

1 Classroom Learning Environment & Student Motivational Differences between Exemplary, Recognized, & Acceptable Urban Middle Level Schools

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ABSTRACT

One of the essential principles for improving middle grade education is to establish a safe and healthy school environment (Jackson & Davis, 2000; Price & Waxman, 2005). The overall quality of the school climate or school environment has been argued to be one of the central problems of urban schools (Waxman & Huang, 1997). Several studies, for example, have found various measures of success in middle school to be related to school climate (Goodenow & Grady, 1995; Seidman et al. 1994). The present study examines differences on students' perceptions of their classroom learning environment between urban middle level schools that were classified by the statewide assessment criteria as "exemplary," "recognized," or "acceptable." Differences between these three types of schools' on students' background characteristics, attendance, out-of-school activities, and student aspirations also were examined.

A random sample of about 400 sixth- and seventh-grade students from each type of school completed an adapted version of the My Class Inventory (Fraser, 1998) and background questions from the National Educational Longitudinal Survey. The results indicated that students in the exemplary school had significantly higher ($p < .001$) perceptions for the scales of Satisfaction, Teacher Support, Cohesion, and Equity, than students in the recognized and acceptable school. Students in the exemplary and recognized school also had higher self-esteem in reading scores than students in the acceptable school. On the other hand, students in the recognized and acceptable schools had significantly higher perceptions of Friction and Difficulty than students from the exemplary school.

INTRODUCTION

One of the essential principles for improving middle grade education is to establish a safe and healthy school environment (Jackson & Davis, 2000). The National Middle School Association, for example, includes “an inviting, supportive, and safe environment as one of its core characteristics crucial for effective middle level schools” (NMSA, 1995). The school environment is the broader context or climate of the school that either facilitates or constrains classroom instruction and student learning (Shields, 1991). Several studies have found various measures of school success to be related to the school climate (Goodenow & Grady, 1995; Seidman, Allen, Aber, Mitchell, & Feinman, 1994). Anderman (2003), for example, found that level of student belonging within schools was associated with the prior achievement and academic social variables. Hoy and Sabo (1998) also found that aspects of the school climate such as school health, teacher openness, and principal openness, were positively related with middle school students’ mathematics, reading, and writing achievement.

The overall quality of the school climate or school environment has been argued to be one of the central problems of urban schools (Waxman & Huang, 1997). Students may be placed at risk of academic failure by the quality of their school and classroom learning environment (Montgomery & Rossi, 1994). Several educators, for example, have found that there are many features of schools and classrooms that are alienating to students and consequently drive students out of school rather than keep them in (Rumberger & Thomas, 2000; Valenzuela, 1999). Studies conducted at the middle school level have found that ineffective or dysfunctional classroom and instructional learning environments exist in many middle level schools (Midgley, Eccles, & Feldlaufer, 1991; Mac Iver & Epstein, 1993; Waxman, Huang, & Padrón, 1995). One explanation for this problem is that the structure of middle school environment is often more structured, formal, and less personal than elementary schools. Middle level students frequently become bored and alienated with the large amount of teacher talk and lack of student involvement (Waxman, Huang, & Padrón, 1995). Middle school classrooms often also have a greater emphasis on teacher control and discipline, and there are fewer opportunities for positive teacher/student relations and student decision-making than in elementary school classrooms (Feldlaufer, Midgley, & Eccles, 1988). Furthermore, middle level school environments do not always encourage personal relationships between the teacher and student, although research has found that a caring and supportive environment is critical for students (Baker, 1998; Roeser, Midgley, & Urdan, 1996).

Studies comparing characteristics from highest performing middle schools and lowest performing middle schools revealed that the highest

performing schools provided their students among higher expectations and aligned curriculum, and a caring atmosphere where all students were given guidance and high expectations (Langer, 2000). Students were provided with varying activities including extra time in order to meet academic objectives. Other studies found that successful middle schools were effective because they often personalized the school environment and made learning personal for the students (Greifner, 2006). These findings suggest that changes in middle school environments are needed in order to create a caring, supportive environment in which all middle school students, but particularly those students at risk of failure in urban schools, can achieve academic success. In other words, the school and classroom learning environment are important components that should be addressed in middle level schools. In summary, there is evidence that the school and classroom environment of urban middle level schools may either be beneficial or detrimental to the academic performance of minority students. The present study tries to address the problems of culturally and ethnically diverse students in urban middle level schools by drawing upon two distinct research paradigms: (a) classroom learning environments, and (b) effective schools. The following two sections briefly describe the existing knowledge base from these two perspectives.

