

RELATIONSHIPS BETWEEN MEASURES OF LEADERSHIP AND SCHOOL CLIMATE

ROBERT C. KELLEY

BILL THORNTON

RICHARD DAUGHERTY

University of Nevada

Department of Educational Leadership /283

College of Education

Reno, Nevada

Research has established relationships among leadership, school climate, and effective schools. In this study, we compared relationships between selected dimensions of leadership and measures of school climate in 31 elementary schools. In addition, principals' perceptions of their leadership styles were compared with teachers' perceptions of their principals' leadership styles. Results indicate that teachers' perceptions of their principals' effectiveness are related to school climate.

Introduction

Education leadership is possibly the most important single determinant of an effective learning environment. Change leaders must understand procedures and processes that create the conditions necessary for organizational improvement. Skilled leaders correctly envision future needs and empower others to share and implement that vision. Building principals must be able to assess and evaluate the impact and perceptions of their leadership styles. Fullan (2002) points out that "Only principals who are equipped to handle a complex, rapidly changing environment can implement the reforms that lead to sustained improvement in student achievement" (p. 16). Indeed, principals must deal with the various levels of skills and abilities of their faculty and a continuity of divergent situations within today's complex school environment.

Bolman and Deal (1991) describe the balance between leadership and management.

Organizations which are overmanaged but underled eventually lose any sense of spirit or purpose. Poorly managed organizations with strong charismatic leaders may soar temporarily only to crash shortly thereafter. The challenges of modern organizations require the objective perspective of the manager as well as the brilliant flashes of vision and commitment that wise leadership provides. (pp. xiii-xiv)

Because schools have become very complex organizations, principals must move beyond occasional brilliant flashes to methods of continuous improvement.

The variables associated with improved student achievement have been a focus of researchers for many years. Now, the No

Child Left Behind Act (NCLB) has significantly increased the pressure to improve student achievement. Waters, Marzano, and McNulty (2004) reported that effective school leadership substantially boosts student achievement. School climate, leadership, and quality instruction are frequently associated with effective schools.

In this study, we investigated the relationships between selected dimensions of leadership and measures of school climate. In addition, principals' perceptions of their own leadership styles were compared with teachers' perceptions of their principals' leadership styles.

Leadership

Researchers have attempted to quantify the leadership process and establish relationships between dimensions of leadership, school climate, teacher effectiveness, and student learning (Deal & Peterson, 1990; Maehr, 1990; Waters, et al. 2004). Early research by Brookover (1979), Edmonds (1979), and Rutter, Maughn, Mortimore, and Ouston (1979) found that correlates of effective schools include strong leadership, a climate of expectation, an orderly but not rigid atmosphere, and effective communication. These researchers and others suggest that the presence or absence of a strong educational leader, the climate of the school, and attitudes of the teaching staff can directly influence student achievement.

Research has related effective school leadership to significant increases in student achievement. Waters, Marzano, and McNulty (2004) conducted a meta analysis of 70 studies on education leadership and established 21 leadership responsibil-

ities that are significantly related to higher levels of student achievement. Blake and Mouton (1985) indicated that leaders who fully understand leadership theory and improve their ability to lead are able to reduce employee frustration and negative attitudes in the work environment. As instructional leaders, principals can foster an understanding of the school vision, facilitate implementation of the mission, and establish the school climate. Ubben and Hughes (1992) stated that principals could create a school climate that improves the productivity of both staff and students and that the leadership style of the principal can foster or restrict teacher effectiveness.

Hersey and Blanchard (1988) discussed leadership in relationship to several factors: preferred style of leadership, maturity of followers, expectations of followers, and task at hand. They developed the well-known Situational Leadership Model that identified four styles of leadership: autocratic (telling), democratic (selling), encouraging and social (participating), and laissez-faire style (delegating). These leadership behaviors range from very leader-directed to non-directive approaches. Situational leaders must analyze the various skills, needs, and strengths of the faculty and respond to many divergent situations—the appropriate response depends on the situation and circumstances.

