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**DEVELOPMENT AND TESTING OF AN INITIAL MODEL
OF CURRICULAR LEADERSHIP CULTURE
IN MIDDLE SCHOOLS**

by

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
ABSTRACT	ix
LIST OF TABLES	xi
LIST OF FIGURES	xiii
CHAPTER	
I. INTRODUCTION	1
Overview	1
Background	1
Conceptual Framework of the Study	7
Statement of the Problem	8
Purpose	9
Significance of the Study	9
Study Variables	11
Conceptual/Operational Definitions	11
Independent Variables	11
Dependent Variables	12
Research Questions	13
Limitations	14
Assumptions	14
Summary	15
II. MODEL DEVELOPMENT	16
Overview	16
Development of Initial Curricular Leadership	
Culture Model	16
Face Validity	21
Definition of Terms	22
Independent Variables	22
Dependent Variables	24
Hypothesized Scenarios	25
Summary	27
III. REVIEW OF RELATED LITERATURE AND RESEARCH	28
Introduction	28
Curricular Leadership	32
Middle School Curricular Elements	37
Curricular Decision Making	45

	School-based Leadership	52
	School Organization Structures	57
	School Effectiveness	64
	Review Conclusions	69
IV.	METHODOLOGY AND PROCEDURES	70
	Overview	70
	Research Design	70
	Instrument Development	73
	Independent Variables	76
	Dependent Variables	76
	Sample	77
	Instrumentation and Measurement	77
	Quantitative Measures	77
	Curricular Leadership Culture Inventory	77
	Response Format	78
	Reliability	78
	Validity	79
	Scoring	79
	Index of Perceived	
	Organizational Effectiveness	79
	Response Format	80
	Reliability	80
	Validity	80
	Scoring	81
	School Achievement	81
	School Holding Power	81
	Demographic Variables	82
	Data Collection Procedures	82
	Data Analysis Procedures	83
	Summary	84
V.	SUMMARY OF RESULTS	85
	Overview	85
	Summary of Descriptive Statistics for Sample Schools	
	and Participants	86
	School Sample	86
	School Level Characteristics	89
	Enrollment	89
	Professional Staff	89
	Administrator Staff	90
	Student Achievement	90
	Attendance	93
	Drop Out Rate	93
	Economically Disadvantaged	93
	Survey Return Rates	94

Characteristics of Non-Participating Schools	95
Participant Sample	96
Participant Characteristics	96
Professional Staff	96
Administrators	100
Factor Analyses	103
Descriptive Statistics for Instruments	107
CLCI and IPOE Descriptive Statistics	107
Reliability Analyses	108
CLCI and IPOE Reliability Analyses	108
Intercorrelations of CLCI Subscales	110
Relationships among CLCI Dimensions and School Effectiveness Dependent Variable Set	110
Multivariate Relationships between CLCI Dimensions	
School Effectiveness Measures	114
School Organizational Effectiveness (IPOE)	116
Student Achievement (TAKS Reading)	116
Student Achievement (TAKS Math)	118
Student Achievement (TAKS Writing)	118
Student Achievement (TAKS Science)	121
Student Achievement (TAKS Social Studies)	121
School Holding Power (Attendance)	121
School Holding Power (Drop Out Rate)	122
Discriminant Analyses	124
Summary	125
VI. CONCLUSIONS, DISCUSSION, AND IMPLICATIONS	126
Overview	126
Model Development and Refinement	128
CLCI Instrument Development and Refinement	130
Major Findings and Conclusions	131
Part One: Construct Validity of CLCI Instrument	131
Reliability of CLCI Instrument	133
Internal Consistency	133
Criterion-Related Validity of CLCI Instrument	133
Construct Validity of Refined CLC Model	135
Part One Synthesis of Major Findings and Conclusions	135
Part Two: Research Questions	138
Research Question 1	139
Research Question 2	141
Research Question 3	141
Part Two Synthesis of Major Findings and Conclusions	146

Discussion	147
Conceptualization, Refinement, and Construct	
Validity of CLC Model and CLCI Instrument	147
CLC Model	148
CLCI Instrument	151
Discussion of Major Findings and Conclusions	
Pertinent to Quantitative Research Questions	152
Empirically Derived Dimensions Describing the	
Nature of Curricular Leadership Culture	153
Bivariate Relationships between Curricular	
Leadership Culture Variables and School	
Effectiveness Indices	157
Multivariate Relationships between Curricular	
Leadership Culture Variables and School	
Effectiveness Indices	161
Discriminant Analyses for a CLC Independent	
Variable Set and School Ratings Categorical Variable	
From Overall School Mean Student Achievement	
Results	163
Research Methodology and Design Concerns	164
Implications	166
Implications for Further CLC Model and CLCI	
Instrument Development	166
Directions for Future Research	167
Summary	171
REFERENCES	173
APPENDIX A: SURVEY INSTRUMENT SET USED	
IN DATA COLLECTION	194
APPENDIX B: DESCRIPTIVE STATISTICAL TABLES	200
APPENDIX C: ITEM CONTENT LISTING OF FACTORED CLCI	207
APPENDIX D: CONCEPTUAL DEFINITIONS OF CLCI FACTOR	
SUBSCALES/DIMENSIONS	211
APPENDIX E: CONTENT CLASSIFICATION STUDY PROCESSES	
FOR CLCI	213
APPENDIX F: DATA COLLECTION GUIDELINES	235

ABSTRACT

Effective school studies, for the most part, have focused on different individual school-level independent variables influencing student achievement and have largely neglected examining contextual variables within the school or school community that may evolve as a result of responding to statewide accountability pressures, including examining how these contextual variables impact student achievement. Further, few studies in the school effectiveness literature provide clear and practical definitions of school-level curricular leadership (Brown, Claudet, & Olivarez, 2003; Bossert, 1998; Hoy & Ferguson, 1985; Teddlie & Reynolds, 2000). The purpose of this study was to develop and initially test a multidimensional model exploring relationships between curricular leadership culture (CLC) and school effectiveness (SE) to examine any identifiable contextual variables that may mediate this relationship in different school settings and to develop an instrument – the Curricular Leadership Culture Inventory (CLCI) – that can be administered to teachers and school administrators to identify educator perceptions of links between the quality of school-level curricular leadership culture and school overall effectiveness.

The sample for this study consisted of professional and administrative staff in 151 middle schools throughout five regional service center areas in Texas who were asked to respond to an Internet survey asking for staff perceptions of how often certain types of curricular leadership culture behaviors occur in their schools. In total, 1664 professional and administrative staff representing 114 schools responded to the survey. Participation was voluntary throughout all 151 middle schools.

Analyses were completed using both staff members and schools as separate units of analysis. Exploratory factor analyses identified three distinct dimensions best representing curricular leadership culture. These dimensions are: (1) School-based Leadership, (2) Curricular Decision Making, and (3) Middle School Curricular Elements. Further, bivariate and multivariate linkages were identified between these dimensions and three identified indices of school effectiveness (school organizational effectiveness, student achievement, and school holding power) used in this study.

These results provided support that curricular leadership culture/school effectiveness linkages are multidimensional in nature and contribute both in a direct and indirect manner to overall middle school effectiveness. Further, it would appear that one or more additional latent variables exist that mask or mediate curricular leadership culture/school effectiveness linkages in middle schools.

LIST OF TABLES

1.	Profile of Descriptive Statistics on Key Variables for Entire Population	87
2.	Comparison Profile of Schools Agreeing and Declining to Participate	88
3.	Profile of Response Rate and Mean Sizes for the Sample of Participating Schools	88
4.	Texas Assessment of Knowledge and Skills (TAKS) Administration Cycle	91
5.	Comparison Profile of Usable and Unusable Schools	92
6.	Summary of Demographics of Personal Characteristics of Professional Staff for Sample	97
7.	Summary of Demographics of Professional Characteristics of Professional Staff for Sample	98
8.	Summary of Demographics of Personal Characteristics of Administrators for Sample	101
9.	Summary of Demographics of Professional Characteristics of Administrators for Sample	102
10.	Summary of Factor Pattern Loadings for the Three-Factor Solution	104
11.	Initial and Final Item Loadings	106
12.	Item Location Index for the Three-Factor Solution of the CLCI	106
13.	Summary of Descriptive Statistics for Each Subscale of the Three-Factor Solution of the CLCI and the IPOE for the Sample of Usable Schools	109
14.	Summary of the Intercorrelations among CLCI Subscales for the Sample of Usable Schools	111
15.	Summary of Intercorrelations between CLCI Subscales and IPOE	111
16.	Summary of Intercorrelations between Scores of the CLCI Subscales and Student Achievement Scores for the Sample of Usable Schools	113

17.	Summary of Pearson and Partial Correlation Coefficients between Subscales of the CLCI and the School Effectiveness Dependent Variable Set Controlling for Economically Disadvantaged Student Population in Usable Schools	115
18.	Summary of Stepwise Multiple Regression of the IPOE on Subscales of the CLCI	117
19.	Summary of Stepwise Multiple Regression of School Mean Reading TAKS Scores on Subscales of the CLCI	119
20.	Summary of Stepwise Multiple Regression of School Mean Math TAKS Scores on Subscales of the CLCI	119
21.	Summary of Simultaneous Multiple Regression of School Mean Writing TAKS Scores on Subscales of the CLCI	120
22.	Summary of Stepwise Multiple Regression of School Mean Attendance on Subscales of the CLCI	123
23.	Summary of Simultaneous Multiple Regression of Drop Out Rate on Subscales of the CLCI	123
B.1	Summary of Descriptive Statistics for Each Item of the CLCI	201
B.2	Summary of Descriptive Statistics for Each Item of the IPOE	206
C.1	Item Content Listing of Factored CLCI	207

LIST OF FIGURES

1.	Proposed Model of Curricular Leadership Culture (CLC) in Middle Schools	18
2.	Revised Model of Curricular Leadership Culture (CLC) in Middle Schools	150

CHAPTER I

INTRODUCTION

Overview

This study explored the relationship between curricular leadership culture and school effectiveness at the middle school level. Middle school in this study refers to identified middle school campuses that are structured or may contain some variation of grades 5-8. This was accomplished through the development and testing of a curricular leadership culture/school effectiveness causal design that focuses on exploring curricular leadership culture (CLC) as a coherent variable (or variable set) of school leadership culture impacting school effectiveness (SE) in middle schools. The chapter begins by presenting the background and rationale for the study. Next, the independent and dependent variables for the study are presented and described. Following this, research questions guiding the study are then delineated. The chapter concludes with a brief summary of the chapters that follow.

Background

Studies on school effectiveness have attempted to delineate organizational characteristics that distinguish effective from non-effective schools (Brookover, Beady, Flood, Schweitzer, & Wisenbaker, 1979; Edmonds, 1979; Lytton & Pyryt, 1998; Rutter, Maughan, Mortimore, & Ouston, 1979; Witte & Walsh, 1990). Most of these studies produced post hoc comparisons among schools attempting to explain the causes of school-level characteristics resulting in differing levels of student achievement (Hoy,

Sweetland, & Smith, 2002). Further, researchers have tended to approach school effectiveness by isolating independent school-level variables and describing their effects, if any, on student achievement. Subsequent school effectiveness studies have conceptualized elements of curricular leadership (Brown, 2001; Hallinger & Heck, 1998; Hoy, Sweetland & Smith, 2002; Kelley & Finnigan, 2003; Leithwood, 1994; Leithwood & Jantzi, 1990; Sergiovanni, 1995; Sweetland & Hoy, 2000) and school organizational structures (Bolman & Deal, 1991; Fraser, 1989; Louis, Marks, & Kruse, 1996; Miskel, McDonald, & Bloom, 1983) as separate, linear school-level independent variables linked to school effectiveness.

Few studies in the school effectiveness literature provide clear and practical definitions of curricular leadership (Brown, Claudet, & Olivarez, 2003; Bossert, 1988; Hoy & Ferguson, 1985; Teddlie & Reynolds, 2000). One goal of this study was to further the empirical and conceptual definition of curricular leadership. Building on the work of Brown et al. (2003), curricular leadership will be defined as the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are made and implemented, and how they are communicated within and acted upon in the school. Further, this study attempted to extend the work of Brown et al. (2003) by investigating how curricular leadership interacts among various organizational contexts to develop a school-wide curricular leadership culture, which is the new multidimensional conceptualization developed in this study. Curricular leadership culture refers to the ways a school's curricular leadership is transmitted over time.

The organizational culture of middle schools has been widely recognized by researchers as unique in exhibiting distinctive sets of teacher and administrator belief systems (Brown et al., 2002). Because of this, the middle school environment provides an opportunity for initiating an exploration of the curricular leadership behaviors and the emerging culture influencing middle school educators and their impact on school effectiveness (Beane, 1997; Toepfer, 1997). While there is an ongoing debate concerning the reliability and generalizability of school effectiveness research (Teddlie & Reynolds, 2000), one conclusion is clear – substantial differences exist in the academic achievement of students depending on the school they attend (Bamburg & Andrews, 1991).

There has been a recent emphasis on measuring school effectiveness through the monitoring of student outcomes on comprehensive school accountability system standardized assessments. Heck (2000) reported “school effectiveness research in part, has been a driving force behind such [school accountability system] efforts, determining that school structure and the quality of educational processes can make a difference in student achievement” (pp. 513-514). However, the most comprehensive accountability system is useless if the school leadership culture lacks opportunities for reflective conversation about the results and a thorough understanding of the interrelationships between curricular leadership processes and organizational structures. Likewise, Schlechty (2001) argues that organizational leaders must concentrate attention on what the organization does to produce results rather than on the results themselves. Similarly, Ouchi (2003) predicts that a focus on student performance should produce a different set of processes and outcomes in each school.

The majority of school effectiveness researchers have found indirect effects between the separate measurements of such school-level variables as curricular leadership and school organizational structures on school effectiveness using linear, unidimensional approaches (Blasé & Blasé, 1999; Heck, 2000; Kelley & Finnigan, 2003; Leithwood & Jantzi, 1999; Marks & Louis, 1999; Marks & Printy, 2003; Scheerens, Bosker, & Creemers, 2000; Sweetland & Hoy, 2000; Thrupp, 2001; Witziers, Bosker, & Kruger, 2003). Because of this, researchers in the last decade have found it difficult to delineate an underlying, systematic approach to describe and explain school effectiveness. A different approach to describing these complex relationships among school leadership culture and school effectiveness variables may prove beneficial.

Researchers have called for and used multiple perspective approaches to explain educational policy phenomena (Allison, 1983; Cibulka, 1999; Cuban, 1990; Goldstein, 1995, 1997; Griffiths, 1995; Peterson, 1976). Further, Cibulka (1999) argues for researchers to use a multiple perspective approach to understanding school effectiveness. Owens (1995) argues that “few educators and even fewer policymakers understand that processes can be measured, just as inputs and outputs can be measured. The consequence is that when changes in test scores occur, few educators are in a position to diagnose the causes correctly. The result is that they too often misdiagnose the causes” (p. 76). A more comprehensive and coherent conceptualization of the link between school leadership culture and school effectiveness would help principals manage schools more effectively (Griffith, 1999). Moreover, there is no integrated, coherent conceptual framework that addresses, approaches, or examines the relationship between school leadership and school effectiveness in multidimensional terms.

Researchers have approached identifying interrelationships between school leadership culture and school effectiveness primarily through a linear, unidimensional mindset (Bridges, 1982; Day, Harris, & Hadfield, 2001; Lytton & Pyryt, 1998; Ogawa, Goldring, & Conley, 2000; Scheerens et al., 2000). However, a linear, unidimensional approach collapses to a large extent the complexity of school leadership culture by focusing predominately on individual independent variables such as curricular leadership and school organizational structures as stand-alone factors. Schools are dynamic, complex organizations (Allison, 1983; Wheatley, 1999). This dynamism is an emergent property informed by multiple variables within schools and the ways in which they interact. Further, no complex system can be understood by an analysis that attempts to decompose the system into its individual parts in order to examine each part and relationship separately (Scott, 1998). Because of this, linear, unidimensional approaches have a tendency to collapse or mask the complexity of dynamic organizational systems (Wheatley, 1999). Due to the complexity of school organizations, it may prove fruitful to develop school leadership culture/organizational effectiveness models that utilize an explicit multidimensional approach.

Supporting the use of multidimensional research approaches, Swann and Pratt (2003) argue that “research in practice does not fit into tightly defined categories” (p. 4). In addition, it is also important to understand how the interrelationships among these dimensions provide both predicative and explanatory powers about which organizational properties are related to student achievement, and thus, school effectiveness (Hoy et al., 2002) through the proposed CLC/SE model. The use of multidimensional approaches to identify any potential existing links to school effectiveness has been used by researchers

to answer practical questions about school-level and program effectiveness (House, 2004; Paul, 2005). Similarly, de Marrais and Lapan (2004) argue that the use of a multidimensional approach enhances the understanding of complex organizational behavior by providing a more clear conceptualization of the interactions among existing independent and dependent variables.

This is similar to the approach Claudet (1999) used in his study investigating organizational supervisory climate/school effectiveness linkages in schools using different levels of analysis. Further, Brown et al. (2003) support a multidimensional conceptualization approach of any potential curricular leadership/school effectiveness linkages as a “dynamic organizational communicative and interactive activity among a variety of professional role players” (p. xx). In addition, these researchers suggest that a “more conceptually grounded understanding of the organizational nature and interrelationship between curricular leadership and organizational effectiveness in middle schools maybe a more useful generative frame to guide middle school professional practice” (p. xx). This study served as an extension of the Brown et al. (2003) initial exploration into curricular leadership indices in middle schools by exploring how curricular leadership manifests itself into a school’s culture, how schools with similar and different characteristics and levels of school effectiveness respond to a developing CLC, and how the CLC impacts overall levels of school effectiveness.

From a school organizational perspective, the effectiveness of curriculum implementation is linked to student achievement. Further, the degree of systemic alignment and organizational success associated with curriculum implementation is dependent on the interactions among organizational structures and curricular leadership

within the school (Ornstein & Hunkings, 1988). These interactions are guided by the school leadership culture. Specifically, one dimension of school leadership culture closely related to the curricular decisions impacting student achievement is the curricular leadership culture. There is a need for clearer definition and empirical study of the nature of the curricular leadership culture created and sustained by administrators and teachers to develop school-level processes promoting student achievement.

Conceptual Framework of the Study

Researchers have tended to use a unidimensional approach to describing school effectiveness (Allison, 1983; Goldstein, 1991, 1994; Sirotnik & Burstein, 1985; Teddlie, & Reynolds, 2000; Wimpelberg, Teddlie, & Stringfield, 1989). A unidimensional approach tends to simplify the complexity of the curricular leadership processes operating within existing school organizational structures (Good & Brophy, 1986; Ouchi, 2003; Schlechty, 2001; Wheatley, 1999). Because school systems encompass many of the rational, natural, and open system characteristics of classical organizations, a multidimensional approach to organizational school leadership culture – and specifically, curricular leadership culture – may provide a more thorough and coherent understanding of the processes within schools that contribute to overall school effectiveness (Purkey & Smith, 1983; Wheatley, 1999). Schools offer a unique opportunity to obtain a more integrated understanding of multidimensional organizational processes such as curricular leadership culture through comprehensive survey and model development (Allison, 1983).

This study proposes to initially develop and test a comprehensive model that explores the relationship between CLC and school effectiveness in multidimensional terms. Currently, no conceptual or operational definitions of CLC exist. A Curricular Leadership Culture Inventory (CLCI) will be developed in this study (and described in Chapter Four) to operationally define CLC. The comprehensive model proposed in this study (and presented in Chapter Two) conceptually defined CLC in multidimensional terms utilizing both process and structural dimensions. The model posits multiple links between and/or among CLC and school effectiveness variables. CLC/SE relationships identified through testing the model could prove useful to principals and other school leaders interested in enhancing student achievement in their schools.

The initial model developed in this study could be refined in future studies based on CLCI results to better explicate the complex relationship between these two sets of variables (CLC and SE). Initial development and testing of a model of CLC and its relationship to school effectiveness through the development of the CLC inventory is a major goal of this study. The model development procedures and the model itself are presented in Chapter Two.

Statement of the Problem

This study addresses a perceived need in the literature for a conceptual framework based on a synthesis of research on the relationship among school effectiveness, curricular leadership, and school organizational structures in middle schools. In addition, there is a need for an a priori conceptual model predicting what organizational properties are related to school effectiveness, that is, to provide a theoretical explanation of why

certain school characteristics promote student achievement. Further, there is a need for a new instrument to measure principal and teacher perceptions of CLC in schools as none presently exists.

Purpose

Effective school studies, for the most part, have focused on different individual school-level independent variables influencing student achievement and have largely neglected contextual variables within the school or school community that may evolve as a result of responding to statewide accountability pressures and how these contextual variables impact student achievement. These studies have largely made post hoc comparisons of effective/ineffective school characteristics. The purpose of this study was to develop and initially test a multidimensional model exploring any potential relationships existing between CLC and school effectiveness and to examine any potentially identifiable contextual variables that may mediate this relationship in different school settings. An additional purpose of this study was to develop an instrument, known as the Curricular Leadership Culture Inventory (CLCI), which can be administered to teachers and school administrators to identify perceptions of CLC/SE linkages using both professional staff and the school as separate units of analysis. As a result, individual schools would be able to develop a school-level CLC profile as a means of assessing school-level processes affecting overall school effectiveness.

Significance of the Study

The conceptual design of this study essentially provides a multidimensional focus on curricular leadership and its relationship to school effectiveness, in contrast to many previous school effectiveness studies that have taken a decidedly unidimensional approach to exploring leadership and its impact on school effectiveness. This change to a multidimensional approach has the potential for providing more insightful understandings of CLC and its relationship to various school outcomes.

By focusing on the process dimensions of curricular leadership and their relationship to school effectiveness measures rather than solely on the standardized assessment results on state-mandated accountability assessments as a measure of school effectiveness, this study deflects attention from results-oriented assessments as ultimate measures of school effectiveness, as determined by most state-accountability systems, and thereby integrates a process-oriented approach to measuring school effectiveness.

By developing and initially testing a multidimensional model that explores the relationship between CLC (conceptualized as an independent variable set) and school effectiveness (conceptualized as a dependent variable set), this study begins to investigate the interactions between the process and structural dimensions of the CLC model. Further, this study has the potential to contribute to the school effectiveness research literature by developing school-level profiles depicting how these independent and dependent variables interact in various school environments.

The development of the CLC model is important for several reasons: (1) it provides a multidimensional framework of CLC when none existed; (2) it generates a useful tool for clarifying the relationship between CLC and school effectiveness; and (3)

it could have a significant impact on the theoretical and practical knowledge that guides both researchers and practitioners.

Finally, the development and testing of the Curricular Leadership Culture Inventory (CLCI) in this study is important because it measures the perceived level and quality of curricular leadership found within the school leadership culture and demonstrates the degree of alignment between school organizational structures and curricular leadership process dimensions.

Study Variables

Conceptual/Operational Definitions

This section presents conceptual and operational definitions of key variables in the study. The subsections that follow present conceptual definitions of major study variables followed by their operational definitions.

Independent Variable(s)

Curricular Leadership Culture (CLC). CLC is conceptualized as teacher and administrator perceptions of how curricular leadership processes interact with existing organizational structures in a school. CLC is an index of the school's overall organizational leadership involving deeply held belief systems about how the curricular decisions are made and implemented and how these decisions are communicated within and acted upon in the school.

Curricular Leadership Culture Inventory (CLCI). The Curricular Leadership Culture Inventory (CLCI) is the new instrument developed and piloted in this study and is the operational definition of CLC (see Chapter Four).

Dependent Variables

Dependent variables consist of three recognized effectiveness indices: (1) school organizational effectiveness; (2) student achievement; and (3) school holding power (student attendance and drop out rate).

School Organizational Effectiveness. Organizational effectiveness is conceptualized as the extent to which an organization is able to establish and accomplish its goals in an efficient and effective manner and is adaptable over time to changing external and internal characteristics. School organizational effectiveness is operationalized in this study using school administrator and teacher mean scores on the Index of Perceived Organizational Effectiveness (IPOE) (Miskel, Feburly, & Stewart, 1979; Mott, 1972).

Student Achievement. Student achievement is conceptualized as a student's ability to demonstrate mastery of academic skills at a high level of cognitive rigor and complexity. Student achievement is operationalized in this study by available school-level mean standardized statewide assessment scores in math, reading, writing, science, and social studies within grades 5-8 as measured on the Texas Assessment of Knowledge and Skills (TAKS) and reported through the Academic Excellence Indicator System (AEIS) maintained by the Texas Education Agency (TEA).

School Holding Power. School holding power is conceptualized as the ability of a school to maintain student attendance. School holding power is operationalized in this study by school-wide student average daily attendance (ADA) and drop out rate (DOR) figures reported through the Academic Excellence Indicator System (AEIS) maintained by the Texas Education Agency (TEA).

Research Questions

Because this exploratory study focuses on conceptual design rather than deductive derivation of hypotheses from competing frameworks, the research question format is used in lieu of hypothesis statements (Claudet, 1999). Since the conceptual design efforts within the study are at the exploratory stage, the use of research questions to guide the study allow for a certain amount of data analysis flexibility as relationships among variables are examined. Further, the study provides preliminary data bearing on the psychometric validity and reliability of the CLCI. The following research questions generated from the CLC model are used to guide inquiry within the study's quantitative investigation.

1. What empirically derived dimensions can be identified to describe the nature of CLC as an organizational phenomenon?
2. With what degree of reliability can the empirically derived curricular leadership dimensions be measured?
3. What are the relationships (bivariate/multivariate linkages) among the set of empirically derived dimensions of a measure of CLC and a set of school

organizational effectiveness, student achievement, and school holding power indices?

Limitations

Limitations in this study include:

1. This study will investigate CLC from a middle school organizational perspective. Because elementary and high schools have their own distinct organizational characteristics, the manner in which the CLC expresses itself may be different depending on the specific campus in question. Therefore, generalizability of this study is limited to middle school campuses only.
2. Schools with low administrator and/or teacher turnover are likely to have a more established and more efficient method of transmission of their school culture. Schools with high administrator and/or teacher turnover may have a more meandering culture or a culture of inconsistency. Therefore, the validity and reliability of this study is related to the ways school cultures are transmitted and maintained as a result of administrator and teacher turnover.

Assumptions

The following are assumptions used in this study:

1. Survey respondents were assumed to be valid and reliable indicators of a school's CLC and organizational effectiveness.
2. TAKS assessment results were assumed to be valid and reliable indicators of student achievement.

Summary

Chapter One presents an overview of the study and a preliminary description of independent and dependent variable conceptual and operational definitions. The statement of the problem and purpose of the study is presented along with a description of the study's significance. The primary research questions are presented. The chapter concludes with statements concerning the limitations and assumptions of the study.

Chapter Two describes the development of the CLC model. Chapter Three provides a review of the literature. Chapter Four outlines the methodologies utilized in this study. Chapter Five presents the results. Chapter Six provides a discussion of results, findings, and conclusions of the study, followed by implications of study findings for further research. The appendix provides the CLCI and IPOE instruments along with the content classification study and descriptive statistics for both instruments.

CHAPTER II

MODEL DEVELOPMENT

Overview

Chapter Two describes the development of the curricular leadership culture (CLC) model. First, the initial development of the model is explained followed by descriptions of the model's structural and process dimensions. Next, the model's face validity is described followed by a definition of terms used in the model. A series of hypothesized scenarios are listed using the model's explanatory and predictive powers. The chapter concludes with a brief summary.

Development of Initial Curricular Leadership Culture (CLC) Model

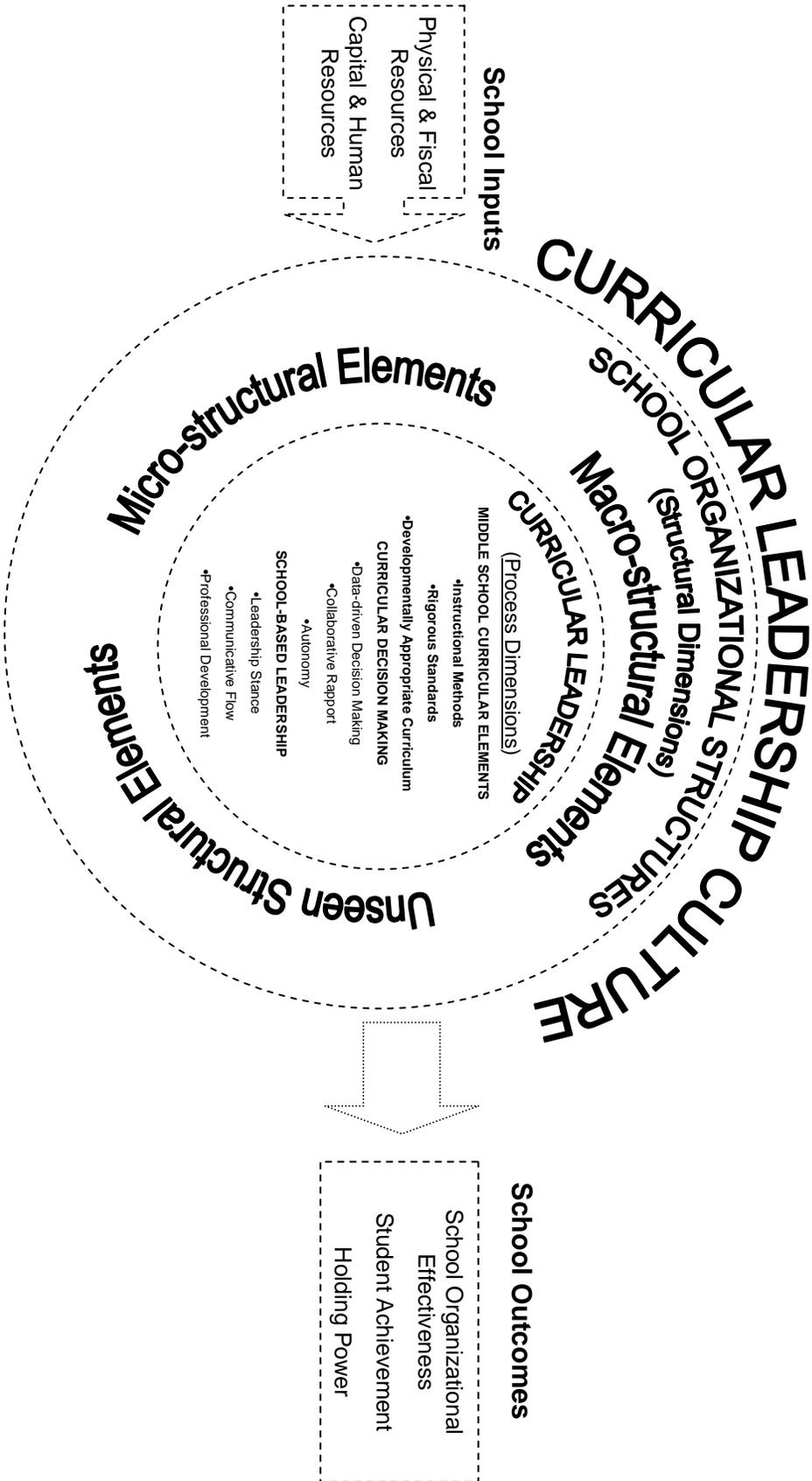
Conceptual models help provide good understandings of the cause and effect relationships within organizations (Robinson, 2004). Along these lines, Willemain (1994) identifies five qualities of an effective model: (1) validity, (2) usability, (3) perceived usefulness, (4) feasibility, and (5) adaptability. Further, conceptual models serve to categorize information, enhance understanding, interpret data about the organization, provide a common language, and help guide action for change (Burke, 1994). Similarly, a model has little intrinsic value unless it is used to aid decision making (Robinson, 2004). In sum, organizational models can be useful in helping further the understanding of the dynamics of action taken and the organizational members' behavior in organizations (Burke, 2002).

Existing school organization/school effectiveness frameworks (Brown, 2001; Claudet, 1999; Heck, 2000; Teddlie & Reynolds, 2000) along with various conceptual model guidelines (Burke, 2002; Robinson, 2004) were reviewed and served as an initial reference for model development efforts. Model development is a nonlinear process (Robinson, 2004) involving a continual process of refinements and peer dialogue/collaboration based on existing effective school frameworks (Hallinger & Heck, 1998; Kelley & Finnigan, 2003; Owens, 1995; Sweetland & Hoy, 2000).

The CLC organizational model developed in this study is presented in Figure 1 (see p. 18). The CLC model consists of the three key components of: (1) school inputs, (2) a CLC independent variable set, and (3) school outputs (see Figure 1). The model assumes that CLC represents a complex, multidimensional set of process and structural variables whose interrelationships serve to link model inputs with model outcomes in unique ways in different schools.

The CLC model suggests that the effects of physical, fiscal, capital, and human resources (inputs) on school outcomes are the result of the interactions among various macro-structural, micro-structural, and unseen structural elements (school organizational structures) with several identified curricular leadership (CL) process dimensions (Middle School Curricular Elements, Curricular Decision Making, and School-based Leadership). Micro-, macro-, and unseen structural elements of school organizational structures interact with curricular leadership dimensions to define the unique CLC characteristics of a school at any point in time.

Proposed Model of Curricular Leadership Culture in Middle Schools



Collectively, the interactions among these structural elements and curricular leadership dimensions help shape the overall quality of a school's curricular leadership. The model suggests that schools can have different organizational structures and curricular leadership dimensions. The interrelationship between organizational structures and curricular leadership dimensions within the school influences both the type and direction of leadership exerted at an individual level by the principal and at a collegial level among the teachers, thus informing an overall curricular leadership culture for school personnel.