CLASSROOM LEARNING ENVIRONMENT

The socio-psychological environment or classroom learning environment, as it is more recently referred to, has been extensively researched in the past three decades. Several major reviews and research syntheses of these studies have concluded that the socio-psychological environment significantly impacts students' cognitive and affective outcomes (Fraser, 1998; Haertel, Walberg, & Haertel, 1981). Generally, the results of these reviews of research have found that the variables such as cohesiveness, student satisfaction, and teacher support are positively related to students' gain in academic achievement. Other reviews have found that classroom environment measures can be effectively used as criterion or outcome variables in a wide range of research (Fraser, 1986; 1998). Classroom environment scores have been used as dependent measures in a number of studies investigating the impact of variables such as curriculum evaluation studies (Fraser, 1998; Haertel & Walberg, 1988) and school effectiveness studies (Waxman & Huang, 1997; Waxman, Huang, Anderson, & Weinstein, 1997).

From a theoretical perspective, classroom learning environment research emphasizes the student-mediating or student cognition paradigm, which maintains that how students perceive and react to their learning tasks and classroom instruction may be more important in

terms of influencing student outcomes than the observed quality of teaching behaviors (Knight & Waxman, 1991; Wittrock, 1986). Student perceptions of the learning environment are essential for understanding the opportunities for learning that are provided to each student in class (Fraser, 1990; Waxman & Chen, 2006). This paradigm assumes that: (a) students are the experts of their own views and experiences of school (Delpit, 1988; Oldfather, 1995), (b) the classroom environment experienced by the student may be quite different from the observed or intended instruction (Waxman, 1989; Wittrock, 1986), and (c) teaching and learning can be improved by examining the ways that the learning environment are viewed or interpreted by the students themselves since students ultimately respond to what they perceive is important (Chavez, 1984; Schultz, 1979). Studies conducted at the middle school level also have found that middle school students are capable of providing valuable information about what works for them (Bishop & Pflaum, 2005).

Measures of learning environment have been included in a few school effectiveness studies (Waxman & Huang, 1997; Waxman, Huang, Anderson, & Weinstein, 1997), but very little is still known about the relations between effective schools and classroom learning environment. A few studies have found that effective schools have more favorable learning environments and more positive school climates than ineffective schools (Edmonds, 1986; Fraser, 1991; Levine, 1990). School climate, however, is often measured at the school level or teacher level in these studies. Few studies have actually used learning environment indicators in their research that are generally measured at a classroom or student-level, making it a more proximal measure of what actually occurs within classrooms.

SCHOOL EFFECTIVENESS RESEARCH

Prior school effectiveness research has been criticized for a number of methodological, technical, theoretical, and conceptual reasons (Levine, 1990; Scheerens, 1992; Teddlie & Stringfield, 1993). One of the specific criticisms aimed at researchers in this field is that they have not investigated classroom processes as extensively as they should (Good & Brophy, 1986), especially since there is some evidence that suggests that instructional and classroom processes account for differences between schools (Teddlie, Kirby, & Stringfield, 1989; Teddlie & Stringfield, 1993). Consequently, one of the current research thrusts in this area consists of examining those classroom processes or instructional effects within schools that influence student outcomes (Crone & Teddlie, 1995; Teddlie & Stringfield, 1993).

Another current emphasis in school effectiveness research is examining the context or location of schools. Contextual influences such as the school setting or location of the school influences both

teachers and students. Several studies, for example, have found that variables such as principal's leadership, the socialization of new teachers, and teachers' classroom instruction can be effective in some school settings while ineffective in others (Levine, 1990; Teddlie & Stringfield, 1993). Consequently, research needs to be conducted in specific types of school settings so that the findings can be generalized to other similar settings. One particular setting where more research needs to be conducted is in urban schools.

Addressing the problems of urban schools is one of our most important national educational issues because the highest percentages of students at risk of failure are found in these schools and the worst social and economic conditions are also found in urban neighborhoods (Talbert-Johnson, 2004; Waxman, Padrón, & Stringfield, 1999). Nowhere are the social implications of increasing numbers of disadvantaged families in inner cities more prevalent than in the large, urban school districts where the deleterious conditions of underachievement, student and teacher alienation, and high drop-out rates exist. Other indicators like the high levels of crime, unemployment, drug abuse, broken families, teen pregnancy, juvenile delinquency, density of liquor stores, and high rates of poverty, clearly describe the critical status of students who are currently living in our nation's urban neighborhoods. Consequently, those students attending urban schools represent the most imperiled group of our increasing numbers of students at risk of failure.

