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ABSTRACT

A 5-year study examined third-graders' perceptions of school climate in 16 Louisiana schools. Part of the Louisiana School Effectiveness Study (LSES), Phase III and IV examined student perceptions in 1984-85 and 1989-90, respectively, and also gathered demographic data and multiple measures of student outcomes through student surveys and classroom observations. After the 1984-85 school year, 8 of the 16 schools were classified as ineffective and 8 as effective. Five years later, three of the eight ineffective schools remained so, while three of the effective schools became ineffective. In ineffective schools, students perceived that the majority of teachers did not care if students received bad grades. Students in effective schools had a harder time seeing change and improvement than did students in ineffective schools. (MDM)

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STUDENT PERCEPTIONS OF ELEMENTARY SCHOOL CLIMATES IN THE LOUISIANA SCHOOL EFFECTIVENESS STUDY: A COMPARISON OF PHASE III AND PHASE IV

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INTRODUCTION

It is known that school culture or climate influences academic achievement, attendance, and student perceptions of cohesiveness and satisfaction (Fraser, 1986). School climate is defined by Brookover et al. (1978)"a school's academic norms, as expectations and beliefs." They say, further, that this climate, although related to the social composition of the student body, is not synonymous with it. Anderson, in her excellent 1982 review of school climate literature, points out a number of other issues about school climate that researchers agree upon. First, they agree that such climate exists; second, that differences in the climates of various schools are complex and difficult to measure; third, that many types of student outcomes (not just cognitive ones but also affective behavior, values and personal growth) are affected by the school's climate; and fourth that understanding school climate will contribute to the understanding and prediction of student behavior.

In most recent years, the trend in school climate and environment studies has been in the direction of examining the perceptions of pupils and students, rather than the adults in the school. Measures of learning environment characteristics have emerged as important components of educational programs and curriculum evaluation efforts (Fraser, 1979,1981), theories of various learning environments (Moos, 1974,1976,1979), and comparisons of teachers' and students' perceptions of actual and





preferred learning environments (Fraser, 1982).

According to Walberg (1981, 1983, 1986), nine factors require optimization to increase affective, behavioral, and cognitive learning. Included in this model is an educationally stimulating psychological environment that includes classroom or school environment. Brookover et.al. (1978) found that school composition (i.e., SES and racial composition) does not necessarily determine school climate, and that changes in school composition variables without concomitant changes in school climate may not bring about desired changes in school level achievement. It is believed by Brookover that favorable climate is a necessary condition for high achievement. There is growing evidence that student perceptions of classroom process are valuable sources of information about schools (e.g., Cooper & Good, 1983; Peterson & Swing, 1982; Rohrkemper, 1984; Weinstein, 1983); however, student data are most useful when combined with process observation and contextual information.

The Louisiana School Effectiveness Study (LSES) was conceived as a multi-year, multi-phase examination of student, teacher and school-level behaviors/characteristics, their effects on achievement and other desired student outcomes. Altogether, there have been four phases to the LSES study: LSES-I, a pilot study conducted in 1981-82; LSES-II, a macro-level study of 76 elementary schools from throughout the state of Louisiana conducted in 1982-83; and LSES-III and -IV, a longitudinal micro-level study conducted in 16 schools in 1984-85 and again in 1989-90. During both LSES-III and LSES-IV, multiple measures of student outcome and

attitude data were gathered on all third grade students in eight matched (SES, racial composition, district) pairs of elementary schools.

This research was conducted to examine student's perceptions of their elementary school climate during two phases of the Louisiana School Effectiveness Study. The following questions guided the research: 1) What were the differences over a five year period of the students' perceptions of their school climate? 2) How did their perceptions relate to the classification of effective and ineffective schools over this time period?

