ABSTRACT
        Although the literature points to principals' central
role in enhancing school effectiveness, the demonstration of a causal
relationship between their instructional leadership and student
achievement is difficult. Researchers have suggested that
instructional leadership can influence teaching and classroom
practices through the establishment of belief structures and school
policies promoting an "academic press." Based on current research
findings, this paper hypothesizes a tie between student perception of
classroom environment, principal instructional leadership as
perceived by teachers, and student performance. Specifically, the
study attempts to determine if teacher perceptions of principals'
instructional leadership strength relate to differences in student
perceptions of classroom environment variables associated with
effective teaching characteristics. The study used a sample of 16
public secondary schools throughout east Alabama. Measuring
instruments included the Principal Instructional Management Rating
Scale and the Classroom Environment Scale. Data were analyzed using
standard multiple regression techniques. Results support the
hypothesized relationship between classroom environment and principal
instructional leadership. Teachers in classrooms where students
perceived high cooperation levels see their principals as highly
involved in supervising and evaluating instruction and communicating
school goals. Surprisingly, students in schools whose principals are
judged to be instructional leaders perceive their teachers as aloof
and formal. Other results and implications are discussed. Researchers
still do not understand how instructional leadership affects student
achievement. (34 references) (MLH)

Principal Instructional Leadership

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Abstract

Principal instructional leadership has been identified in the literature as a characteristic associated with effective schools. Since principals are once-removed from the teaching process, it is difficult to establish a cause-effect relationship between principal instructional leadership and student achievement. However, researchers have suggested that instructional leadership can impact classroom practices and teaching through the establishment of belief structures and school policies that promote an "academic press." Recently, researchers at the University of Washington have suggested that teacher perceptions of principal instructional leadership relate to gains in student test scores while other literature suggests that students' perceptions of classroom environment affects their performance. Thus a tie between student perceptions of classroom environment, principal instructional leadership as perceived by teachers, and student performance is hypothesized. This study attempts to determine if teacher perceptions of the strength of principal instructional leadership relate to differences in student perceptions of classroom environmental variables suggested in the literature as characteristics of effective teaching/classrooms.

Principal Instructional Leadership

Principal instructional leadership is identified as a key variable in the research literature on principal characteristics associated with effective schools (Kroeze, 1984; DeBevoise, 1984; and Duke, 1987). Critical behaviors/skills associated with principal instructional leadership are summarized as follows: goal setting; managing curriculum and instruction; supervising and evaluating teaching; providing staff development; managing resources; and promoting a positive climate and expectations for success (Duke, 1987; Hallinger, Murphy, Weil, Mesa, & Mitman, 1983; Daresh & Ching-Jan, 1985; Murphy, Weil, Hallinger, & Mitman, 1982; Stallings & Mohlman, 1981). In effect, the effective schools studies focus on the principal as the essential factor in establishing and promoting improvement 'n the schools (Hallinger & Murphy, 1987).

Although the literature points to the central role for the principal in enhancing the effectiveness of schools, it is difficult to demonstrate a cause-effect relationship between principal instructional leadership and student achievement because principals are once-removed from the teaching process (Rowan, Bossert, & Dwyer, 1983). Researchers have suggested that principal instructional leadership impacts on teaching and classroom practices through the establishment of belief structures and school policies that promote an "academic press" which in turn leads to an increase in student achievement (Murphy et al., 1982). Recent research at the University of Washington

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has established that "... gains and losses in students' test scores are directly related to teachers' perceptions of their principal's leadership" (Andrews, 1987, p. 9). The Washington study suggests that where teachers view the principal as a strong instructional leader classroom environments differ. Andrews (1987) suggests that the only reality is perceived reality. This study attempts to determine if teacher perceptions of the quality of principal instructional leadership in a school relate to differences in student perceptions of classroom environmental variables expected in effective teaching-classrooms.

Theoretical Framework

The search for variables that influence effective schooling spans several decades. Much of the initial research investigated variables thought to impact on learning in urban poor children (Edmonds, 1979). These investigations led to research in effective teaching and effective schools (Rosenshine, 1983; Edmonds, 1979; Brookover & Lezotte, 1979; Hunter, 1983; Good & Brophy, 1984).

Effective Teaching/Classrooms

Research on effective teaching investigates relationships between specific teacher behaviors and student achievement (Good & Brophy, 1984). Certain teacher behaviors have been shown to be correlated with large student gains in achievement (Duke, 1987; Joyce & Weil, 1980; Fisher, Berlinger, Filby, Marliave, Cahan, & Dishaw, 1980; Hunter, 1984). A synthesis by Duke (1987) of the research on effective teaching describes a model of teaching excellence that provides part of the framework for this study:

capable teachers engaged in planning, instruction, classroom management, progress monitoring, and clinical assistance.