Another important context where more school effectiveness research is needed is in middle level schools (Price & Waxman, 2005). There have been several studies that have specifically addressed the classroom learning environment for students from effective and ineffective urban schools, but most of these studies have been conducted at the elementary school level. Since middle school students have been found to have significantly lower perceptions of their classroom learning environment than both elementary and high school students (Waxman & Huang, 1998), it is particularly important that we examine the classroom learning environment at the middle school level. Furthermore, as previously discussed, there is evidence that some middle level schools have dysfunctional classroom learning environments.

PURPOSE

The present study addresses some of the previous problems of school effectiveness research by specifically examining the classroom learning environment in exemplary, recognized, and acceptable urban middle level schools serving predominantly minority students. The purpose of the present study is to examine whether there are differences on students' perceptions of their classroom learning environment in

exemplary, recognized, and acceptable middle level urban schools. More specifically, this study investigates whether there are significant differences on students' perceptions of their classroom learning environment between urban middle level schools that were classified by the state-wide assessment criteria as "exemplary," "recognized," or "acceptable." Differences between these three types of schools' on students' background characteristics, attendance, out-of-school activities, and student aspirations are also examined in this study.

METHODS

Criteria for Classifying Schools

The schools in the present study were classified as "exemplary," "recognized," or "acceptable" based on the state rating system for rewarding schools and improving performance. All schools in this large south central state in the United States are evaluated according to their scores on the state-wide assessment of academic skills. Based upon the state-wide criteria, schools are placed into the following categories: (a) exemplary, (b) recognized, (c) acceptable, (d) low acceptable, and (e) clearly unacceptable. In the present study, one "exemplary," one "recognized," and one "acceptable" middle level school from one urban school district were randomly chosen to be included in the study. We did not select a "low acceptable" or "clearly unacceptable" middle level school because those categories of middle level schools did not exist in this district.

The criteria for being classified an exemplary school are that: (a) at least 90% of all students and each of four student groups (i.e., African American, Hispanic, white, and economically disadvantaged) pass each subject area, (b) there is less than 1% dropout rate, and (c) daily attendance is 94% or higher. The criteria for being classified a recognized school are that: (a) at least 80% of all students and each of four student groups (i.e., African American, Hispanic, white, and economically disadvantaged) pass each subject area, (b) there is less than 3.5% dropout rate, and (c) daily attendance is 94% or higher. The criteria for being classified an acceptable school are that: (a) at least 50% of all students and each of the four student groups (i.e., African American, Hispanic, white, and economically disadvantaged) pass each subject area, (b) there is less than 6% dropout rate, and (c) daily attendance is 94% or higher.

Participants

This study was conducted in a large urban school district located in a major urban city in the south central region of the United States. This district was purposively selected because they had received both national and state recognition for effectively educating predominantly

minority students from economically-disadvantaged circumstances. They were recent recipients, for example, of a state-wide award recognizing programs that significantly impact academic achievement. This program defines academic targets that students should master by the time they finish a specific grade. Students are administered tests twice a year to see how well students apply benchmarks for each subject taught in their designated grade level.

Table 1 reports some demographic data for the three schools included in the present study. About 72% of the students from the acceptable and recognized school are classified as coming from low income families, while about 84% of the students from the exemplary school are from low-income families. The size of the three schools is fairly similar, with the recognized school having about 900 students, while the acceptable and exemplary schools have slightly over 1000 students. The exemplary school has about 70% Hispanic students and about 22% African American students. About two-thirds of the students in recognized school are Hispanic and there about 17% of the students are white and 14% are African American. In the acceptable school, 53% of the students are Hispanic and 35% of the students are African American. The school differences by student ethnicity are the one finding that is significantly different than what was expected by chance [*chi-square* (6) = 19.70, *p* = .003].

In terms of academic achievement, as expected, over 96% of all students in the exemplary school passed the reading, mathematics, and writing sections of the state assessment test. In the recognized school, over 90% passed the reading, mathematics, and writing sections of the state assessment test. In the acceptable school, only 77% of the students passed the writing test, 83% passed the reading test, and 85% passed the mathematics test. Although not shown on Table 1, for all three schools, the percentage of students passing each section of the test for the present year were better than the previous year's passing rate.

