APPENDIX C: PROCEDURE FOR ENVIRONMENTAL QUALITY ASSESSMENT
# Procedure for Environmental Quality Assessment

The following procedure outline provides an overview of the entire research process followed for this project. Included in this outline are the objectives each step is intended to accomplish and the resources and participants necessary to meet these objectives. For this procedure to be adopted by an individual school, Item 1-3 would not be necessary. In addition, the degree of involvement depends on the level of commitment of the school community in participating.

<table>
<thead>
<tr>
<th>Data Gathering/Analysis Phase</th>
<th>Objective</th>
<th>Resources/Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. CASE STUDY SELECTION PROCESS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-1. Planning Meeting #1 (Entry)</td>
<td>To establish initial contact meeting w/ district personnel to provide a more detailed description of the process of environmental quality assessment.</td>
<td>District Administration Staff</td>
</tr>
<tr>
<td>1-2. Planning Meeting #2 (Entry)</td>
<td>To receive approval to proceed with research process.</td>
<td>District Administration Staff</td>
</tr>
<tr>
<td>1-3. Case Study Selection Process</td>
<td>Identify comparably matched schools for the study.</td>
<td>District Administration Staff</td>
</tr>
<tr>
<td>1-4. Securing the Site (Negotiating scope &amp; schedule)</td>
<td>Introduce the need for environmental quality assessment and indicate the resources required to complete the assessment. Negotiate scope &amp; schedule. Receive approval to proceed with project at each participating site.</td>
<td>Principals of selected cases</td>
</tr>
<tr>
<td><strong>2. BASELINE DATA COLLECTION PROCESS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-1. Physical Facilities Inventory</td>
<td>To gather preliminary data on school facility to establish a baseline of objective physical data.</td>
<td>8-12 hours of data collection per school after school hours.</td>
</tr>
<tr>
<td>2-2. Organizational Survey</td>
<td>To gather preliminary data on school organization to establish a baseline.</td>
<td></td>
</tr>
<tr>
<td><strong>3. ISSUES IDENTIFICATION PROCESS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-1. Interviews w/ Non-Instructional Staff</td>
<td>To clarify and expand upon baseline physical environment data</td>
<td>1 or 2 - 30 min. interviews w/ custodial management and staff</td>
</tr>
<tr>
<td>3-2. Interviews w/ Principal</td>
<td>To clarify and expand upon the curricular and instructional goals of the school</td>
<td>1 - 45 minute interview/school</td>
</tr>
<tr>
<td>3-3. Interviews w/ teachers</td>
<td>To gather data on teacher perceptions of the environmental quality of their classrooms and other places within the school.</td>
<td>4- 45 minute interviews/school</td>
</tr>
</tbody>
</table>
3. ISSUES IDENTIFICATION PROCESS (cont'd)

3-5. Student Survey Questionnaire
To gain an understanding of the student's perspective. In-class
2-3 item questionnaire children
(Grade Levels 4 and 5)

3-6. Parent Survey Questionnaire
To gain an understanding of the parent's perspective. Mail-in
5 item questionnaire
to parents

3-7. Participant Observation
To document observations and Recorded impressions of
impressions of the school researcher during site visits

4. ISSUES PRIORITIZATION PROCESS

4-1. Group Workshop #1
To clarify and prioritize environmental quality issues and concerns and establish criteria assessment. 1.5 hour workshop w/ 4-6 teachers, staff and/or parent volunteers/ school who would constitute the environmental assessment working group

5. ASSESSMENT

5-1. Survey Questionnaire
Assess the perceptions of all teachers concerning environmental quality in their school. Take-home 60-70 item questionnaire

5-2. Group Workshop #2
To interpret and clarify results of the teacher survey questionnaire and allow for a forum to discuss possible recommendations to address problems, issues and concerns. 1.5 hour workshop w/ environmental assessment working group

5-3. Report Write-up
To report to the community the results of the assessment. Present to School Improvement Team

6. APPLICATION/ IMPLEMENTATION

6-1. Workshop #3
Identification of processes/ procedures and solutions 1.5 hour workshop w/ environmental assessment working group

6-2. Final Case Report
An internal report for district personnel review Present to School Improvement Team
Case Study Selection Process & Criteria for School Selection

The research process begins at the School District Headquarters. Sites to be chosen for assessment must be selected according to a series of criteria that serve the goals and objectives of the assessment. Sites chosen must then be informed and principals, administrative personnel and site improvement teams or other administrative committees must be included in the research process. These administrative groups assign an environmental assessment working group to discuss objectives of the assessment. This section will provide an outline for establishing a set of objectives for the assessment project.

Establishing assessment objectives
The choice of buildings to be assessed should follow a certain set of objectives. These objectives should be clearly stated in order to provide a clear direction to the assessment work.