Effective Schools

Research on school effectiveness has paralleled research on effective teaching. These studies focused on a number of school variables as they related to improving student achievement (Brookover & Lezotte, 1979; Edmonds, 1979, 1982; Rutter, Maugham, Mortimore, Ouston, & Smith, 1979). Invariably, findings from this line of research suggested that school principal leadership is significant in the development of an effective school (Edmonds, 1982; Kroeze, 1984; Shoemaker & Fraser, 1981; Sweeny, 1982).

Principal Leadership in Effective Schools

A synthesis of the research on principal leadership in effective schools (Northwest Regional Educational Laboratory, 1984) notes the following as essential principal variables found in effective schools: (1) having a clear vision of where the school is going and communicating it to students, teachers, and parents; (2) establishing a safe, orderly environment; (3) establishing and maintaining curriculum related to school goals; (4) knowing quality instruction and working with teachers to improve instruction; and (5) monitoring school performance (Blumberg & Greenfield, 1980; Phi Delta Kappa, 1980; Dwyer, Barnett, Filby, & Rowan, 1984). Currently, the literature reflects a growing interesting in a specific aspect of principal leadership identified as instructional leadership.

For the pupeses of this study, it is hypothesized that the higher the teachers' perception of the principal's level of instructional leadership, the stronger the students' perceptions of the presence of environmental characteristics that relate to effective teaching. In other words, to the extent that teachers perceive the principal as exerting strong instructional leadership, one would expect to observe effective teaching practices. Those enviro.mental variables include teacher support, affiliation, involverent, task orientation, order and organization, rule clarity, and teacher control.

Method

Instruments and Procedure

Teacher perception of the school principal's level of instructional leadership was measured using the Principal Instructional Management Rating Scale (PIMRS) developed by Hallinger (1985). The instrument contains 50 statements about principal instructional leadership behaviors. Respondents indicate the degree to which they perceive the principal has performed a particular practice over the school year. Respondents choose their answers from a five-point Likert scale: "almost never" (1) to "almost always" (5). The instrument is scored by calculating the mean for each job function. Job functions relate to frames goals, communicates goals, evaluates instruction, coordinates curriculum, monitors progress, protects instructional time, maintains high visibility, provides incentives to teachers, selects and participates in professional development programs, establishes explicit academic standards,

and provides incentives for learning (Hallinger et al., 1987).

Perceived classroom environment was measured using the Classroom Environmental Scale (Moos & Trickett, 1974). The Classroom Environmental Scale (CES) is a 90-item true-false measure of classroom social climate. The measure is based on Murray's (1938) theory of environmental press and focuses on participant perceptions of classroom relationships and organization. The CES consists of nine factor-analytically derived subscales: Involvement, Affiliation, Teacher Support, Task Orientation, Competition, Order and Organization, Rule Clarity, Teacher Control, and Innovation. These subscales represent four conceptual dimensions. The Involvement, Affiliation, and Teacher Support subscales assess personal relationship characteristics of the classroom and in the model above relate to "caring for students", "classroom management", and "instruction". The Task Orientation and Competition subscales measure classroom goal orientation and relate to "planning", "progress monitoring", and "instruction". Order and Organization, Rule Clarity, and Teacher Control subscales constitute a classroom system maintenance dimension and relate to "classroom management". The final subscale, Innovation, represents emphasis on classroom system change. However, since previous research has not established a relationship between this dimension and effective teaching, scores on this scale were not used in the analysis. For the nine scales the authors of the MOS report test-retest reliabilities ranging from .85 to .95.

<u>Sample</u>

A sample of 16 public secondary schools throughout east Alabama was used for this study. The schools represented a mix or urban and rural as well as large and small schools. Demographic data regarding school size, school SES, student dropout rate, number of discipline referrals, staff years of experience, and educational level were obtained.

Within each school a random sample of 6 teachers were selected. While the students is those teachers' classrooms completed the CES, the 6 teachers and the principal completed the PIMRS.

<div align="center">Results</div>

Data were analyzed using standard multiple regression analysis, with the eight classroom social climate variables as predictors and the summed teacher ratings of principal instructional leadership as the criterion variable. An evaluation of assumptions yielded no gross violations of assumptions of normality, linearity, and homoscedasticity of residuals.

Insert Table 1 about here

The results of the analysis are summarized in Table 1. A conventional alpha level of .05 was utilized as a minimum criterion for significance. As shown in Table 1, for the eight predictors considered jointly, the multiple R observed was .93, accounting for approximately 87 percent of the total variance in

teachers' ratings. For the overall equation, $F(8,7) = 5.93$,
$p = .015$. Of the eight predictors, five were statistically
significant: Task Orientation, Teacher Support, Affiliation,
Competition, and Involvement. This means that each of these five
scales uniquely accounted for a significant portion of the total
variance in the summed ratings.