The three middle level schools each have a seventh- and eighth-grade organization and they are departmentalized for every content area. Although the three schools are quite large (> 900 students), they do not have designated "houses" or "schools within schools." These middle level schools do not use an interdisciplinary team approach, but they do have a disciplinary organization or departmentalized approach where they have a department head and common planning periods for members of the department. The teacher qualifications in all three schools also were quite similar.

Approximately 500 seventh- and eighth-grade students from each of the three middle level schools were randomly selected to participate in the study. About 50% of the students were in the seventh-grade and 50% were eighth-grade students. Nearly 50% of students were boys and 50% were girls. Nearly 61% of the students were Hispanic, about

25% were African American, about 6% were White, and 8% of the students were from other ethnic groups.

Table 1
Demographic Comparisons Between Exemplary, Recognized, & Acceptable Schools

	Exemplary School	Recognized School	Acceptable School
Category	<i>M</i>	<i>M</i>	<i>M</i>
<u>Students</u>			
Ethnicity			
African American	21.9	14.1	34.8
White	7.2	16.6	8.4
Asian	0.5	3.6	3.9
Hispanic	70.3	65.7	52.9
Low Income	83.5	71.0	72.0
% Passing State-Wide Reading Test	96.0	91.0	83.0
% Passing State-Wide Writing Test	97.0	94.0	77.0
% Passing State-Wide Math Test	98.0	95.0	85.0
<u>School</u>			
Size	1013	906	1053

Note. All the values represent mean percentages with the exception of School Size, which is the actual number of students attending the school.

Instrument

The My Class Inventory (Fraser, 1998) was adapted to collect data on students' perceptions of their classroom learning. The inventory is a 50-item questionnaire read to students in Spanish or English by trained researchers. Students responded on a four-point Likert-type scale to statements about their reading class. The following scales were included on this adapted instrument: (a) Satisfaction, (b) Friction, (c) Competition, (d) Difficulty, (e) Cohesion, (f) Self-Esteem in Reading, (g) Teacher Support, and (h) Equity. The instrument was also modified to a "personal form" of the instrument, which elicits an individual student's responses to his/her role in the reading/language arts class rather than a student's perception of the class as a whole (Fraser, 1991). The instrument has been found to be reliable and valid in many different school settings and it is especially applicable for ethnically and culturally diverse students (Waxman & Chen, 2006). A brief description of the scales and a sample item from each follows:

Satisfaction – the extent of students' enjoyment of class work (e.g., I enjoy the schoolwork in my reading class.)

Friction – the amount of tension and quarreling among students (e.g., Some students in my reading class pick on me.)

Competition – the emphasis on students competing with each other (e.g., I try to be the first to finish the classwork in reading.)

Difficulty – the extent to which students find difficulty with the work of the class (e.g., In my reading class, the work is hard for me to do.)

Cohesion – the extent to which students know, help, and are friendly toward each other (e.g., In my reading class, I often work with other students.)

Self-Esteem in Reading – the extent to which students think that they are good at reading (e.g., I am a very good reader.)

Teacher Support – the extent to which students think that their teachers are supportive (e.g., My reading teacher really cares about me.)

Equity – the extent to which students are treated equally as their classmates (e.g., I am treated the same way as other students in my reading class.)

The overall instrument also included several descriptive items investigating student background characteristics, self-reported attendance data, and the amount of time students spent on leisure activities. Most of these items were adapted from National Educational Longitudinal Study of 1988 (NELS:88) (Ingels, Abraham, Karr, Spencer, & Franekel, 1990). These items included questions about students' (a) background characteristics (e.g., home language), (b) academic aspirations (e.g., how far they will go in school), (c) attendance (e.g., number of days missed), and (d) time allocation (e.g., time spent on homework).

Validation of the Instrument

The reliability and validity of the My Class Inventory based on the participants from this study were examined. Six items were found to be unreliable with the other items within their scales and were thus deleted. The modified version of the survey contains 44 items in eight scales with each scale including about 5 or 6 items. The revised survey questionnaire has adequate internal consistency reliability. Table 2 presents the results for the internal consistency reliability and discriminant validity (correlations between scales). The internal consistency reliability coefficients of the eight scales (Satisfaction, Cohesion, Competition, Difficulty, Cohesion, Self-Esteem in Reading, Teacher Support, and Equity) are .80, .62, .70, .76, .66, .64, .78, and .70 respectively, with an average of .71. In other words, the revised survey questionnaire has adequate internal consistency reliability.