* Identify the facility(s) to be assessed

* Why are these) particular buildings or facilities being selected for assessment?

* What are the stated objectives of the assessment?

Objectives might include a narrow assessment of particular environmental quality goals such as indoor air quality, asbestos abatement, productivity, energy cost effectiveness, or performance. An assessment could be used to measure the performance of facility management services in relationship to occupant goals, or include a broader assessment of the total environmental quality of a place according to a broader set of goals of society, organization or individuals. The objective of the assessment may be still more global: to develop measurable benchmarks for comparison to other schools over time.

Determining level of analyses
This step requires the assessment team to determine the level of analyses appropriate or required. This can be done by investigating the existing correspondence, or fit between philosophy, goals and instructional strategies, and the building and places within the building designed to support those philosophy, goals and instructional strategies. A lack of correspondence, or fit may indicate a mismatch and suggests the need for assessment at the particular level of analysis: at the philosophical level, goals level, or the level of instructional strategies. This step constitutes a preliminary test of where key problems may arise in the building assessment.

* Is there correspondence between organizational philosophy, goals and instructional strategies relevant to the building?

In other words, is the espoused philosophy for a particular organization manifesting itself through the goals and instructional strategies within the building? An example might be that a school espousing a middle school philosophy (team teaching, houses) is operating as a junior high school (departmentalized, autonomous classrooms)

* Is there correspondence between goals and the facility which serves these goals?

Referring back to the middle school operating as a junior high, the following example illustrates a lack of correspondence between organizational goals and the facility: a middle school program (which requires clusters of classrooms off a main corridor in order to support team teaching and the concept of 'houses') being implemented in a school building originally designed as a double loaded corridor.

* Is there correspondence between instructional strategies and the places they are contained in?

An example might be the perceived inflexibility of a self-contained classroom toward cooperative grouping within the space.
Physical Facilities Inventory

The purpose of baseline data collection is to gather preliminary data on school facility and document that data in a database format that can allow for quick retrieval. The data will provide the basis for generating questions for the next phase of the research process.

**School Identification**

Name of School

Address

Telephone Number

Contact Person

**General Building Information**

Size of Facility

<table>
<thead>
<tr>
<th>GSF:</th>
<th>No. of Floors:</th>
<th>GSF/Floor:</th>
</tr>
</thead>
</table>

Age of Facility

Date Built:  | Current Date: | Facility Age: |

Collected Following?

Floor/site plans? Y/N  Photographs of site/bldg. exterior Y/N  Photographs of bldg. interior Y/N

**Functional Spaces/Roads/Areas**

<table>
<thead>
<tr>
<th>Total SF</th>
<th>Storage Room</th>
<th>Instructional Area</th>
<th>Teacher Workspace</th>
<th>Room Finishes</th>
</tr>
</thead>
</table>

**Functional Space Description**

**Instructional**

General Classrooms  
Computer Classroom  
Library/Media Center  
Cafeteria  
Auditorium  
Gym/Multi-purpose

**Office Administration**

Principal’s Office  
Administrative Offices  
Storage

**Public Support Spaces**

Toilets  
Hallways/Corridors  
Main Entrance Hall  
Other

**School Grounds**

Parking  
Playground  
Entrance Areas  
Play fields  
Other
Physical Facilities Inventory  
(Continued)

<table>
<thead>
<tr>
<th>Technical Systems Specifications (Description)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building System</td>
</tr>
<tr>
<td>System Type</td>
</tr>
<tr>
<td>System Description</td>
</tr>
<tr>
<td>Condition</td>
</tr>
<tr>
<td>Mechanical Heating</td>
</tr>
<tr>
<td>Electrical</td>
</tr>
<tr>
<td>Plumbing</td>
</tr>
<tr>
<td>Lighting</td>
</tr>
<tr>
<td>Security</td>
</tr>
<tr>
<td>Structural</td>
</tr>
<tr>
<td>Roof</td>
</tr>
<tr>
<td>Exterior Wall</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>
Organizational Survey

The purpose of the baseline data collection is to gather preliminary data on the school organization. The data will provide the basis for generating questions for the next phase of the research process.

General Information

School Name
Address
Principal of School

Program Description

Official Mission Statement of School
Description of Educational Program
(Curriculum & Instruction, Programs offered, etc.)
Master Schedules/Class Schedules for each grade

Demographics

Instructional Staff
Students (by grade)
Teachers
Teacher Aides
Administrative Staff

Non-Instructional Staff
Administrative Staff
Custodial Staff
Food Services
Transportation Services

Educational Outcomes
(To be collected as required by the objectives of assessment)

Achievement Records (Math/Verbal)
Attendance Records
Vandalism Records
Observed Student & Teacher Behaviors
Student and Teacher Attitudes
Others
Research Questions
Interview Guide for Principals

Information gathered from a previous step on mission and organizational goals will provide the substantive issues for asking questions of principals. The purpose of these interviews will be to clarify and verify educational goals of the school. In addition, principals will be asked to provide their perception of student, teacher and parent attitudes with respect to various environmental quality issues; and to express their own attitudes of these issues as well.