METHODS AND PROCEDURES

Sample

The sampling pool consisted of 13 school systems. Within systems, third-grade school means on the total reading section of the state basic skills test (BST) were obtained. Mean scores by school were computed for two consecutive years. The final sample consisted of eight pairs of schools - rural, urban and urban-to-suburban pairs representing all geographic regions of the state. Within these constraints, schools were selected that scored above (or below) achievement prediction both years, with one year being substantially above (or below) prediction. Purkey and Smith (1983) suggested that outlier studies should consist of schools that had been demonstrated to be consistently positive or negative outliers.



Instrumentation/Measures

The elementary students' perceptions of the school climate were measured by a 40 question version of the <u>School Social Climate Study</u> (Student Questionnaire), (Brookover, et al,1979). This questionnaire was administered in Phase III and Phase IV of the LSES to all third grade students in the 16 schools participating in the study.

The data that served as the primary focus of this study was derived from both high and low inference classroom observation instruments, the Classroom Observation Instrument (COI), the Virgilio Teacher Behavior Inventory (VTBI), and the Classroom Snapshot (CS) from the Stallings Observation System (Stallings, and Kaskowitz, 1974, Stallings, 1980)}. The COI and the VTBI were used to gather high inference data on teacher behavior in LSES-III and -IV respectively, while the CS was used to gather low inference data. Researchers gathered extensive field notes that greatly enhanced the qualitative aspect of the study. This qualitative data collaborated in supporting the findings from the other data sources of the study.

The LSES-III and -IV used the outlier approach (Purkey and Smith, 1983) to categorize schools as effective or ineffective. This approach typically involves the use of a mathematical model to predict school-level student achievement based on factors such as the socioeconomic status (SES) of the students' families. If the actual school-level achievement is significantly above expected achievement, the school is classified as effective. If it is below



expectation, the school is considered ineffective. In LSES-III, a prerequisite for inclusion as an effective or ineffective school was consistent superior or inferior performance over a two-year period. School effectiveness is defined in this study in terms of expected versus actual student achievement over a two-year period (Teddlie, Kirby, and Stringfield, 1989). LSES-IV is a five year follow-up of the 16 schools in LSES-III.

Data Collection Procedures

Each school in the sample was visited by a two-person team for three full school days in the fall and the spring school year in LSES-III and -IV. In the spring of 1990, these visits were shortened to two days. Each observer on the team visited every third-grade class for at least one class period each day. No school in the study contained over four third-grade sections. The remaining time allocated for classroom instruction was used to observe randomly chosen non-third grade classes. In Phase IV the team visited beginning teachers before randomly selecting other classes. Observers were instructed to begin taking notes one minute after the designated academic time had begun and not to code behaviors during times between periods.

School climate questionnaires were administered to the third grade classes in both effective and ineffective schools in the morning of the last day of the visit. The 40 item instrument for school climate assessment was a modified version of a questionnaire developed by Brookover and colleagues (1979). Brookover's



instrument used to measure school climate was developed in the mid-1970's and was a methodological break-through. The instrument allowed researchers to assess school climate variables, which measure the social psychological climate for learning in the school. Before Brookover's work, these kinds of variables had not been included in studies of the educational production function (Hanushek, 1979), which assesses the relationships of various educational inputs to student achievement. Brookover's original climate questionnaire was composed of the following student scales: 1) student sense of academic futility, 2) future evaluations and expectations, 3) perceived present evaluations and expectations, 4) perceptions of teacher push and teacher norms, and 5) student academic norms. The LSES-II student climate questionnaire was revised based on pilot testing from LSES-I (Teddlie, Falkowski & Falk, 1982). Two types of questions measuring self-concept (Michael & Smith, 1976) and locus of control (Crandall, Katkovsky, & Crandall, 1965) were added to the student questionnaire.

Data Analysis

The questionnaire was analyzed by item mean score. The results were reported by school. Certain items were classified and analyzed by sub-groups (self-concept and locus of control), while others were analyzed as individual items. The analyses were computed for both LSES-III and LSES-IV.