Within the model, school organizational structures refer to the wide range and variety among micro-, macro- and invisible structural elements assumed to occur in any given school context. For example, micro-structural elements might typically include a number of principal-to-teacher (and teacher-to-teacher) interactions such as individual meetings, casual conversations in the hallway, and ongoing memoranda that can be a characteristic and recurring feature of everyday organizational structural life. These micro-structural elements are often smaller versions of larger macro-structural elements of a school's organizational structure. Examples of these larger macro-structural elements might include whole faculty meetings, PTA meetings (parent-teacher association), and site-based decision making (SBDM) committees. The patterns of these micro- and macro- structural elements are often nested in larger, unseen structural elements of a school's organizational structure. Examples of these unseen structural elements might include the school's climate and culture, that is, the pattern of beliefs governing why and how activities are carried out in particular situations. Considered collectively, these micro-, macro-, and unseen structural elements are assumed to

contribute substantially to the perceived quality of an overall CLC within a school at any given time.

Curricular leadership is conceptualized as a perceptual phenomenon involving deeply held beliefs about how a school's curricular leaders interact with existing structural elements along three identified process dimensions (Middle School Curricular Elements, Curricular Decision Making, and School-based Leadership) with each dimension containing three distinct subdimensions (Middle School Curricular Elements – rigorous standards, instructional methods, developmentally appropriate curriculum; Curricular Decision Making – data-driven decision making, collaborative rapport, autonomy; and School-based Leadership – leadership stance, communicative flow, professional development). An example of these curricular leadership process dimensions interacting between and/or among each other might typically include the principal delegating decisions (leadership stance/autonomy) about next year's professional development plan (professional development) to a group of teachers who decide (collaborative rapport), based on current student achievement data (data-driven decision making), to conduct a needs assessment (communicative flow) among the faculty at-large. Within the model, these curricular leadership processes interact among the identified micro-, macro-, and unseen structural dimensions. The model assumes that improvement of instruction is associated with educators' involvement in CLC practices. Additionally, the model assumes that an interactive, systemic approach to student achievement is a necessary component for school effectiveness (Lezotte & McKee, 2002; Pepperl & Lezotte, 2004; Schlechty, 2001).

As the CLC model posits an array of complex, multidimensional relationships among a number of variables, curricular leadership and school organizational structure dimensions, and effectiveness indices, this study focused specifically on investigating possible relationships between CLC dimensions and three indices of effectiveness (school organizational effectiveness, student achievement, and school holding power). The CLC model was utilized in this initial investigation as a theoretical lens for probing the organizational nature of CLC in schools and as a conceptual frame for the generation of empirical questions.

Face Validity

A face validity study with a group of (5-10) expert judges (middle school principals, university middle school researchers, middle school teachers) was performed to elicit initial perceptions on the face validity of the various process and structural dimensions of the CLC model and how the survey items reflecting the model were content classified by CLC conceptual dimensions. Expert judges were asked to comment on the strengths, weaknesses, and quality of the conceptual dimensions of the model and to identify any additional dimensions that might make more sense to better represent the interactions among various CLC/SE dimensions. Based on the results of this face validity study, modifications or adjustments occurred to provide a more clear alignment and connection between the CLC model and real life school contexts. The prefactor analyzed CLCI survey instrument designed to operationalize the CLC model was piloted on a sample population of middle school teachers and administrators after a prefactor content classification study (described in Chapter Four). An exploratory factor analysis

was conducted to investigate the initial psychometric conceptual validity of the instrument and model. A set of decision rules related to the factor analysis were determined to discard dimensions that do not strongly load with factors. The product of this procedure was an initial CLC model operationalized by an original factor analyzed inventory (CLCI).

Definitions of Terms

The Model of Curricular Leadership Culture (CLC) in Middle Schools provided the theoretical framework for generating independent and dependent study variables. Independent variables consisted of three posited dimensions (middle school curricular elements, curricular decision making, school-based leadership) of CLC each containing three separate subdimensions. The three posited dimensions were operationalized as scales of the Curricular Leadership Culture Inventory (CLCI) developed in this study.

Independent Variable(s)

Curricular Leadership Culture (CLC). Curricular leadership culture is defined as teacher and administrator perceptions of the interrelationships between the school organizational structural and curricular leadership process dimensions within a given school at any point in time. CLC is an index of the school's overall organizational leadership involving deeply held belief systems about how the curricular decisions are made, implemented, communicated, and acted upon in a school. CLC consists of three posited dimensions each containing three separate subdimensions:

(1) Middle School Curricular Elements (MSCE):

(A) Developmentally Appropriate Curriculum.

Developmentally appropriate curriculum is a school organizational approach providing curricular experiences designed specifically for middle school students' physical, psychosocial, and cognitive developmental characteristics.

(B) Rigorous Standards. Rigorous standards curriculum refers

to curriculum based on content standards and organized around concepts and principles.

(C) Instructional Methods. Instructional methods refer to the

various ways teachers plan instruction using a variety of exploratory, integrated, and interdisciplinary approaches for middle school students.

(2) Curricular Decision Making (CDM):

(A) Data-driven Decision Making. Data-driven decision

making describes the types of data and they way they are used to make instructional decisions.

(B) Autonomy. Autonomy refers to the degree teachers make

decisions in the school.

(C) Collaborative Rapport. Collaborative rapport describes the

degree teachers work together and with the principal in the school.

(3) School-based Leadership (SBL):

(A) Professional Development. Professional development refers

to the availability of researched-based practices and learning opportunities for teachers.

(B) Leadership Stance. Leadership stance underscores the

types and sources of leadership in the school.

(C) Communicative Flow. Communicative flow refers to how information is communicated in the school and the methods used for communication.

Curricular Leadership Culture Inventory (CLCI). The Curricular Leadership Culture Inventory (CLCI) is the new instrument developed and piloted in this study. Dependent variables consist of three recognized effectiveness indices: (1) school organizational effectiveness; (2) student achievement; and (3) school holding power (student attendance).

Dependent Variables

School Organizational Effectiveness. Organizational effectiveness is conceptualized as the extent to which an organization is able to establish and accomplish its goals in an efficient and effective manner and is adaptable over time to changing external and internal characteristics. School organizational effectiveness is operationalized in this study using school administrator and teacher mean scores on the Index of Perceived Organizational Effectiveness (IPOE) (Miskel et al., 1979; Mott, 1972).

Student Achievement. Student achievement is conceptualized as a student's ability to demonstrate mastery of academic skills at a high level of cognitive rigor and complexity. Student achievement is operationalized in this study by school-level mean standardized statewide assessments scores in math, reading, writing, science, and social studies as measured on the Texas Assessment of Knowledge and Skills (TAKS) and reported through the Academic Excellence Indicator System (AEIS) maintained by the Texas Education Agency (TEA).

School Holding Power. School holding power is conceptualized as the ability of a school to maintain student attendance. School holding power is operationalized in this study by school-wide student daily attendance (ADA) and drop out rate (DOR) figures reported through the Academic Excellence Indicator System (AEIS) maintained by the Texas Education Agency (TEA).

Hypothesized Scenarios

The usefulness of a conceptual model rests in its ability to describe, explain, and predict organizational outcomes based on a set of characteristics. The CLC model hypothesizes the relationship between CLC and school effectiveness in different school contexts. Curricular leadership culture as broadly defined in the model encompasses a wide variety of structural and process dimensions whose interactions generate different levels of school effectiveness. Generally, school effectiveness and CLC is predicted to be highly causally correlated, but it is possible to find anomalies.

Based on the CLC model, two schools – named School A and School B – have very similar student demographics and structural dimensions but have very different curricular leadership process dimensions. Despite these differences, these schools are equally effective with regards to school outcomes (school organizational effectiveness, student achievement, and holding power). Both schools have strong professional learning communities fostering a climate and culture of on-going self-reflection and analysis of instructional practice. Because of the higher level of teacher turnover, School A has a relatively inexperienced teaching staff. The principal has a more directive and prescriptive instructional leadership stance in this school. The principal plans formal

meetings with teachers to model effective ways to use data and collaborate in making curricular decisions. The professional learning community in this school is strong, but its success relies heavily on the principal's efforts to build the climate and culture of the school around ongoing self-reflection of best practices. School B has an experienced teaching staff and a low teacher turnover rate. Because of this, the principal has a more transformational leadership stance in this school. There is a high level of collaboration among teachers from their experience working together in using data to drive instruction and make curricular decisions. The professional learning community is strong in this school because the teaching staff has been shown how to effectively collaborate and, as a result, has a greater level of autonomy than School A. The collaborative rapport in School B is strong among its teachers because this way of interacting is an established norm and engrained into the climate and culture.

Two additional schools, name School C and School D, have vastly different demographics and structures but have very similar curricular leadership process dimensions. Yet despite these differences, these schools are equally effective with regards to school outcomes (school organizational effectiveness, student achievement, and holding power). School C is a bigger school with more teachers, students, and a larger teacher to student ratio than School D. Because of this, School C has a very structured professional learning community characterized by weekly teaming meetings among grade-level teachers sharing the same students. Grade-level heads coordinate these meetings and minutes of these meetings are given to the principal on a weekly basis. Most communication from the principal comes through e-mail messages or memoranda placed in each teacher's box. The climate and culture of this school relies on

working in individual teams and finding support and resources from within the team. However, School D has fewer teachers, students, and a smaller student to teacher ratio. Because of this, School D has a very informal yet equally effective professional learning community because of the interactions among the various curricular leadership process dimensions. While there are no weekly teaming meetings in School D, the communicative flow is quicker because of the smaller numbers of teachers. When a curricular decision needs to be made, teachers are able to work together to make an instructional adjustment because of the autonomy each teacher has to implement strategies to help students achieve. Because of the smaller numbers of teachers and students, School D has a small community of learners who can communicate quickly to make curricular modifications when the need is identified. The climate and culture of this school is based on its inherently small size and informal communication methods.

Summary

Chapter Two describes the development of the CLC conceptual model and initial testing of this model through the development and piloting of a new inventory, the CLCI. The description of the initial development of the model and the development and piloting of the operational survey instrument is presented along with a face validation check and practitioner comments on the a priori independent variables. A set of definitions and descriptions for each term used in the curricular leadership culture model is explained. The chapter concludes with hypothesized examples of CLC/SE scenarios and how they would vary in different school contexts.

CHAPTER III

REVIEW OF RELATED LITERATURE AND RESEARCH

Introduction

Researchers have focused predominately on examining school effectiveness by investigating curricular leadership process dimensions (Hallinger & Heck, 1998; Hoy et al., 2002; Kelley & Finnigan, 2003; Leithwood, 1994; Leithwood & Jantzi, 1990; Sergiovanni, 1995; Sweetland & Hoy, 2000) and school organizational structures (Fraser, 1989; Louis et al., 1996; Miskel, McDonald, & Bloom, 1983) separately as discrete school-level variables. School effectiveness is oftentimes measured by student achievement, which is the result of the linear interactions between student achievement and these variables (Blasé & Blasé, 1999; Heck, 2000; Sweetland & Hoy, 2000; Kelley & Finnigan, 2003; Leithwood & Jantzi, 1999; Marks & Louis, 1999; Marks & Printy, 2003; Scheerens et al., 2000; Thrupp, 2001; Witziers et al., 2003). The majority of these researchers have found indirect effects between these school-level variables and school effectiveness. For these reasons, researchers in the last decade have found it difficult to delineate an underlying, systematic approach to describe and explain school effectiveness.

Many of the early school effectiveness studies have emphasized differences between effective and ineffective schools. Hoy, Sweetland, and Smith (2002) noted that such [school effectiveness] studies are post hoc comparisons; in fact, very few of these studies made a priori predictions about what organizational properties were related to school effectiveness or student achievement, and that remains the case today. Even fewer studies describe the processes and mechanisms that link school properties to student achievement, that is, provide a theoretical explanation of why certain school characteristics promote achievement (p. 78).

Furthermore, there has been a recent emphasis on measuring school effectiveness through the monitoring of student outcomes to develop comprehensive school accountability systems. These systems use standardized test scores to measure student progress and achievement to make comparisons among schools. Heck (2000) reported “school effectiveness research, in part, has been a driving force behind such [school accountability system] efforts, determining that school structure and the quality of educational processes can make a difference in student achievement” (pp. 513-514). Because of this, it is important for researchers and practitioners alike to understand the relationships among these school level variables and school effectiveness.

Because of the lack of clarity within the literature in synthesizing the specific factors involved in student achievement, a different investigative approach to describing these complex relationships among school-based leadership/culture and school effectiveness variables may prove beneficial. Researchers have called for and used multiple perspective approaches to explain educational policy phenomena (Allison, 1983; Cibulka, 1999; Cuban, 1990; Good & Brophy, 1986; Griffiths, 1995; Peterson, 1976; Sirotnik & Burstein, 1985). Early school effectiveness studies suggested that elements of curricular leadership and school organizational structures comprised a checklist of important characteristics describing effective schools (Edmonds, 1979; Brookover & Lezotte, 1979). More recent studies have identified student achievement as resulting from nonlinear or separate linear interactions between these multiple school level variables (Blasé & Blasé, 1999; Kelley & Finnigan, 2003; Heck, 2000; Marks & Louis, 1999; Marks & Printy, 2003; Leithwood & Jantzi, 1999; Sweetland & Hoy, 2000; Witziers et al., 2003). Furthermore, Cibulka (1999) stated that

a different approach is to view multiple perspectives as a way of illuminating partial truths. The key is to define the problem's components with sufficient breadth and richness to encourage use of different perspectives for capturing different pieces of the problem. The composite snapshot that emerges as a result of this approach may show that each approach provides only a piece of understanding the problem and therefore only a partial solution (p. 178).

There have been no studies integrating dimensions of curricular leadership and school organizational structures into a coherent conceptual model explaining school effectiveness. Furthermore, as "images of schools evolve, there will be a clear need to invent and refine improved forms of instrumentation both to gather formative data and, when appropriate, to test emergent properties" (Allison, 1983, p. 25). Griffith (1999) asserts "future studies should continue to direct assessment of principal behaviors in relation to specific school processes (e.g., the principal's facilitation of collegiality and trust among staff, statement of the school mission, and influence on teacher expectations) for student learning" (p. 287). Further, a more comprehensive and coherent conceptualization of the link between school leadership/culture and school effectiveness would help principals manage schools more effectively (Griffith, 1999).

Because of the complexity of school organizational cultures and, therefore, the related complications this poses in attempting to do research investigating the links between school leadership/culture and effectiveness, researchers have tended to take a linear or unidimensional approach to the problem (i.e., they want to investigate the impact of certain aspects or dimensions of leadership/culture) and how those variables or dimensions of school culture interface with or impact school effectiveness. These researchers take a linear approach because there is no existing conceptual model attempting to integrate the multiple kinds of leadership/cultural variables into a coherent conceptual framework. Moreover, there is no integrated coherent conceptual framework

that addresses, approaches, or examines the relationship between school leadership culture and school effectiveness in multidimensional terms.

Researchers have approached identifying interrelationships between school leadership/culture and school effectiveness primarily through a linear, unidimensional mindset (Bridges, 1982; Day, Harris, & Hadfield, 2001; Lytton & Pyryt, 1998; Ogawa, Goldring, & Conley, 2000; Scheerens et al, 2000). However, a linear, unidimensional approach collapses to a large extent the complexity of school leadership culture by focusing predominately on individual independent variables such as curricular decision making, school-based leadership, or school organizational structures as stand-alone factors. Schools are dynamic, complex organizations (Allison, 1983; Wheatley, 1999). This dynamism is an emergent property informed by multiple variables within schools and the ways in which they interact. Because of this, linear, unidimensional approaches have a tendency to collapse or mask the complexity of dynamic organizational systems (Wheatley, 1999).

Despite attempts within the literature to understand schools through an organizational perspective, researchers have not attempted to describe or analyze schools themselves (Allison, 1983). Rather, researchers have mostly used linear, unidimensional approaches to explain school effectiveness, resulting with the research becoming fragmented around specific topics rather than coordinated around deeper, larger conceptual problems (Ogawa et al., 2000, p. 353). From a broad perspective, these studies provide small but important pieces of a larger, integrated school effectiveness conceptualization. Further, Allison (1983) argues that because schools are so complex, they require a conceptual model of their own. Similarly, Claudet (1999) describes

schools as “unique organizations having their own multidimensional structures, contexts, and meanings” (p. 259). Because of the complexity of school organizations, it may prove fruitful to develop a leadership culture/organizational effectiveness model, by taking a multidimensional approach.

These conclusions suggest the need to coordinate a multiple independent variable approach to student achievement by conceptualizing curricular leadership processes and school organization structures as part of an integrated leadership culture/organizational effectiveness model. Specifically, one dimension of school leadership culture in need of clearer definition and empirical study is the nature of curricular leadership culture (CLC) created and sustained by administrators, teachers, and students in schools, and the variables that support these processes. Furthermore, particular attention should be paid to the complex nature of the multiple structural and process dimensions comprising CLC and specifically the interrelationships among these dimensions that inform some of the emergent properties within schools promoting student achievement (Bosker, DeVos, & Witziers, 2000; Witziers et al., 2003). In addition, it is also important to understand how the interrelationships among these dimensions can be used to make a priori predictions about what organizational properties are related to student achievement, and thus, school effectiveness (Hoy et al., 2002).

Curricular Leadership

A review of school effectiveness literature shows that different levels of school-level achievement are linked to differences in school characteristics and especially to school leadership culture (Cross, 1994; Louis, Toole, & Hargreaves, 1999). Furthermore,

researchers have noted that organizational structural arrangements and the set of cultural elements within an organization are central to effectiveness and productivity (Kelley & Peterson, 2000; Peterson, 2002; Youngs & King, 2002). For example, Brown et al. (2003) developed an initial framework for a conceptual definition of curricular leadership as a school-level characteristic impacting overall school effectiveness. As such, curricular leadership is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school (Peterson, 2002). This study attempted to build on extant literature by synthesizing conceptual links between school leadership and curricular decision-making to further develop the conceptual definition of curricular leadership (Brown et al., 2003; Spillane, Halverson, & Diamond, 2004).

Curricular decision makers must find an alignment among curricular goals, classroom instruction, and curricular assessments through leadership efforts from various curricular stakeholders (Tomlinson & McTighe, 2006; Wiggins & McTighe, 2005). Similarly, Stein, Grover, and Henningsen (1996) found that teachers made curricular adjustments through instructional modifications in response to student needs. Remillard's (1999) study on the aspects of curriculum development "highlights multiple aspects of the curriculum process that can offer breadth and depth to researchers' perspectives on teaching" (p. 336) and further describes curriculum development as a multidimensional interaction among teachers and principals. Because of this, curriculum development has been called a "complex" and "multidimensional" process (Remillard, 1999).

Spillane et al. (2004) developed a multidimensional leadership model suggesting that “leadership activity at the level of the school, rather than at the level of individual teachers or small group of leaders, is the appropriate unit of analysis in studying leadership practice” (p. 28). Similarly, “principals can enhance teachers’ knowledge, skills, and dispositions and other aspects of school capacity by connecting teachers to external expertise, by creating internal structures, and by establishing trust relations with school staff” (Youngs & King, 2002). Other studies have demonstrated substantial differences in the leadership stance involving how school leaders enact their roles in schools with strong and weak organizational structures (Louis et al., 1996; Unseem, Christman, Gold, & Simon, 1997), suggesting the manner in which various school-level dimensions interact among each other in various school settings may differ. Because of this, Spillane et al. (2004) suggest a new approach focusing on the “interdependencies between leadership activities or practices rather than focusing chiefly on social interaction among individuals” (p. 13); that is a focus on the interactions and situations simultaneously that constitute leadership practice. As a result, a goal of this study was to build on the integrative conceptual leadership model developed by Spillane et al. (2004) by linking previous school effectiveness studies together, furthering the conceptualization of CLC as part of a school’s overall school leadership culture and how separate dimensions of CLC interact with various school effectiveness indices within and between different school contexts.

Researchers have identified separately various elements of curricular decision making and school-based leadership whose multiple interactions provide a more complete understanding of curricular leadership in schools, yet no studies exist

synthesizing these elements together as part of a multidimensional conceptualization attempting to provide a more clear explanation of CL/SE linkages (Ferrin, Landeros, & Reck, 2001; Justice, Invernizzi, & Meier, 2002; Peterson, 2002; Remillard, 1999; Spillane et al., 2004; Walpole, Justice, & Invernizzi, 2004; Youngs & King, 2002). Furthermore, Potter, Reynolds, and Chapman (2002) urge researchers and practitioners to carefully consider any potential interrelationships among these school characteristics and any mediating factors such as state accountability systems that may contribute to school effectiveness.

Teachers and principals must balance their knowledge with contextual demands during the curricular decision making process (Randi & Corno, 1998). For example, Justice et al. (2002) demonstrate that using student performance data to drive curricular and instructional decision making increases student achievement, thereby improving overall school effectiveness. Similarly, Walpole et al. (2004) assert that “teachers must be supported by an unremitting administrative effort to attain coordination among key components of curricular reform” (p. 279); that is the level of collaborative rapport among the various curricular stakeholders in a school impacts the effectiveness of curricular decision making (Peterson, 2002; Remillard, 1999). Furthermore, principals can elevate the collective responsibility for student learning among teachers and thereby elevate levels of stakeholder autonomy by distributing influence over curricular decisions (Spillane et al., 2001).

Different styles of school-based leadership impact teacher participation in the curricular decision making process (Silin & Schwartz, 2003). However, few studies have conceptualized or empirically examined connections among school-based leadership and

school organizational structures that may influence curricular decision making (Youngs & King, 2002). Reeves (2006) notes that information pertaining to change efforts “spreads through the system on a distinctly nonlinear communication path” (p. 34). Because of this, it is important for teachers and principals to maximize communicative flow by balancing their knowledge with contextual demands during the curricular decision making process (Peterson, 2002; Randi & Corno, 1998; Remillard, 1999). A significant outcome of effective curricular decision making includes professional development targets designed to help teachers better deliver the curriculum (Silin & Schwartz, 2003; Tomlinson & McTighe, 2006; Wiggins & McTighe, 2005). Similarly, Peterson (2002) purports that “a strong culture in a professional development program is likely to build commitment and identification with the program and its mission [and that] it seems reasonable to assume that effective programs will have both well designed structures and strong cultures” (p. 217).

Different styles of school-based leadership impact the effectiveness of school change projects including teacher participation in the curricular decision making process (Silin & Schwartz, 2003; Walpole et al., 2004). However, few studies have conceptualized or empirically synthesized these separate sources of leadership and curricular decision making processes together (Youngs & King, 2002). While there is a lack of a clear and practical conceptual definition of curricular leadership from the existent literature, this study attempted to contribute to the Brown et al. (2003) initial curricular leadership conceptualization through considering any potential interrelationships linking curricular leadership processes and existing school organizational structures found in individual schools to school effectiveness.

Middle School Curricular Elements

In recent years, a number of factors have contributed to the heightened focus on the curricular leadership/school effectiveness links in middle schools. The effective schools movement continues to direct attention to the quality of teaching and learning in schools and specifically to the nature of curricular roles and academic expectations adopted by teachers and other school leaders (Haycock, 2001; Teddlie & Stringfield, 1993). However, few studies in the school effectiveness literature provide clear and practical definitions of curricular leadership (Bossert, 1988; Hoy & Ferguson, 1985). In one study Brown et al. (2003), attempt to understand curricular leadership as a middle school organizational variable using collective results of a correlational analysis. These researchers suggest that

the curricular leadership construct most relates to variables of perceived organizational effectiveness, where organizational effectiveness is seen as a process (i.e., a cultural perception) rather than a school product (i.e., standardized or normative outcomes) variable. These dimensions of organizational curricular leadership may be best understood, then, as overall process measures of the effectiveness of middle schools as organizations (p. xx).

The organizational culture of middle schools has been widely recognized by researchers as unique in exhibiting distinctive sets of teacher and administrator belief systems shaping curricular leadership fostering meaningful teaching/learning relationships among adults and students (Brown et al., 2003). Because of this, the middle school environment provides an intriguing arena for initiating an exploration of the curricular leadership behaviors and the emerging culture influencing middle school educators and their impact on school effectiveness (Beane, 1990; Brown et al., 2003; Jackson & Davis 2000).

A middle school is any organizational school structure consisting of developmentally appropriate programs, policies, and practices tailored to maximize young adolescent learning (Clark & Clark, 1993; Cuban, 1993; Epstein, 1990; Hough, 1989; Romano & Georgiady, 1994). Generally, among the most common of these are interdisciplinary teaching teams with common planning time, flexible scheduling, integrated curricula, and exploratory classes (Hough, 1997). In reality, many schools comprised of some variation of grades 5-8 have no unique curricular structure and are based largely on high school content organizational patterns. This results in a developmentally unresponsive, passive, and undemanding curriculum that is oftentimes unconnected to the daily lives of young adolescents (Lounsbury & Clark, 1990). The middle school curriculum, structured around core courses, exploratory course, and elective courses, should focus on the needs and characteristics of the early adolescent learners (Clark & Clark, 1993).

Over the past fifteen years, structural changes in middle schools have impacted how students and teachers are organized for learning and produced good results in terms of students experiencing a greater sense of emotional well-being (Hallinger, Bickman, & Davis, 1996; Midgley & Edelin, 1998; Phillips, 1997); however, little has changed at the core of most students' curricular experiences (Jackson & Davis, 2000). Further, many middle schools are "warmer, happier and more peaceful places for students and adults ... [yet most schools] have not moved off this plateau and taken the critical next step to develop students who perform well academically, with the intellectual wherewithal to improve their life conditions" (Lipsitz, Mizell, Jackson, & Austin, 1997, p. 535).

A middle school's curriculum should be grounded in the rigorous public standards for what students should know and be able to do (Jackson & Davis, 2000), provide relevance oftentimes missing from the original notion of a core curriculum (Beane, 2002), and reflect the latest findings about how students learn best (Phillips, 1997; Wiggins & McTighe, 2005). In Texas, the rigorous public standards for schools are the Texas Essential Knowledge and Skills (TEKS) for each content area and grade level.

Most schools have three curricular and instructional systems in place: (1) the intended curriculum developed and mandated by the state, (2) the taught curriculum which students actually experience on a daily basis, and (3) the tested curriculum for which the students, teachers, and principal are held accountable through assessment and accountability programs (Lezotte, 1992). It is critical for students to experience a coherent, fully aligned curriculum developed by instructional leaders (teachers and principals) who understand the importance of developmentally appropriate curriculum, rigorous standards curriculum, and quality instructional methods.

To promote excellence, high standards demand a thorough understanding of essential knowledge, require critical thinking, and problem-solving skills, and encourage habits of mind that can be applied across disciplines ... To support equity, standards set the expectation that all students can meet or exceed high standards. To make sure that "all" really means all, every student must have the support and time required to take him or her from where he or she is to where the standards say he or she should go (Jackson & Davis, 2000, p. 33).

Teachers must begin with the academic standards of what students should know and be able to do as the basis for curriculum development/enactment and implementation to support excellence and equity within the curriculum (Beane, 2002; Jackson & Davis, 2000).

Teachers have a deep interest in both excellence and equity. They want all young people to do well, to know more, and to be more skilled, including in those areas

that are necessary to get through the maze of standardized tests ... this desire for achievement is backed up by a belief that all young people can learn, though not always the same things and at the same level (Beane, 1997, p. 69).

When held to high standards and supported in their efforts to achieve them, teachers develop the most effective and lasting strategies for improvement (Balfanz & MacIver, 1998). Policies that couple greater autonomy with greater school accountability for student performance and effective leadership practices will provide teachers with the means and motivation to improve their practice (Jackson & Davis, 2000).

According to Beane (1995), creating coherence involves connecting parts of the curriculum that may appear fragmented or disjointed, identifying meaningful contexts for knowledge and skills, and helping students make sense of learning experiences.

However, this does not occur naturally because “the isolation and fragmentation of knowledge is part of the deep structures of schooling ... [and] ... is evident in the subject-specific curriculum documents, schedules, and other artifacts of middle schools” (Beane, 1997, p. 7). Components of a coherent curriculum include identifying goals, creating a democratic classroom, integrating content, making connections, using traditional and alternative assessments, determining appropriate pedagogy, personalizing learning, enhancing relationships, communicating, developing effective scheduling and organizational structures, and reflecting (Pate, McGinnis, & Homestead, 1995).

Coherent curriculum identifies commonalities in what teachers are expected to teach and students are expected to learn because curriculum cannot be isolated from the context and teaching and learning (Palmer, 1995). Further, Clark and Clark (1994) assert that “what students learn is what is tested, usually consisting of discrete answers to specific questions, giving them a knowledge base that is unorganized, unconnected from

other subject areas and the reality of their own lives, and quickly forgotten” (p. 88).

Teachers are heavily influenced by their own needs for affiliation, autonomy, feelings of usefulness, and achievement (MacDonald & Leithwood, 1982) and thus play a central role in developing a coherent curriculum (Clark & Clark, 1994).

Academic subject matter has traditionally been the major emphasis of school-level curriculum. A more developmentally appropriate approach to middle level curriculum would focus on a balanced approach integrating the personal, social, and academic dimensions of adolescents (Allen, Splitterver, & Manning, 1993). An integrated middle level curriculum requires a reconceptualization of how the curriculum is taught and assessed regarding relevant academic content embedded in the personal needs of young adolescents in their relationship to themselves and to society. Beane (1991) described an integrated curriculum as: (1) focused on “widely shared concerns of early adolescents and the larger world” (p. 10) rather than specialized academic topics, (2) based on the unique needs of middle level learners, and (3) focused on young adolescents “as real human beings” (p. 10) who affect and are affected by societal challenges. Further, an integrated middle level curriculum should involve students in learning about aspects of real life issues. The increasing rapidity of change in the information society underscores the need for schools to update curriculum options and develop new ones.

A regenerative, systemic capacity will be required for middle level education efforts to succeed (Toepfer, 1997, p. 173). Integrated curriculum is developed in middle schools over a period of time. Drake (1991) describes this process as one of eliminating subject area boundaries through a collaborative process that necessitates the changing of

commonly held assumptions about curriculum such as shifting curriculum perspectives from a correlation of content where subject areas remain discrete to an interdisciplinary curriculum where the subject areas, while still existing, become more blurred, to integrated curriculum where subject areas are abandoned and replaced by common themes. An integrated curricular approach uses interdisciplinary content so that young adolescents experience an integrated, holistic viewpoint of content and skills (Allen, Splitterver, & Manning, 1993).

Jackson and Davis (2000) refer to the interdisciplinary team as a “vital part of developing middle grades learning community” (p. 125). This approach consists of teachers on an interdisciplinary team who teach all the core academic subjects (Arnold & Stevenson, 1998). In a related study, Levine and Shapiro (2000) describe a curricular learning community as an “environment that promotes greater academic and social involvement for ... students” (p. 13). While researchers have not agreed on a single best way to organize effective interdisciplinary teams, most scholars agree that these effective teams: (1) keep teams small, (2) provide team and individual planning time, (3) allow teachers to design most of their students’ daily schedule, and (4) allow for continuity thereby facilitating quality interactions within interdisciplinary teams resulting in increased student achievement (Erb & Stevenson, 1999; Flowers, Mertens, & Mulhall, 2000).

There are several advantages to interdisciplinary curriculum. Teachers are afforded opportunities to work together in developing learning experiences for their students, thus creating a forum for action focusing on student needs, curriculum and instructional improvement, and reflective practice (Clark & Clark, 1994). In addition,

making connections among the various subject areas also help teachers view their content area from a much broader perspective, thus reducing the fragmentation of learning that exists in most middle schools (Clark & Clark, 1994). However, while teams may plan and carry out interdisciplinary units from time to time, few do much more than correlate subject matter. Interdisciplinary teaming has not been as effective as it could be because most team members continue to function as a specialist in one particular subject (Vars, 1997).

The middle level provides an opportunity for students to explore careers, interests, and hobbies. Exploratory programs provide young adolescents with insight into the personal, social, and academic dimensions of the middle level curriculum. Allen, Splitterver and Manning (1993) assert that exploratory activities provide opportunities for students to learn in different ways using their unique skills. In addition, Tomlinson (1999) contends that teachers can differentiate instruction along three dimensions: (1) content – what students should know and be able to do, (2) process – the activities that facilitate learning, and (3) product – the evidence students produce to demonstrate learning. These methods provide ways for teachers to investigate how different interests can be utilized to best match the learning styles and needs of individual students. Further, “teachers should differentiate instruction so that, over time, all students are given access to different avenues for learning and have opportunities to learn that best suit them in relation to critical knowledge and skills” (Jackson & Davis, 2000, p. 78).

Just as there is no single approach to teach all students, there is no single model for organizing curriculum for integrated, interdisciplinary, and exploratory teaching and learning. Any curricular model implemented by a school must revolve around teacher

decision making (Palmer, 1995). Much of the educational restructuring literature seems to be focused on practices such as team organization, interdisciplinary instruction, and an advisory role for teachers – practices initially designed for and practiced in middle schools (Irvin & Hough, 1997). Further, Berryman (1993) suggests that structuring instruction to conform more to the ways students learn appears to improve the ability of that instruction to prepare students for the workplace.

In classrooms with authentic curriculum and where authentic instruction occurs, students see some payoff to what they are doing (Clark & Clark, 1994). Teachers and researchers report that emphasis on interrelationships across the curriculum creates powerful learning opportunities in the classroom – opportunities that help students find relevance in the content and become actively engaged in learning (Berg, 1988, Clark & Clark, 1994; Jacobs, 1991). Further, the process of evaluation must be closely linked with the goals of the curriculum and instruction to align more participatory instructional approaches with assessment procedures that are also participatory in nature (Clark & Clark, 1994). For schools to change or improve, researchers and practitioners must look at the processes that shape both the curricular and leadership-based interactions among students, teachers, and principals within existing school structures and how those processes impact student achievement and school effectiveness in developmentally appropriate ways (Hopmann, 2003).