Thank you for agreeing to meet with me today, and thank you also for allowing us to conduct this study of environmental quality at your school. I'm going to ask you some open-ended questions about the types of issues, problems and concerns you run up against on a day-to-day basis while managing your school. Your comments will be kept confidential. By sharing your experiences with me, you will help us understand how well the school facility meets the needs of students, teachers, parents and the community-at-large.

I'd like to ask your permission to tape record our interview. The tape will not be shared with anyone outside of the research group and comments taken from the tape will be paraphrased and confidential. The tape will help us be more accurate in representing your views later on in the research process. Do I have your permission? May I begin?

0. Background questions

I'd like to start with a personal question:

How long have you been principal at Jones Elementary School?
What formative administrative experiences do you bring to this school from other schools you have worked in?

I have a few general organizational questions:

What is the projected enrollment for this year?
How many teachers to you have on staff?
What is a typical class size? is there a range?

I would like to ask you some general questions about your school's educational mission:

Could you describe the specific mission and focus of your school?

In general terms, what educational philosophy do you follow or promote here?
   prompts: team teaching, parental involvement, cooperative learning, discovery learning, etc.

How much agreement do you have on philosophy with the teaching staff as a whole?

Do you have any explicit set of achievement and developmental goals for the school?

To what extent do you feel your school has been successful in meeting these goals?

1. THE NATURE OF ENVIRONMENTAL QUALITY

Environmental quality -- or the quality of the physical environment of the school -- is one of the many factors affecting the educational process and a factor that is often overlooked.

Our study looks at the nature of environmental quality in the physical indoor and surrounding school setting.
Local knowledge
1b. How do occupants perceive, if at all, the nature of environmental quality in general?

We know how to define environmental quality in a forest, a factory, an office, a home, but what is it in a school? I am interested in what environmental quality means to you.

Could you describe for me what your definition of environmental quality might be?

Prompts:
What are some attributes that you think make for an exceptional school environment?

What are some attributes that you think make for a good or bad physical setting for children or teachers?

Probes:
Could you give me a few incidents or situations to illustrate what you mean?

1c. How do occupants perceive, if at all, the state of environmental quality in their specific school?

Using your concept of environmental quality, how would you rate the environmental quality of your school?

Prompt: How does your school perform with respect to the aspects or attributes of quality you have identified in your definition?

Many of the aspects of environmental quality you have brought up are also mentioned in the research literature. There are a few more aspects I’d like to get your opinion on....

I will describe an attribute of environmental quality and I’d like to get your reaction to it.

Is this an appropriate or important factor to you? and why you think so?

If you have any questions as to the meaning of the terms, let me know and I can clarify.

Criteria for Environmental Quality

With each of the 14 attributes, the following general questions should be asked with regard to specific situations or instances concerning an attribute. There are four criteria for determining the level or nature of environmental quality: helpfulness, dependability, fairness and satisfaction. These questions address the four criteria for establishing the level of environmental quality exhibited for a particular attribute.

Helpful/Hindrance
How did this situation help or hinder your efforts to teach children?

Dependable/Non-Dependable
How often has this situation arose?

Do you know of other teachers and/or classrooms who have experienced this similar problem?

How did you resolve this situation? were you successful? if not, what would you recommend to resolve it?

---

17 occupants = students, parents, teachers, administrative staff, custodial staff
Fair/Unfair
Do you think it is fair that you and your students had to endure this situation?

Satisfied/Not Satisfied
How did you feel about that situation at the time? How do you feel about it now?

How satisfied are you with the outcome?

In your opinion, how important is this attribute? why?

Environmental Quality Attributes

1. Physical Safety and Security
The degree to which the physical environment of a place contributes to protecting occupants from harm, injury, or undue risk.

What are some of the safety and security issues you have dealt with here? (unlawful entry, drugs, guns, other issues)

Could you give me some examples (stories, incidents or situations) that can bring to life some of these issues for me?

2. Structural Flexibility
The degree to which the physical environment of a place can be easily changed to afford different activities.

Has there been any situation in which there was a need to remove walls or change the configuration of the school layout to accommodate different activities? (renovations, alterations, modernizations)

3. Classroom Adaptability
The degree to which the physical environment in a place can afford many activities without restructuring.

Have there been specific instances where you experienced problems using your classroom space effectively?

(difficulties storing, retrieving, filing, or organizing student work or books and supplies? layout of your classroom furniture? floor materials? wall surfaces and display spaces? windows? group space, size)

4. Building Functionality
The degree to which the physical environment fits the organizational structure, behavior and processes with respect to size, configuration and adjacency.