A comparison of the analysis of the two phases of LSES over a five-year period of the sc ol climate questionnaire was done.



This comparison was done using item and sub-group means for each of the eight pairs of effective and ineffective schools.

An Analysis of Variance (ANOVA) was performed on the data using the classification of the schools (stable effective, improving, declining, and stable ineffective) and the socioeconomic status (SES- low, middle) of the schools were the independent variables and the questionnaire items and subgroups were the dependent variables.

Discussion of Results

In classifying the sixteen schools in LSES-III, eight schools were determined to be effective and eight were determined to be ineffective. Over the five year period, five of the effective schools remained effective (stable effective), while three of the LSES-III effective schools declined over the same period.

Data on student perceptions of the school climate in the eight pairs of effective and ineffective schools were examined. The 16 items selected from the student climate inventory analysis pertained to the students' perceptions of the school climate, not their perceptions of self or teacher.

In historically ineffective schools, three of the schools remained ineffective over the five year period. The analysis of the student questionnaire supports this classification in how the students perceive their school climate. For example, the students perceived that more than half of the teachers did not care if the students received bad grades (See Table 1, item # 15). This



perception was consistent over both phases of the study. An improvement in the classification from a historically ineffective school during Phase III to an improving ineffective school in Phase IV was substantiated by the perceptions of the students in the school. For example, students perceived that students learned about the same as students in other schools in Phase III, whereas in Phase IV, they felt that students learned a lot more in their school (Table 1, item # 11).

In historically effective schools, five of the schools remained effective over the five year period. This was supported by little change in how the students perceived the school climate. One of the historically effective schools showed a declining trend from Phase III to Phase IV. This decline was supported by the student perception questionnaire. For example, in Phase III the students perceived that some of the teachers did not care how hard the students worked as long as they passed. In Phase IV, most of the teachers cared how hard the students worked. These student perceptions supported the changes in the schools over the five-year period (Table 1, School 6213, # 18).

Examining the results of the number of changes greater than 0.5 by item classified by type of school (historically effective or historically ineffective) (Table 2) showed that students perceive more change in ineffective schools. Table 2 shows that students have a harder time seeing change in effective schools than they do in ineffective schools. There were more changes per item in the ineffective schools than in the effective schools. Students in the ineffective schools were perhaps more aware of changes around them, whereas the students in the effective schools were more complacent



and perceived a stable status quo.

The Analysis of Variance was based on the independent variables of SES and school classification over the five year The results of the ANOVA indicated complicated interactions. In Table 3 the students' perceptions supported the marginal means from the ANOVA on the schools that changed over the five year period. The main effect is shown when the categories of stable effective/improving and stable ineffective/declining are This is particularly the case in declining low-SES collapsed. schools and in improving mid-SES schools. It is best to focus on the schools in transition because students can see improvement in improving schools and decline in declining schools. It is harder for students to perceive stability in stable effective and ineffective schools.

Discussion

Although there have been fruitful attempts to measure general reactions of teachers and students to school (e.g. Brookover et al., 1979), future research needs to focus more closely on participants' reactions to specific events, especially events believed to be central to school effectiveness.

It is also important to assess the influence of school culture and instructional processes on students' perceptions. It is one thing to say that students and teachers should hold high expectations, but another to get answers to specific questions. How do students know how hard they should work? How can students know whether they are devoting more or less effort to schoolwork than their peers? The work of Natriello and Dornbusch (1984)



illustrates the value of measuring student perceptions, as well as the difficulty of doing this work.

Measurement of student's perceptions and observations of what they do in classes should be more central to the study of effective schools than it has in the past. Future studies of effective schooling could make better use of student interviews in order to understand how different types of students perceive and act upon the various constraints present in more or less effective schools.

Good and Brophy (1986) believe that information about how students and teachers perceive instructional processes and opportunities in more effective schools is needed to provide clues about how to make schools more effective. Similar arguments could be made about the value of measuring teacher beliefs, perceptions, and decision-making skills related to effective schooling. There are important data to suggest that teachers' expectations for student performance vary from school to school (Brookover, et.al. 1979); however, needed now are assessments of other teacher perceptions that may help explain why some teachers hold high expectations for student learning.