Curricular Decision Making

Curricular decision making has been shown by researchers to be an important component of effective schools (Cross, 1994; Edmonds, 1979; Hoy et al., 2002; Kelly &

Finnigan, 2003; Kelley, Heneman, & Milanowski, 2002; Miskel, McDonald, & Bloom, 1983; Sweetland & Hoy, 2000; Visscher & Coe, 2003). A number of researchers have identified linear relationships between curricular decision making and student achievement by using such school-level process dimensions as data-driven decision making (Bailey, 1991; Drury, 1999; Heck, Larson, & Marcoulides, 1990; Smylie, Lazarus, & Brownlee-Conyers, 1996), collaborative rapport (Conley, Schmidle, & Shedd, 1988; Pepperl & Lezotte, 2004), and autonomy (Pepperl & Lezotte, 2004; Smylie et al., 1996). Some researchers have found curricular decision making dimensions an important component to student achievement (Sweetland & Hoy, 2000) while others found no direct link between these school-level dimensions and student achievement (Marks & Louis, 1997). Many of these researchers have tended to study school-level curricular decision making dimensions separately and, as a result, have found indirect and/or mediating effect links between these isolated school-level dimensions and school effectiveness (Edwards, Green, & Lyons, 2001; Henson, Kogan, & Vacha-Hasse, 2001; Kelley et al., 2002).

State-mandated accountability systems use standardized student achievement scores to take a linear, unidimensional approach to measure school effectiveness. Some researchers have reported that state-mandated school accountability systems affect the behaviors and decisions of principals (Ladd & Zelli, 2002; Smith & O'Day, 1993) while others have found limited empirical evidence to describe the effect of these systems on specific curricular decision making processes in schools (Leithwood, Steinbach, & Jantzi, 2002). However, while most state accountability systems are results-driven, curricular decision making in schools does not have to take a linear, results-driven approach.

“Research suggests that accountability systems designed outside of the school do influence what is taught. There is also research evidence to suggest that schools that succeed in improving student performance under high-stakes accountability are qualitatively different from those that fail to improve” (Kelley, 1998, p. 647).

Furthermore, school leaders would better serve their own accountability mandates (which are results-driven) by focusing on some of the interacting curricular processes that impact student achievement (O’Neill, 2000; Stevens, Estrada, & Parks, 2000). Abelman and Elmore (1999) assert that research on internal accountability systems suggests that three key elements impact internal accountability processes: (1) teacher expectations for their own behavior within the classroom (expectancy), (2) teacher expectations for one another’s behavior (collective expectancy), and (3) schoolwide expectations for performance as embodied in formal and informal aspects of the school organization (accountability). However, because of the complex nature of schools (Allison, 1983; Wheatley, 1999), researchers have been unable to identify, using linear, unidimensional approaches, any specific independent variables linking state-mandated accountability systems and curricular decision making processes to student achievement (Leithwood, Steinbach, & Jantzi, 2002; Sunderman, 2001). Further research is needed to understand the relationship between external accountability and organizational functioning (i.e., ways in which external accountability goals become absorbed into internal accountability structures and cultures) (Kelley, 1999).

Site-based decision making (SBDM) has been referred as a relative (Hill & Bonan, 1991; Wagstaff & Reyes, 1993), generic (Malen, Ogawa, & Kranz, 1989), or umbrella term (Conley & Bacharach, 1990) that describes an array of school-level

strategies to decentralize school governance and place decision making in the hands of principals and teachers (Murphy & Beck, 1995). The type of collaborative rapport among teachers and between the principal influences the quality of data-driven decision making in schools (Dana Center, 2005). In addition, Drury (1999) asserts that when SBDM processes are not directly linked and structurally aligned to campus goals, teachers may not be committed. Moreover, Fullan and Watson (2000) describe SBDM as local capacity-building operating within a structural framework. If SBDM is going to improve student achievement, Drury (1999) argues that additional resources including data-driven decision making, more knowledge, and rewards and incentives must be accessible to teachers facilitating a SBDM approach and to create a direct link to structurally aligned campus goals. Because of this, SBDM can be an indirect process for curricular decision making along with other independent organizational variables.

Some researchers have found SBDM to be an effective school-level process in improving student achievement (Briggs & Wohlstetter, 2003) while others have had difficulty identifying a relationship between SBDM and student achievement (Jenkins, Ronk, Schrag, Rude, & Stowitschek, 1994; Summers & Johnson, 1995). Conley, Schmidle and Shedd (1988) assert that SBDM outcomes appear to depend on a variety of factors, the primary determinant being the organizational motivation for involving teachers, the latitude available to those teachers, and how they perceive these two factors. Because of this, curricular leadership processes and school organizational structures are important contributors to well functioning site-based decision making in schools.

Principals in high achieving schools have been shown to involve teachers to a much greater extent in instructional decision making (Heck, Larson, & Marcoulides,

1990). Similarly, researchers have demonstrated that schools struggling with SBDM are less likely to have a process-oriented focus on teaching and learning (Edwards, Green, & Lyons, 2001; Smylie, Lazarus, & Brownlee-Conyers, 1996). Further, school communities that are successful with SBDM use data-driven decision making to set goals and determine how their goal completion is progressing (Bailey, 1991). In summarizing critiques of SBDM research, Fullan and Watson (2000) conclude that “even the best research on SBDM identified factors and conditions associated with success, but it does not tell us how to establish those conditions when they do not exist” (p. 460).

Empowerment began to appear in the education literature in the late 1980s with the implementation of SBDM (Edwards et al., 2001). Early approaches to empowerment stressed coordination and commitment building among teachers through collaborative rapport but did not establish connections to instructional improvement resulting in improved student achievement (Sykes, 1999). However, more recent studies posit that teacher empowerment is a necessary but insufficient condition for improving student academic performance (Marks & Louis, 1997; Sweetland & Hoy, 2000; Sykes, 1999). Because of this, the conceptualization of empowerment along with its indirect effects with other links to school improvement/effectiveness is central to the design, planning, and implementation of a process-oriented decision making strategy (Smrekar & Mawhinney, 1999).

Teacher empowerment has been linked to a process-focused curricular decision making approach (Edwards et al., 2001) and is described as the “extent to which teachers believe they are involved in important instructional and classroom decisions along with participation in classroom and instructional decisions” (Sweetland & Hoy, 2000, p. 711).

While shared decision making can help teachers become more empowered, its success depends on how well schools sketch the parameters, define overall goals, and provide training and professional development to support it (Pepperl & Lezotte, 2004). Likewise, teacher empowerment is influenced by: (1) school operations and management (budgeting, scheduling, hiring), (2) students' school experiences (student discipline and behavior codes), (3) teachers' work life (decisions that directly affect staff), and (4) classroom instruction (selecting instructional materials and teaching methods) (Sykes, 1999).

In addition, teacher empowerment has been linked with a teamwork/collaborative rapport approach to SBDM (Dee, Henkin, & Duemer, 2002), a more student-centered teacher focus (Edwards, et al., 2001), and has been found to be an important condition for student success in tandem with other factors but not as a stand-alone condition (Sweetland & Hoy, 2000; Marks & Louis, 1997). Further, Short (1992) identified six dimensions of empowerment including: (1) decision making – teachers participate in important school-related decisions; (2) professional development – opportunities for teachers to develop and expand their perspectives and skills; (3) status – respect and admiration from colleagues; (4) self-efficacy – teachers' feelings about their ability to be effective; (5) autonomy – freedom to control professional life and decisions; and (6) impact – the ability to directly influence life in the school.

Because of teachers' knowledge of students and their ability to make decisions based on this knowledge, teacher involvement in decision-making promotes consensus on campus goals and priorities. Such involvement begins to bring increased unity of purpose to a campus and builds collaborative rapport. It represents greater integration of

strategic and operational decisions throughout a school system (Conley, Schmidle, & Shedd, 1988). In sum, Sykes (1999) concluded “empowerment exercises indirect effects on the nature of teaching through school organizational structural factors characterized as professional community” (p. 238).

Some researchers have suggested that school-level empowerment contributes to teacher efficacy (Dee et al., 2002; Edwards et al., 2001; Hoy et al., 2002; Short, 1992; Sweetland & Hoy, 2000). Further, researchers have generally related efficacy (i.e., teacher capacity) to an array of positive teaching behaviors and student outcomes (Ashton & Webb, 1986; Gibson & Dembo, 1984; Ross, 1998). Similarly, collective efficacy has proven to be a stronger predictor of student achievement than socio-economic status (Hoy et al., 2002). In sum, the development of efficacy (i.e., teacher capacity) is positively related to student achievement (Spillane, 1999).

Teacher expectancy is a more specific set of performance goals than teacher efficacy and has been identified as the “key motivational factor that distinguished schools with improved student performance from schools in which student performance failed to improve” (Kelley & Finnigan, 2003, p. 604). When teachers focus on student outcomes (e.g., what they need to do) rather on their own performance capacity (i.e., what they think they can do), student achievement increases. Teacher expectancy is a more specific concept of teacher efficacy and typically describes individual motivation within an organizational context.

Increased participation in decision-making results in teachers feeling increased responsibility for student achievement. Further, teachers also experience a decline in autonomy when they participate in shared decision making. Smylie et al. (1996) suggest

that this decline can be explained by the increases in teacher accountability where teachers engage in collective action and their source of motivation shifts from an individual focus to a collegial one. Further, this analysis also indicates that accountability and organizational learning opportunities/collaborative rapport may be the most significant factors in the relationship of student learning to instructional improvement and teacher participation in decision making (Smylie et al., 1996).

Studied separately, these curricular decision making conditions have been found to be good, but incomplete predictors of student achievement (Hoy et al., 2002; Kirk & MacDonald, 2001; Olson, 2002; Spillane, 1999). However, studied together, these variables provide a greater conceptualization of school-level processes that when linked with school-based leadership nested within existing school organizational structures may potentially produce a synergistic benefit on student achievement (Hoy et al., 2002). Because of the potential interactions among these multiple school-level variables on student achievement, it would benefit researchers to investigate how these factors influence the curricular decision making conditions as part of a cohesive school leadership culture model describing school effectiveness.

School-based Leadership

Before the 1980s, few empirical studies explored the effects of school leadership despite the long-standing belief that principals have an impact on schools (Cross, 1994; Day, et al., 2001; Edmonds, 1979; Heck & Hallinger, 1999; Rutter, 1979; Shen, 2001). An increasing focus on school accountability during the 1980s brought greater urgency to explaining how principals make a difference in schooling (Glassman & Heck, 1992).

Because of this, the effective schools research has generally identified strong principal leadership as a factor in high performing schools (Cross, 1994, Day, et al., 2001; Edmonds, 1979).

The emerging picture of leadership in the late 1990s has become increasingly complex (Day et al., 2001) because traditional images of school leadership offer incomplete explanations of the practical realities and problems of schools (Dillard, 1995; Lomotey, 1989; Marshall, 1993; Maxcy, 1995). Hallinger and McCary (1990) assert that there is no right way to lead that applies to all schools because different school contexts appear to call for different types of leadership. Similarly, Day et al. (2001) argue “evidence is sufficient to suggest that existing theories of leadership do not adequately reflect or explain the current practice of effective leaders” (p. 26). Recently, leadership studies have focused on values or the moral purposes and moral craft of leadership (Bolman & Deal, 1991; Bolman & Deal, 1993; Deal & Kennedy, 1999; Peterson & Deal, 1998; Sergiovanni, 1992; Tom, 1984), the roles of leaders in creating a community of learners (Barth, 1990; Ouchi, 2003; Senge, 1990), and the leadership capacity to make a difference through the ability to transform (Sergiovanni, 1995; Leithwood et al., 1999) rather than simply transact. What is clear from these and the effective schools literature is that successful leaders set direction, organize and monitor and in addition, model values and practices consistent with those of the school (Sergiovanni, 1995).

While principals have a strong, direct effect on in-school variables such as teacher attitudes and efficacy, they have little direct effect on student outcomes (Heck, 1993; Siens & Ebmeier, 1996). Removed from the classroom, principals can only influence student achievement indirectly by working through the teaching staff (Hallinger & Heck,

1998; Quinn, 2002). However, Hallinger and Heck (1998) noted that important questions about how leaders achieve and sustain improvement in schools remain unanswered. For example, principal behaviors aimed at improving student achievement do not have the same impact on learners as does instruction by the classroom teacher (Heck, Larsen, & Marcoulides, 1990). Furthermore, Heck and Hallinger (1999) argued that “empirical research grounded in overly simplistic conceptualizations of leadership is unlikely to yield results that are useful, practically or theoretically” (p. 151). In summarizing the critiques of school leadership studies, Heck and Hallinger (1999) conclude that researchers should probe the benefits of exploring leadership in school improvement from a multidimensional mindset.

Researchers agree that the principal must be a strong instructional leader; however, they do not always agree on a definition for instructional leadership (Andrews & Soder, 1987, Heck et al., 1990; Quinn, 2002). Instructional leadership has been broadly defined and operationalized in many different ways. For example, Smith and Andrews (1989) described instructional leadership as the supervision of classroom instruction, staff development, and curriculum development. Similarly, Glickman (1985) defined the primary tasks of instructional leadership as: (1) direct assistance to teachers, (2) group development, (3) staff development, (4) curriculum development, and (5) action research. Furthermore, Schon (1988) conceptualized instructional leadership as a set of collegial classroom observations focusing on support, guidance, and encouragement of reflective teaching. Because of this, principals who are strong instructional leaders are a fundamental component in schools that embrace high levels of

student engagement as the most effective medium to affect student achievement (Quinn, 2002).

Instructional leadership focuses on “first order” changes designed to improve the technical, instructional activities of the school through the close monitoring of teacher and student classroom work (Leithwood, 1992). These principal instructional leadership behaviors have a direct effect on instructional and organizational behaviors in teachers while facilitating a process-oriented and professional development approach to curricular decision-making in general (Blasé & Blasé, 1999). Furthermore, Leithwood (1992) adds that instructional leaders often make important “second order” changes as building a shared vision, improving communication, and developing collaborative decision-making processes. Pepperl and Lezotte (2004) noted that effective communication complements effective instructional leadership. In summarizing the nature of instructional leadership, Leithwood and Duke (1999) conclude that instructional leadership focuses on the behaviors of teachers as they engage in activities directly affecting the growth of students.

Transformational leadership has been the subject of systematic inquiry in nonschool organizations for decades (Marks & Printy, 2003) and assumes that the central focus of leadership ought to be the commitments and capacities of organizational members (Leithwood & Duke, 1998). Transformational leadership seeks to raise participants’ level of commitment, develop the collective capacity of the organization and its members to achieve results (Burns, 1978), encourage them in reaching their full potential (Bass & Avolio, 1993), and support organizational members to focus on the greater good (Bass & Avolio, 1993; Leithwood, Tomlinson, & Genge, 1996; Sagor &

Barnett, 1994; Silins, Mulfords, Zarins, & Bishop, 2000). Leithwood and colleagues have distinguished the functions of transformational leadership as being: (1) mission centered (developing a widely shared vision for the school, building consensus about school goals and priorities), (2) performance centered (holding high performance expectations, providing individualized support, supplying intellectual stimulation), and (3) culture centered (modeling organizational values, strengthening productive school culture, building collaborative cultures, and creating structures for participatory decision making) (Leithwood, 1994, 1995; Leithwood et al., 1996; Leithwood & Jantzi, 1990; Leithwood, Jantzi, & Fernandez, 1994; Leithwood, Jantzi, & Steinback, 1999). As a result, transformational leadership focuses on problem finding, problem solving, and collaboration with the goal of improving organizational performance (Hallinger, 1992).

While the importance of centralized principal leadership is evident from the literature, multiple sources of leadership have emerged to work in unison with the principal to manifest significant curricular change (Mayrowetz & Weinstein, 1999). For example, Marks and Printy (2003) argue that when principals who are transformational leaders accept their instructional role and exercise it in collaboration with teachers, they practice an integrated form of leadership. Smith and Andrews (1989) have identified the types and frequency of communicative flow between the principal and teachers as an important component for leadership development. Similarly, Goldring (1997) stated that effective leaders know how to span boundaries in order to promote information and resource control to capitalize on multiple opportunities for making decisions. To enlarge the leadership capacity of schools attempting to improve their academic performance, some principals involve teachers in sustained dialogue and decision making about

educational matters (Marks & Printy, 2003). In sum, Day et al. (2001) argued “the capacity of leaders to make a difference will, then, depend upon their interpretation of and responses to the constraints, demands and choices that they face” (p. 33).

Despite the recent emergence of multiple sources of leadership, scholars have largely ignored other sources of leadership within the school outside of the principal (Heck & Hallinger, 1999). Because of this, Smylie and Hart (1999) call for a broader conception of school leadership shifting from a single person, role-oriented view to a view of leadership as developing organization capacity between administrators and teachers.

A possible solution to resolving this tension, we believe, lies in adjusting the field’s level, not unit, of analysis. By level, we are referring to the conceptual level on which the field locates the common foci of its inquiry [in order for scholars to] both give the prolonged attention necessary for advancing knowledge and respond to the developments in the field. That is, the research seems fragmented on specific topics rather than coordinated around deeper, larger conceptual problems (Ogawa et al., 2000, p. 353).

In sum, school leaders would better serve their accountability mandates by focusing on school-based leadership processes that interface with multiple contextual organizational dynamics of schools.

Finally, because few studies have attempted to conceptualize school-based leadership in a highly contextualized, multidimensional construct (Day et al., 2001), there is an “incomplete and distorted view of the role of school leaders in school improvement” (Heck & Hallinger, 1999, p. 143). Further, the inclination to ignore contextual constraints and interactions when investigating school leadership effects creates a linear, unidimensional perspective which may collapse or mask the complexity of school leadership culture (Bridges, 1982; Wheatley, 1999). These findings suggest that the

contribution of a multidimensional, process-oriented approach to understanding leadership and its contextual relationships to school improvement/effectiveness has the potential to provide researchers and practitioners a more cohesive portrait of the complexity of school leadership culture (Allison, 1983; Heck & Hallinger, 1999).

School Organizational Structures

Principal and teacher behaviors occur within any school's existing organizational structures. For the purpose of this study, the organizational structure of any given school characterized by these principal and teacher behaviors are categorized into micro-, macro-, and unseen structural elements (Claudet, 1999; Hoy & Sweetland, 2001; Ouchi, 2003; Schlechty, 2001). For example, micro-structural elements might include a number of principal-to-teacher (and teacher-to-teacher) interactions such as individual meetings, casual conversations in the hallway, and ongoing memoranda that can be a characteristic and recurring feature of everyday organizational structural life (Claudet, 1999; Schlechty, 2001). These micro-structural elements are often smaller versions of larger macro-structural elements of a school's organizational structure. Examples of these larger macro-structural elements might include whole faculty meetings, PTA meetings (parent-teacher association), and site-based decision making committees (SBDM) (Claudet, 1999; Schlechty, 2001). The patterns of these micro- and macro- structural elements are often nested in larger, unseen structural elements of a school's organizational structure (Ouchi, 2003). Examples of these unseen structural elements might include the school's climate and culture, which is, the pattern of beliefs governing why and how activities are carried out in particular situations (Owens, 1995). Considered collectively, these micro-,

macro-, and unseen structural elements are assumed to contribute substantially to the perceived quality of an overall CLC within a school at any given time (Schlechty, 2001).

A school system that effectively implements curricular objectives, teaches those objectives at a high level of depth and complexity, and assesses student learning of those same objectives has created organizational structures (i.e., micro-, macro, and unseen structural elements) that support a school's curricular leadership in promoting student achievement (and overall school effectiveness) (Ornstein & Hunkings, 1988). Further, the degree of systemic alignment and organizational success associated with curriculum implementation is dependent on the interactions among these organizational structures and the types of professional relationships characterizing the curricular leadership process connections to student achievement (Hoy & Sweetland, 2001; Ouchi, 2003; Schlechty, 2001).

Researchers have described schools as complex systems for the past twenty years (Allison, 1983, Purkey & Smith, 1983). As such, no complex system can be understood by an analysis that attempts to decompose the system into its individual parts in order to examine each part and relationship separately (Scott, 1998; Wheatley, 1999). Because most school organizations are based on accountability systems that take a narrow view of student achievement results to measure effectiveness, most school organizational structures do not facilitate a process-oriented, wide-angle approach to curricular leadership; rather, researchers have tended to analyze school organizational systems by isolating individual components and studying them in isolation separate from the rest of the organization (Lovett & Gilmore, 2003). According to Schlechty (2001) to bring about dramatic improvements in the results a given system produces, the structural

properties must be changed to accommodate the requirements of whatever new programs are to be introduced. Further, he contends that to fail to make these structural changes will result in the overall failure to manage change successfully. The consequence of not monitoring existing school structures is that when changes in school outcomes (e.g., test scores) occur, few educators are in a position to diagnose the causes correctly (Schlechty, 2001). Because of this, many researchers have used unidimensional approaches to find indirect links when investigating various isolated indices of school leadership/culture and effectiveness.

Miskel, McDonald, and Bloom (1983) assert “the structure of schools may appear to be linked loosely to the criteria of organizational effectiveness, but school outcomes may be, and certainly perceptions of effectiveness are, tied to the structure through cultural and social orientations such as informal relationships and the expectancy linkages” (p. 77). Further, Sergiovanni (1989) argues that a tight alignment of objectives, taught material, and assessments is an essential component to student achievement. Further, he states that a transformational leader recognizes the power of this instructional alignment and the importance of linking it with the existing school structure. Studies that do not include linkages among curricular leadership and school organizational structural dimensions may not uncover the full effect of these variables on student outcomes (Griffith, 1999; Hoy & Sweetland, 2001; Silins, 1994). “Every school is governed by deep beliefs. They shape the school’s key relationships, and they ultimately determine the culture and quality of the school. Even schools that seem wholly lacking in purposefulness are deeply directed by beliefs, and ripe for sightings” (McDonald, 1996, p. 24).

Bosert, Dwyer, and Lee (1982) describe the school's climate as the values, norms, expectations, and traditions that describe and/or guide interpersonal interaction within the organization. Further, research on school learning environments supports the importance of the learning climate construct to school effectiveness (Fraser, 1989). Organizational climate is described as the perceptions people have of various environmental organizational aspects (Owens, 1995). Goldhaber (1993) identifies climate as being short term and dependent on current organizational conditions and/or structures.

Bolman and Peterson (1998) identify culture as “everything that goes on in schools [including] the underground stream of norms, values, beliefs, traditions, and rituals that has built up over time as people work together, solve problems, and confront challenges” (p. 28). Similarly, Louis et al. (1996) illustrate that professional school cultures help facilitate a process-focused approach to curricular decision making by increasing teachers' collective sense of responsibility for student achievement and common understandings of instructional processes. Schein (1985) describes organizational culture as: (1) a body of solutions to external and internal problems that has worked in the past and therefore taught to new group members as the correct way to perceive, think, and feel in relation to those problems; (2) these taught patterns eventually become assumptions about the nature of reality and truth about all organizational behavior; and (3) over time, these assumptions are taken for granted and drop out of awareness. In sum, Owens (1995) describes the power of culture is that it operates as a set of unconscious and unexamined assumptions that are taken for granted.

The culture of an organization exerts a powerful influence on the development of climate. Kanter (1983) compared the impact of organizational culture and climate in high

performing and low performing American corporations. She described high-performing companies as having cultures of pride and climates of success. Her findings yielded that a culture of pride is widely found in integrative organizations that actively consider the effects of decision-making on the whole organization. These organizations tend to be successful because their culture fosters a climate of success. In sum, these organizations are successful because they have been successful in the past and expect to be successful in the future.

In contrast, Kanter (1983) describes less successful organizations as segmented, isolated, and stratified in their decision-making. In these organizations people find it difficult to take pride in the organization because of a lack of communication creating a void of a common vision and shared purpose of action. In sum, these organizations are not successful because the organizational participants have not been successful in the past and do not know how to utilize their organizational process and structural dimensions to be successful in the future.

More recently, Collins (2001) in his book *Good to Great* sought to identify improved, sustained results in company effectiveness measured by a set of organizational effectiveness parameters. Further, Collins (2001) sought to identify what these organizations had in common with each other and also what distinguished them from other companies. He concluded that the effective organizations all had a leader whose leadership processes effectively communicated the vision of success around the entire company from its decision-making to the end result product. This study demonstrates that effective leaders create and support collaborative teams and environments as a part of the success strategy to build and/or maintain positive cultures for achievement.

Other school-based studies suggest that teachers are the primary bearers of school culture (Ogawa, 1991; Rossman, Corbett, & Firestone, 1988); however, it has been difficult for researchers to identify specific sources of leadership (i.e., teacher or principal) facilitating the emergence of a strong school culture (Firestone & Louis, 1999). The literature suggests that organizational structure and culture should be tightly aligned to make the greatest impact on teacher culture (Louis et al., 1995). For example, if the organizational culture promotes collaborative learning/professional development, then there should be organizational structures in place such as scheduled time for teachers to attend professional development and work together as teams to effectively implement data driven decision making practices into the classroom to promote the established (or developing) culture. Similarly, schools are described as “dynamic social systems made up of interrelated factors” (Purkey & Smith, 1983, p. 440) where process and structural variables interact together rather than in isolation.

Murphy and Hallinger (1990) identified a number of patterns characterizing the culture of instructionally effective schools: (1) productivity focus – improving student learning was the top priority; (2) improvement focus – these schools continuously pressed for systematic improvement; and (3) problem-solving focus – problems were viewed as issues to be solved or circumvented rather than as barriers to action. Further, Marks and Louis (1999) contend that a “unified organizational culture built around ongoing inquiry into the quality and effectiveness of teaching and learning depends on the collective influence of teachers who function as empowered professionals” (p. 708). Because of this, creating educational communities presents an array of challenges to principals and teachers such as crafting a shared understanding of community drawing on the strengths

of various perspectives, determining the scope and focus on community-building efforts, and actually administering the community (Beck & Foster, 1999). Further, much of the school effectiveness research has failed to consider how local culture shapes and influences the curricular decision-making processes and school-based leadership decisions concerning student achievement (Angelides & Ainscow, 2000).

Professional learning communities focus on finding ways to help all students achieve higher levels of learning (DuFour, 2000) and models open communication, trust and rapport, continuous inquiry, and improvement of work (Childs-Bowen, Moller, & Scrivner, 2000). Schools are transformed into learning communities through: (1) identifying what the families of its community want and need; (2) the school organizing itself into subunits that permit face-to-face interaction; and (3) teachers agreeing on what they want to teach and how to teach it through a consistent approach allowing individual flexibility (Ouchi, 2003). However, there are few studies describing how to initiate and sustain such learning communities (Childs-Bowen et al., 2000; DuFour, 2000).

Similarly, the professional community construct and its link to student achievement/school improvement is conceptually underdeveloped and causally ambiguous (Louis, Toole, & Hargreaves, 1999; Sykes, 1999).

Effective school leaders integrate curricular decision making processes and school-based leadership with school organizational structures to promote student achievement (Evans & Teddlie, 1995; Leithwood & Montgomery, 1983). Similarly, the main focus of this integration is a contextual condition that encourages teacher reflective thinking concerning instructional decisions (Reitzug, 1994). The leadership relationships within a school and the way those relationships interact through the micro-, macro-, and

unseen structural elements contribute to curricular leadership processes which are guided by any existing school organizational structures (Clement & Vandenberghe, 2001). Leading structural and cultural change calls on leaders to think systematically, to conceptualize connections between and among events, and to help others see these connections; however, because these changes require a break from the past they are a rare occurrence in the life of organizations (Schlechty, 2001).

School Effectiveness

A substantial body of effective schools researched emerged in the 1970s (Edmonds, 1979; Rutter, 1979). From these studies, a number of characteristics were repeatedly found distinguishing effective from non-effective schools (Brookover, Beady, Flood, Schweitzer, & Wisenbaker, 1979; Edmonds, 1979; Lytton & Pyryt, 1998; Rutter, 1979; Witte & Walsh, 1990). Effective schools research linked differences in school-level achievement to differences in school characteristics and especially to separate aspects of school leadership culture, and identified a variety of school-level factors related to the quality of school outcomes, including: (1) high expectations for students, (2) clear instructional objectives, (3) close monitoring of student achievement, (4) strong principal leadership, and (5) safe and orderly school climate (Cross, 1994). There is “clear evidence that substantial differences exist in the academic achievement of students depending on the school they attend” (Bamburg & Andrews, 1991, p. 185). Effective school studies, for the most part, have focused on school-level independent and/or mediating variables influencing student achievement and have largely neglected

additional contextual variables (Lytton & Pyryt, 1998; Scheerens et al., 2000; Thrupp, 2001).

Despite emphasizing the complex nature of school leadership culture multiple independent and/or mediating variables on learning outcomes, school effectiveness studies have been criticized as being abstract (Lingard, Ladwig, & Luke, 1998), systematically omitting key variables and concepts (Lauder, Jamieson, & Wikeley, 1998), and “creating a widespread, popular view that schools do not just make a difference but they make all the difference” (Reynolds, 1995, p. 59). Moreover, school effectiveness studies have been criticized for methodological flaws such as failure to include intriguing or outlier school comparison pairs (Stringfield, 1994), an over reliance on quantitative methods and data (Tashakkori & Teddlie, 1998), and issues regarding both the proper units of analysis and adequate examples of multilevel modeling (Fitz-Gibbon, 1996; Goldstein, 1995). Further, few school effectiveness studies exist “that would show the interrelationships between school process variables and paint a picture for improvement practitioners of the fine-grained reality of school and classroom processes” (Teddlie & Reynolds, 2000, p. 45). In summarizing critiques of school effectiveness research, Hoy and Ferguson (1985) conclude “it appears the research on effective schools is limited by the same weakness as the research on effective organizations – the absence of both a sound theoretical framework and a careful definition and measurement of the concept” (pp. 117-118). Critics feel that “the implied causality between specific school processes and student achievement simplifies and reduces what is a complex set of interactions” (Townsend, 2001, p. 116).

School effectiveness research began from an empiricist approach, identifying conditions in which “high performing schools differed from low performing schools led to the discovery of malleable conditions that discriminated between these two categories of schools” (Scheerens et al., 2000, p. 138). These ‘malleable’ school-level conditions became a focal point for politicians to use school effectiveness research to develop state-mandated school accountability policies focusing on the differences between high achieving and low achieving schools (Thrupp, 2001). These accountability policies have been criticized as having a too-narrow view of what student outcomes are important (Townsend, 2001). While accountability requirements generally focus on standardized achievement results of school effects, a more insightful approach to describing school effectiveness would be to identify the conditions and processes explaining differences among these school effects (Scheerens et al., 2000).

The full complexities of improving school performance through state-mandated accountability systems are not fully understood (Visscher & Coe, 2003). Because of this, there has been an increasing consciousness surrounding the importance of capacity building and cultural change in order to facilitate school improvement (Potter, Reynolds, & Chapman, 2002). Ideally, the feedback provided by these accountability systems should provide a basis for self-evaluation rather than self-assessment; that is, once such evaluative judgments have been made, they should lead to some sort of school-level meta-analysis of where and why the school performed the way it did and the development of a school improvement plan (Visscher & Coe, 2003). Marzano and Kendall (1996) note that the number of content standards schools are expected to rigorously cover frequently require more than the amount of instructional time available. As a result, to

provide a more efficient and effective curricular approach, schools should design curriculum grounded in the standards that will be assessed (Schmoker & Marzano, 1999). Additionally, high standards demand a thorough understanding of essential knowledge (Marzano & Pickering, 1997). The agents of effective change are synergistic – and so is their absence (Hopkins & Harris, 1997). Further, Marzano (1992) suggests curricular leaders focus on the types of goals schools aim to achieve and design processes to target the achievement of these school-level goals. Because of this, researchers and practitioners should carefully consider the interrelationships among school-level independent factors, including state accountability system inputs, contributing to school effectiveness (Potter et al., 2002). Similarly, more work could be done to explore the relationship between school culture and effectiveness (Firestone & Louis, 1999). However, there are no conceptual models describing in a coherent, multidimensional manner the interactions among accountability systems and school organizational culture/student achievement outcomes (Scheerens et al., 2000).

While initial school effectiveness studies focused on factors that contributed to the success of students who typically did less well in schools, more recent trends have looked for characteristics of schools and classrooms that add to the performance of all students (Louis et al., 1999). Because of the great number of effective factors suggesting the need for school-wide intervention (Creemers, 1994; Scheerens, 1992), many researchers have begun to approach their descriptions and explanations of school effectiveness by synthesizing them with school improvement research (Mortimore, 2001). Because of this, school effectiveness/school improvement should be viewed from

a multiple independent variable perspective to expand the questions that have been asked in previous research (Louis et al., 1999; Thrupp, 2001).

Finally, Louis et al. (1999) state that

The predictive power of school effectiveness models – even when they include variables that are not amenable to practical interventions – suggest that we know a lot, but not enough to guarantee school success. Finally, the effective schools research is largely silent on the issue of ‘how to get there’ – the process by which less effective schools may become more effective (pp. 253-255).

These findings suggest the need for more research attending to the interrelationships among such school leadership culture variables as school cultures, leadership, and curricular decision making and their links to school effectiveness (Heck & Hallinger, 1999).

Review Conclusions

The literature has revealed the following conclusions:

1. Researchers tend to take a linear or unidimensional approach when investigating the links between school leadership/culture and effectiveness.
2. A unidimensional approach has a tendency to collapse or mask the complexity of dynamic organizational systems.
3. A multidimensional approach to school leadership/culture and effectiveness provides different perspectives coordinating around deeper, larger conceptual problems.
4. There is no synthesized definition of the multidimensional aspects of CLC from the literature.
5. The connection between CLC and school effectiveness are obscure, at best.
6. A conceptual model of the interrelationships of the multidimensional aspects of CLC and how it impacts school effectiveness is nonexistent.
7. Designing and undertaking a multidimensional investigation into any existing links between school leadership/culture and effectiveness could have a significant impact on the theoretical and practical knowledge that would be of a direct benefit to both researchers and practitioners.