The discriminant validity results for the sample indicate that the correlation coefficients of a scale with other scales ranged from .13 to .37, with an average of .27, suggesting that there is adequate scale discriminant validity, although a few scales overlap to a certain degree. These reliability and discriminant validity coefficients are very similar to findings from other studies in this area (Waxman & Chen, 2006).

Table 2

Overall Means, Standard Deviations, Number of Items, Internal Consistency, Reliability, & Discriminant Validity for All Scales

Scale	<i>M</i>	<i>SD</i>	Number of Items	Cronbach's <i>Alpha</i>	Mean <i>r</i> with Other scales
Satisfaction	2.51	0.66	6	0.80	0.37
Cohesion	2.75	0.64	6	0.62	0.26
Competition	2.54	0.72	4	0.70	0.13
Difficulty	2.00	0.54	6	0.76	0.26
Equity	2.88	0.76	5	0.66	0.36
Friction	1.81	0.57	6	0.64	0.21
Self-Esteem in					
Reading	2.95	0.65	5	0.78	0.21
Teacher Support	2.53	0.79	6	0.70	0.23

Note. A score of 4 indicates that the student responded "Always" to all of the items on the scale. A score of 1 indicates that the student responded "Never" to all of the items on the scale.

RESULTS

The multivariate analysis of variance results indicate that there were significant differences between resilient, average, non-resilient students on the eight scales of the adapted My Class Inventory. Univariate F-tests and then Duncan multiple comparison post hoc tests were used to determine where the differences were. Due to the large sample size, a criterion level of $p < .001$ was used to determine statistical significance.

The overall descriptive results reported in Table 2 indicate that students had above-average to slightly above-average perceptions of their classroom learning environment. The mean values for most of the scales ranged from 2.5 to 3 (on a 4-point, Likert-type scale, with "4" representing the highest possible value and "1" representing the lowest possible value). Only the scales of Difficulty and Friction had mean values of 2.0 or below. The scales with the highest means were Self-Esteem in Reading, Equity, and Cohesion. The scales with the lowest mean values for all three schools were Friction and Difficulty. The standard deviations indicate that there was some variation on the extent to which students perceived these scales. The scales of Teacher Support, Equity, and Competition had the largest standard deviations,

while the scales of Difficulty and Friction had the lowest standard deviations.

Table 3 reports the ANOVA results, post hoc results, and the means and standard deviations for the three schools. The results indicate that for the scales of Satisfaction, Teacher Support, Cohesion, and Equity, students in the exemplary school had significantly higher ($p < .001$) perceptions than students in the recognized and acceptable school. Students in the exemplary and recognized school had higher scores on Self-Esteem in Reading than students in the acceptable school. On the other hand, for the scales of Friction and Difficulty, students in the recognized and acceptable schools had significantly higher perceptions than students from the exemplary school. There were no differences between the schools on the scale of Competition. In addition, there were very few significant differences between the recognized and acceptable school. Students in the recognized and acceptable schools had similar perceptions of Difficulty, Equity, Friction, Satisfaction, and Teacher Support. Students in the acceptable school, however, did report higher perceptions of Cohesion than did students in the recognized school.

It should be pointed out that the magnitude of these differences is not very large. The effect size comparisons between exemplary and acceptable schools, for example, averaged .25, which is a modest, positive, effect size.

Table 3

Differences between Exemplary, Recognized, & Acceptable Middle Level Schools on Students' Perceptions of Classroom Learning Environments

	Exemplary School ($n = 340$)		Recognized School ($n = 542$)		Acceptable School ($n = 412$)			
Variable	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>prob</i>
Cohesion	2.93a	0.67	2.65c	0.58	2.74b	0.65	22.18	0.0000
Competition	2.54	0.77	2.51	0.72	2.58	0.68	0.95	0.3856
Difficulty	1.91b	0.51	2.05a	0.54	2.01a	0.55	7.53	0.0006
Equity	3.09a	0.72	2.74b	0.73	2.90b	0.78	22.80	0.0000
Friction	1.67b	0.58	1.87a	0.56	1.85a	0.57	14.26	0.0000
Satisfaction	2.76a	0.67	2.42b	0.62	2.44b	0.63	34.58	0.0000
Self-Esteem in Reading	3.02a	0.66	2.98a	0.65	2.84b	0.64	8.85	0.0002
Teacher Support	2.76a	0.74	2.41b	0.77	2.49b	0.83	20.73	0.0000

Note. Means with the same letter are not significantly different. A score of 4 indicates that the student responded "Always" to all of the items on the scale. A score of 1 indicates that the student responded "Never" to all of the items on the scale.