Assessment of Leadership Style

Blanchard, Hambleton, Zigarmi, and Forsyth (1991a, 1991b) developed the Leader Behavior Analysis II (LBAIL) to assess leadership styles. Respondents choose from four leadership styles for each of 20 leadership scenarios. Using two

forms of the LBAll, principals self-rated their leadership style and teachers rated their perception of their principal's style. The LBAll provides two primary scores: Leader Effectiveness and Flexibility. Zigarmi, Edeburn, & Blanchard (1995) reported reliability coefficients from six research studies that ranged from .54 to .86 with a median value of .74.

The Leader Effectiveness Scale (EFF) represents the degree to which the leader uses the most appropriate response for each situation. Zigarmi, Edeburn, and Blanchard (1995) stated that "The effectiveness score is the most important score derived from the LBAll instrument..." (p. 7). The Flexibility Scale (FLX) represents the degree to which a leader will select varying styles over a range of situations. A flexible leader uses a variety of different styles to solve situations; by contrast, the less flexible leader uses a limited number of styles to resolve most problems. The effectiveness and flexibility scores are computed across the 20 scenarios that are provided in the LBAll.

School Climate

Researchers have used various definitions of climate; Hoy and Miskel (2005, p. 185) defined school climate as "the set of internal characteristics that distinguish one school from another and influence the behaviors of each school's members." Kottkamp (1984) suggested that climate consists of shared values, interpretations of social activities, and commonly held definitions of purpose. Hoy, Tarter, and Kottkamp (1991, p. 10) stated that "school climate is the relatively enduring quality of the school environment that is experienced

by participants, affects their behavior and is based on their collective perception of behavior in schools."

A positive school climate can enhance staff performance, promote higher morale, and improve student achievement (Freiberg, 1998). Heck (2000) and Goddard et al. (2000) linked school climate and student achievement. "School climate may be one of the most important ingredients of a successful instructional program. Without a climate that creates a harmonious and well functioning school, a high degree of academic achievement is difficult, if not downright impossible to obtain" (Hoyle, English, & Steffy, 1985, p. 15). Bulach, Malone, and Castleman (1995) found a significant relationship between student achievement and school climate; in addition, Bulach and Malone (1994) concluded that school climate is a significant factor in successful school reform. Urban (1999) stated; "Unless students experience a positive and supportive climate, some may never achieve the most minimum standards or realize their full potential" (p. 69). Hoy, Tarter, and Bliss (1990) found that long-term improvement in academic achievement was related to schools with strong academic emphasis within the context of healthy and open climates. Birdin (1992) and Zigarmi, Edeburn, and Blanchard (1991) found strong positive correlations between effectiveness scores and selected climate variables.

The behaviors of building level principals are linked to the climate of school buildings—effective leadership is critical. Researchers have related principal behaviors to school climate (Bulach, Boothe, &

Pickett, 1998; Peterson, 1990); indeed, the climate of a school can be shaped by the actions and behaviors of the building principal (Sergiovanni & Starratt, 1998). Bulach et al. (1998) found that teachers' views of teacher-principal interactions were related to school climate. The principal's instructional leadership behaviors affect the climate and instructional organization, both of which are linked to student achievement (Bossert, Dwyer, Rowan, & Lee, 1982). Several studies have established links between instructional leadership and the climate of the school (Lane, 1992; Hallinger & Murphy, 1987; Hoy et al., 1991; Sergiovanni, 1995). Principal's behaviors are related to school climate, e.g. effective communication, teacher advocacy, participatory decision-making, and equitable evaluation procedures.

Assessment of School Climate

In this study, school climate was assessed using the Staff Development and School Climate Assessment Questionnaire (SDSCAQ) (Zigarmi & Edeburn, 1980). The SDSCAQ is a Likert-type instrument that provides six scale scores: (a) Communications, (b) Innovativeness, (c) Advocacy, (d) Decision-Making, (e) Evaluation, and (f) Attitudes toward Staff Development. The Communication Scale measures teachers' perceptions of information sharing, listening to concerns, and ease of sharing ideas. The Innovativeness Scale score measures teachers' perceptions of the extent that leadership supports new ideas. The Advocacy Scale assesses the teachers' perceptions related to rapport and professionalism among staff members and support of leadership. The Decision-Mak-

ing Scale measures the teachers' perceptions of opportunities for input into decisions. The Attitudes Toward Staff Development Scale assesses the teachers' perceptions of administrative support for staff development, inservices, individual growth, and effectiveness of inservice activities. The SDSCAQ scale scores were found to be reliable—the Cronback alphas were all above .80 (Zigarmi & Edeburn, 1978).