CHAPTER IV

METHODOLOGY AND PROCEDURES

Overview

Chapter Four describes the methodology and procedures used to collect and analyze data for this study. This chapter begins with descriptions of the research design, followed by the instrumentation used to collect data, definitions of independent and dependent variables, quantitative data collection procedures, and data analyses completed for instrument development and refinement to answer primary research questions.

Research Design

This study will utilize a multidimensional quantitative design approach to develop and test the Curricular Leadership Culture (CLC) model, the Curricular Leadership Culture Inventory (CLCI), and to answer the primary research questions presented in Chapter One. Researchers have tended to use terms such as combining methods (Gorard, 2004) and multi-method (Cresswell, 2003) to describe a combination of approaches including the use of different quantitative approaches in the same study. Additionally, researchers have used a multidimensional approach to develop completeness, depth and breadth, and elaboration in order to better understand a problem (Fielding & Fielding, 1986; Jick, 1983; Marshall & Weinstein, 1986; McCaslin & Good, 1996; Miller, 2004; Rossman & Wilson, 1985; Schutz, Chambless, & DeCuir, 2004; Todd & Lobeck, 2004; Turner & Meyer, 1999).

Brown et al. (2003) support a multidimensional conceptualization approach of any potential curricular leadership/school effectiveness linkages as a “dynamic organizational communicative and interactive activity among a variety of professional role players” (p. xx). In addition, these researchers suggest that a “more conceptually grounded understanding of the organizational nature and interrelationship between curricular leadership and organizational effectiveness in middle schools maybe a more useful generative frame to guide middle school professional practice” (p. xx). This study served as an extension of the Brown et al. (2003) initial exploration into curricular leadership indices in middle schools by exploring how curricular leadership manifests itself into a school’s culture and how schools with similar and different characteristics and levels of school effectiveness respond to a developing CLC and how the CLC impacts overall levels of school effectiveness (SE). Because of this, a multidimensional methodological approach to investigating any potential relationships among CLC/SE variables would potentially provide a coherent conceptual link bridging any existing fragmented and incomplete pictures resulting from unidimensional approaches describing the dynamic interrelationships involved in complex school organizations (Allison, 1983; Wheatley, 1999)

Sirotnik and Burstein (1985) have warned, “in view of the complex ways in which schooling is organized and held accountable, it is unlikely that a single unilevel analysis will shed much light on phenomena studied in educational organizational and administrative research” (p. 174). However, research studies have been slow to entertain the multilevel effects of curricular decision making and school-based leadership factors as they interact with school organizational structures and have largely focused on using

only the school itself as the unit of analysis (Brown, 2000; Good & Brophy, 1986; Teddlie & Reynolds, 2000).

Fielding and Fielding (1986) suggest that “what is important is to choose at least one method which is specifically suited to exploring the structural aspects of the problem and at least one which can capture the essential elements of its meaning to those involved” (p. 34). For example, some researchers have used a multidimensional approach using teachers as a unit of analysis to describe teacher curricular decision-making strategies (Shore, 2004; Silin & Schwartz, 2003; Tirri, 1999) and other interpersonal interactions involving such curricular leadership indices as curricular decision making and/or school-based leadership (Claudet, 1999; Hallinger, Bickman, & Davis, 1996; McInerney, Marsh, & McInerney, 1999). As a result, educational research has developed a methodological emphasis in which the individual as the unit of analysis and the individual’s orientation in relation to shared or overall group perceptions were not forgotten or ignored (Smeyers & Verhesschen, 2001).

The multidimensional quantitative approach in this study used both schools as units of analysis and individuals as units of analysis to help probe interesting perceptions of school personnel regarding the relationship between CLC and SE. Further, a school-level CLC/SE profile for each school participating in the study was developed. These quantitative analyses were designed to potentially provide a more clear understanding of the various dimensions of CLC.

In sum, recent school effectiveness studies have begun to utilize a multidimensional approach to better understand how different school-level variables interact and how these interactions contribute to overall levels of effectiveness. As a

result, this approach using both the school and individual as units of analysis to investigate perceptions of complex organizational behavior may provide a better understanding and description of CLC and school effectiveness links (Schutz, Chambless, & DeCuir, 2004). Additionally, a multidimensional approach will be used to develop and test the proposed CLC/SE model and to potentially provide a more comprehensive understanding of any identified linkages among CLC/SE variables and how those linkages, if identified, impact school settings in similar and different environments.

Instrument Development

The development of the CLCI was consistent with previous instrument development methods (Brown, 2001; Claudet, 1999; Crocker & Algina, 1986). For example, the initial step was to identify the purpose for which the survey results were to be used. In the most basic sense, the CLCI was used to operationalize the CLC model presented in Chapter Two. In addition, the scores derived from the CLCI were used to create school-level profiles pertaining to the CLC/SE perceptions held by professional staff members in individual schools. These profiles were used to make comparisons among various schools regarding teacher perceptions and levels of effectiveness measured by staff perceptions.

Based on a review of the literature and through direct observation of middle school campuses, a series of process and structural dimensions impacting school effectiveness were identified (Crocker & Algina, 1986) suggesting that the effects of physical, fiscal, capital, and human resources (inputs) on school outcomes are the result of the interactions among various macro-structural, micro-structural, and unseen

structural elements (school organizational structures) with several identified curricular leadership process dimensions (Middle School Curricular Elements, Curricular Decision Making, and School-based Leadership). Micro-, macro-, and unseen structural elements of school organizational structures interact with curricular leadership dimensions to define the unique curricular leadership culture characteristics of a school at any point in time. Collectively, these structural elements and curricular leadership dimensions help shape the overall quality of a school's curricular leadership. In essence, schools can have different organizational structures and curricular leadership dimensions. The interrelationship between organizational structures and curricular leadership dimensions within the school influences both the type and direction of leadership exerted at an individual level by the principal and at a collegial level among the teachers, thus informing an overall CLC for school personnel. In sum, three curricular leadership dimensions were identified each containing three separate subdimensions. In total, an item pool containing 10-15 items was developed for each of the nine curricular leadership process subdimensions to elicit the survey respondent's level of agreement that each specific statement was representative of his or her school.

A content classification study with a group of (5-10) expert judges (middle school principals, university middle school researchers, middle school teachers) was performed to elicit initial perceptions on the content validity of the CLCI item pool and how the items are content classified by CLCI conceptual dimensions. The item pool created was based on a review of the literature and direct observation of middle school process and structural dimensions (Crocker & Algina, 1986). Further, expert judges were asked to comment on the strengths, weaknesses, and quality of the pre-factored dimensions and to

identify any additional dimensions that might make more sense to better represent the interactions among various CLC/SE dimensions. Based on the results of this content classification study, modifications or adjustments occurred to provide a more clear alignment and connection between the CLCI instrument and the CLC model and practitioners. The prefactor analyzed inventory was piloted on a sample population of middle school teachers and administrators. An exploratory factor analysis was conducted to investigate the psychometric conceptual validity of the instrument and model. A set of decision rules related to the factor analysis was determined to discard items that did not strongly load on a factor. One product of this procedure was an original factor analyzed inventory (CLCI).

Survey responses to the factor analyzed CLCI yielded individual and school-level faculty and staff perceptions of how exhibited curricular leadership process dimensions interacted among each other within existing school organizational systems. Because faculty and staff perceptions are by nature complex and multi-layered, there is always the potential for discovering or constructing more complex layers through a multidimensional approach that may help to explain other layers through a thorough investigative approach (House, 1994; Purkey & Smith, 1983). The use of a multidimensional approach provides “another route for researchers who seek to illuminate the nature of these [CLC/SE] relationships” (Hallinger, Bickman, & Davis, 1996, p. 545).

Independent Variables

This section presents a conceptual and operational definition of CLC, that is, the independent variable set in this study. CLC is conceptually defined as teacher and administrator perceptions of how curricular leadership processes interact with existing organizational structures in a school. CLC is an index of the school's overall organizational leadership involving deeply held belief systems about how the curricular decisions are made and implemented and how these decisions are communicated within and acted upon in the school. The Curricular Leadership Culture Inventory (CLCI) is the new instrument developed and piloted in this study and operationalizes the independent variable set.

Dependent Variables

Dependent variables consisted of three recognized effectiveness indices: (1) school organizational effectiveness, (2) student achievement, and (3) school holding power. School organizational effectiveness was conceptualized as the extent to which a school is able to establish and accomplish its goals in an efficient and effective manner and is adaptable over time to changing external and internal characteristics. School organizational effectiveness was operationalized in this study using school administrator and teacher mean scores on the Index of Perceived Organizational Effectiveness (IPOE) (Miskel et al., 1979; Mott, 1972). Student achievement was conceptualized as a student's ability to demonstrate mastery of academic skills at a high level of cognitive rigor and complexity. Student achievement was operationalized in this study by school-level mean

standardized statewide assessment scores in math, reading, writing, science, and social studies as measured on the Texas Assessment of Knowledge and Skills (TAKS) and reported through the Academic Excellence Indicator System (AEIS) maintained by the Texas Education Agency (TEA). School holding power was conceptualized as the ability of a school to maintain student attendance and prevent students from dropping out of school. School holding power was operationalized in this study by school-wide student daily attendance and drop out rate figures reported through the Academic Excellence Indicator System (AEIS) maintained by the Texas Education Agency (TEA).

Sample

The sample consisted of administrator and professional staff in 151 middle schools in 113 school districts from five educational regional service center areas in Texas. Every middle school in each of the five educational service center areas was invited to participate in this study. Participation was voluntary throughout all 113 districts.

Instrumentation and Measurement

Quantitative Measures

Curricular Leadership Culture Inventory (CLCI). The Curricular Leadership Culture Inventory (CLCI) was developed and tested in this study as an operational measure of personnel perceptions of CLC. One form of the CLCI was used in data collection. The CLCI tapped personal perspectives on a number of curricular leadership issues, including: (1) the perceived quality of school-level Curricular Decision Making

dimensions, (2) the perceived quality of School-based Leadership dimensions, (3) the perceived quality of Middle School Curricular Elements dimensions; (4) the perceived interactions between curricular leadership processes and school organizational structures, and (5) perceptions of the nature and quality of the overall CLC.

The instrument was initially developed based on three dimensions of CLC each consisting of three separate subdimensions with each subdimension consisting of 10-20 items based on extant literature. The CLCI development process included a prefactor analysis preclassification review by five to ten identified experts to verify content classification of CLCI items and dimensions. Subsequently, the CLCI was administered on a pilot basis to examine administration time requirements, clarity of items and directions, and to receive additional suggestions for item clarifications/modifications. A series of oblique and orthogonal factor analyses were conducted to empirically establish/verify dimensions of the CLCI. The dimensions were developed to reflect issues and concerns of curricular leadership occurring among micro-, macro-, and unseen structural elements and involving a number of interactive cultural dimensions posited in the CLC model. These factored dimensions were used to develop the revised CLC model.

Response Format. The CLCI used in this study consisted of multiple, four-point, Likert scale items tapping personnel perceptions on how often behaviors occur with response alternatives ranging from 1 = Rarely to 4 = Very Often. All items were stated in a positive direction and none were reversed scored.

Reliability. Internal consistency reliability characteristics of the CLCI were examined using data from the primary samples of both professional staff and school

administrators. Separate internal consistency coefficients were calculated for the total sample of respondents for each of the factored subscales of the CLCI. Within-school internal consistency reliabilities were calculated for each sample school.

Validity. Construct validity characteristics of the CLCI were examined using a series of factor analyses to empirically refine the CLCI subscales and explore the bivariate and multivariate relationships between the subscales and the various effectiveness measures using primary samples of both professional staff and school administrator data. Additionally, a discriminant analysis was performed using school ratings (based on TAKS results) as the grouping variable and the CLCI subscales as the independent variable set. Criterion-related validity of the CLCI was established through the types of school effectiveness indices utilized in this study. School organizational effectiveness was validated by the IPOE survey instrument, student achievement was validated through the state-mandated accountability assessments administered to students, and school holding power was validated through the reporting of attendance and drop out rate data from the school to the Texas Education Agency.

Scoring. Revised forms of the CLCI were used to examine the research questions in this study. Individual scores were calculated for each CLCI instrument subscale. Results of all returned CLCI instruments are reported in the quantitative analysis. A series of exploratory principal component, orthogonal, and oblique factor analyses of CLCI data were performed to best represent the data and meaning of CLCI dimensions.

Index of Perceived Organizational Effectiveness (IPOE). The Index of Perceived Organizational Effectiveness (IPOE) is a modification of an instrument by Miskel,

Feburly, and Stewart (1979) to measure perceptions of organizational effectiveness initially developed by Mott (1972). One form of the IPOE was used for both professional staff and administrators. Accordingly, effective schools (and organizations) are perceived to be different along four dimensions: (1) to produce products and services in greater quantity, (2) with better quality, (3) to show flexibility, and (4) to exhibit adaptability to a greater extent than less effective organizations (Miskel, Feburly, & Stewart, 1979; Mott, 1972). The IPOE consists of eight items, with two items per each dimension. The original eight items were modified by Miskel, Feburly, and Stewart (1979) by replacing words pertaining to an industrial situation with words indicating an education setting.

Response Format. The IPOE used in this study consisted of eight, five-point, Likert scale items. These scale items were designed to reflect degrees of perceived effectiveness of the school as an organization ranging from relatively ineffective to highly effective. The specific content of each of the five scale items varies from one item to the next based on the organizational dimension under consideration.

Reliability. The internal consistency reliability coefficient as an estimate of reliability for Miskel, Feburly, and Stewart's (1979) modified IPOE was .89. Similarly, Hoy and Ferguson (1985) reported an alpha coefficient of .87 on the IPOE. More recently, Brown (2001) reported an IPOE alpha coefficient of .91.

Validity. Mott (1972) concluded the effectiveness index of the IPOE to be a "valid and inexpensive measure except when responses reflect outmoded standards" (p. 199) through his study of ten hospitals and twelve organizational divisions within the Office of Administration at the National Aeronautics and Space Administration (NASA).

Further, Mott (1972) explained that these exceptions can usually be revealed by comparing professional staff responses with administrator responses and examining discrepancies through follow-up interviews. Similarly, Miskel, Feburly, and Stewart's (1979) study concluded the modified IPOE to be a valid measure of school organizational effectiveness through their study of twelve school districts from rural, suburban, and urban areas.

Scoring. The IPOE consisted of eight items, each yielding a score ranging from one to five. Item scores were summed to yield a total IPOE score ranging from eight to 40. All items were stated in a positive direction, and none were reverse scored.

School Achievement

Student achievement was conceptualized as a student's ability to demonstrate mastery of academic skills at a high level of cognitive rigor and complexity. Student achievement was operationalized in this study by school-level mean standardized statewide assessment passing rates in math, reading, writing, science, and social studies as measured on the Texas Assessment of Knowledge and Skills (TAKS) and reported through the Academic Excellence Indicator System (AEIS) maintained by the Texas Education Agency (TEA).

School Holding Power

School holding power was conceptualized as the ability of a school to maintain student attendance. School holding power was operationalized in this study by school-wide student daily attendance and drop out rate figures reported by each school through

the Academic Excellence Indicator System (AEIS) maintained by the Texas Education Agency (TEA).

Demographic Variables

School-level demographic variables (school socioeconomic status level, student enrollment size, administrator/staff ratio, teacher average years of experience) was collected from the figures reported by each school through the Academic Excellence Indicator System (AEIS) maintained by the Texas Education Agency (TEA). Further, individual-level demographic variables (gender, age, ethnicity, assignment, education level, years experience as an educator) were collected from the survey instrument developed in this study. Both sets of demographic variables were used to identify schools in the total sample having similar demographic characteristics, but exhibiting differing relationships between effectiveness indices and CLC characteristics (Claudet, 1999).

Data Collection Procedures

A variety of quantitative analyses was completed for this study and involved the administration and collection of the quantitative survey measures (demographic variables, CLCI, and IPOE) utilized in this study. During this stage, electronic CLCI forms completed by both professional staff and administrators were used in data collection. In addition, electronic IPOE forms completed by both professional staff and administrators were used in data collection. A link to the website containing the individual instrument packets with the demographic variable form, CLCI, and IPOE was prepared and e-mailed

to all administrators who agreed to complete the on-line survey themselves and e-mail the link to the website to professional staff asking them to participate in this study. A cover letter accompanying the survey link explained the purpose of the survey to participants.

Data Analysis Procedures

A series of quantitative data analyses was completed for this study using SPSS. These included computation of descriptive statistics for all demographic, independent, and dependent variables. Additionally, selected descriptive statistics were computed for subsamples used in various analyses examining the factor structure, validity, and reliability characteristics of the CLCI and the primary research questions. Specifically, exploratory principal component, orthogonal, and oblique factor analyses of CLCI data using promax rotation were conducted to determine the final factor solution that best represents the data and meaning of CLCI dimensions. Next, bivariate correlations using school means as the units of analysis were computed between the factored CLCI dimensions and the multiple indices of school effectiveness. Moreover, a series of partial correlation coefficients were computed between CLCI scales and the various indices of effectiveness (school organizational effectiveness, student achievement, holding power) controlling for socioeconomic status and using the total sample of usable schools. Separate multiple regressions were performed along with a series of bivariate correlations between the CLCI and the IPOE for the sample of schools. A discriminant analysis was performed using school accountability ratings as the grouping variable and the CLCI instrument factor analyzed dimensions as the independent variable set. Using Claudet's (1999) multidimensional approach, the use of multiple levels of analysis simultaneously

form a deductive focus moving from more generalized school-level data to more specific within-school differences among individual schools. These results were be used to make revisions to the CLC model and are presented in Chapter Five.

Summary

Chapter Four presents a description of the methodology and procedures that were used in this study. The chapter begins with a brief description of the research design by describing independent and dependent variables along with the sample size used in this study. Next, the instrumentation and measurement section describes the multidimensional quantitative research design and the potential benefits of this particular methodology in the investigation of multidimensional variables. Next, the quantitative instrumentation is described along with information regarding the development, structure, and psychometric properties of the CLCI survey and CLC model refinements along with the various effectiveness indices employed. The chapter concludes with a description of various data collection and analyses procedures.

CHAPTER V

SUMMARY OF RESULTS

Overview

Chapter Five reports the summary of results for the study. The results are presented in the following sections: (1) descriptive statistics for the sample, (2) factor analyses for the Curricular Leadership Culture Inventory (CLCI), (3) descriptive statistics for the independent and dependent variables, (4) reliability analyses, (5) intercorrelations of the CLCI dimensions, and (6) analyses pertinent to the research questions. The independent variable set contained the three dimensions for the factor analyzed CLCI instrument. The dependent variables were the three selected measures of school effectiveness: (1) student achievement as operationalized by school-level standardized achievement scores on the Texas Assessment of Knowledge and Skills (TAKS) in reading, math, writing, science, and social studies; (2) organizational effectiveness as operationalized by the Index of Perceived Organizational Effectiveness (IPOE); and (3) school holding power as operationalized by school-level average daily attendance and drop out rates. Further, summaries of the descriptive statistics for the demographic variables, CLCI, and IPOE items presented in this chapter can be cross-referenced for item content with the instruments included in the Appendix.

Summary of Descriptive Statistics for Sample Schools and Participants

School Sample

One hundred and fifty-one schools representing five educational regional service center areas in Texas were invited to participate in this study by completing an on-line Internet survey. Table 1 presents a summary profile of means and standard deviations for specific school-level characteristics of the entire population. The researcher invited each campus principal to participate in this study over the telephone. One hundred and thirty-four schools out of the 151 schools agreed to participate in the study during the telephone conversation.

Table 2 presents a comparison profile of means and standard deviations for specific school-level characteristics between schools agreeing to participate and declining to participate in this study. Generally speaking, schools with lower enrollments tended to participate in this study more than schools with larger enrollments. As noted in Table 2, the mean student enrollment for schools declining to participate in this study was 542.8 with a standard deviation of 251.8 compared to a mean student enrollment of 368.2 with a standard deviation of 303.8 for schools agreeing to participate in this study. Generally speaking, schools with a larger economically disadvantaged population tended to participate in this study more than schools with lower economically disadvantaged population rates. As noted in Table 2, the mean economically disadvantaged percentage for schools declining to participate in this study was 44.2% with a standard deviation of 18.5% compared to a mean economically disadvantaged percentage of 57.2% with a standard deviation of 16.5% for schools agreeing to participate in this study.

Table 1

Profile of Descriptive Statistics on Key Variables for Entire Population

Characteristic	Entire Population (N=151)	
	Mean	Standard Deviation
Enrollment	389.4	262.2
Teachers	35.1	0.4
TAKS Reading	86.3	7.2
TAKS Math	74.3	12.7
TAKS Writing	92.7	6.3
TAKS Science	77.9	12.7
TAKS Social Studies	85.6	10.7
Attendance	96.1	0.9
Drop Out Rate	0.0	0.1
Economically Disadvantaged	55.8	17.2
Administrators	1.7	0.9

Table 2

Comparison Profile of Schools Agreeing and Declining to Participate

Characteristic	Schools Agreeing To Participate (n=134)		Schools Declining To Participate (n=17)	
	Mean	Standard Deviation	Mean	Standard Deviation
Enrollment	368.2	251.8	542.8	303.8
Teachers	33.3	18.2	49.8	24.2
TAKS Reading	86.0	7.1	88.3	7.7
TAKS Math	74.1	12.5	75.8	14.7
TAKS Writing	92.6	6.4	93.7	4.9
TAKS Science	76.8	13.1	86.0	4.6
TAKS Social Studies	85.4	10.8	87.1	9.5
Attendance	96.1	0.9	96.3	0.8
Drop Out Rate	0.0	0.1	0.0	0.1
Economically Disadvantaged	57.2	16.5	44.2	18.5
Administrators	1.7	0.9	2.2	0.9

Table 3

Profile of Response Rate and Mean Sizes for the Sample of Participating Schools

Characteristics Responding	All	Number Responding	Percent
Schools Surveyed	134	114	85.1%
Professional Staff Surveyed	4241	1537	36.2%
Administrators Surveyed	227	127	55.9%
Total School Personnel Surveyed	4468	1664	37.2%
Mean Professional Staff Size	33.3		
Mean Administrator Staff Size	1.7		
Mean School Student Size	386.2		

The overall survey response rate for schools agreeing to participate in this survey was 37.2%. Table 3 presents a profile of the response rate for the sample of participating schools and includes descriptive statistics for the mean professional and administrative staff sizes for the participating schools in the sample. Sixty-nine schools out of the 134 schools agreeing to participate had a school-level response rate greater than or equal to 40% of total staff and, as such, were determined to be usable schools when using the school as a unit of analysis. Similarly, 65 schools out of the 134 schools agreeing to participate had a school-level response rate less than 40% of total staff and, as a result of this, were determined to be unusable schools when using the school as a unit of analysis. Of the initial 151 schools in the population, all were identified middle school, junior high, or intermediate campuses containing some variance of grades 5-8.

School Level Characteristics

Enrollment.

School enrollment was determined by the number of students enrolled in each school collected from data reported through the Academic Excellence Indicator System (AEIS) maintained by the Texas Education Agency (TEA). Using students as the unit of analysis, the mean school enrollment size for all participating schools in this study was 386.2.

Professional Staff.

Professional staff included teachers, paraprofessionals, counselors, and other non-administrator school-level personnel who work in the professional setting of the school

and were determined by a school report over the telephone or through e-mail from the campus principal or by the number of non-administrator school-level personnel data reported on the Academic Excellence Indicator System (AEIS) maintained by the Texas Education Agency (TEA). Using professional staff as the unit of analysis, the mean professional staff size for all participating schools in this study was 33.3.

Administrator Staff.

Administrator staff included principals and assistant principals as reported on the Academic Excellence Indicator System (AEIS) maintained by the Texas Education Agency (TEA). Using administrator staff as the unit of analysis, the mean administrative staff size for all participating schools in this study was 1.7.

Student Achievement.

Student achievement was measured using schools as the unit of analysis by school-level standardized achievement scores on the Texas Assessment of Knowledge and Skills (TAKS) in reading, math, writing, science, and social studies. While reading and math TAKS tests are given in all grade levels 5-8, the science, writing, and social studies TAKS tests are administered at specific grade levels. Table 4 presents which tests were given at each grade level during the spring semester. TAKS results from the spring of 2007 were obtained through the Academic Excellence Indicator System (AEIS) maintained by the Texas Education Agency (TEA) and used in this study. Table 5 presents a comparison profile of the means and standard deviations for TAKS scores for both usable (those having a response rate greater than or equal to 40%) and unusable schools (those having a response rate less than 40%).

Table 4

Texas Assessment of Knowledge and Skills (TAKS) Administration Cycle

Grade Level	Content Area Texas Assessment of Knowledge and Skills (TAKS)
5	Reading, Math, Science
6	Reading, Math
7	Reading, Math, Writing
8	Reading, Math, Social Studies

Table 5

Comparison Profile of Usable and Unusable Schools

Characteristic	Usable Schools (N=69)		Unusable Schools (N=65)	
	Mean	Standard Deviation	Mean	Standard Deviation
Response Rate	60.0%	18.1%	13.0%	14.1%
Enrollment	366.5	228.4	369.9	276.4
Professional Staff Size	33.4	17.6	33.3	18.8
TAKS Reading	90.4	5.2	85.4	7.4
TAKS Math	78.7	11.0	73.6	13.0
TAKS Writing	95.3	3.8	92.4	7.3
TAKS Science	74.7	15.6	78.4	10.7
TAKS Social Studies	89.8	7.2	85.4	9.8
Attendance	96.2	0.9	96.0	1.0
Drop Out Rate	0.0	0.1	0.0	0.2
Economically Disadvantaged	58.5	16.7	55.8	16.1
Administrator Staff Size	1.7	0.9	1.7	0.9

Characteristic	Useable Schools (N=69)	Unusable Schools (N=65)
Professional Staff Surveyed	2268	2200
Professional Staff Responding	1370	294
Administrators Surveyed	116	111
Administrators Responding	86	41

Attendance.

The percentage of average daily attendance for each school reported to the Academic Excellence Indicator System (AEIS) maintained by the Texas Education Agency (TEA) was used to determine attendance rate. The attendance rate for the 2004 – 2005 school year was used for this study. The average attendance rate of usable schools was 96.2%. Tables 1, 2, and 5 provide attendance profiles for comparison purposes among all schools in the population, schools agreeing to participate in the study, and usable schools whose response rate was 40% or greater.

Drop Out Rate.

The drop out rate for each school reported to the Academic Excellence Indicator System (AEIS) maintained by the Texas Education Agency (TEA) was used to determine drop out rate. The drop out rate for the 2004-2005 school year was used for this study. The average drop out rate of usable schools was 0.0% with a standard deviation of 0.1. Tables 1, 2, and 5 provide drop out rate profiles for all schools in the population, schools agreeing to participate in the study, and usable schools whose response rate was 40% or greater.

Economically Disadvantaged.

The economically disadvantaged student population rate for each school was measured by the percentage of students at each school receiving free or reduced cost lunches and was determined for each school based on data from the Academic Excellence Indicator System (AEIS) maintained by the Texas Education Agency (TEA). The economically disadvantaged rate for the 2005-2006 school year was used for this study. The higher the economically disadvantaged percentage, the greater number of students in

the school received free or reduced cost lunches. The mean economically disadvantaged rate for the sample of usable schools was 58.5% with a standard deviation of 16.7.

Tables 1, 2, and 5 provide economically disadvantaged rate profiles for all schools in the population, schools agreeing to participate in the study, and usable schools whose response rate was 40% or greater.

Survey Return Rates.

Table 3 presents a profile of the response rate for the sample of participating schools for this study. A total of 4242 professional staff and 227 administrators were surveyed. In all 1664 usable instruments were completed. Of these usable returns, 1537 were professional staff instrument sets and 127 were administrator instrument sets. There were no differences in the wording between these instruments. The professional staff rate of return for the total sample of participating schools was 37.2%. The administrator response rate of return for the total sample of participating schools was 55.9%.

In the sample of participating schools, 40% or more of the professional staff responded in 51.5% of the schools (n=69). These schools whose response rate was 40% or greater were considered to be usable schools when schools were used as the units of analysis. Schools whose response rate was less than 40% were considered to be unusable schools when schools were used as the units of analysis. Table 5 presents a comparison profile of means and standard deviations of school-level characteristics for both the usable and unusable schools responding to the survey. Of the usable schools, there was a 60.4% professional staff survey return rate with 1370 out of 2268 professional staff responding to the survey. In addition, of the usable schools, there was a 74.1% administrator survey return rate with 86 out of 116 administrators responding to the

survey. Of the unusable schools, there was a 13.4% professional staff survey return rate with 294 out of 2200 professional staff responding to the survey. In addition, of the unusable schools there was a 36.9% administrator survey response rate with 41 out of 111 administrators responding to the survey.

Characteristics of Non-Participating Schools

Of the initial 151 schools who were asked to participate in this study, 134 schools agreed to participate and 17 declined to participate. Of the 17 schools that chose not to participate, 12 schools were located in two of the five regional educational service center areas. In addition, 10 of these non-participating schools had an enrollment of over 500 students.

Table 4 presents a comparison profile with the means and standard deviations for school-level characteristics between participating and non-participating schools. The mean student enrollment for non-participating schools was 542.8 students compared to 368.2 students for participating schools. The mean economically disadvantaged rate for non-participating schools was 44.2% compared to 57.2% for participating schools.

Phone calls to the principals of non-participating schools indicated time as the primary factor for not participating. The second reason for not participating was the school administrator not returning phone calls and responding to e-mails from the researcher concerning participation in this study. Similarly, numerous administrators who chose to participate indicated that they would not have participated in this study had the researcher not made a personal phone call to them asking for their participation.

Participant Sample

Participant Characteristics

Participants surveyed in this study included all professional staff (i.e., teachers, teaching assistants, paraprofessionals, counselors, etc.) in each participating school and all building level administrators.

Professional Staff.

Tables 6 and 7 present summaries of personal and professional characteristics of the professional staff sample. The typical respondent in this study was a white, female secondary classroom teacher. Male professional staff comprised 22.7% of the total sample. Minority ethnicity represented 11.6% of the total sample with the Hispanic ethnic category as the predominant minority group at 8.2%. Of the total number of professional staff respondents, 72.8% were classroom teachers, 3.4% were teaching assistants, 12.0% were coaches, and 2.5% were counselors. Professional staff having five years of experience or less comprised 24.1% of the participating professional staff sample. Similarly, professional staff with six to ten years of experience comprised 18.0% of the sample, eleven to fifteen years of experience comprised 18.5% of the sample, and over twenty-six years of experience comprised 17.1% of the sample. Half of the professional staff sample had been at their current school five years or less. The largest percentage of professional staff (69.9%) reported to have attained a bachelors degree with the lowest percentage of professional staff (0.4%) achieving a doctorate degree. Further, of the different leadership positions available in schools, 18.2% of the professional staff respondents identified themselves as department chairs, 17.5% identified themselves as student organization sponsors, 21.5% identified themselves as site based decision making

Table 6

Summary of Demographics of Personal Characteristics of Professional Staff for Sample

Characteristics	Frequency	Percent *
Gender		
Male	349	22.7%
Female	1188	77.3%
Ethnicity		
African-American	20	1.3%
Asian	2	0.1%
Native American	7	0.4%
Hispanic	126	8.2%
White	1359	88.4%
Other	23	1.5%
Age		
18-20	3	0.2%
21-25	87	5.7%
26-30	164	10.6%
31-35	165	10.7%
36-40	193	12.6%
41-45	195	12.7%
46-50	246	16.0%
51-55	241	15.7%
Over 55	243	15.8%

* Percent of Total Group Responding to Item

Table 7

Summary of Demographics of Professional Characteristics of Professional Staff for Sample

Characteristics	Frequency	Percent *
Professional Assignment		
Teacher	1293	72.8%
Teaching Assistant	61	3.4%
Coach	213	12.0%
Counselor	44	2.5%
Other	164	9.2%
Years in Education		
0-5	371	24.1%
6-10	277	18.0%
11-15	284	18.5%
16-20	203	13.2%
21-25	139	9.0%
Over 26	263	17.1%
Years at Current School		
0-5	769	50.0%
6-10	289	18.9%
11-15	199	12.9%
16-20	111	7.2%
21-25	85	5.5%
Over 26	84	5.5%
Highest Education Level		
High School Diploma	53	3.4%
2 Years of College	51	3.3%
Bachelors	1074	69.9%
Masters	353	23.0%
Doctorate	6	0.4%
Instructional Design		
7-Period Day	582	37.9%
8-Period Day	741	48.2%
Block Schedule	40	2.6%
Modified Block Schedule	33	2.1%
Other	141	9.2%

Table 7, continued

Characteristics	Frequency	Percent *
Leadership Positions		
Department Chair	285	18.2%
UIL Coordinator	80	5.1%
Student Organization Sponsor	274	17.5%
Site Based Decision Making Committee Member	337	21.5%
Other	591	37.7%

* Percent of Total Group Responding to Item

members, and 37.7% or 591 of the leadership positions were identified as “other.” Of the 591 leadership responses marked “other,” the term “teacher” was used 51 times. Initially, there were an additional 347 leadership responses marked “other” – the label included in these 347 responses indicated that the respondent did not have a self-perceived leadership position in the school. Because these responses did not identify leadership positions, they were not included in the final total for the “other” category marked in leadership positions.

Administrators.

Tables 8 and 9 contain the summaries of personal and professional characteristics of the administrator sample. The typical administrator in the sample was a white, male administrator with a master’s degree. In terms of ethnicity, 91.2% of the administrators were white. Minority ethnicity represented 8.8% of the total sample with the Hispanic ethnic category as the predominant minority group at 5.6%.