Table 4

Descriptive & Chi-Square Results Between Exemplary, Recognized, and Acceptable Schools

Indicators	Acceptable (<i>n</i> = 412) %	Recognized (<i>n</i> = 542) %	Exemplary (<i>n</i> = 340) %
<u>Background Characteristics</u>			
Have been held back a grade in school			
Yes	28.3	26.3	21.9
No	71.7	73.5	78.1
		<i>Chi-square</i> (2) = .987	
Before you started school, did you speak any language other than English?			
Yes	53.6	48.1	48.8
No	46.4	51.9	51.2
		<i>Chi-square</i> (2) = .827	
Reading grade received last year			
Mostly A's (90-100)	16.9	23.4	29.1
Mostly B's (80-89)	48.3	51.7	49.5
Mostly C's (75-79)	24.6	17.3	15.0
Mostly D's (70-74)	4.6	4.8	4.2
Mostly below D (below 70)	1.2	2.8	2.1
		<i>Chi-square</i> (8) = 7.32	
Reading grade received this year			
Mostly A's (90-100)	13.9	21.7	37.2
Mostly B's (80-89)	35.5	45.2	43.2
Mostly C's (75-79)	27.5	21.7	13.0
Mostly D's (70-74)	14.6	9.4	3.9
Mostly below D (below 70)	8.4	2.1	2.7
		<i>Chi-square</i> (8) = 28.90***	
<u>Attendance Record</u>			
Days of school you missed over the past 4 weeks			
Perfect attendance	36.9	35.3	41.4
Missed 1 or 2 days	36.9	38.6	34.4
Missed 3 or 4 days	16.3	18.1	16.9
Missed 6 to 10 days	6.5	6.0	5.2
Missed more than 10 days	3.4	1.8	2.0
		<i>Chi-square</i> (8) = 1.57	
How often you cut or skip classes			
Never or almost never	83.5	83.5	87.2
Sometimes, but less than once a week	13.4	10.7	8.7
Not everyday, but at least once a week	2.4	5.0	2.9
Daily	0.7	0.9	1.2
		<i>Chi-square</i> (6) = 2.19	
Days of school you were late over the past 4 weeks			
None	64.7	50.6	67.2
1 or 2 days	23.3	24.8	20.6
3 or 4 days	7.0	14.3	5.5
6 to 10 days	4.6	5.0	3.5
More than 10 days	1.2	5.3	3.2
		<i>Chi-square</i> (8) = 9.89	

Time Allocation

Time spent on reading homework each week

None	11.5	45.0	33.4
Less than 1 hour a week	58.4	34.7	44.2
1 to 2 hours a week	24.3	15.5	16.9
3 or 4 hours a week	4.6	3.7	4.1
More than 4 hours	1.2	1.1	1.5

Chi-square (8) = 27.10**

Time spent on additional reading

None	32.5	25.4	33.2
1 hour or less per week	40.4	46.8	40.5
2 hours per week	20.2	18.0	15.5
3 to 4 hours per week	4.3	5.5	7.6
5 hours per week	2.6	4.2	3.2

Chi-square (8) = 4.05

Time spent on TV each weekday

Don't watch TV	1.4	0.9	1.8
Less than one hour per day	8.2	5.7	8.8
1 to 2 hours a day	18.0	14.9	17.0
2 to 3 hours a day	21.6	20.4	19.9
Over 3 hours a day	50.7	58.2	52.6

Chi-square (8) = 1.99**Student Aspirations**

How far in school will you get

Won't finish high school	4.1	1.3	3.5
Will graduate high school, but no further	16.4	8.9	14.1
Will attend college	16.7	13.1	13.2
Will graduate from college	37.7	35.9	36.5
Will attend graduate school	25.1	40.9	32.6