While R^2 is a nominal measure of the magnitude of the
overall relationship between the set of predictors and the
criterion, when the sample size is relatively small, as in the
present case, R^2 will tend to be inflated as an estimate of the
population R^2 (Cohen and Cohen, 1983). Therefore, a more
realistic or adjusted estimate of the population R^2, the so-
called "shrunken" R^2 was calculated. In the present case, the
adjusted $R^2 = .72$. Thus, even with an adjustment for the small
sample size, the predictors still account for about 52 percent of
the variance in teacher ratings on the PIMRS.

Discussion

Results of the study provide support for the hypothesized
relationship between classroom environment and principal
instructional leadership. Teachers in classrooms where students
perceived a high level of helpfulness towards each other and
enjoy working with each other see their principals as being
highly involved in supervising and evaluating instruction and
able to effectively communicate school goals. These principals
are very visible and often recognize student accomplishments.

Surprisingly, however, students in schools where their
principals are judged to be instructional leaders perceive their

teachers to be aloof and formal. Thus, schools with principals functioning as instructional leaders enjoy friendly, peer-oriented classroom environments with distant teachers. However, these findings also may relate to teacher beliefs concerning how classrooms should be managed and the association of these beliefs with the ecology of the school (Short & Short, 1987; Short & Short, in press). Willower's (1975) framework for teacher control philosophy provides a model for understanding this phenomena.

Willower proposed that educators vary along a continuum of beliefs about the way children should be socialized. At one extreme of the continuum, custodial educators emphasize classroom organization and structure. They believe that students are relatively passive receptacles of knowledge who learn best when there is a clear payoff for learning. Custodial educators believe that students must learn to conform to the system. They therefore emphasize routine and standardization, minimizing accommodation to individual differences in children. At the other extreme, humanistic educators emphasize the individual student. Humanistic educators believe that students are by nature active, positive, intrinsically motivated learners. They are comfortable in a bustling classroom and allow students to make choices concerning their educational activities. They minimize routine and bend rules in their view of students as unique and active problem solvers. Thus, student perception of teacher aloofness and lack of support may actually stem from teacher differences in pupil control ideology.

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However, students did not perceive teachers to be overly strict in enforcing rules nor was there abundant student misbehavior in classrooms where teachers saw principals as strong instructional leaders. It is conceivable that principal instructional leadership behaviors such as high visibility and incentives to teachers and students combine to eliminate the need for tight teacher control while rewarding the positive performance of students.

Interestingly, the incentives provided to students in schools where principals are perceived as strong instructional 'eaders do not create a sense of strong competition between students for grades. In addition, students do not perceive that it takes extra hard work to achieve good grades. However, teachers who see their principals as strong instructional leaders have classrooms where students are highly involved in the activities of the classroom. The students are attentive, interested, participate in discussions and attempt extra credit work. This may explain the perceived lack of competition since research (Squires, Huitt, & Segars, 1984) suggests that a high level of student involvement relates to student achievement. In essence, students are learning, experiencing success, and, thus, motivated by their successes as opposed to competition with someone else.

Concomitant with the high level of student involvement in classrooms is strong teacher emphasis on task completion. These teachers who view their principals as instructional leaders emphasize completing classroom activities. Further, teachers

deviate very minimally from the subject matter being taught. Principal instructional leadership which supports this emphasis would include evalua .n of instruction and monitoring of progress, protection of instructional time, the establishment of explicit academic standards, and high visibility.

Conclusion

Research in effective schools, teaching, and school leadership has demonstrated a relationship between good principals and effective schools. We are still not sure how instructional leadership impacts upon student achievement. This study provided a further look into ways principal instructional leadership is translated into effective teaching practices. Results of this study indicate the need for a intensified line of research exploring principal-leadership influence on school excellence, particularly in varied school contexts. The end result should be a growing understanding of effective school leadership.

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Table 1

Standard Multiple Regression of Social Climate

Variables on Principal Instructional Leadership

(N = 16)

Variable	Mean	SD	beta	F	p
PIMSR	179.80	12.89			
Affiliation	717.81	50.98	1.16	27.64	.001
Competition	609.44	54.15	-1.44	18.33	.004
Involvement	506.44	81.77	1.28	8.25	.024
Order and Organization	610.06	86.19	-1.24	4.12	.082
Rule Clarity	705.25	42.40	.56	1.98	.202
Teacher Control	558.56	63.59	- .02	.00	.951
Task Orientation	727.31	49.76	1.14	8.00	.026
Teacher Support	650.94	52.20	- .98	7.51	.029

$R = .934$, $R^2 = .87$, $F(8,7) = 5.93$, $p = .015$, Adjusted $R^2 = .72$