As shown in Table 9, 20.5% of the administrators in the sample had been in education between eleven and fifteen years. Similarly, 29.1% of the administrators in the sample had been in education between sixteen and twenty years. A majority (57.5%) of the administrators in the sample reported having been at their current school five years or less.

Table 8

Summary of Demographics of Personal Characteristics of Administrators for Sample

Characteristics	Frequency	Percent *
Gender		
Male	89	70.1%
Female	38	29.9%
Ethnicity		
African-American	2	1.6%
Hispanic	7	5.6%
White	114	91.2%
Other	2	1.6%
Age		
26-30	6	4.7%
31-35	12	9.4%
36-40	21	16.5%
41-45	30	23.6%
46-50	24	18.9%
51-55	19	14.9%
Over 55	15	11.8%

* Percent of Total Group Responding to Item

Table 9

Summary of Demographics of Professional Characteristics of Administrators for Sample

Characteristics	Frequency	Percent *
Professional Assignment		
Principal	92	72.4%
Assistant Principal	35	27.6%
Years in Education		
0-5	3	2.4%
6-10	12	9.4%
11-15	26	20.5%
16-20	37	29.1%
Over 20	49	38.6%
Years at Current School		
0-5	73	57.5%
6-10	29	22.8%
11-15	12	9.4%
16-20	9	7.1%
Over 20	4	3.1%
Highest Education Level		
Bachelors	2	1.6%
Masters	119	93.7%
Doctorate	6	4.7%
Instructional Design		
7-Period Day	54	42.5%
8-Period Day	56	44.1%
Block Schedule	4	3.2%
Modified Block Schedule	4	3.2%
Other	7	7.0%

* Percent of Total Group Responding to Item

Factor Analyses

A series of exploratory principal component, oblique, and orthogonal factor analyses were conducted on the CLCI data set to examine the dimensions of the CLCI and to statistically explore the factor structure of the CLCI instrument (SPSS, 2002). A three-factor, oblique solution best represented the data and the meaning of the CLCI dimensions. This solution identified 37 items with factor pattern loadings ranging from .47 to .89 which accounted for 73.6% of the total CLCI variance.

Table 10 presents a summarization of factor pattern loadings for the three-factor solution of the CLCI data and includes the amount of variance in the solution explained by each factor extracted. The CLCI dimensions identified and the number of items comprising each was: (1) School-based Leadership (18), Middle School Curricular Elements (8), and Curricular Decision Making (9). Oblique rotations assume some correlations exist among the factors being rotated. The factor pattern matrix contains loadings that are similar to partial standardized regression coefficients in a multiple regression analysis indicating the effect of a given factor on a given item while controlling for other factors (Pett, Lackey, & Sullivan, 2003).

Item loadings for the various factors identified were guided by the following set of decision rules: (1) the minimum value for retaining an item on a factor was .30; (2) an item was retained on the factor on which its loading was greatest; (3) if an item loaded on more than one factor, the item was retained on a factor if the difference between the two highest loadings was .20 or greater, and (4) if an item loaded .90 or greater, it was not retained (Pett et al., 2003). Table 11 presents a summarization of the initial and final item dimension/factor loadings for the CLCI. Further, Table 12 provides

Table 10

Summary of Factor Pattern Loadings for the Three-Factor Solution

CLCI Item	3-Factor Solution			Communalities
	I	II	III	
1	-.062	.837*	-.129	.592
2	-.161	.721*	.057	.490
3	-.031	.745*	-.041	.514
4	-.030	.647*	.056	.477
5	.038	.787*	-.002	.641
6	.077	.678*	.036	.533
7	.025	.637*	.184	.570
8	.044	.631*	.173	.566
9	-.104	.529	.474	.644
10	-.020	.537	.418	.659
11	.062	.549	.356	.675
12	-.013	.307	.559*	.559
13	.039	.250	.470*	.430
14	.057	.368	.489	.605
15	.095	.257	.479*	.504
16	.053	.229	.560*	.543
17	.172	.094	.599*	.610
18	.246	.064	.594*	.671
19	.126	.168	.680*	.754
20	.185	.078	.662*	.713
21	.237	.004	.630*	.669
22	.429	.161	.340	.636
23	.573*	.291	.163	.741
24	.603*	.197	.148	.666
25	.377	.012	.520	.700
26	.984	.223	-.278	.810
27	.932	.202	-.192	.795
28	.596*	-.065	.247	.586
29	.702*	.068	.058	.597
30	.416	.007	.453	.651
31	.932	.140	-.108	.838
32	.900	.161	-.103	.806
33	.825*	.073	.022	.758
34	1.013	.149	-.212	.870
35	1.028	.107	-.196	.882
36	1.020	.111	-.178	.892
37	.761*	.033	.153	.791
38	.627*	-.181	.389	.773

Table 10, continued

CLCI Item	3-Factor Solution			Communalities
	I	II	III	
39	.606	-.224	.464	.832
40	.852*	-.013	.110	.862
41	.872*	-.003	.070	.849
42	.690*	-.068	.297	.807
43	.668*	-.115	.356	.829
44	.752*	-.080	.257	.849
45	.918	-.002	.050	.909
46	.971	-.029	-.019	.896
47	.948	-.015	.051	.923
48	.930	-.015	.051	.923
49	.880*	-.047	.136	.928
50	.877*	-.060	.146	.928
51	.933	-.101	.059	.888
52	.818*	-.225	.228	.852
53	.949	-.097	.034	.885
54	.998	-.066	-.025	.919
55	.823*	-.110	.216	.898
56	.891*	-.142	.158	.923
57	.830*	-.164	.197	.855
Variance Explained	61.3	9.6	2.7	
Total Variance Explained		73.6		

* Indicates items retained according to factor loading rules

Table 11

Initial and Final Item Loadings

Factor/Dimension	Initial Items	Final Item Loadings
Middle School Curricular Elements	16	8
Curricular Decision Making	23	9
School-based Leadership	18	18
TOTAL	57	35

Table 12

Item Location Index for the Three-Factor Solution of the CLCI

Factor/Dimension	Items ¹
1 – School-based Leadership (18) ²	56, 49, 50, 41, 40, 57, 33, 55, 52, 37, 44 29, 42, 43, 38, 24, 28, 23
2 – Middle School Curricular Elements (8) ²	1, 5, 3, 2, 6, 4, 7, 8
3 – Curricular Decision Making (9) ²	19, 20, 21, 17, 18, 16, 12, 15, 13

¹ Items listed in order from highest to lowest loadings within factor retention rules

² Number of items per factor

an item location index for the three-factor solution of the CLCI indicating which item numbers comprised each dimension/subscale for the factor analyzed CLCI.

Descriptive Statistics for Instruments

CLCI and IPOE Descriptive Statistics

Item descriptive statistics for the original 57-item CLCI were computed for the total sample of usable schools (n=69). Schools with a 40% or greater response rate were considered usable schools for this study and used when considering schools as the unit of analysis. Professional staff and administrator responses on the CLCI and IPOE instrument sets were combined to maximize the total number of usable data for factor analysis procedures and for analyses procedures to address the research questions.

Table B-1 (Appendix B) presents means and standard deviations for each CLCI item. Item numbers in Table B-1 can be cross-referenced with item numbers in Appendix C to examine CLCI item content. For the CLCI, the higher item means indicate a greater perception concerning how often the item's stated behavior occurs in the school. The item means ranged from 1.78 (item 28, "Teachers routinely observe and critique other classroom teaching.") to 3.51 (item 18, "The curriculum, instruction, and assessment are aligned with teaching objectives."). The standard deviations for the items ranged from .71 (item 7, "The curriculum standards in my school are concerned with the important concepts of various academic areas.") to 1.67 (item 57, "The principal provides some sort of weekly or monthly schedule of events so teachers can plan instruction around school activities.").

Table 13 presents summaries of descriptive statistics for each subscale of the revised 35-item CLCI and the eight-item IPOE for the sample of usable schools (n=69). Table 13 includes the means and standard deviations for each CLCI subscale and provides minimum and maximum scores for each CLCI and IPOE subscale for the sample.

Reliability Analyses

Cronbach Alpha internal consistency reliability coefficients were computed for subscales of the CLCI and the IPOE total instrument. Alpha coefficients were computed using both staff and schools as separate units of analyses. The following sections describe the results of these reliability analyses.

CLCI and IPOE Reliability Analyses

Cronbach Alpha internal consistency reliability coefficients were computed for each of the three CLCI dimensions and the IPOE for the total sample of usable schools using school means as the units of analysis. For the sample of usable schools (n=69), Alpha reliability coefficients for the retained three-factored solution were .89 (Middle School Curricular Elements), .91 (Curricular Decision Making), and .98 (School-based Leadership). The Alpha reliability coefficient for the IPOE sample of usable schools (n=69) was .89.

Table 13

Summary of Descriptive Statistics for Each Subscale of the Three-Factor Solution of the CLCI and the IPOE for the Sample of Usable Schools (n=69)

Subscale	Mean	Standard Deviation	Minimum Score	Maximum Score
School-based Leadership (18)	2.93	0.31	2.17	3.68
Middle School Curricular Elements (8)	3.07	0.27	1.09	3.75
Curricular Decision Making (9)	3.04	0.25	2.39	3.63
IPOE (8)	3.71	0.35	2.88	4.75

Intercorrelations of CLCI Subscales

Table 14 presents a summary of the intercorrelations among the three CLCI subscales for the sample of usable schools (n=69). Pearson product-moment correlations among the subscales ranged from .76 to .84. The CLCI School-based Leadership dimension was positively and strongly correlated with both Middle School Curricular Elements (.84, $p < .01$) and Curricular Decision Making (.76, $p < .01$) dimensions. The Middle School Curricular Elements dimension was positively and strongly correlated with the Curricular Decision Making (.83, $p < .01$) dimension.

Relationships among CLCI Dimensions and School Effectiveness

Dependent Variable Set

A series of bivariate correlations and regression analyses were performed to explore quantitative relationships (bivariate/multivariate linkages) among the various curricular leadership culture (CLC) dimensions as identified in the refined CLCI and the school effectiveness measures of student achievement, school organizational effectiveness, and school holding power.

Table 15 presents a summary of the Pearson product-moment correlations between CLCI three-factor solution subscales and school organizational effectiveness measured by the IPOE for the sample of usable schools (n=69). All three CLCI subscales were positively and strongly correlated and statistically significant ($p < .01$) with the IPOE ranging from .70 (Curricular Decision Making/IPOE) to .82 (Middle School Curricular Elements/IPOE).

Table 14

Summary of Intercorrelations among CLCI Subscales for the Sample of Usable Schools (n=69)

CLCI Subscales	School-based Leadership (SBL)	Middle School Curricular Elements (MSCE)	Curricular Decision Making (CDM)
SBL	1.0	.84*	.76*
MSCE		1.0	.83*
CDM			1.0

* p<.01

Table 15

Summary of Intercorrelations between CLCI Subscales and IPOE

CLCI Subscale	IPOE
School-based Leadership	.78**
Curricular Decision Making	.70**
Middle School Curricular Elements	.82**

** p<.01

Table 16 presents a summary of the intercorrelations among the CLCI subscales and student achievement using school mean TAKS scores as the units of analysis for usable schools (n=69). There was a positive and weak relationship between School-based Leadership and TAKS Reading ($r=.27, p<.05$). A positive and moderate to weak relationship existed between Middle School Curricular Elements and both TAKS Reading ($r=.41, p<.01$) and TAKS Math ($r=.30, p<.05$) respectively. Further, there was a positive and weak relationship between Curricular Decision Making and TAKS Reading ($r=.33, p<.05$) and TAKS Math ($r=.27, p<.05$).

Bivariate correlations using school means as the units of analysis were computed between the factored CLCI dimensions and the multiple dimensions of school holding power measured in this study by attendance and drop out rate. There was a positive and weak relationship between Middle School Curricular Elements and attendance ($r=.25, p<.05$). No other significant relationship was found between attendance or drop out rate with the three-factored CLCI solution. Interestingly, there was a negative and moderate relationship between two of the dependent variables – attendance and drop out rate ($r=-.48, p<.01$).

A noteworthy set of results was obtained for bivariate relationships between the student achievement indices measured by school mean TAKS scores (n=69). For the sample, moderate to strong positive correlations were obtained between reading and math ($r=.76, p<.01$), writing ($r=.61, p<.01$), science ($r=.77, p<.01$), and social studies ($r=.62, p<.01$). Moderate to strong positive correlations were obtained between math and writing ($r=.40, p<.01$), science ($r=.71, p<.05$), and writing ($r=.63, p<.01$). Moderate to strong

Table 16

Summary of Intercorrelations between Scores of the CLCI Subscales and Student Achievement Scores for the Sample of Usable Schools (n=69)

CLCI Dimension	Student Achievement				
	Reading	Math	Writing	Science	Social Studies
School-based Leadership	.27*	.17	.05	.23	.06
Middle School Curricular Elements	.41**	.30*	.22	.56	.12
Curricular Decision Making	.33**	.27*	.21	.49	.16

* p<.05
 ** p<.001

positive correlations were obtained between writing and science ($r=.70$, $p<.05$) and social studies ($r=.34$, $p<.01$).

Table 17 presents a summary of Pearson and partial correlation coefficients between subscales of the CLCI and the school effectiveness independent variable set (school organizational effectiveness, student achievement, and school holding power) controlling for economically disadvantaged student populations in usable schools ($n=69$). Statistically controlling for the effects of economically disadvantaged did little to alter the correlational relationships between the CLCI subscales and the IPOE and school holding power (attendance and drop out rate) variables. A noteworthy set of results was obtained for partial correlation coefficients between subscales of CLCI and TAKS Science when controlling for economic disadvantage using the total sample of usable schools ($n=69$). The Middle School Curricular Elements and Curricular Decision Making dimensions both yielded strong, positive, and significant partial correlations to TAKS Science when controlling for economically disadvantaged student population rates. Statistically controlling for the effects of economically disadvantaged did little to alter any of the other correlational relationships between the CLCI subscales and the student achievement variables.

Multivariate Relationships between CLCI Subscales/Dimensions and School

Effectiveness Measures

A series of stepwise multiple regression analyses with forward inclusion of variables and simultaneous regression analyses were completed by regressing each school effectiveness dependent variable on each dimension/subscale of the CLCI. A regression

Table 17

Summary of Pearson and Partial Correlation Coefficients between Subscales of the CLCI and the School Effectiveness Dependent Variable Set Controlling for Economically Disadvantaged Student Population in Usable Schools (n=69)

School Effectiveness Dependent Variables	CLCI Subscales		
	Middle School Curricular Elements	Curricular Decision Making	School-based Leadership
IPOE Pearson	.82***	.70***	.78***
IPOE Partial	.82***	.70***	.78***
TAKS Reading Pearson	.41**	.33**	.27*
TAKS Reading Partial	.42*	.37**	.28**
TAKS Math Pearson	.30*	.27*	.17
TAKS Math Partial	.30*	.29*	.17
TAKS Writing Pearson	.22	.21	.05
TAKS Writing Partial	.21	.21	.04
TAKS Science Pearson	.56	.49	.23
TAKS Science Partial	.84*	.68*	.50
TAKS Social Studies Pearson	.12	.16	.06
TAKS Social Studies Partial	.09	.15	.03
Attendance Pearson	.25*	.05	.06
Attendance Partial	.25	.07	.06
Drop Out Rate Pearson	-.01	.19	.00
Drop Out Rate Partial	-.01	.19	.00

* p<.05
 ** p<.01
 *** p<.001

analyses was performed for each dependent variable component (IPOE, TAKS Reading, TAKS Math, TAKS Writing, TAKS Science, TAKS Social Studies, attendance, and drop out rate). School means were used as the units of analysis in all regression procedures. Results of the regression analyses included in the tables that follow contain the multiple correlation, the squared multiple correlation, the change in the squared multiple correlation at each step in the analysis, and the F and p value for each significant variable in the regression equation.

School Organizational Effectiveness (IPOE)

A multiple regression analysis was completed for the independent variable set (CLCI dimensions) using the IPOE (n=69) as the dependent variable. Results of this regression analysis are summarized in Table 18. The first variable to enter the regression equation was Middle School Curricular Elements which accounted for 67% of the total variation among schools in perceived organizational effectiveness. The second variable to enter the regression equation was School-based Leadership. In combination, these two variables accounted for 70% of the total variance among schools in perceived organizational effectiveness. Additionally, these results indicate that the CLCI subscale Middle School Curricular Elements accounted for most of the total variance among schools in perceived organizational effectiveness.

Student Achievement (TAKS Reading)

A multiple regression analysis was completed for the independent variable set (CLCI dimensions) using TAKS Reading mean scores (n=69) as the dependent variable.

Table 18

Summary of Stepwise Multiple Regression of the IPOE on Subscales of the CLCI (n=69)

Step	Variable Entered	R	R ²	ΔR^2	F	p
1	MSCE ¹	.82	.67	.67	135.2	<.001
2	SBL ²	.83	.70	.04	75.3	<.001

¹ Middle School Curricular Elements² School-based Leadership

Results of this regression analysis are summarized in Table 19. The only variable to enter the regression equation was Middle School Curricular Elements which accounted for 17% of the total variance among schools in TAKS Reading performance. These results indicate that the CLCI subscale Middle School Curricular Elements accounted for most of the total variance in student reading achievement across all schools ($R=.41$).

Student Achievement (TAKS Math)

A multiple regression analysis was completed for the independent variable set (CLCI dimensions) using TAKS Math mean scores ($n=69$) as the dependent variable. Results of this regression analysis are summarized in Table 20. The only variable to enter the regression equation was Middle School Curricular Elements which accounted for 9% of the total variance among schools in TAKS Math performance. These results indicate that the CLCI subscale Middle School Curricular Elements accounted for most of the variance in student math achievement across all schools ($R=.30$).

Student Achievement (TAKS Writing)

A multiple regression analysis was completed for the independent variable set (CLCI dimensions) using TAKS Writing mean scores ($n=64$) as the dependent variable. Results of this regression analysis are summarized in Table 21. The stepwise multiple regression removed the TAKS Writing dependent variable from the equation. Because of this, a simultaneous regression was performed with the three-factored CLCI solution independent variable set entered at the same time accounting for 13% of the variance among schools in TAKS Writing performance. These results indicate that the three-

Table 19

Summary of Stepwise Multiple Regression of School Mean Reading TAKS Scores on Subscales of the CLCI (n=69)

Step	Variable Entered	R	R ²	ΔR^2	F	p
1	MSCE ¹	.41	.17	.15	13.4	.001

¹ Middle School Curricular Elements

Table 20

Summary of Stepwise Multiple Regression of School Mean Math TAKS Scores on Subscales of the CLCI (n=69)

Step	Variable Entered	R	R ²	ΔR^2	F	p
1	MSCE ¹	.30	.09	.07	6.5	.01

¹ Middle School Curricular Elements

Table 21

Summary of Simultaneous Multiple Regression of School Mean Writing TAKS Scores on Subscales of the CLCI (n=64)

Variable Entered	R	R ²	ΔR^2	F	p
SBL, MSCE, CDM ¹	.35	.13	.08	2.9	.04

¹ School-based Leadership, Middle School Curricular Elements, and Curricular Decision Making

factored CLCI solution independent variable set accounted for most of the variance in student writing achievement across all schools ($R=.35$).

Student Achievement (TAKS Science)

A multiple regression analysis was completed for the independent variable set (CLCI dimensions) using TAKS Science mean scores ($n=12$) as the dependent variable. The stepwise multiple regression removed the TAKS Science dependent variable from the equation. Because of this, a simultaneous regression was performed with the three-factored CLCI solution independent variable set entered at the same time. No significant multivariate results were obtained from the simultaneous regression analyses.

Student Achievement (TAKS Social Studies)

A multiple regression analysis was completed for the independent variable set (CLCI dimensions) using TAKS Social Studies means scores ($n=64$) as the dependent variable. The stepwise multiple regression removed the TAKS Social Studies dependent variable from the equation. Because of this, a simultaneous regression was performed with the three-factored CLCI solution independent variable set entered at the same time. No significant multivariate results were obtained from the simultaneous regression analyses.

School Holding Power (Attendance)

A multiple regression analysis was completed for the independent variable set (CLCI dimensions) using average daily attendance mean scores ($n=65$) as the dependent

variable. Results of this regression analysis are summarized in Table 22. The first variable to enter the regression equation was Middle School Curricular Elements and accounted for 6.5% of the total variation among schools in perceived organizational effectiveness. The second variable to enter the regression equation was School-based Leadership. In combination, these two variables accounted for 13.8% of the total variance among schools in perceived organizational effectiveness. Additionally, these results indicate that the CLCI subscale Middle School Curricular Elements accounted for most of the total variance among schools in average daily attendance.

School Holding Power (Drop Out Rate)

A multiple regression analysis was completed for the independent variable set (CLCI dimensions) using average drop out rate means (n=63) as the dependent variable. Results of this regression analysis are summarized in Table 23. The stepwise multiple regression removed the drop out rate dependent variable from the equation. Because of this, a simultaneous regression was performed with the three-factored CLCI solution independent variable set entered at the same time and accounted for 14% of the variance among schools drop out rate. No other significant multivariate relationship was found to explain variance in drop out rate across schools.

Table 22

Summary of Stepwise Multiple Regression of School Mean Attendance on Subscales of the CLCI (n=69)

Step	Variable Entered	R	R ²	ΔR^2	F	p
1	MSCE ¹	.25	.07	.07	4.3	.04
2	SBL ²	.37	.14	.07	4.9	.01

¹ Middle School Curricular Elements

² School-based Leadership

Table 23

Summary of Simultaneous Multiple Regression of Drop Out Rate on Subscales of the CLCI (n=64)

Variable Entered	R	R ²	ΔR^2	F	p
MSCE, SBL, CDM ¹	.38	.14	.09	3.1	.04

¹ Middle School Curricular Elements, School-based Leadership, and Curricular Decision Making

Discriminant Analyses

Discriminant analyses were performed using school accountability ratings as the grouping variable and the CLCI instrument three-factor solution of School-based Leadership, Middle School Curricular Elements, and Curricular Decision Making as the independent variable set. School ratings are a student achievement indicator that are categorized into four groupings or accountability ratings based on the school mean passing rates for all students on all content areas tested on the TAKS test and school holding power indices. Results of these analyses indicated that the CLC variable set included three significant functions (the three-factor CLCI solution) and that Middle School Curricular Elements was the most important function of the variable set followed by Curricular Decision Making.

The model correctly predicted campus ratings in 45 out of 69 potential middle school campus or 65.2% of the time. Of the 24 misclassified campuses, 8 of the campus ratings were lower than expected while 16 of the campus ratings were higher than expected. In total, actual campus ratings were predicted correctly or were better than predicted 88.4% of the time while actual campus ratings were lower than predicted 11.6% of the time. Of the campuses that were misclassified, the mean economically disadvantaged rate of campuses that received lower ratings than were predicted was 63.8% with a standard deviation of 14.5 while the mean economically disadvantaged rate of campuses that received higher ratings than were predicted was 50.2% with a standard deviation of 19.3.

Summary

Chapter Five presents summaries of descriptive statistical profiles for the school sample, respondents, and the instruments used in this study. Results of validity and reliability analyses completed on instrument sets are also included. Finally, the chapter reports bivariate and multivariate linkages along with results of discriminant analyses completed to address the primary research questions. The following chapter contains a presentation and discussion of the findings and conclusion of the study.

CHAPTER VI

CONCLUSIONS, DISCUSSION, AND IMPLICATIONS

Overview

Chapter Six begins with a review of the overall structure and purpose of the study. Next, major findings and conclusions of the study are delineated. A discussion is then presented in three parts: (1) conceptual validity of the Model of Curricular Leadership Culture (CLC) in Middle Schools and the Curricular Leadership Culture Inventory (CLCI) instrument construct validity, (2) major findings and conclusions pertinent to research questions, and (3) research methodology and design concerns. The concluding section of the chapter examines potential directions for future CLC/school effectiveness (SE) research and addresses the usefulness of the CLC/SE framework for yielding further testable research hypotheses.

Overview of the Study

This study emerged in direct response to a perceived lack of process-oriented approaches to measuring school effectiveness. Effective school studies, for the most part, have focused on different individual school-level independent variables influencing student achievement and have largely neglected contextual variables within the school or school community that may evolve as a result of responding to statewide accountability pressures and how these contextual variables impact student achievement. These studies have largely made post hoc comparisons of effective/ineffective school characteristics

and have tended to view school effectiveness as a function of results-oriented state-mandated standardized achievement assessments and have, to a large degree, neglected examining how different curricular leadership processes within a school interact with one another and existing school organizational structures.

The purpose of this study was to develop and initially test a multidimensional model exploring any potential relationships existing between CLC and school effectiveness and to examine any potentially identifiable contextual variables that may mediate this relationship in different school settings. An additional purpose of this study was to develop an instrument, known as the Curricular Leadership Culture Inventory (CLCI), that could be administered to teachers and school administrators to identify perceptions of CLC/SE linkages using school personnel as the unit of analysis and combining all CLCI results for a specific school to use the school as the unit of analysis. As a result, individual schools were able to develop a school-level CLC profile as a means of assessing school-level processes affecting overall school effectiveness.

This study consisted of two major parts. The first major part involved the development and refinement of an instrument designed to measure professional staff and administrator perceptions of how often curricular leadership process behaviors occur in middle schools. The CLCI instrument was grounded in a conceptual CLC and evaluated professional staff and administrator perceptions of how curricular leadership process behaviors interact with existing organizational structures in a school. CLC is an index of the school's overall organizational leadership involving deeply held belief systems about how the curricular decisions are made and implemented and how these decisions are

communicated within and acted upon in the school. Further, the CLC model developed in this study presented a framework for synthesizing relevant perspectives and exploring any interrelationships among school effectiveness indices and the curricular leadership processes of school-based leadership, curricular decision making, and middle school curricular elements with existing school organizational structures as a function of a distinctive middle school curricular leadership culture.

The second major component of this study consisted on developing and exploring research questions derived from the CLC model. The Curricular Leadership Culture Inventory (CLCI) developed in this study served to operationally define the CLC construct and provided a means for empirically exploring relationships among CLC/SE indices posited in the model.

Model Development and Refinement

The first major component of this study involved the development of a conceptual model of CLC in middle schools. The CLC model posited multiple, reciprocal relationships among identified CLC variables and school effectiveness indices. The CLC model served as the basis for the development of the CLCI. The sections that follow provide a brief synopsis of the development and refinement of the CLC model and CLCI instrument completed in this study.

The Model of Curricular Leadership Culture (CLC) in Middle Schools described in Chapter One and presented in Chapter Two defined CLC in middle schools as consisting of input and outcome variables which are impacted by the interrelationships

among various curricular leadership process and school organizational structural dimensions. The original curricular leadership process dimensions were: (1) School-based Leadership characterized by professional development, leadership stance, and communicative flow subdimensions; (2) Curricular Decision Making characterized by data-driven decision making, collaborative rapport, and autonomy subdimensions; and (3) Middle School Curricular Elements characterized by developmentally appropriate curriculum, rigorous standards curriculum, and instructional methods subdimensions (see CLC Model Figure 1, p. 18).

The CLC model suggests that the effects of physical, fiscal, capital, and human resources (inputs) on school outcomes are the result of the interactions among various macro-structural, micro-structural, and unseen structural elements (school organizational structures) with several identified curricular leadership process dimensions (middle school curricular elements, curricular decision making, and school-based leadership). Micro-, macro-, and unseen structural elements of school organizational structures are characteristics of all middle school organizations and interact with curricular leadership dimensions to define the unique CLC characteristics of a school at any point in time. The model assumes that CLC represents a complex, multidimensional set of process and structural variables whose interrelationships serve to link model inputs with model outcomes in unique ways in different schools.

CLCI Instrument Development and Refinement

One form of the CLCI was developed for both professional staff and administrators to complete. Respondents were asked to identify their job assignments on the demographic section of the CLCI. The wording of the CLCI was appropriate for both professional staff and administrators to complete in order to gather their perceptions concerning how often certain curricular leadership behaviors occurred in their school. An initial pool of 88 potential CLCI items was developed to operationalize the three CLC dimensions – with each dimension containing three subdimensions for a total of nine subdimensions. Each of the original nine subdimensions contained between 10 to 17 items on the initially drafted CLCI.

Initial face validity of the initial 88-item CLCI instrument was conducted through a content classification study using a national and area panel of ten expert judges in middle-level curriculum and school leadership. These expert judges were asked to make judgments on the usefulness of each potential item based on the stated conceptual definition of each proposed subdimension construct. Appendix E presents the content classification study and instructions provided to the expert judges. Based on the feedback from the content classification study, revisions and further refinement recommendations were incorporated into a 57-item list. The CLCI items comprising the final pilot version of the pre-factor analyzed CLCI instrument were judged to have reasonable face validity in terms of addressing typical curricular leadership behaviors of middle school personnel.

Major Findings and Conclusions

Model/Instrument Development and Refinement

This section presents major findings and conclusions relating to the construct validity of the CLC model and CLCI instrument. The section is organized into two parts: (1) construct validity of the CLCI instrument and (2) construct validity of the refined CLC model.

Part One: Construct Validity of CLCI Instrument

Part One of this study focused on exploratory factor analyses of the CLCI instrument. Further, reliability and criterion-related validity of the CLCI instrument were performed. Finally, construct validity of the CLC model was discussed.

Factor Analyses

Exploratory factor analyses of the CLCI data set resulted in three identified CLCI dimensions: (1) School-based Leadership, (2) Middle School Curricular Elements, and (3) Curricular Decision Making. Results of these analyses provided some support for the construct validity of the CLCI as an inventory of these three dimensions of CLC in middle schools. Exploratory factor analyses of the CLCI instrument completed in this study support the following findings: (1) the exploratory factor analyses of the CLCI suggested that the CLCI instrument is a multidimensional inventory of CLC in middle schools; (2) the School-based Leadership dimension demonstrated the largest number of loading items; (3) the three-factor solution generated factors that were partially consistent

with the original CLC model; (4) none of the initially posited items under the original nine subdimensions loaded independently but rather the items loaded as components of either the Middle School Curricular Elements, Curricular Decision Making, or School-based Leadership as overall dimensions; (5) only the items listed under the data-driven decision making subdimension of Curricular Decision Making loaded for Curricular Decision Making while the other two posited Curricular Decision Making subdimensions of collaborative rapport and autonomy loaded under the School-based Leadership dimension; and (6) correlations existing among the rotated factors contributed to the use of the oblique rotation solution helping to explain the high communality and inter-item correlation levels among items loading on similar factors.

These findings of the CLCI exploratory factor analyses support the following conclusions: (1) it is possible to measure meaningful dimensions of CLC using a survey instrument; (2) from the number and content of item loadings in the analyses, it can be concluded that School-based Leadership and Middle School Curricular Elements contribute the most to a clear articulation and explanation of the overall CLC construct; (3) because the original nine subdimensions did not load as separately defined subdimensions but under the construct of the three original overall dimensions, there is a need for further development, refinement, and possible expansion of the CLCI instrument; (4) because an oblique rotation with correlated factors provided a more clear factor pattern loading than a non-correlated orthogonal rotation, it might prove useful to reexamine the CLCI items in general and the relationships among the three dimensions retained in the factor analysis procedures; and (5) the factor analyzed CLCI provided a

broad perspective and a starting point for the investigation of the components of CLC in middle schools but was unable to identify subtle nuances and specificities associated with investigating complex organizational culture.

Reliability of the CLCI Instrument

Investigations were conducted to examine the Cronbach Alpha internal consistency reliability of the CLCI instrument. The following sections present the major findings of the reliability analyses.

Internal Consistency.

The three-factor solution (School-based Leadership, Middle School Curricular Elements, and Curricular Decision Making) of the CLCI instrument obtained strong reliability coefficients ranging from .76 to .84. These internal consistency findings support the conclusion that the items comprising the three-factor CLCI solution are homogeneous and can be considered reasonable samples of the subscales they represent.

Criterion-Related Validity of CLCI Instrument.

The criterion-related validity of the CLCI dimensions was investigated by examining relationships among independent and dependent variables using school means as the units of analysis for usable schools. Usable schools in this study were those with a 40% or greater survey response rate. Overall results of correlation analyses completed in this study to investigate bivariate and multivariate relationships among the CLCI dimensions and indices of middle school effectiveness support the following findings: (1) strong positive relationships exist between the CLC dimensions of School-based

Leadership, Middle School Curricular Elements, and Curricular Decision Making and the dependent variable of school organizational effectiveness (IPOE); (2) considering all of the criterion-related validity coefficients generated, the greatest support for the validity of the CLCI instrument was evidenced by the Middle School Curricular Elements and School-based Leadership dimensions; (3) controlling for the effects of economically disadvantaged student populations did little to alter the primary relationships between the CLCI dimensions and the dependent variable set with the exception of strong and positive relationships between TAKS Science scores and Middle School Curricular Elements and Curricular Decision Making; (4) discriminant analyses results indicated the CLCI instrument was able to accurately predict a campus's rating 65.2% of the time with a noteworthy occurrence of a lower than predicted rating occurring 11.6% of the time; and (5) of the campuses whose actual rating was different than predicted by the model, those campuses with the lower than predicted ratings tended to have higher mean economically disadvantaged rates as a group than the economically disadvantaged rate of those campuses with higher than predicted ratings.

These findings lead to the following conclusions: (1) the measurement of personnel perceptions is a valid means of examining CLC/SE linkages in middle schools; (2) understanding the validity of personnel perceptions of CLC in middle schools depends on the conceptualization of school effectiveness utilized; (3) the criterion validity evidence, when combined with factor analyses and face validity analyses, provide support for the overall construct validity of the CLCI; (4) economically disadvantaged population student rates seem to be a latent or masked mediating variable

for both TAKS Science achievement in middle schools and the predictability of the model and, as a result, warrant further study; and (5) the discriminant analyses provide overall support for the predictive powers of the CLC variable set.