Chi-square (8) = 8.69

Certainty of graduating from high school

Very sure of graduating	59.6	71.3	71.1
Probably graduate	35.1	23.3	24.0
Probably won't graduate	3.6	3.9	3.8
Very sure won't graduate	1.7	1.5	1.2

Chi-square (6) = 4.82**Self-Assessment as Student**

How would you describe yourself as a student

Poor Student	0.5	0.6	1.2
Below Average Student	6.3	3.3	3.0
Average Student	64.9	50.3	52.4
Above Average Student	18.2	23.7	18.9
Excellent Student	10.2	22.1	24.6

Chi-square (8) = 11.50** $p < .01$; *** $p < .001$

Table 4 reports the frequencies of student responses between the three schools on the items from the NELS:88 survey and the *chi-square* results that compared the obtained frequencies with chance expectations. For the area of background characteristics, the results indicated that students from the three schools responded similarly to the

questions of being held back a grade in school and speaking a language other than English before they started school. Although there were no significant differences in the self-reported grades in reading received last year, as expected, there were dramatic differences and statistically significant ($\chi^2(8) = 28.90, p < .001$) between the three schools on the self-reported grades students received this year. About 37% of the students in the exemplary school reported that they received mostly A's as their reading grade this year, while about 22% from the recognized school and only 14% from the acceptable schools reported receiving A's this year.

In the area of attendance records, there were no significant differences found, but more students in the exemplary school reported that they had perfect attendance than students in the recognized and acceptable schools. The findings for the item on cutting or skipping class were similar across the three schools and the results for the item on tardiness were similar for students in the exemplary and acceptable school. Students in the recognized school reported that they were tardy more often than students from the other two types of schools.

In the area of time allocation, the results for the items on time spent on additional reading and time spent watching television were similar across the three schools. The findings for the item, time spent doing homework, revealed that students in the acceptable school reported spending significantly ($\chi^2(8) = 27.10, p < .01$) more time on reading homework than students in the recognized and exemplary schools.

For the areas of student aspirations and self-assessment as a student, students in the recognized and exemplary schools reported that they were more certain that they would graduate from high school than students in the acceptable school. Students in the recognized school, however, reported that they would graduate from college and attend graduate school more than students from the exemplary and acceptable schools. More than twice as many students in the exemplary and recognized schools reported that they considered themselves excellent students than students in the acceptable school. These findings should be viewed cautiously, however, because none of the χ^2 results revealed that these frequencies were found to differ significantly from chance ($p > .05$).

DISCUSSION

The results from the present study are similar to other studies that have found significant differences in the classroom learning environment of effective and less-effective urban elementary schools (Waxman & Huang, 1997; Waxman, Huang, Anderson, & Weinstein, 1997). Overall, the results reveal that students in the exemplary middle level school perceive their classrooms much more favorably than

students from the less effective schools (i.e., recognized and acceptable schools). Students from the exemplary school have higher perceptions of Satisfaction, Teacher Support, Cohesion, and Equity than students from the less-effective schools. On the other hand, students from the less-effective schools perceive their classrooms to be more difficult and have more friction than students from the exemplary school.

Surprisingly, students' perceptions of their learning environment from the recognized school were much more similar to students from the acceptable school than students from the exemplary school.

We found no significant differences between students from the three types of schools on their self-reported amount of time they spent on additional reading and watching television each weekday. Students from the acceptable school, however, reported that they spent more time doing reading homework each weekday than students from the other two types of schools. This may be related to the finding that the students in the accepted school perceived their reading work to be more difficult than students from the exemplary school or it may be related to other factors such as more homework being assigned in that school. This may be an important variable that needs to be addressed in future studies.

Informal observations of each school were conducted by observing several reading classrooms, as well as observing administrator, teacher, and student behavior in the corridors, lunchrooms, and other common areas (e.g., library). Informal interviews with administrators, teachers, and students also were conducted at each school to assess the general school climate and expectations. Descriptions of the school setting and community were obtained, but they were not found to be useful since all three schools were located in very similar commercial areas, where students were bussed to the schools from residential areas a few miles away. The three schools had little loitering or graffiti in the school or in the vicinity near the schools.

The general school climate appeared to be similar in all three schools and there was a strong academic press apparent in all three schools, with many posters and signs focusing on achieving high on the state-wide assessment tests. The students in all three schools were disciplined and orderly, and the lunchrooms in the schools were all fairly quiet and orderly.