Research Design

The elementary schools in the study employed one full-time principal without an assistant principal, dean, or other administrative support. Schools from sparsely populated areas staffed by a principal/teacher were not selected because the leader of the school was not a full-time position. Large schools staffed by a principal and a vice-principal or a dean of students were not a part of the study because more than one leader influenced the school climate and determined leadership styles. Based on state enrollment data, the elementary schools in the study had student populations of at least 100 students but no more than 650 students.

The study included 31 elementary schools; therefore, 31 principals and 155 teachers (five teachers per school) were involved. For each school in the study, the principal and one teacher responded to the LBAll and four different teachers were administered the SDSCAQ. The study examined the relationships between the principals' preferred leadership style (Effectiveness Score and Flexibility Score), the corresponding scores for teachers' perceptions of their principal's leadership

style, and teachers' perceptions of school climate.

Results of the Study

Pearson product-moment correlations were calculated to determine the relationships between variables for the study. The unit of analysis is the school; therefore, the number of observation is 31—the number of schools in the study. The correlations between the LBAll scales and climate scales are presented in Table 1. Statistically significant positive relationships were established between teachers' perceptions of their principals' Effectiveness Scores and all six climate scores: Communication, Decision-Making, Innovation, Advocacy, Evaluation, and Staff Development. These obtained correlations suggest that school climate is directly linked to teachers' perceptions of a principal's effectiveness. For example, if teachers perceived that principals "used the most appropriate response for each situation" (high EFF scores) then they characterized the school to have good communications, participatory decision-making and high levels of advocacy for teachers. Indeed, each measure of school climate tended to be high if the principals were perceived to have high EFF and low if the principals were perceived to have low EFF.

However, the corresponding correlations between the teachers' perceptions of principals' flexibility scores (FLX) and measures of school climate are all negative. The correlations with Communication Scale and Advocacy Scale are statistically significant. Thus, if principals are perceived to "select varying styles over a

range of situations", then the teachers feel that the school has poor communication and weak teacher advocacy. The results indicate that the higher the teachers' perception of their principals' FLX score (flexibility), the lower their perception of teacher advocacy and the less effectiveness of communication within the building. Conversely, teachers perceive that less flexible principals lead buildings that share information, listen to concerns, and support teachers.

Table 2 presents the correlations between LBAll Flexibility and Effectiveness scores for principals' self-ratings and teachers' ratings of their principals on the same variables. Not only are all results insignificant; they all approximate zero. For the various scenarios on the LBAll, principals' choices could not be predicted by teachers' perceptions of their principals' choices. Thus, the data indicates that the principals' self-ratings of Effectiveness and Flexibility and the corresponding teachers' ratings are not related.

Limitations of this study

The small number of principals and teachers in this study was a limitation. The schools in the study are small schools from rural settings. This could have skewed some of the findings. Also, this study measured school climate using six measures. There may be many more variables such as parent involvement, student-teacher interactions, and principal interpersonal skills that are related to school climate.

Implications and Discussion

If the results of the two above tables are considered jointly, interesting issues arise.