In light of these suggestions for more extensive research in the area of student and teacher perceptions of their schools and learning environments, another aspect of learning environment research should be considered. Are students' perceptions of their learning environments more accurate than their teachers' perceptions? Comparisons of data collected in these two fields could reveal interesting results to the school effectiveness literature.



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Table 1
Student Perception of Change in School Climate,
1984-85 and 1989-90 Cohorts

#2215	#2215	#1107	1 #1107	Scho
LSES-IV	LSES-III	LSES-IV	LSES-III	
Improving	Ineffective	Stable	neffective	
		Ineffective		
				Item
4.4	4.6	4.5	4.4	#3
1.5	1.8	1.3	1.4	#11
2.1	2.5	1.8	1.9	#12
1.6	1.9	1.4	1.6	#13
2.4	2.8	2.0*	2.5	#14
4.3	3.9	4.2 .	3.9	#15
2.5	2.8	2.0*	2.8	#16
1.6	1.7	1.3	1.3	#17
3.4*	2.9	2.8	3.2	#18
1.3*	1.8	1.2*	1.9	#19
1.9	2.1	1.7	1.6	#21
2.0	1.8	1.9	1.6	#22
3.8	3.7	3.5	3.5	#23
3.7	4.0	3.6*	3.0	#25
	3.7	3.6	3.5	#26
3.8	3.8	4.3	4.1	#27
4.0	3.0	3.5		,,

School #1317 LSES-III	#1317 LSES-IV	#3103 LSES-III	#3103 LSES-IV
Ineffective <u>Item</u>	Improving	Ineffective	Improving
#3 4.3 #11 1.6	4.8* 1.5	4.4	4.7
#12 1.9 #13 1.7	2.2 1.4	2.0	1.5 1.8 1.6
#14 2.5 #15 3.4	2.3 4.5*	2.1 3.8	2.2 3.3*
#16 2.4 #17 1.4	2.9* 1.5	2.5 1.8	2.4 2.0
#18 3.7 #19 1.8 #21 2.1	3.0* 1.6	2.7	2.9 1.7
#21 2.1 #22 1.8 #23 3.3	2.2 1.8 4.0*	2.2 2.1	1.9
#25 3.4 #26 3.7	3.9* 3.7	3.0 3.4 3.7	3.4 3.3
#27 4.1	4.1	4.4	3.1* 4.3

^{*} A change between the two years of greater than the absolute value of $\underline{+}$ 0.5 scale points.



School #4101	#4101	#6116	#6116
LSES-III	LSES-IV	LSES-III	LSES-IV
Ineffective	Improving	Ineffective	Improving
Item			
#3 4.0	4.5*	4.2	4.6
#11 1.4	1.3	1.8	1.4
#12 1.9	1.6	2.2	1.9
#13 1.6	1.5	2.0	1.7
#14 2.3	1.4*	2.5	2.0*
#15 3.8	3.5	4.2	4.2
#16 2.1	2.1	2.8	2.3*
#17 1.5	1.5	1.6	1.2 3.4
#18 3.2	2.7*	3.0 1.5	1.3
#19 1.5	1.2	2.9	1.8*
#21 2.2	1.5*	1.8	1.9
#22 1.8	1.5 3.0*	3.9	4.1
#23 3.6 #25 3.9	4.0	3.7	3.9
#25 3.9 #26 3.9	3.9	3.1	3.8*
#27 4.0	4.4	4.1	4.4
#27 4.0	7.7	••-	_
School #5105	#5105	#7102	#7102
LSES-III	LSES-IV	LSES-III	LSES-IV
Ineffective	Stable	Ineffective	Stable
	Ineffective		Ineffective
Item			
#3 4.1	4.5	3.9	4.7* 1.3*
#11 1.4	1.5	1.8	1.9
#12 1.8	1.8	2.0 2.0	1.7
#13 1.3	1.6 1.8	2.3	2.1
#14 2.0 #15 3.6	3.4	4.1	3.9
#15 3.6 #16 2.2	2.1	2.3	2.7
#17 1.7	1.6	1.6	1.9
#18 2.7	2.9	3.4	4.0*
#19 1.3	2.0*	1.6	1.7
#21 1.8	2.0	2.4	2.1
#22 1.5	1.9	2.0	2.1
#23 3.2	2.8	4.0	3.4*
#25 3.6	3.6	3.7	3.0*
#26 3.3	3.3	3.8	3.5
#27 4.2	4.2	3.9	4.1