Construct Validity of the Refined CLC Model

The results of bivariate and multivariate analyses performed using the CLCI data set in this study provided support for the multidimensionality of the CLC construct and its connection to dimensions of school effectiveness in middle schools posited in the model. Results provided evidence supporting the conceptualization of curricular leadership process dimensions in middle schools as being most closely linked to personnel perceptions of school organizational effectiveness. Exploratory factor analyses of the CLCI data set resulted in three identified factors or CLC dimension: (1) School-based Leadership, (2) Middle School Curricular Elements, and Curricular Decision Making. These three-factor analyzed CLC dimensions became the basis for the development of a revised version of the CLC model (Figure 2, p. 150). Conceptual definitions of these three factor analyzed CLC dimensions are presented in Appendix D.

Part One Synthesis of Major Findings and Conclusions

Results of factor analyses and criterion-related validity and reliability investigations completed in this study provided positive support for the CLC model as an initial framework for examining multiple relationships existing among curricular leadership process dimensions, school organizational structural dimensions, and school

effectiveness indices in middle schools. As a result of this support evidence, it may make sense to conceptualize CLC and its affect on school effectiveness in multidimensional terms. Further, results of these investigations suggested that it is possible to define multiple dimensions of CLC in middle schools, these CLC dimensions can be related to meaningful indices of school effectiveness, and that the CLC/SE model can be used in both a predictive and explanatory manner.

The lack of factor analytic support for the initial nine curricular leadership process subdimensions conceptualized in the original CLC model suggested the need to reexamine these model components as discrete, separate subdimensions. However, items from each of these proposed subdimensions did load on the final three-factor solution. Despite these loadings, there was no factor analytic support for any stand-alone subdimension posited in the original CLC model suggesting that more concise and direct items might provide more separation of factors.

Generally speaking, respondents were not able to discriminate the ideas represented by the CLCI items from one another with any depth. Further, high communalities and factor item correlations indicated that respondents were unable to differentiate among some of the CLCI items. Several of the items contained one or two key words differentiating them from other items; however, item correlation results indicated a high correlation between such items, again, suggesting an inability to distinguish the uniqueness of either item. Another possible explanation is that respondents did not completely read all of each item. As a result, strong relationships

existed among the three dimensions as evidenced from the various orthogonal component loadings and oblique pattern loadings used during the exploratory factor analyses.

The lack of factor analytic support for clearly independent factors from the factor analyses suggested the need for a reexamination of the CLCI items used to describe the specific behaviors depicting each independent factor. Further, the lack of factor analytic support for the nine subdimensions posited in the initial CLC model suggested the need to eliminate the specific subdimensions criteria listed under each dimension and to retain only the dimension headings themselves in the model.

Controlling for economically disadvantaged did little to change most of the bivariate relationships among the three-factor independent variable set and the multiple indices of school effectiveness with the exception of TAKS Science with both Middle School Curricular Elements and Curricular Decision Making dimensions. This bivariate relationship controlling for economically disadvantaged rates suggests the possibility that economically disadvantaged students have not benefited from the school's CLC and in fact these students might be withdrawing from participation and not interacting in the same manner with the independent variable set (School-based Leadership, Middle School Curricular Elements, and Curricular Decision Making) as the rest of the student population.

Because science requires hands-on experiences and real world application, economically disadvantaged students may not bring the same experiences with them to the classroom as other students (Borich, 2004). This gap in experiences may be reflected by the strong positive association between Middle School Curricular Elements and

Curricular Decision Making and TAKS Science and suggest that middle school teachers and principals should incorporate virtual experiences for all students and especially those from economically disadvantaged backgrounds to create a background of shared experiences for all students to interact with the science curriculum (Moore, 2005). Further, these findings suggest the importance of creating shared experiences at the classroom level in which classroom communities are engaged in creating classroom experiences in which each student contributes a segment of the overall entire experience, that is, each student becomes an expert or responsible for a building block or component of the overall lesson (Jenson, 2005; Wiggins & McTighe, 2005). Results of this correlational analysis suggest that economically disadvantaged rates might serve as a latent or masked variable interacting within middle schools mediating the interrelationships among Middle School Curricular Elements and Curricular Decision Making with TAKS Science.

Findings from factor analyses and criterion-validity and reliability analyses completed provided positive evidence supporting the initial construct validity of the CLCI as a reasonably valid and reliable measure of the linkages between CLC and school effectiveness in middle schools.

Part Two: Research Questions

Part Two of this study focused on the analysis of specific research questions derived from the CLC model concerning the relationship between CLC and school effectiveness in middle schools. The research questions that guided the analyses are

reviewed below followed by a review of major findings and conclusions pertaining to each research question.

Research Questions

Three research questions were derived from the CLC model to guide this study. These research questions were designed to explore relationships among CLC dimensions and school effectiveness indices posited in the CLC model. The research questions involved quantitative analyses in order to explore factor loading dimensions, bivariate relationships, and multivariate relationships posited in the CLC model.

Research Question 1. What empirically derived dimensions can be identified to describe the nature of CLC as an organizational phenomenon?

Results of factor analyses completed to investigate this research question produced the following findings: (1) a three-factor, oblique solution (School-based Leadership, Middle School Curricular Elements, and Curricular Decision Making) best represented the data and meaning of the CLCI dimensions and explained 73.6% of the variance among CLC/SE linkages; (2) the School-based Leadership factor/dimension had the highest item loadings (18) and accounted for 61.3% of the explained variance of the three-factor solution; (3) none of the initially proposed subdimensions loaded as separate factors; (4) individual items from two of the original Curricular Decision Making subdimensions (autonomy and collaborative rapport) loaded under School-based Leadership dimension; and (5) there was a high degree of correlation among the School-based Leadership loaded items.

The following conclusions are derived from these findings: (1) CLC can best be represented by the independent variable set consisting of School-based Leadership, Middle School Curricular Elements, and Curricular Decision Making; (2) School-based Leadership explains most of the variance of CLC; (3) given the fact that a considerable number of items from the original Curricular Decision Making subdimensions of autonomy and collaborative rapport on the pre-factor analyzed instrument loaded in the final three-factor solution, it seems plausible that these process subdimensions may be of some relevance in helping to explain the ways middle school personnel members discriminate in their perceptions of CLC; (4) the loading in the factor analyses of several of the items (autonomy and collaborative rapport subscales) originally posited in the Curricular Decision Making dimension on the School-based Leadership dimension suggests that middle school personnel view the extent and quality of their own daily professional interactions directly in the context of leadership-based constructs and their perceptions of the principal and fellow staff members' level of support and views of curricular issues; (5) additional responses from the CLCI instrument indicated that many professional staff do not perceive themselves holding a leadership position in their schools suggesting a perceived differentiation among perceptions of classroom and campus level interactions/behaviors existing for professional staff members; and (6) these conclusions support the overall notion that surveys in general have an inherent inability to distinguish among complex multidimensional organizational constructs to identify direct or causal relationships and that further qualitative investigations might lend support

for how these nuances interact in complex school organizations that surveys in general are unable to obtain.

Research Question 2. With what degree of reliability can the empirically derived curricular leadership dimensions be measured?

Results of the degree of reliability found among the empirically derived CLC dimensions were completed to investigate this research question yielded the following two findings: (1) Alpha reliability coefficients for the retained three-factor solution were .89 (Middle School Curricular Elements), .91 (Curricular Decision Making), and .98 (School-based Leadership) and (2) Pearson-product moment correlations among the three-factor solution were all positive and significant ranging from .76 to .84.

The following conclusions are derived from these findings: (1) the three factor solution (School-based Leadership, Middle School Curricular Elements, and Curricular Decision Making) yielded high Alpha reliabilities suggesting that each of the three factors or dimensions is well defined; (2) the Pearson product-moment correlations among the three factors or dimensions were all positive, moderate to high in strength of association, and significant suggesting that the three-factor solution best representing CLC in middle schools demonstrate an interdependence among each dimension despite loading separately in the factor analyses; and (3) these three factors are reasonably reliable dimensions of CLC in middle schools.

Research Question 3. What are the relationships (bivariate/multivariate) among the set of empirically derived dimensions of a measure of CLC and a set of school organizational effectiveness, student achievement, and school holding power indices?

A series of bivariate correlations were performed on the three-factor solution independent variable set (School-based Leadership, Middle-School Curricular Elements, and Curricular Decision Making) and the multiple school effectiveness dependent variables used during this study (school organizational effectiveness, student achievement, and school holding power) to investigate this research question. Further, a series of partial correlations controlling for economically disadvantaged student populations were performed on this data set to investigate this research question. These investigations yielded the following findings: (1) the correlations between the empirically derived dimensions of the CLCI and the IPOE were stronger and more frequently occurring than for the CLCI and the other school effectiveness variables (student achievement and school holding power); (2) Middle School Curricular Elements and School-based Leadership demonstrated the strongest relationships with the IPOE school organizational effectiveness variable; (3) Middle School Curricular Elements and Curricular Decision Making demonstrated the strongest relationships with student achievement indices of TAKS Reading and TAKS Math; (4) generally speaking, the relationships among CLC variables and school effectiveness indices are independent of a middle school's economically disadvantaged student population with the notable exception of the student achievement indice of TAKS Science showing a strong, positive, and significant partial correlation with both Middle School Curricular Elements (.84) and Curricular Decision Making (.68); and (5) there were no significant bivariate relationships between CLC variables and the school holding power indices of attendance

and drop out rates with the exception of a positive and weak correlation between Middle School Curricular Elements and attendance.

The following conclusions are derived from these findings: (1) the CLC construct appears to relate most strongly as an organizational effectiveness variable rather than to other school effectiveness variables such as student achievement and school holding power; (2) Middle School Curricular Elements and School-based Leadership appear to have the strongest bivariate relationships with school organizational effectiveness; (3) Middle School Curricular Elements and Curricular Decision Making appear to have the strongest bivariate relationships with the student achievement indices of TAKS Reading and TAKS Math; (4) middle school economically disadvantaged student population seems to be a latent or masked variable mediating linkages between CLC and TAKS Science, but does not appear to be a viable school context variable between any other linkages between CLC and other school effectiveness indices; and (5) additional context variables further serving to mediate the relationship between CLC and indices of student achievement and school holding power probably exist.

A series of multivariate analyses (stepwise and simultaneous regressions) were performed on the three-factor solution independent variable set (School-based Leadership, Middle-School Curricular Elements, and Curricular Decision Making) and the multiple school effectiveness dependent variables used during this study (school organizational effectiveness, student achievement, and school holding power) to investigate this research question. These investigations yielded the following findings: (1) Middle School Curricular Elements and School-based Leadership accounted for a

large portion of the variance in perceived school organizational effectiveness (IPOE); (2) moderate stepwise multivariate relationships were found to exist between Middle School Curricular Elements and TAKS Reading and TAKS Math; (3) moderate stepwise multivariate relationships were found to exist between Middle School Curricular Elements and School-based Leadership and attendance; (4) simultaneous multivariate relationships were found to exist between a set of CLC variables and TAKS Writing and drop out rate; (5) no significant stepwise or simultaneous multivariate relationships were found to exist between CLC variables and TAKS Science or TAKS Social Studies; (6) while different CLC variables were found to explain different amounts of variance in different middle effectiveness indices, it appears that Middle School Curricular Elements is an important variable in explaining variance in the different indices of school effectiveness and especially student achievement in the participating sample of schools; and (7) CLCI dimensions have criterion-related validity, to some degree, with each of the school effectiveness variables used in this study.

The following conclusions are derived from these findings: (1) the CLC construct can best be understood as an independent variable set that is conceptually linked to the overall school organizational effectiveness of the middle school as an organization as opposed to student achievement and school holding power school effectiveness indices; (2) school effectiveness, overall, does not have a simple relationship with CLC in middle schools and that specific aspects of overall school effectiveness such as school organizational effectiveness, student achievement, and school holding power may best be understood in terms of their individual interactions to specific CLC dimensions; (3)

school organizational effectiveness is the school effectiveness variable most strongly associated with the dimensions of CLC; (4) Middle School Curricular Elements is the CLC dimension that most strongly explains the variance in the various aspects of student achievement; (4) attendance is a multivariate relationship best explained by Middle School Curricular Elements and School-based Leadership; (5) variance in drop out rate for participating schools is best explained by the interrelationships between the CLC variable set; and (6) CLC is best understood as having indirect effects on school effectiveness working through latent and mediating variables in school settings.

A series of discriminant analyses were performed on the CLC independent variable set and the school effectiveness variable of student achievement using school ratings as a composite categorical variable. School ratings for a campus are based on campus mean student achievement results from each TAKS test administered. These investigations yielded the following findings: (1) all three factors in the CLC variable set are significant functions when considered together; (2) Curricular Decision Making and Middle School Curricular Elements are the most important dimensions accounting for differences in student achievement-based accountability ratings in middle schools; (3) the CLCI correctly predicted 65.2% of campus accountability ratings based on the CLC variable set and only 8 of the 24 campuses with incorrect accountability predictions had a lower than predicted accountability rating; and (4) considering the campuses whose accountability ratings were not correctly predicted, those campuses with higher economically disadvantaged student population rates tended to have lower than predicted accountability ratings.

The following conclusions are derived from these findings: (1) it is possible to develop a CLC model that demonstrates both predictive and explanatory powers; (2) the CLC variable set demonstrates multidimensionality and interdependence when considering student achievement indices of school effectiveness; and (3) the economically disadvantaged student population serves as a latent variable that masks or mediates CLC/SE linkages.

Part Two Synthesis of Major Findings and Conclusions

Major findings and conclusions of Part Two of this study provided additional quantitative support for the viability of conceptualizing CLC in middle schools as a multidimensional construct. Collective findings and conclusions derived from results of quantitative analyses completed provided positive evidence that CLC in middle schools is a multidimensional construct that is most directly linked to personnel perceptions of the middle school as an organization rather than to student achievement and school holding power. Findings and conclusions from bivariate and multivariate analyses suggested that CLC in middle schools may best be understood as an organizational variable that is most directly characterized by personnel perceptions of behaviors explained by the interrelationships among School-based Leadership, Middle School Curricular Elements, and Curricular Decision Making.

Discussion

This section presents a discussion of conclusions based on findings from analyses completed in this study organized in three parts: (1) conceptualization, refinement, and construct validity issues associated with model and empirical instrument development, (2) conclusions derived from analyses results of primary research questions completed in the study, and (3) issues related to research methodology and design.

Conceptualization, Refinement, and Construct Validity of

CLC Model and CLCI Instrument

This study emerged from a perceived need for the development of a CLC/SE model in middle schools synthesizing pertinent literature from the middle school curricular elements, school-based leadership, curricular decision making, and school effectiveness literature. A special feature of this study conceptualized schools as complex and dynamic organizations with specific process and structural dimensions whose interactions yield different levels of overall effectiveness in various schools. Because schools are viewed as complex organizations, a multidimensional approach to investigating linkages among various CLC and school effectiveness variables in middle schools provides a process-oriented approach for understanding and describing overall school effectiveness.

The Model of Curricular Leadership Culture (CLC) in Middle Schools developed in this study focused on an initial investigation of one aspect of a school's overall leadership culture, the curricular leadership culture. The CLC model was developed to

provide a preliminary framework for exploring the nature and effects of CLC on school effectiveness in middle schools and how the different curricular leadership dimensions interact with the various indices of overall school effectiveness.

CLC Model

The Model of Curricular Leadership Culture (CLC) in Middle Schools developed in this study emphasizes the interaction among various curricular leadership process and structural dimensions with school effectiveness indices in middle schools as being an organizational phenomenon. The CLC model posits multiple, reciprocal relationships among school input variables, CLC process and structural dimensions, and the various indices of school effectiveness as an initial attempt to conceptualize CLC as a multidimensional construct. Because of the exploratory nature of the model framework and their various levels of incorporation in state level school effectiveness accountability ratings, the three indices of school effectiveness represented in the CLC model (school organizational effectiveness, student achievement, school holding power) were determined to be reasonable measures to guide any initial exploration of possible relationships among CLC and school effectiveness in middle schools.

Quantitative findings from this study support the link between the dimensions of CLC posited in the model and personnel perceptions of how often certain behaviors occur concerning overall school organizational effectiveness. Because school organizational effectiveness was the dependent variable most strongly linked to the CLC dimensions,

there is substantial support for the organizational focus of the CLC model and the three-factor analyzed CLC dimensions as indicators of organizational effectiveness.

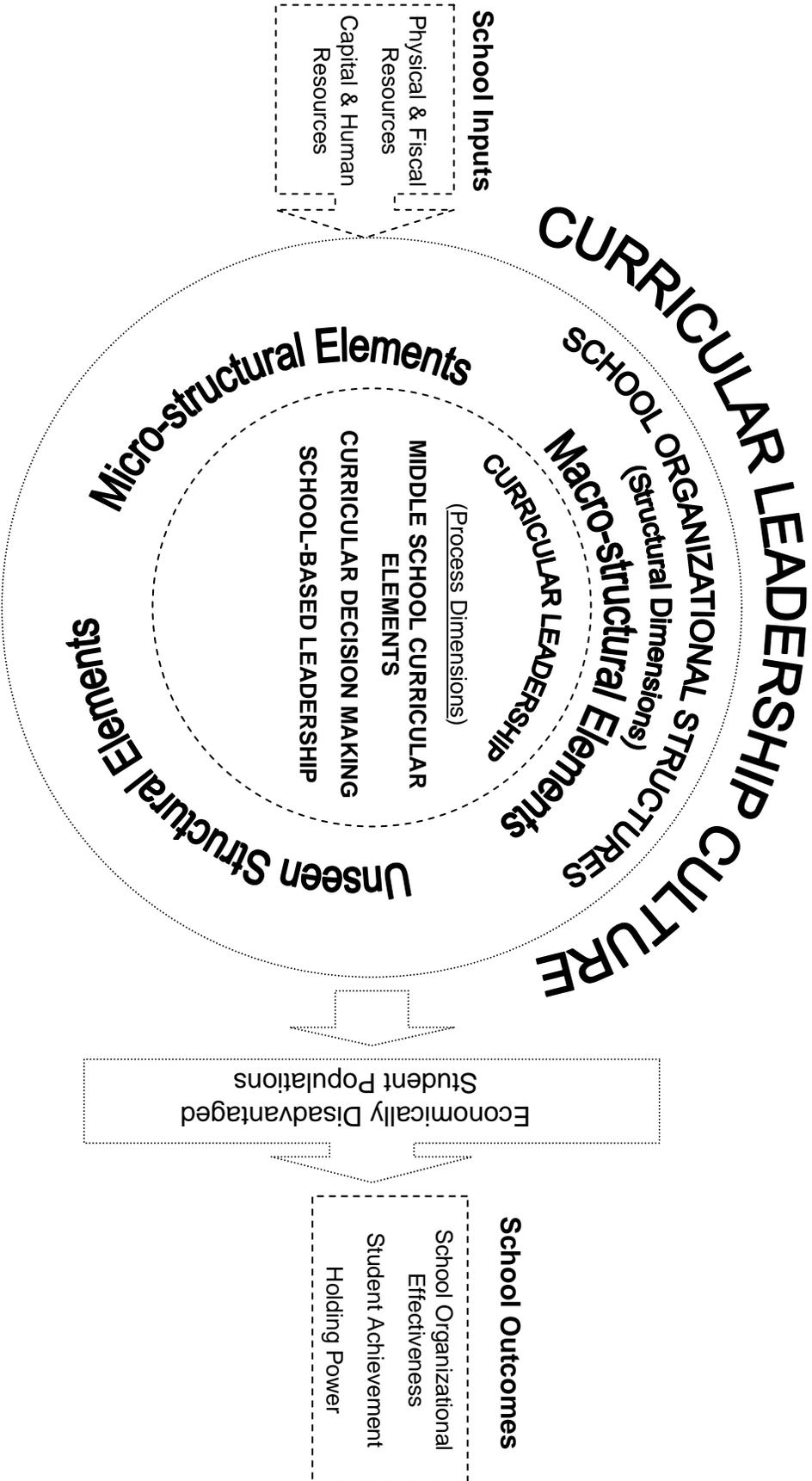
The three-factor solution retained in the exploratory factor analyses generated factors that were partly consistent with the original CLC model. The final identified factors or CLCI dimensions emerging in the three-factor solution were School-based Leadership, Middle School Curricular Elements, and Curricular Decision Making. This three-factor CLCI solution was incorporated into a revised CLC model (Figure 2, p. 150).

While these three factors or dimensions were consistent with the original CLC model, the subdimensions initially posited for each of the three dimensions did not load as separate factors. While the original model subdimensions were not retained or supported by the final three-factor solution, conceptual elements of these subdimensions relating directly to these constructs were retained within the overall three-factor solution.

For the most part, the posited items for each of the original nine subdimensions loaded onto the predicted overall dimension with two notable exceptions: (1) the subdimension instructional methods was originally under the Middle School Curricular Elements dimension but loaded under the Curricular Decision Making dimension and (2) the subdimensions collaborative rapport and autonomy were originally under the Curricular Decision Making dimension but loaded under the School-based Leadership dimension.

All of the items for the three subdimensions (professional development, communicative flow, and leadership stance) of School-based Leadership loaded under the predicted dimension; however, the factor analyses did not discriminate among the three

Revised Model of Curricular Leadership Culture in Middle Schools



predicted School-based Leadership subdimensions. Considering the larger number of items loading on the School-based Leadership dimension and taking into account the multiple aspects and sources of leadership represented in this dimension, it may make sense to probe deeper into the nature of School-based Leadership in middle schools by differentiating between campus-level and classroom-level leadership activities within a school. This conclusion seems to be supported by multiple professional staff responses on the CLCI instrument that they do not perceive themselves as having a leadership role on their campus. These different levels or sources of leadership (whether or not they are actually perceived or acknowledged among professional staff) may serve as latent variables that might mask some of the linkages among the factor analyzed CLC variable set – and specifically the School-based Leadership dimension – and the various indices of school effectiveness.

CLCI Instrument

Results of exploratory factor analyses completed in this study provided evidence for the multidimensional nature of the CLCI instrument as an inventory for middle school CLC. The three-factor solution retained from the exploratory factor analyses procedures was distinguishable over other solutions in terms of the amount of variance explained, the conceptual fit of items comprising each factor, and the solution's overall simplicity of factor structure. Results of these analyses supported the construct validity of the CLCI as an inventory of these three identified dimensions of CLC in middle schools (Figure 2, p. 150). Because School-based Leadership demonstrated the largest number of factor

loadings and explained the largest proportion of the variance of the final solution, a possible need emerges to reexamine the other two dimensions of the CLCI instrument to potentially be further developed and refined in future studies. Similarly, an oblique rotation was determined to provide the most coherent factor structure because of the correlations among the dimensions of the final three-factor solution suggesting the need to further reexamine and better discriminate among all three dimensions. In addition, findings and conclusions from the set of criterion-related validity and reliability analyses provided support for the CLCI instrument as a valid and reliable measure of CLC/SE linkages in middle schools.

Discussion of Major Findings and Conclusions

Pertinent to Quantitative Research Questions

This section presents a discussion of major findings and conclusions derived from analyses completed for the primary research questions guiding this study. The discussion is organized into subsections addressing: (1) empirically derived dimensions describing the nature of CLC as an organizational phenomenon; (2) quantitative findings and conclusions relating to specific bivariate variable relationships explored; and (3) quantitative findings and conclusions relating to specific multivariate variable relationships explored.

Empirically Derived Dimensions Describing the Nature of Curricular Leadership Culture (CLC)

Results of factor analyses completed to identify the CLCI dimensions for CLC in middle schools provided evidence of a three-factor solution best explaining the total variance among the CLCI instrument. The three factors or dimensions derived from the factor analyses were School-based Leadership, Middle School Curricular Elements, and Curricular Decision Making. The School-based Leadership dimension had the highest item loadings among the final three-factor solution and explained the most variance for the CLCI instrument.

The final three-factor solution contained the same dimensions that were originally posited on the prefactor analyzed CLCI instrument and corresponding initial model. The original CLCI instrument and corresponding model contained subdimensions with corresponding items for each of the original dimensions. While most of the subdimension items loaded under the predicted dimensional heading with two notable exceptions, none of the subdimensions discriminated themselves from other subdimensions to be considered separate stand-alone subfactors or true subdimensions. The two notable exceptions for predicted subdimension items of a particular subdimension loading under a different subdimension are: (1) the instructional methods subdimension of the Middle School Curricular Elements dimension loaded under the Curricular Decision Making dimension and (2) the collaborative rapport and autonomy subdimensions of the Curricular Decision Making dimension loaded under the School-based Leadership Dimension. However, conceptual elements for each of these

subdimensions relating directly to the constructs represented (School-based Leadership, Middle School Curricular Elements, and Curricular Decision Making) in the final three-factor solution were retained within the overall three-factor solution.

The factor analytic results from the CLCI items indicate that the School-based Leadership dimension explained the most variance for the final, three-factor solution. The factor analyses produced high communalities, correlations among items with the same factor loading, and high pattern loadings for the School-based Leadership dimension. These high values could have resulted from a basic disconnect between the respondents regarding their own self perceptions of how often certain CLC behaviors occur in their school and the multiple interrelationships existing within the school environment; respondents may have been asked to discern among abstract concepts – or terminology – that they do not interact with on a consistent basis resulting in an inability to distinguish the nuances through the use of a stand-alone survey instrument.

Moreover, School-based Leadership was the only original dimension from the CLCI that had items from its pre-factored subdimensions to all load on the predicted dimension. As a result, School-based Leadership contains items from more subdimensions than the other two dimensions on the final three-factor solution. In total, the School-based Leadership dimension contains items from the following subdimensions with the originally posited dimension identified in parentheses – Professional Development (School-based Leadership), Leadership Stance (School-based Leadership), Communicative Flow (School-based Leadership), Collaborative Rapport (Curricular Decision Making), and Autonomy (Curricular Decision Making).

The content classification study indicated that Curricular Decision Making was an important dimension of CLC. However, factor analysis and bivariate/multivariate results did not provide support for a strong link between CLC and school effectiveness. Moreover, factor analytic pattern loadings indicated that Curricular Decision Making explained the lowest amount of the variance in the CLCI three-factor solution.

The disconnect between these sets of results might be reflected in that Curricular Decision Making is a complex construct that is multidimensional and very culturally and politically embedded in a school's CLC. Further, Curricular Decision Making is much more subtle making it more difficult for oblique rotation items (i.e., surveys) to identify and capture specific behaviors linking them to overall school effectiveness indices.

Further research into the nature of Curricular Decision Making and how it interacts with economically disadvantaged student populations might provide a more clear understanding of CLC/SE linkages in middle schools. Latent variables might be identified that outline specific approaches and/or behaviors to Curricular Decision Making in middle schools and how these approaches and/or behaviors impact teacher efficacy and empowerment. Because collective teacher efficacy is a greater predictor of student achievement than socioeconomic status, these approaches and/or behaviors, if identified, could serve to articulate more precisely some of the nuances associated with complex constructs such as Curricular Decision Making. In addition, any such connections or associations would also help explain how schools could better engage economically disadvantaged student populations in the school environment.

Surveys may not be able to elicit clear perceptions about the quality of Curricular Decision Making on middle school campuses. Moreover, the real extent to the level of Curricular Decision Making may not be achieved by surveys and may in fact reach the limit of the types of information surveys can reveal. Because surveys are unable to elicit clear responses for such subtle constructs as Curricular Decision Making, further research is needed (i.e., focus group interviews, one-on-one interviewing, etc.) on schools with interesting and compelling data for further elaborations to arrive at deeper understandings of the nature of Curricular Decision Making in middle schools and how it is threaded within and impacts CLC/SE linkages in middle schools.

These findings suggest the need for a more refined conceptualization of the CLC dimensions with special attention to both the School-based Leadership and Curricular Decision Making dimensions. The high communalities in the factor loadings and the mismatched item loadings from the two Curricular Decision Making subdimensions to the School-based Leadership dimension provide reasonable evidence that the operational definition for the construct is too broad. Considering the vastness of the School-based Leadership dimension, it may make sense to further conceptualize classroom-level and campus-level leadership dimensions and link these proposed dimensions to specific personnel behaviors that resonate with the daily lives of middle school professional staff. In sum, while the final three-factor solution for the CLCI demonstrated both construct validity and reliability, the items on the CLCI survey instrument were unable to discriminate with any depth the various subdimensions from the original model resulting

in weak or indirect linkages among CLC dimensions and student achievement/school holding power indices.

Bivariate Relationships between Curricular Leadership Culture (CLC) Variables and School Effectiveness Indices

Bivariate correlational analyses were completed to investigate relationships between the CLCI dimensions and the indices of school effectiveness provided evidence supporting personnel perceptions of the positive relationship among CLC dimensions and different indices of school effectiveness. Moreover, these analyses supported the conceptualization of CLC and its dimensions or factors as viable organizational or school-level variables (or an independent variable set) within the school.

Results of correlational analyses suggested that the CLC construct relates to variables of perceived organizational effectiveness viewed as the results of the interrelationships among various curricular leadership process variables (School-based Leadership, Middle School Curricular Elements, and Curricular Decision Making) rather than as a results-oriented or product outcome. The Middle School Curricular Elements and School-based Leadership dimensions and, to a somewhat lesser extent, the Curricular Decision Making dimension were found to have strong and consistent relationships with the IPOE. These dimensions of CLC are best understood as curricular leadership process dimensions that interact with existing school organizational structures (structural dimensions). In addition, economically disadvantaged student populations did not alter the relationships found among these CLC dimensions and the IPOE. As a result, these

findings suggest that it makes sense to conceptualize linkages between school organizational effectiveness and CLC in middle schools in terms of the interrelationships among School-based Leadership, Middle School Curricular Elements, and Curricular Decision Making within existing school organizational structures.

It would appear that the CLC construct most relates to variables of student achievement in an indirect manner. The Middle School Curricular Elements, Curricular Decision Making, and School-based Leadership dimensions were found to have weak and positive relationships with TAKS Reading while the Middle School Curricular Elements and Curricular Decision Making dimensions were found to have weak and positive relationships with TAKS Math. In addition, economically disadvantaged student populations did not significantly alter the relationships found among the three CLC dimensions and student achievement with the notable exception of Middle School Curricular Elements and Curricular Decision Making with TAKS Science. When holding economically disadvantaged student populations constant, the relationship between these two dimensions and TAKS Science became strong and positive. These findings suggest that it makes sense to conceptualize linkages between student achievement and CLC in middle schools as largely indirect in nature. Further, economically disadvantaged student populations seem to serve as a masked, latent variable that may mediate linkages between CLC dimensions and TAKS Science.

These findings are consistent with previous investigations exploring the nature of teacher and principal effects on student achievement (Edwards et al., 2001; Marks & Louis, 1997; Pepperl & Lezotte, 2004; Sweetland & Hoy, 2000). Both the Curricular

Decision Making and Middle School Curricular Elements dimensions involve teacher decisions and actions focused on classroom-level intervention which have a direct effect on student achievement. Results from item factor loadings from this study suggest that school personnel tend to view certain types of interactions (collaborative rapport, autonomy, professional development, communicative flow, and leadership stance) with one another in terms of school-based leadership perceptions.

This conclusion is supported by teacher responses on the CLCI indicating that many teachers do not view themselves as possessing any type of leadership capacity or role within the school. As a result, teachers tend to view interpersonal interactions in the school from a principal leadership standpoint and do not distinguish between principal leadership and teacher leadership. These types of perceptions do not cultivate the development of high levels of teacher efficacy or empowerment. This general disconnect with teacher-initiated or participatory decision making – as evidenced from the weak indirect associations between Curricular Decision Making and the three school effectiveness dependent variables – results in a largely indirect effect on overall bivariate and multivariate CLC/SE linkages.

The expert judges on the content classification study rated the Curricular Decision Making items on the pre-factor analyzed CLCI as essential inclusion on the instrument and representative of a productive middle school curricular leadership culture. However, the teachers responding to the CLCI may not participate – either they choose not to participate or they may not be asked – in the curricular decisions that are made in their schools. This could explain why Curricular Decision Making did not explain very much

of the variance of the CLCI or demonstrate strong associations with the dependent variable set.

Because School-based Leadership explains most of the variance in the factor analyzed CLCI, it makes sense to describe the linkages between CLC dimensions and student achievement as indirect in nature and to further explore any mediating effects introduced by economically disadvantaged student populations between the linkages between CLC and TAKS Science (Hallinger & Heck, 1998; Heck, Larsen, & Marcoulides, 1990; Quinn, 2002). Further, it seems likely that different sources of School-based Leadership, such as classroom-level and campus-level leadership sources might help to explain further the variance in CLC/SE links.

No bivariate relationships emerged between the three dimensions of CLC and the school holding power indices of attendance and drop out rate with the exception of a weak and positive relationship between Middle School Curricular Elements and attendance. These results suggest that one or more latent variables may exist masking any linkages between CLC/SE. Respondents were unable to discriminate between differing levels of CLCI dimensions and school holding power indices – possibly as a result of rather homogenous attendance and drop out rate characteristics among usable schools in the study (see Table 2, p. 88).

High attendance rates and low drop out rates in middle schools are likely more closely associated with state compulsory attendance laws requiring students to attend school rather than with cultural elements associated with school organizations. However, there were schools with higher than average attendance rates and no drop outs at all,

resulting in slight standard deviation differences in these overall attendance and drop out averages – concluding that some schools have more favorable attendance and drop out rates than other schools.