The instruction in the three schools consisted primarily of direct instruction and lecture, and the predominant setting was whole-class. There was very little use of: (a) small group activities, (b) cooperative learning, (c) instructional technology, (d) engaging dialogue or instructional conversation, or (e) authentic tasks where students were engaged in meaningful work. In addition, we did not find the curriculum to be "authentic;" it was neither challenging for students nor did it provide them with relevant, engaging learning experiences. For the most part, we found that the curriculum and classroom instruction

focused on students practicing specific skills so that they would get similar items correct on the statewide assessment test. This over-emphasis on skill development and testing was so prevalent, that teachers frequently displayed (i.e., wrote down) the testing objective on the blackboard in their classrooms rather than the learning objective.

Despite being considered an “exemplary” school by the state because of their high achievement on state assessment tests, we found that school to have none of the “signature practices” of visionary middle schools such as developmental responsiveness, academic excellence, and social equity (Morocco, Brigham, & Aguilar, 2006). One of the few distinguishable differences between the three schools that we did observe, however, focused on the principal of the exemplary school. Teachers in that school mentioned that the principal supervised them very closely and informal interviews with students indicated that the principal set very high expectations for them. The principal in the acceptable school had been reassigned to a new administrative position in the school district and the two assistant principals were co-administering (i.e., managing the school) the school for the last four months of the school year. Several teachers mentioned that this arrangement was not working out very well. The principal in the recognized school was quite cordial, but neither teachers nor students said anything either positive or negative about him. Future studies may want to more closely examine whether the leadership qualities of principals in exemplary schools for ethnically and culturally diverse students are similar to those found in other studies of effective middle school leadership (Williamson & Johnston, 2005).

While student success and failure in school is dependent upon a number of influential determinants, it appears that the classroom learning environment may be a contributing factor (Travis, 1995; Waxman & Huang, 1998). The results of the present study are encouraging in that they illustrate that urban middle schools can provide supportive and positive classroom learning environments for ethnically and culturally diverse students. The results of this study, however, also are discouraging in that they paint a bleak picture of middle level school students who are from less-effective urban schools. Many of these seventh- and eighth-grade students appear to have already “given up” on school and several of these students indicated that they don't even plan to go on and finish high school.

It is important to point out again that students in the acceptable and recognized school find their work in reading to be more difficult than students from the exemplary school. Similarly, they perceive that there is more friction in their classrooms, and less support and equitable treatment from their reading teachers. The differences between students from the exemplary school and the less-effective schools on the teacher support scale is especially salient because teacher support

has been found to be a significant variable affecting student outcomes in several studies (Alva, 1991; Midgley, Eccles, & Feldlaufer, 1991).

Implications for Future Study

Classroom learning environment research has made significant progress over the past several decades, but there are still several areas that need further investigation. Collecting multiple measures or indicators of classroom processes may provide us with a more comprehensive picture of the classroom learning environment. Teacher self-report data, teacher, administrator, and student interview data, and more qualitative, ethnographic data (e.g., participant observation) also could be used to supplement the learning environment data. Qualitative studies, for example, could specifically examine what classroom factors foster ethnically and culturally diverse students' positive attitudes toward schooling and their own learning. It also may be useful to examine if teachers' perceptions of the school climate are similar to their students' perceptions of their learning environments.

Systematic classroom observations of specific teaching behaviors such as instructional pacing, teacher questioning, and presentation of information also would be useful to examine other instructional differences between more effective and less-effective schools. Other observational instruments that focus on the content of lessons and additional aspects of teacher-student interactions also might be beneficial. Similarly, future research might specifically examine what teachers in exemplary or more-effective schools actually do to reduce the difficulty of the lessons for students as well as create a classroom environment that has little friction or management problems. Future studies also should examine how interdisciplinary teaming practices impact the classroom learning environment since it has been found to be one of the critical elements that relates to both classroom practices and middle school students' academic achievement (Flowers & Mertens, 2003).

While the findings from the present study have several important implications, further correlational, longitudinal, and especially experimental research is needed to verify these results. Correlational studies are needed to see what variables are related to minority students' cognitive and affective outcomes. Longitudinal studies are important in order to see whether these school effects are pervasive over time. Experimental studies are needed to examine school-wide programs that are designed to help teachers improve their classroom instruction and learning environment as well as investigating its impact on the academic performance of minority students. These and other issues still need to be examined so that we can continue to understand and improve the educational experiences of culturally and ethnically diverse students in urban middle level schools.

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