^{*} A change between the two years of greater than the absolute value of $\underline{+}\ 0.5$ scale points.



School #1210 LSES-III Effective	#1210 LSES-IV Stable Effective	#2206 LSES-III Effective	#2206 LSES-IV Declining
Item			· · · · · · · · · · · · · · · · · · ·
#3 4.2 #11 1.7 #12 2.0 #13 1.9 #14 2.4 #15 3.8 #16 2.6 #17 1.6 #18 3.1 #19 1.5 #21 2.5 #22 2.0 #23 3.6 #25 3.4 #26 3.7 #27 4.2	4.4 1.4 1.6 1.8 2.4 3.9 2.2 1.5 3.0 1.6 1.8* 2.0 4.0 3.4 3.5 4.3	4.3 1.7 2.2 2.1 2.2 4.0 2.4 1.6 3.4 1.4 2.3 1.6 4.0 3.9 3.8 3.9	4.6 1.4 1.9 1.7 2.8* 3.8 2.4 1.7 3.8 1.9* 2.3 1.8 3.7 3.4* 3.5 4.1
School #1409 LSES-III Effective	#1409 LSES-IV Stable Effective	#3211 LSES-III Effective	#3211 LSES-IV Declining
#3 4.7 #11 1.7 #12 2.0 #13 2.0 #14 2.5 #15 4.0 #16 2.4 #17 1.5 #18 2.9 #19 1.7 #21 2.0 #22 1.7 #23 3.8 #25 4.5 #26 3.9 #27 4.2	4.3 1.5 2.0 1.6 2.0* 4.0 2.5 1.6 3.0 1.5 2.0 2.1 3.8 3.5* 2.6* 3.5	4.1 1.3 1.9 1.8 2.1 3.8 1.9 1.5 2.8 1.6 1.9 1.8 3.8 3.4 3.7 3.8	4.0 1.3 1.8 1.5 2.3 3.1* 2.6* 1.8 3.0 1.6 2.0 1.7 2.8* 2.9* 3.2* 4.0

^{*} A change between the two years of greater than the absolute value of $\underline{+}\ \text{0.5}$ scale points.