Table 1
Correlations between the LBAII Principal & Teacher (Flexibility and Effectiveness and SDSCAQ (Scale scores of Communication, Decision Making, Innovation, Advocacy, Evaluation and Staff Development

	COMM	DECMAC	INNOV	ADVOC	EVAL	STFDEV
Teacher EFF	.371*	.368*	.494**	.414*	.376*	.523**
Teacher FLX	-.358*	-.353	-.328	-.404*	-.306	-.195
Principal EFF	.291	.319	.238	.336	.209	.305
Principal FLX	-.296	-.247	-.078	-.209	-.216	-.140

N=31—the number of schools in the study
 * p<0 .05 (two tailed)
 ** p<0 .01 (two tailed)

Table 2
Correlations between the LBAII Principal (Flexibility and Effectiveness) and LBAII Teacher (Flexibility and Effectiveness)

	Teacher EFF	Teacher FLX	Principal EFF	Principal FLX
Teacher EFF	1.000	-.016	.280	.093
Teacher FLX		1.000	.004	-.014
Principal EFF			1.000	.018
Principal FLX				1.000

N=31, the number of schools in the study

If the results of the two above tables are considered jointly, interesting issues arise. Teachers' perceptions of their principals' effectiveness are positively related to school climate, and of principals' flexibility are negatively correlated to school climate. If the teachers perceive that their principals varies his/her leadership style,

then those teachers tend to rate the school climate lower. For example, flexibility with regard to student discipline or duty assignments could negatively related to school climate, i.e. teachers feel that other teachers are treated differently. Conversely, if the teachers feel that their principal treat teachers consistently, then the teachers feel

Principals work to meet the individual needs of various teachers or the situation; however, teachers seem to indicate a desire for consistent treatment. This might suggest that teachers fail to understand that differential treatment is needed based on the developmental level of the teacher or the task in question. This implication needs additional study.

However, principals' self-ratings of effectiveness and flexibility were not related to the teachers' ratings of school climate or to the teachers' perception of their principals' leadership style on effectiveness and flexibility. These discrepancies between how principals perceive their behaviors and what teachers feel that they actually do are important. It could be argued that some of the principals do not "walk the talk"—they behave differently than they self-reported.

Situational leadership stresses that a principal's effectiveness is dependent upon the ability to analyze the competencies, abilities, and commitments of teachers with regard to the task at hand and then respond accordingly. The data from the current study indicates that principals' perceptions of their leadership styles are not consistent with their teachers' perceptions. The old adage that "perception becomes reality" needs to be considered; teachers' perceptions of principal effectiveness are authentic.

The well-published Johari Window illustrates graphically the relationships between one's known self and one's unknown self. This study demonstrated the blind quadrant—things that are known to others but unknown to self. For principals, blind spots can occur in many areas:

e.g. inconsistent discipline procedures, pet projects, or lack of communication skills. For example, a principal could be quick-tempered, boisterous, and scheming, but unaware of these characteristics and teachers will not tell him/her for a variety of reasons.

Summary

Principals have the power, authority, and position to impact the climate of the school, but many lack the feedback to improve. If principals are highly skilled, they can develop feelings of trust, open communications, collegiality, and promote effective feedback. Effective leaders must not forget the parable of *The Blind Men and the Elephant*. If principals are blind to critical information about their schools, then they could make erroneous decisions. In the complex and dynamic environment of schools, all principals need to understand effective leadership behaviors and teachers' perceptions of their behaviors. Principals must know and understand how to provide the foundation for creating an atmosphere conducive to change. Leaders must be able to correctly envision the needs of their teachers, empower them to share the vision, and enable them to create an effective school climate.