The subtle nuances among schools with exceptionally high attendance and no drop outs may be more a result from campus-level (as opposed to classroom-level) initiatives that professional staff are unaware of or do not interact with on a regular basis. Future studies should incorporate a research design for a more subtle nuance of the holding power construct such as using teacher turnover rate and absentee rate. In addition, a more refined CLCI instrument differentiating between teacher and principal leadership efforts and/or classroom and campus organizational levels might provide further insight into any potential CLC/school holding power linkages.

Multivariate Relationships among Curricular Leadership Culture (CLC) Variables and School Effectiveness Indices

Results of multivariate analyses completed in this study provided further evidence supporting the multidimensionality of the linkages among CLC dimensions and school effectiveness. These results suggested that the three CLCI dimensions (Middle School Curricular Elements, School-based Leadership, and Curricular Decision Making) possess criterion-related validity with the multiple indices of school effectiveness (school organizational effectiveness, student achievement, and school holding power). Because of this, CLC/SE linkages are not unidimensional and cannot be explain in such a manner.

Regression analyses completed in this study suggest that CLC/SE linkages may be best understood from a middle school curricular elements/school organizational effectiveness mindset. The responsiveness of middle schools to the specific curricular and school structural and/or organizational needs of their students appears to drive the overall school organizational effectiveness perceptions of school personnel (Beane, 1990; Brown et al., 2003; Goldring, 1997; Marks & Printy, 2003; Jackson & Davis 2000). As a result, personnel perceptions of school organizational effectiveness may best be understood in terms of Middle School Curricular Elements. Because of the strong multivariate link between personnel perceptions of Middle School Curricular Elements and school organizational effectiveness, it may make sense to view Middle School Curricular Elements as an organizational CLC variable in middle schools. As a result, CLC variables and both student achievement and school holding power school effectiveness indices may be mediated by the perceptions and behaviors concerning overall school organizational effectiveness in middle schools (Sykes, 1999).

Multivariate results for the school holding power indices of attendance and drop out rate contrast with those from bivariate analyses completed and suggested that the relationship between CLC dimensions and these variables could be an important outcome of CLC in middle schools. These findings suggest that the linkages among school holding power and the set of CLC dimensions (Middle School Curricular Elements, School-based Leadership, and Curricular Decision Making) may be masked by a latent, mediating variable suggesting that some other factors more strongly influence school holding power. In addition, teachers may view attendance and drop out rate as school-

level factors within the larger school leadership culture context that are outside of their control and as a result do not perceive the linkages among school holding power indices and classroom-level interactions.

CLC in middle schools seems to be best understood as part of an overall school leadership culture construct that is primarily linked to school effectiveness processes and interactions unique to middle school organizations. Further, it would make sense to categorize CLC/SE linkages in middle schools as process-oriented focusing on personnel perceptions of overall school organizational effectiveness as measured by the IPOE. The relationships between CLC variables and student achievement and school holding power – from a middle school organizational approach – are most likely influenced by personnel perceptions of overall school organizational effectiveness.

Discriminant Analyses for a CLC Independent Variable Set and School Ratings
Categorical Variable from Overall School Mean Student Achievement Results

Discriminant analyses were performed on the CLC variable set and school accountability ratings determined by the Texas Education Agency (TEA) based on student achievement results obtained from the TAKS test in various content areas. Results of these analyses support the interdependency of the three-factor solution CLC variable set. In addition, Middle School Curricular Elements and Curricular Decision Making appear to be the most important dimensions in the CLC set for predicting school accountability ratings. The CLCI instrument demonstrated an ability to accurately predict school accountability ratings based on CLC variables. Schools receiving lower

than predicted ratings tended to have a higher economically disadvantaged student population rate than schools who received a higher than predicted rating. These findings suggest that economically disadvantaged students are not benefiting from the curricular leadership culture in middle schools. In addition, economically disadvantaged student populations – and specifically the lack of experiences necessary to build knowledge and learning school personnel assume students have when they enter school that are necessary for school success – may serve as a latent variable masking some of the linkages between CLC and student achievement in middle schools.

Research Methodology and Design Concerns

Initial development and testing of a model of CLC and its relationship to school effectiveness through the development of the CLC inventory was a major goal of this study. The CLC model developed in this study attempted to address a perceived need in the literature for a conceptual framework based on a synthesis of research on the relationship among school effectiveness, curricular leadership, and school organizational structures in middle schools. The model posits multiple links between and/or among CLC and school effectiveness variables. The comprehensive model proposed in this study conceptually defined CLC in multidimensional terms utilizing both process and structural dimensions. A CLCI was developed in this study to operationally define the CLC framework. The CLCI was designed to tap into administrator and staff perceptions about curricular leadership processes in their schools.

The large number of respondents in this study provided a large data pool for the purposes of exploratory factor analyses; however, the overall student achievement mean scores were rather homogeneous in nature demonstrating minimal standard deviations from overall means. The lack of substantial variance in many of these student achievement scores, attendance rate averages, and drop out rate averages may contribute to an inability to identify a clear and direct link between curricular leadership processes and these various indices in middle schools because of the nature of results-oriented accountability systems. While the curricular leadership process and perceptions in school organizational effectiveness in the participating schools may differ, the student achievement/school holding power indices in these schools as reflected on state accountability school rating systems are very similar. This conclusion seems to be supported by the 2007 Texas school accountability ratings release indicating that over 50% of the campuses in the state of Texas received the same accountability rating – “Academically Acceptable.” Similarly, there was a very small variance in attendance and drop out rates among schools used in this study. Future CLC studies should consider using schools from different geographic regions in the state and other indices to measure student achievement in hopes of finding more heterogeneity among school effectiveness indices.

The development and testing of both the CLC model and the CLCI instrument provided good illustrations on the difficulty of translating theory into practice. It is very important to have a clear conceptual and operational definition of both the construct and observable behaviors that underlie the construct. The high communalities among the

loaded items within the School-based Leadership dimension of the factor analyzed CLCI suggest that the overall conceptual and operational definition of the CLC construct and the observable behaviors underlying the CLC/School-based Leadership construct were too broad resulting in an inability to discriminate with depth different aspects of the School-based Leadership dimension. Consequently, while the pre-factor analyzed CLCI instrument underwent a content classification study by expert judges nationwide, these items with high factor loadings, high correlations, and high communalities nonetheless “made the cut” to the piloted CLCI instrument. Refinement of the CLCI instrument should be a major goal for any future studies with each CLCI item containing only one clearly and concisely stated idea. Further, a psychometrician should be included among the panel of expert judges for future content classification study. Future CLC studies should consider revising the CLCI with a new normative sample to provide a more clear understanding of some of the subtle nuances linking CLC and school effectiveness.

Implications

This section presents implications derived from findings and conclusions of this study. The section is divided into two parts: (1) implications for further CLC model and CLCI instrument development and (2) directions for future research.

Implications for Further CLC Model and CLCI Instrument Development

The results of this study suggest several implications that should be considered for further CLC model and CLCI instrument development endeavors: (1) this study

demonstrates that personnel perceptions of how often certain CLC behaviors occur can be measured validly and reliably; (2) findings from this study articulate the importance of carefully selecting school effectiveness indices; (3) similarly, findings from this study demonstrate the importance of clearly defining CLC variables both conceptually and operationally and linking those definitions to specific sets of behavioral criteria that would make sense and be relevant to the daily professional lives of middle school personnel; (4) while this study supports the multidimensionality of the linkages among CLC and school effectiveness in middle schools, there is still a need to probe further at both the conceptual and operational levels how CLC interacts in middle school organizations; (5) findings from this study suggest that economically disadvantaged student populations may not be benefiting from CLC in middle schools; (6) quantitative analyses provide partial insights into the surface relationships among CLC variables and school effectiveness; and (7) the multidimensionality of CLC in middle schools may require examining both between-school and within-school variable relationships utilizing mixed methods (quantitative and qualitative).

Directions for Future Research

School effectiveness research historically has been unable to find direct relationships in student achievement and school effectiveness – largely because of the inherent complexity of school organizations (Allison, 1983; Johnson & Donaldson, 2007). This study underscores the reality of culture itself as an important component when investigating complex, multidimensional aspects of school organizations and the

difficulty at identifying direct relationships in student achievement and school effectiveness. Further, finding real understandings in these complex relationships involves identifying and exploring culture mediating variables that explain how different school-level components interact in unique situations. Survey instruments alone are unable to identify and explain how these context dependent variables mediate in different school settings and as a result require the utilization of follow up interviews or some sort of interaction with the people who work within the organizational structures of schools to elicit their perceptions on how specific interactions occur involving CLC/SE interactions. This study underscores the importance of the identification of mediating variables in describing interrelationships among the various CLC/SE linkages.

School-based leadership literature continues to explore the impact of teacher curricular leadership on student achievement typically finding that teacher leader roles are seldom well defined (Johnson & Donaldson, 2007; Ingersoll, 2007; Knight, 2006). This study reinforces the notion that CLC itself and how teachers interact with this construct – both politically and within the cultural norms of the school – are not always supported or well articulated within existing school organizational structures (Haselhuhn, Al-Mabuk, Gabriele, Groen, & Galloway, 2007). Findings from this study support the notion that teachers do not discriminate between teacher-led and principal-led efforts in the school and do not view curricular decision making as providing direct effects on overall student achievement – possibly because teachers do not participate in curricular decision making at the campus-level with any great depth. Further qualitative exploratory investigations designed to build upon the initial CLC construct could provide

clarification on some of the mediating cultural variables in school organizations concerning how teacher curricular leadership and Curricular Decision Making could provide more of a direct effect on student achievement through focusing on professional development and improvement of instructional decisions (Graham, 2007; Looney, 2007; Reason & Reason, 2007)

The findings and conclusions from this study suggest various possibilities for continued research exploring the CLC construct. First, there is a need for continued development and refinement of the CLC model and CLCI instrument. Second, administrator responses concerning perceived CLC/SE linkages in their schools were not separated from professional staff perceptions suggesting that future investigations might probe how administrators interact with separate dimensions of school effectiveness. Similarly, it would be interesting to explore if any school-level characteristics tend to be associated with differences in CLC/SE perceptions between administrators and professional staff and to identify contextual variables that may explicate these variances. Third, school leadership culture dynamics at both the classroom-level and campus-level could be explored to further explicate the various sources and impact of leadership efforts within the school and how they interact with CLC/SE linkages in middle schools. Fourth, incorporating a new dimension – Economically Disadvantaged Student Populations – into the overall CLC framework might illuminate important aspects of a school’s overall organizational CLC to re-engage these students with the school community. Specifically, the types of behaviors teachers take to provide shared experiences for economically disadvantaged students to better prepare them for school success might provide insightful

links to CLC/SE. Fifth, because only indirect effects or weak directional associations were found between CLC dimensions and student achievement, incorporating other measures of student achievement such as participation in school-related activities (e.g., UIL academics, athletics, band, and/or school-sponsored club events), types of elective courses taken, and numbers of advanced courses taken might yield more direct effects among these variables. Similarly, incorporating an additional dependent variable focusing on non-cognitive behavior such as discipline referrals or positive behavior referrals could provide intriguing findings further explaining the link among CLC/SE variables. Sixth, because only indirect or no relationships were found between CLC dimensions and school holding power, incorporating other measures of holding power such as teacher absentee and turnover rate might yield more direct effects among these variables. Seventh, because of the complex nature of middle school organizations and the multidimensional nature of CLC/SE linkages in middle schools, follow up qualitative interviews probing context-specific interrelationships of the various CLC dimensions interacting among existing school organizational structures could provide specific contextual clues about the unique characteristics of individual school organizations.

The consideration of follow-up qualitative investigations after quantitative survey investigation would provide the researcher with specific context relevant information linking specific CLC dimensions with school effectiveness outcomes that otherwise would be too subtle for survey instruments to detect or provide value-added insight. These culturally and politically embedded aspects of everyday school life could be revealed through focus group or one-on-one interviewing of school personnel to elicit

their perceptions on how they interact with the multidimensional aspects of CLC in their schools. Similarly, qualitative investigations of schools that yield similar demographic and CLCI results but differ in some way would provide very compelling insights into how the curricular leadership culture interacts in each school to produce the difference between schools. Further, these insights could identify variables that mediate CLC/SE linkages in different and unique ways in each school.

Schools that are the same in every characteristic but differ in one area could be paired together for further comparisons and investigations. These schools would serve as comparison-pair schools that would be identified from quantitative survey results. The only possible explanation for differences in schools that differ in only one area but are the same in every other characteristic and outcome would be the way the CLC construct interacts in that specific school setting. Qualitative interviews are the only way to probe deeply and identify these subtle cultural differences. In addition, these interviews could potentially probe to a deeper level of individual staff members' perceptions concerning how the various CLC dimensions interact within their school. Subsequent between-schools analyses could follow to make observations about the inter-workings of these complex school organizations.

Summary

Chapter Six began with a review of the overall structure and purpose of the study. Next, major findings and conclusions of the study were delineated. A discussion was presented addressing the conceptual validity of the Model of Curricular Leadership

Culture (CLC) in Middle Schools and the Curricular Leadership Culture Inventory

(CLCI) instrument construct validity, major findings and conclusions pertinent to research questions, and research methodology and design concerns. This chapter concluded with an examination of potential directions for future CLC/SE research and addressed the usefulness of the CLC/SE framework for yielding further testable research hypotheses.

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APPENDIX A: SURVEY INSTRUMENT SET USED IN DATA COLLECTION

Appendix A.1
Curricular Leadership Culture Inventory

Please mark an “X” in the corresponding box on how often each stated behavior occurs in your school.

The stated behavior occurs:

- 1 = rarely
2 = sometimes
3 = often
4 = very often

		1	2	3	4
1	My school plans its activities based on young adolescents’ physical, psychosocial, and cognitive development needs.				
2	The school faculty and staff in my school are trained in young adolescent development and are experts at teaching 10- to 15-year-olds.				
3	The school ensures success for all middle school students in at least one area of participation in some type of school activity.				
4	The school has in place strategies for re-engaging families in the education of middle school students.				
5	Curricular decisions and extracurricular plans are based on young adolescent development and effective middle school practices.				
6	Encouraging a positive self-concept is viewed as crucial to young adolescents’ overall development.				
7	The curriculum standards in my school are concerned with the important concepts of various academic areas.				
8	The curriculum standards in my school address what students will need to know and be able to do in the real world.				
9	Curriculum standards in my school foster creative, critical, and higher-order thinking skills.				
10	Curriculum standards in my school provoke and sustain student interest.				
11	Curriculum standards in my school connect with student experiences, understandings, and interests.				
12	When planning units of study, teachers plan instruction based on desired student outcomes.				
13	Teachers meet regularly to discuss student progress.				
14	Classes are planned around the different learning styles and preferences of students.				
15	Projects involve coursework in different classes.				
16	Teachers work together to develop projects for students to complete.				
17	Objectives in each subject are the focal point of instruction.				
18	The curriculum, instruction, and assessment are aligned with teaching objectives.				
19	Teachers plan activities that develop critical thinking skills.				
20	The results of in-class assessments are used to examine students’ strengths and weaknesses and to give feedback to students.				
21	Students are given specific feedback on homework and class assignments.				

		1	2	3	4
22	The teachers and principal thoroughly review and analyze test results to plan instructional program modifications.				
23	The principal facilitates the implementation of sound, research-based instructional strategies, decisions, and programs in which multiple opportunities to learn and be successful are available to all students.				
24	Walkthrough and formative evaluations are used to modify instructional strategies, when appropriate.				
25	Teachers apply consistent criteria to assigning grades among all classes.				
26	The principal accepts questions without appearing to snub or squash the teacher.				
27	The principal discusses classroom issues with teachers.				
28	Teachers routinely observe and critique other classroom teaching.				
29	The faculty and staff are provided opportunities to provide input and examples of good teaching techniques during faculty meetings.				
30	Teachers work together to develop instructional units.				
31	The principal is able to demonstrate effective communication through oral, written, auditory, and nonverbal expression.				
32	The principal utilizes conflict management and group consensus building skills.				
33	Administrators support teachers in dealing with student discipline matters.				
34	Teachers feel comfortable to approach the principal about initiating school wide initiatives.				
35	Teachers feel comfortable to approach the principal about initiating classroom initiatives.				
36	Teachers feel comfortable in approaching the principal about initiating grade-level initiatives.				
37	Teachers take ownership in the school.				
38	Teachers feel comfortable handling discipline problems in the classroom without involving the principal.				
39	Teachers typically take the initiative to provide tutoring when a student needs additional help.				
40	The principal collaboratively develops, implements, and revises a comprehensive and on-going plan for professional development of campus staff which addresses staff needs and aligns professional development with identified goals.				
41	The principal facilitates the application of adult learning and motivation theory to all campus professional development, including the use of appropriate content, processes, and contexts.				
42	Faculty and staff value professional development.				
43	Faculty and staff make instructional changes based on what they learn during professional development.				
44	The effective implementation of the professional development plan is ensured by the allocation of appropriate time, funding, and other needed resources.				
45	The principal approaches problem through careful analysis.				
46	The principal is politically sensitive and skillful.				
47	The principal leads with an emphasis on school values.				
48	The principal develops partnerships to strengthen programs and support campus goals.				
49	The principal facilitates the collaborative development of a shared campus vision that focuses on teaching and learning.				

		1	2	3	4
50	The principal facilitates the collaborative development of a plan in which objectives and strategies to implement the campus vision are clearly articulated.				
51	The principal has a visible and constant presence in the school.				
52	The principal delegates leadership tasks to other teachers.				
53	The principal is highly visible, making frequent informal contact with students and teachers.				
54	The principal seeks ideas and suggestions from the staff.				
55	The principal and teachers communicate effectively with families and the community.				
56	The principal lets the faculty and staff know what is expected of them.				
57	My principal provides some sort of weekly or monthly schedule of events so teachers can plan instruction around school activities.				

Thank you!

Appendix A.2
Index of Perceived Organizational Effectiveness
(IPOE)

1. Thinking now of the various things produced by the people you know in your school, how much are they producing?

1 – Their production is very low

2 – It is fairly low

3 – It is neither high nor low

4 – It is fairly high

5 – It is very high

2. How good would you say is the quality of the products or services produced by the people you know in your school?

1 – Their products or services are of poor quality

2 – Their quality is not too good

3 – Fair quality

4 – Good quality

5 – Excellent quality

3. Do the people in your school seem to get maximum output from the resources (money, people, equipment, etc.) they have available? That is, how efficiently do they do their work?

1 – They do not work efficiently at all

2 – Not too efficient

3 – Fairly efficient

4 – They are very efficient

5 – They are extremely efficient

4. How good a job is done by the people in your school in anticipating problems that may come up in the future and preventing them from occurring or minimizing their effects?

1 – They do a poor job in anticipating problems

2 – Not too good a job

3 – A fair job

4 – They do a very good job

5 – They do an excellent job in anticipating problems

5. From time to time newer ways are discovered to organize work, and newer equipment and techniques are found with which to do the work. How good a job do the people in your school do at keeping up with those changes that could affect the way they do their work?

- 1 – They do a poor job of keeping up to date
- 2 – Not too good a job
- 3 – A fair job
- 4 – They do a good job
- 5 – They do an excellent job of keeping up to date

6. When changes are made in the routines or equipment, how quickly do the people in your school accept and adjust to these changes?

- 1 – Most people accept and adjust to them very slowly
- 2 – Rather slowly
- 3 – Fairly rapidly
- 4 – They adjust very rapidly, but not immediately
- 5 – Most people accept and adjust to them immediately

7. What proportion of the people in your school readily accept and adjust to these changes?

- 1 – Considerable less than half of the people accept and adjust to these changes readily
- 2 – Slightly less than half do
- 3 – The majority do
- 4 – Considerable more than half do
- 5 – Practically everyone accepts and adjusts to these changes readily

8. From time to time emergencies arise, such as crash programs, schedules moved ahead, or a breakdown in the flow of work occurs. When these emergencies occur, they cause work overloads for many people. Some work groups cope with these emergencies more readily and successfully than others. How good a job do the people in your division do at coping with these situations?

- 1 – They do a poor job of handling emergency situations
- 2 – They do not do very well
- 3 – They do a fair job
- 4 – They do a good job
- 5 – They do an excellent job of handling these situations

APPENDIX B: DESCRIPTIVE STATISTICAL TABLES

Appendix B.1 – Summary of Descriptive Statistics for Each Item of the CLCI

Items	N	Mean	Standard Deviation
C1 My school plans its activities based on young adolescents' physical, psychosocial, and cognitive development needs.	1400	3.15	.735
C2 The school faculty and staff in my school are trained in young adolescent development and are experts at teaching 10- to 15-year-olds.	1400	3.02	.761
C3 The school ensures success for all middle school students in at least one area of participation in some type of school activity.	1391	3.07	.793
C4 The school has in place strategies for re-engaging families in the education of middle school students.	1392	2.52	.836
C5 Curricular decisions and extracurricular plans are based on young adolescent development and effective middle school practices.	1390	3.04	.757
C6 Encouraging a positive self-concept is viewed as crucial to young adolescents' overall development.	1391	3.24	.735
C7 The curriculum standards in my school are concerned with the important concepts of various academic areas.	1386	3.40	.710
C8 The curriculum standards in my school address what students will need to know and be able to do in the real world.	1386	3.02	.824
C9 Curriculum standards in my school foster creative, critical, and higher-order thinking skills.	1382	3.09	.790
C10 Curriculum standards in my school provoke and sustain student interest.	1384	2.87	.775
C11 Curriculum standards in my school connect with student experiences, understandings, and interests.	1382	2.88	.781
C12 When planning units of study, teachers plan instruction based on desired student outcomes.	1385	3.22	.752

Appendix B.1 – Summary of Descriptive Statistics for Each Item of the CLCI, continued

Items	N	Mean	Standard Deviation
C13 Teachers meet regularly to discuss student progress.	1392	3.05	.984
C14 Classes are planned around different learning styles and preferences of students.	1385	2.65	.945
C15 Projects involve coursework in different classes.	1388	2.53	.942
C16 Teachers work together to develop projects for students to complete.	1381	2.41	.994
C17 Objectives in each subject are the focal point of instruction.	1377	3.34	.794
C18 The curriculum, instruction, and assessment are aligned with teaching objectives.	1384	3.51	.729
C19 Teachers plan activities that develop critical thinking skills.	1382	3.11	.858
C20 The results of in-class assessments are used to examine students' strengths and weaknesses and to give feedback to students.	1377	3.27	.842
C21 Students are given specific feedback on homework and class assignments.	1383	3.28	.853
C22 The teachers and principal thoroughly review and analyze test results to plan instructional program modifications.	1383	3.27	.949
C23 The principal facilitates the implementation of sound, research-based instructional strategies, decisions, and programs in which multiple opportunities to learn and be successful are available to all students.	1378	3.10	.994
C24 Walkthrough and formative evaluations are used to modify instructional strategies, when appropriate.	1385	2.94	1.042
C25 Teachers apply consistent criteria to assigning grades among all classes.	1375	3.24	.932
C26 The principal accepts questions without appearing to snub or squash the teacher.	1387	3.31	1.033

Appendix B.1 – Summary of Descriptive Statistics for Each Item of the CLCI, continued

Items	N	Mean	Standard Deviation
C27 The principal discusses classroom issues with teachers.	1387	3.20	1.054
C28 Teachers routinely observe and critique other classroom teaching.	1381	1.78	1.145
C29 The faculty and staff are provided opportunities to provide input and examples of good teaching techniques during faculty meetings.	1385	2.32	1.235
C30 Teachers work together to develop instructional units.	1387	2.63	1.219
C31 The principal is able to demonstrate effective communication through oral, written, auditory, and nonverbal expression.	1387	3.22	1.121
C32 The principal utilizes conflict management and group consensus building skills.	1370	2.85	1.224
C33 Administrators support teachers in dealing with student discipline matters.	1382	3.22	1.170
C34 Teachers feel comfortable to approach the principal about initiating school wide initiatives.	1382	3.14	1.220
C35 Teachers feel comfortable to approach the principal about initiating classroom initiatives.	1375	3.23	1.210
C36 Teachers feel comfortable in approaching the principal about initiating grade-level initiatives.	1381	3.18	1.239
C37 Teachers take ownership in the school.	1386	3.17	1.246
C38 Teachers feel comfortable handling discipline problems in the classroom without involving the principal.	1381	3.20	1.211
C39 Teachers typically take the initiative to provide tutoring when a student needs additional help.	1385	3.48	1.178

Appendix B.1 – Summary of Descriptive Statistics for Each Item of the CLCI, continued

Items	N	Mean	Standard Deviation
C40 The principal collaboratively develops, implements, and revises a comprehensive and on-going plan for professional development of campus staff needs and aligns professional development with identified goals.	1378	3.07	1.299
C41 The principal facilitates the application of adult learning and motivation theory to all campus professional development, including the use of appropriate content, processes, and contexts.	1370	2.84	1.349
C42 Faculty and staff value professional development.	1385	2.83	1.357
C43 Faculty and staff make instructional changes based on what they learn during professional development.	1382	2.82	1.345
C44 The effective implementation of the professional development plan is ensured by the allocation of appropriate time, funding, and other needed resources.	1372	2.82	1.366
C45 The principal approaches problem solving through careful analysis.	1373	3.07	1.406
C46 The principal is politically sensitive and skillful.	1379	3.16	1.438
C47 The principal leads with an emphasis on school values.	1379	3.39	1.416
C48 The principal develops partnerships to strengthen programs and support campus goals.	1375	3.19	1.476
C49 The principal facilitates the collaborative development of a shared campus vision that focuses on teaching and learning.	1378	3.27	1.471

Appendix B.1 – Summary of Descriptive Statistics for Each Item of the CLCI, continued

Items	N	Mean	Standard Deviation
C50 The principal facilitates the collaborative development of a plan in which objectives and strategies to implement the campus vision are clearly articulated.	1376	3.16	1.505
C51 The principal has a visible and constant presence in the school.	1378	3.38	1.540
C52 The principal delegates leadership tasks to other teachers.	1379	3.16	1.542
C53 The principal is highly visible, making frequent informal contact with students and teachers.	1384	3.31	1.606
C54 The principal seeks ideas and suggestions from the staff.	1377	3.09	1.657
C55 The principal and teachers communicate effectively with families and the community.	1377	3.14	1.609
C56 The principal lets the faculty and staff know what is expected of them.	1378	3.39	1.615
C57 The principal provides some sort of weekly or monthly schedule of events so teachers can plan instruction around school activities.	1379	3.46	1.670

Appendix B.2
Summary of Descriptive Statistics for Each Item of the IPOE

Items	N	Mean	Standard Deviation
IPOE 1 Thinking of the various products or services produced by the people you know in your school, how much are they producing?	1539	3.80	.808
IPOE 2 How good would you say is the quality of the products or services produced by the faculty and staff in your school?	1539	4.08	.694
IPOE 3 Do the people in your school seem to get maximum output from the resources (money, people, equipment, etc.) they have available? That is, how efficiently do they do their work?	1539	3.74	.741
IPOE 4 How good a job is done by the people in your school in anticipating problems that may come up in the future and preventing them from occurring or minimizing their effects?	1539	3.67	.840
IPOE 5 From time to time newer ways are discovered to organize work, and newer equipment and techniques are found with which to do the work. How good a job do the people in your school do at keeping up with those changes that could affect the way they do their work?	1539	3.76	.836
IPOE 6 When changes are made in the routines or equipment, how quickly do the people in your school accept and adjust to these changes?	1539	3.41	1.037
IPOE 7 What proportion of the people in your school readily accept and adjust to these changes?	1539	3.44	1.042
IPOE 8 From time to time emergencies arise, such as crash programs, schedules moved ahead, or a breakdown in the flow of work occurs. When these emergencies occur, they cause work overloads for many people. Some work groups cope with these emergencies more read	1539	3.94	.843

APPENDIX C: ITEM CONTENT LISTING OF FACTORED CLCI

Items	N	Mean	Standard Deviation
Middle School Curricular Elements			
C1 My school plans its activities based on young adolescents' physical, psychosocial, and cognitive development needs.	1400	3.15	.735
C2 The school faculty and staff in my school are trained in young adolescent development and are experts at teaching 10- to 15-year-olds.	1400	3.02	.761
C3 The school ensures success for all middle school students in at least one area of participation in some type of school activity.	1391	3.07	.793
C4 The school has in place strategies for re-engaging families in the education of middle school students.	1392	2.52	.836
C5 Curricular decisions and extracurricular plans are based on young adolescent development and effective middle school practices.	1390	3.04	.757
C6 Encouraging a positive self-concept is viewed as crucial to young adolescents' overall development.	1391	3.24	.735
C7 The curriculum standards in my school are concerned with the important concepts of various academic areas.	1386	3.40	.710
C8 The curriculum standards in my school address what students will need to know and be able to do in the real world.	1386	3.02	.824
Curricular Decision Making			
C12 When planning units of study, teachers plan instruction based on desired student outcomes.	1385	3.22	.752
C13 Teachers meet regularly to discuss student progress.	1392	3.05	.984

Appendix C – Item Content Listing of Factored CLCI, continued

Items	N	Mean	Standard Deviation
C15 Projects involve coursework in different classes.	1388	2.53	.942
C16 Teachers work together to develop projects for students to complete.	1381	2.41	.994
C17 Objectives in each subject are the focal point of instruction.	1377	3.34	.794
C18 The curriculum, instruction, and assessment are aligned with teaching objectives.	1384	3.51	.729
C19 Teachers plan activities that develop critical thinking skills.	1382	3.11	.858
C20 The results of in-class assessments are used to examine students' strengths and weaknesses and to give feedback to students.	1377	3.27	.842
C21 Students are given specific feedback on homework and class assignments.	1383	3.28	.853
School-based Leadership			
C23 The principal facilitates the implementation of sound, research-based instructional strategies, decisions, and programs in which multiple opportunities to learn and be successful are available to all students.	1378	3.10	.994
C24 Walkthrough and formative evaluations are used to modify instructional strategies, when appropriate.	1385	2.94	1.042
C28 Teachers routinely observe and critique other classroom teaching.	1381	1.78	1.145
C29 The faculty and staff are provided opportunities to provide input and examples of good teaching techniques during faculty meetings.	1385	2.32	1.235
C33 Administrators support teachers in dealing with student discipline matters.	1382	3.22	1.170
C37 Teachers take ownership in the school.	1386	3.17	1.246

Appendix C – Item Content Listing of Factored CLCI, continued

Items	N	Mean	Standard Deviation
C38 Teachers feel comfortable handling discipline problems in the classroom without involving the principal.	1381	3.20	1.211
C40 The principal collaboratively develops, implements, and revises a comprehensive and on-going plan for professional development of campus staff needs and aligns professional development with identified goals.	1378	3.07	1.299
C41 The principal facilitates the application of adult learning and motivation theory to all campus professional development, including the use of appropriate content, processes, and contexts.	1370	2.84	1.349
C42 Faculty and staff value professional development.	1385	2.83	1.357
C43 Faculty and staff make instructional changes based on what they learn during professional development.	1382	2.82	1.345
C44 The effective implementation of the professional development plan is ensured by the allocation of appropriate time, funding, and other needed resources.	1372	2.82	1.366
C49 The principal facilitates the collaborative development of a shared campus vision that focuses on teaching and learning.	1378	3.27	1.471
C50 The principal facilitates the collaborative development of a plan in which objectives and strategies to implement the campus vision are clearly articulated.	1376	3.16	1.505
C52 The principal delegates leadership tasks to other teachers.	1379	3.16	1.542
C55 The principal and teachers communicate effectively with families and the community.	1377	3.14	1.609

Appendix C – Item Content Listing of Factored CLCI, continued

Items	N	Mean	Standard Deviation
C56 The principal lets the faculty and staff know what is expected of them.	1378	3.39	1.615
C57 The principal provides some sort of weekly or monthly schedule of events so teachers can plan instruction around school activities.	1379	3.46	1.670

APPENDIX D: CONCEPTUAL DEFINITIONS OF CLCI FACTOR
SUBSCALES/DIMENSIONS

Dimension – Middle School Curricular Elements (MSCE)

Middle school curricular elements involve school organizational approaches targeted for middle school students' physical, psychosocial, and cognitive developmental characteristics and their interaction with a curriculum based on content standards organized around concepts and principles.

Subdimensions:

Developmentally appropriate curriculum is a school organizational approach providing curricular experiences designed specifically for middle school students' physical, psychosocial, and cognitive developmental characteristics.

Rigorous standards curriculum refers to curriculum based on content standards and organized around concepts and principles.

Dimension – Curricular Decision Making (CDM)

Curricular decision making describes the types of data and the way they are used to make instructional and planning decisions using a variety of approaches for middle school students.

Subdimensions:

Instructional methods refer to the various ways teachers plan instruction using a variety of exploratory, integrated, and interdisciplinary approaches for middle school students.

Data-driven decision making describes the types of data and the way they are used to make instructional decisions.

Dimension – School-based Leadership (SBL)

School-based leadership refers to the types and sources of leadership in the school impacting how information is communicated, the availability of researched-based practices and learning opportunities for teachers, the degree teachers work together and with the principal, and the degree which teachers make decisions in the school.

Subdimensions:

Collaborative rapport describes the degree teachers work together and with the principal in the school.

Autonomy refers to the degree teachers make decisions in the school.

Professional development refers to the availability of researched-based practices and learning opportunities for teachers.

Leadership stance underscores the types and sources of leadership in the school.

Communicative flow refers to how information is communicated in the school and the methods used for communication.

APPENDIX E: CONTENT CLASSIFICATION STUDY PROCESSES FOR CLCI

Appendix E.1
Content Classification Study Guidelines

April 20, 2007

Dear Reviewer,

Thank you for reviewing the attached sample items under consideration for inclusion in a scale measuring teacher and principal perceptions of different factors contributing to overall levels curricular leadership culture and school effectiveness. Each sample item attempts to measure teacher and principal perceptions of how often a behavior occurs in their school.