Scho	ool #4204	#4204	#6213	#6213
	LSES-III	LSES-IV	LSES-III	LSES-IV
	Effective	Stable	Effective	Declining
		Effective		,
<u>Iter</u>		4 4 4		
#3	3.5	4.4*	3.9	3.8
#11	1.6	1.8	1.5	1.6
#12 #13	2.1 2.2	1.8	2.4	1.9*
#14	1.8	2.0	2.4 2.4 2.0	2.2 2.6*
#15	4.2	1.6* 2.1 3.5*	4.3	3.8*
#16	2.6	1.7*	2.4	2.2
#17	2.0		1.6	1.9
#18	2.5	1.7 2.2	2.7	3.3*
#19	1.4	1.2	1.3	1.2
#21	2.5	1.6*	2.5	1.6*
#22	1.6	2.0	1.6 3.9	1.5
#23	3.2	3.8*	3.9	4.4*
#25	2.8	3.5*	3.6	3.0*
#26	3.5	3.1	3.5	3.2
#27	3.4	4.5*	3.7	3.8
Sch	ool #5218	#5218	#7208	#7208
	LSES-III	LSES-IV	LSES-III	LSES-IV
	Effective	Stable	Effective	Stable
_		Effective		Effectiv e
<u>Iter</u>				
#3	3.6	4.2*	4.3	4.4
#11	1.3	1.3	1.7	1.8
#12 #13	1.5 1.5	1.7	2.2	2.3
#14	1.8	1.5 1.6	2.0 1.8	2.2
		1.0	1.0	2.3*
# I ~		2 8*		
#15 #16	3.4	2.8*	4.4	3.7*
#16	3.4 1.9	2.8* 2.1	4.4 2.0	3.7* 2.4
#16 #17	3.4 1.9 1.7	2.8* 2.1 1.6	4.4 2.0 1.6	3.7* 2.4 1.7
#16 #17 #18	3.4 1.9 1.7 2.5	2.8* 2.1 1.6 2.5	4.4 2.0 1.6 3.9	3.7* 2.4 1.7 2.9*
#16 #17 #18 #19 #21	3.4 1.9 1.7	2.8* 2.1 1.6 2.5 1.4	4.4 2.0 1.6 3.9 2.0	3.7* 2.4 1.7 2.9* 1.5*
#16 #17 #18 #19 #21 #22	3.4 1.9 1.7 2.5 1.6 1.6	2.8* 2.1 1.6 2.5 1.4 1.6 1.5	4.4 2.0 1.6 3.9 2.0 2.2 1.7	3.7* 2.4 1.7 2.9* 1.5* 2.3
#16 #17 #18 #19 #21 #22 #23	3.4 1.9 1.7 2.5 1.6 1.5 3.3	2.8* 2.1 1.6 2.5 1.4 1.6 1.5 3.0	4.4 2.0 1.6 3.9 2.0 2.2 1.7 4.0	3.7* 2.4 1.7 2.9* 1.5* 2.3 2.6* 3.5*
#16 #17 #18 #21 #22 #23 #25	3.4 1.9 1.7 2.5 1.6 1.5 3.3 3.6	2.8* 2.1 1.6 2.5 1.4 1.6 1.5 3.0 2.8*	4.4 2.0 1.6 3.9 2.0 2.2 1.7 4.0 3.6	3.7* 2.4 1.7 2.9* 1.5* 2.3 2.6* 3.5* 3.9
#16 #17 #18 #19 #21 #22 #23	3.4 1.9 1.7 2.5 1.6 1.5 3.3	2.8* 2.1 1.6 2.5 1.4 1.6 1.5 3.0	4.4 2.0 1.6 3.9 2.0 2.2 1.7 4.0	3.7* 2.4 1.7 2.9* 1.5* 2.3 2.6* 3.5*

^{*} A change between the two years of greater than the absolute value of $\pm\ 0.5$ scale points.



Table 2

Number of Changes

Historically Ineffective Schools	Historically Effective Schools
Item	Item
# 3 - 4 #11 - 1 #12 - 1 #14 - 2 #15 - 4 #16 - 2 #18 - 4 #19 - 3 #21 - 3 #21 - 3 #22 - 1 #23 - 4 #25 - 6 #26 - 4 #27 - 1	# 3 - 1 #13 - 1 #14 - 3 #15 - 3 #16 - 2 #18 - 1 #19 - 2 #23 - 1 #25 - 2 #27 - 1
# 2 / - 1	



Table 3

Changes in Student's Perception of School Climate in Schools Varying by SES and Effetive Status

EFFECTIVENESS STATUS	LOW	ES MIDDLE	Marginal Means
Stable Effective	5.5	-6.5	5
Improving	1.0	7.0	4.0*
Declining	-6.0	.05	-2.75*
Stable Ineffective	- 6. 7	6.0	2.7

Note: Difference in LSES-ITI and LSES-IV