References

- Birdin, L. (1992). *Leadership behavior styles of administrator and school climate in area vocational technical schools in Oklahoma as perceived by teachers*. Unpublished doctoral dissertation, Oklahoma State University.
- Blake, R., & Mouton, J. (1985). *The Managerial Grid*. Austin, TX: Scientific Methods.
- Blanchard, K., Hambleton, R., Zigarmi, D., & Forsyth, D. (1991a). *Leadership behavior analysis II other*. Escondido, CA: Blanchard Training and Development.
- Blanchard, K., Hambleton, R., Zigarmi, D., & Forsyth, D. (1991b). *Leadership behavior analysis II self*. Escondido, CA: Blanchard Training and Development.
- Bolman, L. & Deal, T. (1991). *Reframing organizations: Artistry, choice, and leadership*. San Francisco, Jossey & Bass.
- Bossert, S., Dwyer, D., Rowan, B., & Lee, G. (1982). The instructional management role of the principal. *Educational Administration Quarterly*, 18, 34-64.
- Brookover, W. (1979). *School social systems and student achievement: Schools can make a difference*. New York: Praeger.
- Bulach, C., Boothe, D., & Pickett, W. (1998). "Should nots" for school principals: Teachers share their views. *ERS SPECTRUM: Journal of School Research and Information*, 16(1), 16-20.
- Bulach, C., Malone, B., & Castleman, C. (1995). An investigation of variables related to student achievement. *Mid-Western Educational Researcher* 8(2), 23-29.
- Bulach, C. & Malone, B. (1994). The relationship of School Climate to the Implementation of School Reform. *ERS SPECTRUM*, 12 (4), 3-8.
- Deal, T., & Peterson, K. (1990). *The principal's role in shaping school culture*. Washington, D.C.: U.S. Department of Education.
- Edmonds, R. (1979). Effective schools for urban poor. *Educational Leadership*, 37(1), 15-23.
- Freiberg, H. J. (1998). Measuring school climate: Let me count the ways. *Educational Leadership*, 56(1), 22-26.
- Goddard, R., Hoy, W., & Hoy, A. (2000). Collective teacher efficacy: Its meaning, measure, and impact on student achievement. *American Educational Research Journal*, 37(2). Pp. 479-507.
- Hallinger, P., & Murphy, J. (1987). Assessing and developing principal instructional leadership. *Educational Leadership*, 45(1), 54-61.
- Heck, R. (2000). Examining the impact of school quality on school outcomes and improvement: A value-added approach. *Educational Administration Quarterly*, 36(4), pp. 513-552.
- Hersey, P., & Blanchard, K. (1988). *Management of organizational behavior: Utilizing human resources* (5th ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Hoy, W., & Miskel, C. (2005). *Education administration: Theory, research, and practice* (7th ed.). New York: McGraw-Hill
- Hoy, W., Tarter, C., & Bliss, F. (1990). School characteristics and faculty trust in secondary schools. *Educational Administration Quarterly*, 25, 294-309.
- Hoy, W., Tarter, C., & Kottkamp, R. (1991). *Open schools/healthy schools*. London: Sage Publications.
- Hoyle, J., English, F., & Steffy, B. (1985). *Skills for Successful Leaders*. Arlington, VA: American Association of School Administrators.
- Kottkamp, R. (1984). The principal as cultural leader. *Planning and Changing*, 15(3), 152-159.
- Lane, B. (1992). Cultural leaders in effective schools: The builders and brokers of excellence. *NASSP Bulletin*, 76, 85-96.
- Maehr, M. (1990). *The "psychological environment" of the school: A focus for school leadership*. (Project report). Champaign, IL: National Center for School Leadership.

- Rutter, M., Maughn, B., Mortimore, P., & Ouston, J. (1979) *Fifteen thousand hours: Secondary schools and their effects on children*. Cambridge, MA: Harvard University Press.
- Sergiovanni, T. (1995). *The principalship: A reflective practice perspective* (3rd ed.). Boston: Allyn and Bacon.
- Sergiovanni, T., & Starratt, R. (1998). *Supervision: A redefinition*. Boston, MA: McGraw-Hill.
- Ubben, G., & Hughes, L. (1992). *The principal: Creative leadership for effective schools*. Needham Heights, MA: Allyn and Bacon.
- Urban, V. (1999). Eugene's story: A case for caring. *Educational Leadership*, 56(6), 69-70.
- Waters, T., Marzano, R., & McNulty, B. (2004). Leadership that sparks learning. *Educational Leadership*, 61(7), 48-52.
- Zigarmi, D., & Edeburn, C. (1980). Organizational Climate and I.G.E.: An assessment and implications. *AIGE Forum* 3:1. 30-32.
- Zigarmi, D., Edeburn, C., & Blanchard, K. (1991). *Research on the LBAll: A validity and reliability study*. Escondido, CA: Blanchard Training and Development.
- Zigarmi, D., Edeburn, C., & Blanchard, K. (1995). *Getting to know the LBAll: Research, validity and reliability of the self and other forms*. Escondido, CA: Blanchard Training and Development, Inc.

Copyright of Education is the property of Project Innovation, Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.