | 5 | 4 | 3 | 2 | 1 |
| 28. Teaching methods and strategies would not be discussed sufficiently. | 5 | 4 | 3 | 2 | 1 |
| 29. We would identify ways of determining if school priorities are achieved. | 5 | 4 | 3 | 2 | 1 |
| 30. The principal and deputies would give teachers sufficient "space" to get on with their work. | 5 | 4 | 3 | 2 | 1 |
| 31. I would work towards achieving the school vision. | 5 | 4 | 3 | 2 | 1 |
| 32. We would believe that every child can learn. | 5 | 4 | 3 | 2 | 1 |
| 33. We would always encourage each other to exercise our professional judgements. | 5 | 4 | 3 | 2 | 1 |
| 34. We would often compare how we assess student achievement. | 5 | 4 | 3 | 2 | 1 |

- | | | | | | |
|---|---|---|---|---|---|
| 35. Teachers would not be unified in working towards the school's future vision. | 5 | 4 | 3 | 2 | 1 |
| 36. Members of the administration would generate a personal commitment from teachers that ensures the success of innovations. | 5 | 4 | 3 | 2 | 1 |
| 37. Improvements in student achievement would be rewarded. | 5 | 4 | 3 | 2 | 1 |
| 38. I would still find new ways to improve my teaching. | 5 | 4 | 3 | 2 | 1 |
| 39. We would encourage each other to take responsibility for new projects. | 5 | 4 | 3 | 2 | 1 |
| 40. Student behaviour management strategies would not be discussed sufficiently. | 5 | 4 | 3 | 2 | 1 |
| 41. Teachers would not have implemented school priorities. | 5 | 4 | 3 | 2 | 1 |
| 42. The persistence of successful innovations would be assisted by visible ongoing support from the administration. | 5 | 4 | 3 | 2 | 1 |

Thank you for taking the time to complete this survey

SCEQ SCORING SHEET

Enter your score for each item on the table below by starting at item 1 and moving from left to right across the page

Where an Asterisk(*) occurs, this indicates that the value of your score needs to be reversed.

That is 5 = 1, 4 = 2, 3 = 3, 2 = 4 and 1 = 5

For example if for item 4* you circled 5 (strongly agree) enter 1

Actual Form

1*	2	3	4*	5*	6*
7*	8	9*	10*	11*	12*
13*	14	15*	16	17*	18*
19	20	21*	22	23*	24
25*	26	27	28*	29	30
31	32	33	34	35*	36
37	38	39	40*	41*	42
+	+	+	+	+	+
Professional Values	Emphasis on Learning	Collegiality	Collaboration	Shared Planning	Transformational Leadership

Preferred Form

1*	2	3	4*	5*	6*
7*	8	9*	10*	11*	12*
13*	14	15*	16	17*	18*
19	20	21*	22	23*	24
25*	26	27	28*	29	30
31	32	33	34	35*	36
37	38	39	40*	41*	42
+	+	+	+	+	+
Professional Values	Emphasis on Learning	Collegiality	Collaboration	Shared Planning	Transformational Leadership