Sample items are categorized in dimensions that contribute to on overall curricular leadership culture in a school. The dimensions are: (1) middle school curricular elements, (2) curricular decision making, and (3) school-based leadership. Each dimension is divided into three separate subdimensions with sample items attempting to provide descriptions of behaviors that are essential and useful for understanding how the subdimension contributes to curricular leadership.

Directions are provided on each page on how to provide feedback concerning each these sample items. **If at all possible, please return this document with your feedback through e-mail as an attachment to me by Tuesday, April 24th.**

Again, thank you for your assistance in reviewing these sample items.

Sincerely,

Jerry Adams
jwadams@newdealisd.net

Appendix E.2
Content Classification Study Form

This section presents the blank content classification study distributed to the expert judges.

Dimension 1 – Middle School Curricular Elements
Subdimension 1 – Developmentally Appropriate Curriculum

Purpose: The following are tentative items being considered for inclusion to a scale focusing on developmentally appropriate curriculum as a subdimension of middle school curricular elements.

Definitions:

- *Curricular leadership* (CL) is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- *Developmentally appropriate curriculum* is a school organizational approach providing curricular experiences designed specifically for middle school students’ physical, psychosocial, and cognitive developmental characteristics.

Goal of Task: To help determine the most essential and useful items that describe curriculum that is developmentally appropriate which contributes to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing developmentally appropriate curriculum that contributes to a school’s overall curricular leadership profile.

1 = not necessary
2 = useful but not essential
3 = essential and useful

		1	2	3
1	My school plans its activities based on young adolescents’ physical, psychosocial, and cognitive development needs.			
2	The school faculty and staff in my school are trained in young adolescent development and are experts at teaching 10- to 15-year-olds.			
3	My school provides opportunities in the schedule on a routine basis for students to have close, caring relationships with both adults and peers.			
4	The school ensures success for all middle school students in at least one area of participation in some type of school activity.			
5	The school has in place strategies for re-engaging families in the education of middle school students.			
6	The school routinely involves students in community service activities.			
7	Curricular decisions and extracurricular plans are based on young adolescent development and effective middle school practices.			
8	Students are provided with plenty of opportunities for physical exercise.			
9	There is an understanding that friendships are important for the social development of middle school students is encouraged through developmentally appropriate school activities.			
10	Encouraging a positive self-concept is viewed as crucial to young adolescents’ overall development.			

Please provide a reason for those items listed in the “useful but not essential” category.

**Dimension 1 – Middle School Curricular Elements
Subdimension 2 – Rigorous Standards Curriculum**

Purpose: The following are tentative items being considered for inclusion to a scale focusing on rigorous standards curriculum as a subdimension of middle school curricular elements.

Definitions:

- *Curricular leadership* (CL) is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- *Rigorous standards curriculum* refers to curriculum based on content standards and organized around concepts and principles.

Goal of Task: To help determine the most essential and useful items that describe curriculum that is grounded in rigorous standards that contribute to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing rigorous standards curriculum that contributes to a school’s overall curricular leadership profile.

- 1 = not necessary**
2 = useful but not essential
3 = essential and useful

		1	2	3
1	The curriculum standards in my school are concerned with the important concepts of various academic areas.			
2	The curriculum standards in my school address what students will need to know and be able to do in the real world.			
3	Curriculum standards in my school are challenging and focus on content depth rather than breadth.			
4	It is possible for students to demonstrate master of every curricular standard in each class.			
5	Curriculum standards in my school foster creative, critical, and higher-order thinking skills.			
6	Curriculum standards in my school provoke and sustain student interest.			
7	In my school curriculum standards in one content area relate to standards in other content areas.			
8	The curriculum is guided by rigorous standards from the community.			
9	Curriculum standards in my school connect with student experiences, understandings, and interests.			
10	When planning units of study, teachers plan instruction based on desired student outcomes.			

Please provide a reason for those items listed in the “useful but not essential” category.

**Dimension 1 – Middle School Curricular Elements
Subdimension 3 – Instructional Methods**

Purpose: The following are tentative items being considered for inclusion to a scale focusing on instructional methods as a subdimension of middle school curricular elements.

Definitions:

- *Curricular leadership* (CL) is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- *Instructional methods* refer to the various ways teachers plan instruction using a variety of exploratory, integrated, and interdisciplinary approaches for middle school students.

Goal of Task: To help determine the most essential and useful items that describe instructional methods that contribute to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing instructional methods that contribute to a school’s overall curricular leadership profile.

- 1 = not necessary**
2 = useful but not essential
3 = essential and useful

		1	2	3
1	Teachers meet regularly to discuss student progress.			
2	Students are scheduled into teams and each team has the same teachers.			
3	Teachers provide input into developing student schedules.			
4	Student schedules are based on student needs and not what is convenient for the school or teachers.			
5	Part of the school’s curriculum focuses on students exploring potential careers.			
6	Students have opportunities to explore different career opportunities within the curriculum.			
7	Student interests are important considerations when planning classroom activities.			
8	Student interests are important considerations when planning school-wide activities.			
9	Separate school activities are planned with a “bigger picture” in mind relating to whole school goals.			
10	Students are aware of their different learning styles and preferences.			
11	Classes are planned around the different learning styles and preferences of students.			
12	Projects involve coursework in different classes.			
13	Teachers work together to develop projects for students to complete.			
14	Student work on thematic units is publicly displayed in the school.			
15	Students provide input into thematic units.			
16	Lesson topics are approached through an integrative framework combining components from different content areas.			
17	Grades on projects are sometimes shared between different classes because of the project nature of the assignment.			

Please provide a reason for those items listed in the “useful but not essential” category.

Dimension 2 – Curricular Decision Making
Subdimension 1 – Data-driven Decision Making

Purpose: The following are tentative items being considered for inclusion to a scale focusing on data-driven decision making as a subdimension of curricular decision making.

Definitions:

- *Curricular leadership* (CL) is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- *Data-driven decision making* describes the types of data and the way they are used to make instructional decisions.

Goal of Task: To help determine the most essential and useful items that describe data-driven decision making that contribute to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing data-driven decision making behaviors that contribute to a school’s overall curricular leadership profile.

- 1 = not necessary**
2 = useful but not essential
3 = essential and useful

		1	2	3
1	Objectives in each subject are the focal point of instruction.			
2	The curriculum, instruction, and assessment are aligned with teaching objectives.			
3	Teachers plan activities that develop critical thinking skills.			
4	The results of in-class assessments are used to examine students’ strengths and weaknesses and to give feedback to students.			
5	Students are given specific feedback on homework and class assignments.			
6	The teachers and principal thoroughly review and analyze test results to plan instructional program modifications.			
7	Students are offered multiple opportunities to practice new skills in both group and individual settings.			
8	Teachers are encouraged to participate in formal and informal decision-making committees or groups.			
9	The principal uses emerging issues, trends, demographic data, student learning data, and other information as a basis for campus curriculum planning.			
10	The principal facilitates the development of a campus learning organization that supports instructional improvement and change through an on-going study of relevant research and best practices.			
11	The principal facilitates the implementation of sound, research-based instructional strategies, decisions, and programs in which multiple opportunities to learn and be successful are available to all students.			
12	Walkthrough and formative evaluations are used to modify instructional strategies, when appropriate.			

Please provide a reason for those items listed in the “useful but not essential” category.

**Dimension 2 – Curricular Decision Making
Subdimension 2 – Collaborative Rapport**

Purpose: The following are tentative items being considered for inclusion to a scale focusing on collaborative rapport as a subdimension of curricular decision making.

Definitions:

- *Curricular leadership* (CL) is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- *Collaborative rapport* describes the degree teachers work together and with the principal in the school.

Goal of Task: To help determine the most essential and useful items that describe collaborative rapport that contribute to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing collaborative rapport that contribute to a school’s overall curricular leadership profile.

- 1 = not necessary**
2 = useful but not essential
3 = essential and useful

		1	2	3
1	Teachers apply consistent criteria to assigning grades among all classes.			
2	The principal communicates a strong vision.			
3	The teachers in this school like each other.			
4	The principal treats all faculty members as his or her equal.			
5	The principal accepts questions without appearing to snub or squash the teacher.			
6	The principal discusses classroom issues with teachers.			
7	Teachers routinely observe and critique other classroom teaching.			
8	Important curricular decisions reflect school wide community consensus.			
9	The faculty and staff are provided opportunities to provide input and examples of good teaching techniques during faculty meetings.			
10	Teachers work together to develop instructional units.			
11	The principal invites teachers to be part of the hiring committee for new personnel.			
12	The principal is able to demonstrate effective communication through oral, written, auditory, and nonverbal expression.			
13	The principal utilizes conflict management and group consensus building skills.			
14	The principal implements effective strategies to systematically gather input from all campus stakeholders.			
15	The principal develops and implements strategies for effective internal and external communications.			

Please provide a reason for those items listed in the “useful but not essential” category.

**Dimension 2 – Curricular Decision Making
Subdimension 3 – Autonomy**

Purpose: The following are tentative items being considered for inclusion to a scale focusing on autonomy as a subdimension of curricular decision making.

Definitions:

- *Curricular leadership* (CL) is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- *Autonomy* refers to the degree teachers make decisions in the school.

Goal of Task: To help determine the most essential and useful items that describe how autonomy contributes to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing how autonomy contributes to a school’s overall curricular leadership profile.

- 1 = not necessary**
2 = useful but not essential
3 = essential and useful

		1	2	3
1	Administrators support teachers in dealing with student discipline matters.			
2	The principal supports innovative thinking and risk-taking efforts of everyone within the school community and views unsuccessful experiences as learning opportunities.			
3	Teachers feel comfortable to approach the principal about initiating school wide initiatives.			
4	Teachers feel comfortable to approach the principal about initiating classroom initiatives.			
5	Teachers feel comfortable in approaching the principal about initiating grade-level initiatives.			
6	Teachers take ownership in the school.			
7	Teachers volunteer to help with school improvement projects, even when they occur after school hours.			
8	Faculty and staff are expected to take ownership of their assigned duties and perform them with excellence.			
9	Teachers feel comfortable handling discipline problems in the classroom without involving the principal.			
10	Teachers typically take the initiative to provide tutoring when a student needs additional help.			

Please provide a reason for those items listed in the “useful but not essential” category.

Dimension 3 – School-based Leadership
Subdimension 1 – Professional Development

Purpose: The following are tentative items being considered for inclusion to a scale focusing on professional development as a subdimension of school-based leadership.

Definitions:

- *Curricular leadership* (CL) is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- *Professional development* refers to the availability of researched-based practices and learning opportunities for teachers.

Goal of Task: To help determine the most essential and useful items that describe professional development that contributes to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing professional development that contributes to a school’s overall curricular leadership profile.

1 = not necessary
2 = useful but not essential
3 = essential and useful

		1	2	3
1	Norms for conduct that foster collegiality and professionalism among the faculty and staff and administration have been established.			
2	The types of professional development activities offered is based on student performance data.			
3	Teachers are engaged in staff development activities that address specific content area issues and allow for “hands on” trial and evaluation of specific techniques.			
4	The principal recognizes and rewards teachers for practicing research-based teaching strategies.			
5	Faculty meetings usually focus on group adult learning.			
6	The principal models good teaching techniques/behaviors during faculty meetings.			
7	The principal models and promotes the continuous and appropriate development of all learners in the campus community.			
8	The principal collaboratively develops, implements, and revises a comprehensive and on-going plan for professional development of campus staff which addresses staff needs and aligns professional development with identified goals.			
9	The principal facilitates the application of adult learning and motivation theory to all campus professional development, including the use of appropriate content, processes, and contexts.			
10	Faculty and staff value professional development.			
11	Faculty and staff make instructional changes based on what they learn during professional development.			
12	The success of professional development activities is determined by increases in student achievement.			
13	The effective implementation of the professional development plan is ensured by the allocation of appropriate time, funding, and other needed resources.			

Please provide a reason for those items listed in the “useful but not essential” category.

**Dimension 3 – School-based Leadership
Subdimension 2 – Leadership Stance**

Purpose: The following are tentative items being considered for inclusion to a scale focusing on leadership stance as a subdimension of school-based leadership.

Definitions:

- *Curricular leadership* (CL) is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- *Leadership stance* underscores the types and sources of leadership in the school.

Goal of Task: To help determine the most essential and useful items that describe leadership stance that contribute to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing leadership stance that contributes to a school’s overall curricular leadership profile.

- 1 = not necessary**
2 = useful but not essential
3 = essential and useful

		1	2	3
1	The principal approaches problem through careful analysis.			
2	The principal is a very skillful negotiator.			
3	The principal is politically sensitive and skillful.			
4	The principal inspires others to do their best.			
5	The principal leads with an emphasis on school values.			
6	The principal develops partnerships to strengthen programs and support campus goals.			
7	The principal explores all sides of topics and admits that other options exist.			
8	The principal utilizes strategies to ensure the development of collegial relationships and effective collaboration of campus staff.			
9	The principal facilitates the collaborative development of a shared campus vision that focuses on teaching and learning.			
10	The principal facilitates the collaborative development of a plan in which objectives and strategies to implement the campus vision are clearly articulated.			
11	The principal has a visible and constant presence in the school.			
12	The principal delegates leadership tasks to other teachers.			
13	The principal gathers and organizes information from a variety of sources for use in creative and effective campus decision making.			
14	The principal frames, analyzes, and creatively resolves campus problems using effective problem solving techniques to make timely, high quality decisions			

Please provide a reason for those items listed in the “useful but not essential” category.

Dimension 3 – School-based Leadership
Subdimension 3 – Communicative Flow

Purpose: The following are tentative items being considered for inclusion to a scale focusing on communicative flow as a subdimension of school-based leadership.

Definitions:

- **Curricular leadership (CL)** is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- **Communicative flow** refers to how information is communicated in the school and the methods used for communication.

Goal of Task: To help determine the most essential and useful items that describe communicative flow that contribute to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing communicative flow that contributes to a school’s overall curricular leadership profile.

- 1 = not necessary**
2 = useful but not essential
3 = essential and useful

		1	2	3
1	The principal is highly visible, making frequent informal contact with students and teachers.			
2	The principal seeks ideas and suggestions from the staff.			
3	Teachers spend more time communicating with parents about the good things students do than the bad.			
4	Parent-teacher conferences focus on factors directly related to student achievement.			
5	The principal and teachers communicate effectively with families and the community.			
6	The principal uses skills to build consensus and manage conflict.			
7	The principal has strategies to systematically communicate with and gather input from all campus stakeholders.			
8	Teachers exhibit friendliness to each other.			
9	The principal lets the faculty and staff know what is expected of them.			
10	Faculty and staff are informed about school-related events in advance.			
11	Faculty and staff are usually not surprised when the regular schedule is modified for an assembly or some other event.			
12	My principal provides some sort of weekly or monthly schedule of events so teachers can plan instruction around school activities.			

Please provide a reason for those items listed in the “useful but not essential” category.

Appendix E.3
Content Classification Study Results

This section presents the composite results from the content classification study. Tally marks from each reviewer were compiled and reported for each of the initial CLCI items. Items that were not included in the pre-factor analyzed CLCI are indicated by an “X” placed by the item number.

**Dimension 1 – Middle School Curricular Elements
Subdimension 1 – Developmentally Appropriate Curriculum**

Purpose: The following are tentative items being considered for inclusion to a scale focusing on developmentally appropriate curriculum as a subdimension of middle school curricular elements.

Definitions:

- *Curricular leadership* (CL) is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- *Developmentally appropriate curriculum* is a school organizational approach providing curricular experiences designed specifically for middle school students’ physical, psychosocial, and cognitive developmental characteristics.

Goal of Task: To help determine the most essential and useful items that describe curriculum that is developmentally appropriate which contributes to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing developmentally appropriate curriculum that contributes to a school’s overall curricular leadership profile.

**1 = not necessary
2 = useful but not essential
3 = essential and useful**

		1	2	3
1	My school plans its activities based on young adolescents’ physical, psychosocial, and cognitive development needs.	1	0	3
2	The school faculty and staff in my school are trained in young adolescent development and are experts at teaching 10- to 15-year-olds.	0	1	4
3X	My school provides opportunities in the schedule on a routine basis for students to have close, caring relationships with both adults and peers.	1	1	3
4	The school ensures success for all middle school students in at least one area of participation in some type of school activity.	0	2	3
5	The school has in place strategies for re-engaging families in the education of middle school students.	0	1	4
6X	The school routinely involves students in community service activities.	2	3	0
7	Curricular decisions and extracurricular plans are based on young adolescent development and effective middle school practices.	0	0	5
8X	Students are provided with plenty of opportunities for physical exercise.	0	2	3
9X	There is an understanding that friendships are important for the social development of middle school students is encouraged through developmentally appropriate school activities.	0	2	3
10	Encouraging a positive self-concept is viewed as crucial to young adolescents’ overall development.	0	1	4

Please provide a reason for those items listed in the “useful but not essential” category.

**Dimension 1 – Middle School Curricular Elements
Subdimension 2 – Rigorous Standards Curriculum**

Purpose: The following are tentative items being considered for inclusion to a scale focusing on rigorous standards curriculum as a subdimension of middle school curricular elements.

Definitions:

- *Curricular leadership* (CL) is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- *Rigorous standards curriculum* refers to curriculum based on content standards and organized around concepts and principles.

Goal of Task: To help determine the most essential and useful items that describe curriculum that is grounded in rigorous standards that contribute to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing rigorous standards curriculum that contributes to a school’s overall curricular leadership profile.

- 1 = not necessary**
2 = useful but not essential
3 = essential and useful

		1	2	3
1	The curriculum standards in my school are concerned with the important concepts of various academic areas.	1	1	3
2	The curriculum standards in my school address what students will need to know and be able to do in the real world.	0	0	5
3X	Curriculum standards in my school are challenging and focus on content depth rather than breadth.	1	1	3
4X	It is possible for students to demonstrate master of every curricular standard in each class.	1	2	3
5	Curriculum standards in my school foster creative, critical, and higher-order thinking skills.	0	0	5
6	Curriculum standards in my school provoke and sustain student interest.	0	2	3
7X	In my school curriculum standards in one content area relate to standards in other content areas.	1	2	2
8X	The curriculum is guided by rigorous standards from the community.	2	2	1
9	Curriculum standards in my school connect with student experiences, understandings, and interests.	0	2	3
10	When planning units of study, teachers plan instruction based on desired student outcomes.	0	0	5

Please provide a reason for those items listed in the “useful but not essential” category.

**Dimension 1 – Middle School Curricular Elements
Subdimension 3 – Instructional Methods**

Purpose: The following are tentative items being considered for inclusion to a scale focusing on instructional methods as a subdimension of middle school curricular elements.

Definitions:

- **Curricular leadership (CL)** is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- **Instructional methods** refer to the various ways teachers plan instruction using a variety of exploratory, integrated, and interdisciplinary approaches for middle school students.

Goal of Task: To help determine the most essential and useful items that describe instructional methods that contribute to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing instructional methods that contribute to a school’s overall curricular leadership profile.

- 1 = not necessary**
2 = useful but not essential
3 = essential and useful

		1	2	3
1	Teachers meet regularly to discuss student progress.	0	1	4
2X	Students are scheduled into teams and each team has the same teachers.	0	3	2
3X	Teachers provide input into developing student schedules.	1	1	3
4X	Student schedules are based on student needs and not what is convenient for the school or teachers.	0	2	3
5X	Part of the school’s curriculum focuses on students exploring potential careers.	2	1	2
6X	Students have opportunities to explore different career opportunities within the curriculum.	0	2	3
7	Student interests are important considerations when planning classroom activities.	0	1	4
8X	Student interests are important considerations when planning school-wide activities.	0	2	3
9X	Separate school activities are planned with a “bigger picture” in mind relating to whole school goals.	2	1	2
10X	Students are aware of their different learning styles and preferences.	1	3	1
11	Classes are planned around the different learning styles and preferences of students.	0	1	4
12	Projects involve coursework in different classes.	1	1	2
13	Teachers work together to develop projects for students to complete.	1	1	3
14X	Student work on thematic units is publicly displayed in the school.	0	3	2
15X	Students provide input into thematic units.	0	2	3
16X	Lesson topics are approached through an integrative framework combining components from different content areas.	1	2	2
17X	Grades on projects are sometimes shared between different classes because of the project nature of the assignment.	0	3	2

Please provide a reason for those items listed in the “useful but not essential” category.

Dimension 2 – Curricular Decision Making
Subdimension 1 – Data-driven Decision Making

Purpose: The following are tentative items being considered for inclusion to a scale focusing on data-driven decision making as a subdimension of curricular decision making.

Definitions:

- **Curricular leadership (CL)** is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- **Data-driven decision making** describes the types of data and the way they are used to make instructional decisions.

Goal of Task: To help determine the most essential and useful items that describe data-driven decision making that contribute to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing data-driven decision making behaviors that contribute to a school’s overall curricular leadership profile.

- 1 = not necessary**
2 = useful but not essential
3 = essential and useful

		1	2	3
1	Objectives in each subject are the focal point of instruction.	0	2	3
2	The curriculum, instruction, and assessment are aligned with teaching objectives.	0	0	5
3	Teachers plan activities that develop critical thinking skills.	0	0	5
4	The results of in-class assessments are used to examine students’ strengths and weaknesses and to give feedback to students.	0	0	5
5	Students are given specific feedback on homework and class assignments.	0	0	5
6	The teachers and principal thoroughly review and analyze test results to plan instructional program modifications.	0	0	5
7X	Students are offered multiple opportunities to practice new skills in both group and individual settings.	1	2	2
8X	Teachers are encouraged to participate in formal and informal decision-making committees or groups.	1	3	1
9X	The principal uses emerging issues, trends, demographic data, student learning data, and other information as a basis for campus curriculum planning.	1	0	4
10X	The principal facilitates the development of a campus learning organization that supports instructional improvement and change through an on-going study of relevant research and best practices.	1	0	4
11	The principal facilitates the implementation of sound, research-based instructional strategies, decisions, and programs in which multiple opportunities to learn and be successful are available to all students.	1	0	4
12	Walkthrough and formative evaluations are used to modify instructional strategies, when appropriate.	0	1	4

Please provide a reason for those items listed in the “useful but not essential” category.

**Dimension 2 – Curricular Decision Making
Subdimension 2 – Collaborative Rapport**

Purpose: The following are tentative items being considered for inclusion to a scale focusing on collaborative rapport as a subdimension of curricular decision making.

Definitions:

- *Curricular leadership* (CL) is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- *Collaborative rapport* describes the degree teachers work together and with the principal in the school.

Goal of Task: To help determine the most essential and useful items that describe collaborative rapport that contribute to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing collaborative rapport that contribute to a school’s overall curricular leadership profile.

- 1 = not necessary**
2 = useful but not essential
3 = essential and useful

		1	2	3
1	Teachers apply consistent criteria to assigning grades among all classes.	0	1	4
2X	The principal communicates a strong vision.	0	1	4
3X	The teachers in this school like each other.	3	1	1
4X	The principal treats all faculty members as his or her equal.	2	1	2
5	The principal accepts questions without appearing to snub or squash the teacher.	0	1	4
6	The principal discusses classroom issues with teachers.	0	0	5
7	Teachers routinely observe and critique other classroom teaching.	1	3	0
8X	Important curricular decisions reflect school wide community consensus.	1	2	2
9	The faculty and staff are provided opportunities to provide input and examples of good teaching techniques during faculty meetings.	0	2	3
10	Teachers work together to develop instructional units.	0	1	4
11X	The principal invites teachers to be part of the hiring committee for new personnel.	0	3	2
12	The principal is able to demonstrate effective communication through oral, written, auditory, and nonverbal expression.	0	0	5
13	The principal utilizes conflict management and group consensus building skills.	0	1	4
14X	The principal implements effective strategies to systematically gather input from all campus stakeholders.	1	0	4
15X	The principal develops and implements strategies for effective internal and external communications.	0	1	4

Please provide a reason for those items listed in the “useful but not essential” category.

**Dimension 2 – Curricular Decision Making
Subdimension 3 – Autonomy**

Purpose: The following are tentative items being considered for inclusion to a scale focusing on autonomy as a subdimension of curricular decision making.

Definitions:

- *Curricular leadership* (CL) is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- *Autonomy* refers to the degree teachers make decisions in the school.

Goal of Task: To help determine the most essential and useful items that describe how autonomy contributes to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing how autonomy contributes to a school’s overall curricular leadership profile.

- 1 = not necessary**
2 = useful but not essential
3 = essential and useful

		1	2	3
1	Administrators support teachers in dealing with student discipline matters.	1	0	4
2X	The principal supports innovative thinking and risk-taking efforts of everyone within the school community and views unsuccessful experiences as learning opportunities.	0	2	3
3	Teachers feel comfortable to approach the principal about initiating school wide initiatives.	0	1	4
4	Teachers feel comfortable to approach the principal about initiating classroom initiatives.	1	0	4
5	Teachers feel comfortable in approaching the principal about initiating grade-level initiatives.	0	1	4
6	Teachers take ownership in the school.	0	0	5
7X	Teachers volunteer to help with school improvement projects, even when they occur after school hours.	0	2	3
8X	Faculty and staff are expected to take ownership of their assigned duties and perform them with excellence.	1	1	3
9	Teachers feel comfortable handling discipline problems in the classroom without involving the principal.	1	0	4
10	Teachers typically take the initiative to provide tutoring when a student needs additional help.	0	0	5

Please provide a reason for those items listed in the “useful but not essential” category.

Dimension 3 – School-based Leadership
Subdimension 1 – Professional Development

Purpose: The following are tentative items being considered for inclusion to a scale focusing on professional development as a subdimension of school-based leadership.

Definitions:

- **Curricular leadership (CL)** is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- **Professional development** refers to the availability of researched-based practices and learning opportunities for teachers.

Goal of Task: To help determine the most essential and useful items that describe professional development that contributes to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing professional development that contributes to a school’s overall curricular leadership profile.

- 1 = not necessary**
2 = useful but not essential
3 = essential and useful

		1	2	3
1X	Norms for conduct that foster collegiality and professionalism among the faculty and staff and administration have been established.	1	2	2
2X	The types of professional development activities offered is based on student performance data.	0	3	2
3X	Teachers are engaged in staff development activities that address specific content area issues and allow for “hands on” trial and evaluation of specific techniques.	1	1	3
4X	The principal recognizes and rewards teachers for practicing research-based teaching strategies.	0	3	2
5X	Faculty meetings usually focus on group adult learning.	3	3	1
6X	The principal models good teaching techniques/behaviors during faculty meetings.	0	3	2
7X	The principal models and promotes the continuous and appropriate development of all learners in the campus community.	1	0	4
8	The principal collaboratively develops, implements, and revises a comprehensive and on-going plan for professional development of campus staff which addresses staff needs and aligns professional development with identified goals.	0	0	5
9	The principal facilitates the application of adult learning and motivation theory to all campus professional development, including the use of appropriate content, processes, and contexts.	1	2	2
10	Faculty and staff value professional development.	1	3	1
11	Faculty and staff make instructional changes based on what they learn during professional development.	0	2	3
12X	The success of professional development activities is determined by increases in student achievement.	0	3	2
13	The effective implementation of the professional development plan is ensured by the allocation of appropriate time, funding, and other needed resources.	0	0	5

Please provide a reason for those items listed in the “useful but not essential” category.

**Dimension 3 – School-based Leadership
Subdimension 2 – Leadership Stance**

Purpose: The following are tentative items being considered for inclusion to a scale focusing on leadership stance as a subdimension of school-based leadership.

Definitions:

- *Curricular leadership* (CL) is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- *Leadership stance* underscores the types and sources of leadership in the school.

Goal of Task: To help determine the most essential and useful items that describe leadership stance that contribute to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing leadership stance that contributes to a school’s overall curricular leadership profile.

**1 = not necessary
2 = useful but not essential
3 = essential and useful**

		1	2	3
1	The principal approaches problem through careful analysis.	1	1	3
2X	The principal is a very skillful negotiator.	1	2	2
3	The principal is politically sensitive and skillful.	1	0	4
4X	The principal inspires others to do their best.	0	2	3
5	The principal leads with an emphasis on school values.	0	0	5
6	The principal develops partnerships to strengthen programs and support campus goals.	0	0	5
7X	The principal explores all sides of topics and admits that other options exist.	0	2	3
8X	The principal utilizes strategies to ensure the development of collegial relationships and effective collaboration of campus staff.	0	2	3
9	The principal facilitates the collaborative development of a shared campus vision that focuses on teaching and learning.	0	0	5
10	The principal facilitates the collaborative development of a plan in which objectives and strategies to implement the campus vision are clearly articulated.	0	0	5
11	The principal has a visible and constant presence in the school.	0	1	4
12	The principal delegates leadership tasks to other teachers.	1	1	3
13X	The principal gathers and organizes information from a variety of sources for use in creative and effective campus decision making.	1	2	2
14X	The principal frames, analyzes, and creatively resolves campus problems using effective problem solving techniques to make timely, high quality decisions	1	0	4

Please provide a reason for those items listed in the “useful but not essential” category.

Dimension 3 – School-based Leadership
Subdimension 3 – Communicative Flow

Purpose: The following are tentative items being considered for inclusion to a scale focusing on communicative flow as a subdimension of school-based leadership.

Definitions:

- **Curricular leadership (CL)** is the combination of leadership efforts from teachers and administrators regarding the types of curricular decisions made, how these decisions are implemented, and how they are communicated within and acted upon in the school.
- **Communicative flow** refers to how information is communicated in the school and the methods used for communication.

Goal of Task: To help determine the most essential and useful items that describe communicative flow that contribute to a school’s overall curricular leadership profile, based on the above definitions.

Your Task: Please place an “X” in the corresponding box whether the construct measured by each of the following items is essential and useful, useful but not essential, or not necessary to describing communicative flow that contributes to a school’s overall curricular leadership profile.

- 1 = not necessary**
2 = useful but not essential
3 = essential and useful

		1	2	3
1	The principal is highly visible, making frequent informal contact with students and teachers.	0	1	4
2	The principal seeks ideas and suggestions from the staff.	0	1	4
3X	Teachers spend more time communicating with parents about the good things students do than the bad.	2	2	1
4X	Parent-teacher conferences focus on factors directly related to student achievement.	0	3	2
5	The principal and teachers communicate effectively with families and the community.	0	1	4
6X	The principal uses skills to build consensus and manage conflict.	0	2	3
7X	The principal has strategies to systematically communicate with and gather input from all campus stakeholders.	0	2	3
8X	Teachers exhibit friendliness to each other.	1	1	3
9	The principal lets the faculty and staff know what is expected of them.	0	1	4
10X	Faculty and staff are informed about school-related events in advance.	1	1	3
11X	Faculty and staff are usually not surprised when the regular schedule is modified for an assembly or some other event.	2	1	2
12	My principal provides some sort of weekly or monthly schedule of events so teachers can plan instruction around school activities.	0	0	5

Please provide a reason for those items listed in the “useful but not essential” category.

APPENDIX F: DATA COLLECTION GUIDELINES

Appendix F.1
Telephone Script to Campus Principals

Hello. My name is Jerry Adams and I am the principal at New Deal High School. I am working on my dissertation on school effectiveness at Texas Tech University. I am at the point in the dissertation study where I need to collect data from teachers and principals. I am calling to see if I could get your help by having your staff and yourself complete an Internet survey about school effectiveness. Would you help me with this project?

Appendix F.2
E-mail Message to Principal with Survey Link

Dear [INSERT PRINCIPAL'S NAME],

Thank you for visiting with me over the phone recently about you and your staff helping me complete an on-line survey for my dissertation study at Texas Tech University. Please go to the survey link and complete the survey yourself and then forward this message, including the survey link, to the staff in your building. In addition, please send me an e-mail indicating the number of staff in your building for survey response rate calculation purposes. I have enclosed a greeting note for your faculty and staff at the end of this e-mail providing instructions for completing the survey. Again, thank you for your help.

Sincerely,
Jerry Adams, Principal
New Deal High School
806-746-5933

Survey Link:

<http://www.surveymonkey.com/s.asp?u=24573821256>

Appendix F.3
E-mail Message to Professional Staff Member with Survey Link

Dear Fellow Educator,

My name is Jerry Adams and I have been a principal at New Deal Middle School for the previous five years and am working on a dissertation study at Texas Tech University about school effectiveness in middle and junior high schools. I have spoken with your campus administrator over the telephone and have been granted permission for your school to participate in this study.

I am asking you to complete the survey located on the below link. The survey should take about fifteen minutes to complete and would provide me with some very valuable information about school effectiveness in middle and junior high schools. All information on this survey is anonymous and in no way can be linked to individual respondents. In addition, participation in this study is completely voluntary and you may stop responding to statements on the survey at any time. Upon completion of the survey by yourself and other staff members on your campus, I will be able to provide your principal with a school profile about different school effectiveness indices on your campus.

If you have any questions concerning any aspect of this dissertation study, please feel free to contact my dissertation committee chairperson, Dr. Joseph Claudet, or myself at any time. Our contact information is:

Dr. Joseph Claudet
College of Education
Mail Stop 1079
Texas Tech University
Lubbock, Texas 79410
806-470-4815
joe.claudet@ttu.edu

Thank you for taking the time to help me on this project.

Jerry Adams, Principal
New Deal High School
806-746-5933
jwadams@newdealisd.net

Survey Link:
<http://www.surveymonkey.com/s.asp?u=24573821256>

Appendix F.4
Follow-up Reminder E-mail Message

Dear [INSERT PRINCIPAL'S NAME],

Thank you and your staff for your help on this project. Will you please send out a reminder asking any staff member who has not completed the survey to do so at their convenience? Thank you and your staff again for your help on this project. Best wishes for a smooth finish to the school year.

Thank you,
Jerry Adams

Survey Link:

<http://www.surveymonkey.com/s.asp?u=24573821256>