Does the layout of the building (e.g. number of floors, arrangement of rooms) fit the types of activities you and your colleagues are engaged in, or are you constantly adjusting your activities to fit the limitations of the size, configuration and location?

Have there been situations where this has been an issue?

5. Places for Social Interaction & Communication (Social Places)
The degree to which a place provides opportunities for social exchange, communication and interaction.

Is the school laid out in such a way to support informal social exchange among students and teachers and between teachers?

Probes:
How well does the teacher's lounge functions a place to interact with your fellow teachers?
Do corridors and common spaces offer places for interaction among teachers and students or are they simply passageways used to get from one place in the building to another?

Are corridors used, encouraged, discouraged as places for social interaction? Why?

Have there been incidents or situations where social interaction has been a problem? Too much, or too little?

6. Personalization & Ownership
The degree to which occupants perceive a place as offering opportunities to create a personal and self-expressive environment, and to mark it as the property of the individual.

How do you personalize your classroom?

What opportunities do children have to personalize their spaces?

Do you and other teachers have a sense of ownership of their school? Do children?

Can you give me some special examples of places in the building that have been personalized?

7. Privacy
The degree to which a place provides opportunities for a place of seclusion from others or observation; a place where one can be free from intrusion.

Do private places exist for teachers? Where? Are they adequate for their needs?

Do children have places for privacy? Where? If children don’t have private places to go why don’t they -- what is the argument against children having private places to go to get away?

Have there been incidents or situations where privacy has been an issue for teachers or children?

8. History & Meaning
The degree to which occupants perceive a place as having historical and cultural references that create a sense of the familiar and provide a sense of meaning.

Does this school have a recognizable history? A collective memory? What is the story of this school?

9. Physical Comfort & Health
The degree to which occupants perceive a place as meeting their physiological needs with respect to thermal and air quality (thermal comfort), illumination (visual comfort) and noise (auditory comfort), odors (olfactory comfort), and surfaces (tactile comfort).

Is thermal and air quality something that is constantly an issue at your school?

Is noise and acoustics an issue or problem here at your school?

Is lighting an issue?

Have odors ever been an issue?

10. Psychological Safety
The degree to which occupants perceive a place as ensuring no harm, injury, or undue risk from the physical environment.
This attribute of EQ is slightly different from the previous attribute (safety and security). This attribute refers to perceptions of safety on the part of students and teachers despite school policies and actions.

From your perspective, how safe do your teachers and students feel in school?

Have there been incidents or situations where physical safety has been an issue?

11. Sensory Stimulation
The degree to which occupants perceive a place as providing a stimulating environment for learning that is safe yet challenging.

From your perspective, how stimulating are classrooms -- that is, how bright and cheerful are they? How creative or inspiring are they for children?

Can you provide any examples in your school of sensory stimulation and its importance to children’s learning?

12. Crowding / Spaciousness
The degree to which occupants perceive a place as limiting opportunities for privacy, personal control or behavioral freedom.

Are classrooms crowded? What is the range of class sizes typically in your school?

Do teachers complain of crowded conditions or have they simply gotten use to it? How do they cope? Have there been incidents or situations where crowding has been an issue?

13. Legibility, Orientation & Wayfinding
The degree to which occupants perceive a place as fostering a sense of orientation within the environment that reduces confusion and facilitates wayfinding.

How easy is it to find your way around the building?

Can visitors easily find their way?

What strategies have you used to improve wayfinding through the building?

14. Aesthetics & Appearance
The degree to which occupants perceive a place as attractive and provoking.

What are your views concerning the appearance of the building interior? and exterior?

What specific aspects of the school do you pay attention to regarding appearance? (corridors, shiny floors, exterior landscaping, paint) and why?

Do you receive comments from visitors to the school concerning its appearance?

How often have you felt the need to voice your concerns about the appearance of the building?

From your experience, has the custodial staff been responsive to your needs and concerns?

Do you have any suggestions for the custodial staff concerning the upkeep of the building that you have not previously made them aware of?

Anything you want to add that I have not addressed?

Now I’d like you to reassess your building based on this expanded list of attributes of EQ .....
How do you rate the environmental quality of your school considering the attributes you feel are the most important to teaching and learning?

How might you see improving those aspects of environmental quality your school has not performed well in?

2. FACILITY MANAGEMENT AND PERCEPTIONS OF QUALITY

We mentioned (or didn’t mention) facility management as a factor in maintaining environmental quality. I’d like to ask a few questions with regard to your perceptions of facility management and its role in maintaining a quality environment to teach and learn in.

*Local knowledge*

(3b) What do occupants see as the aspects of facility management that may have an influence on the environmental quality of the school?

Generally speaking -- what ways do you think facility management (custodial and maintenance and operations services) can contribute to environmental quality in a school?

Which attributes do you think facility managers can influence?

(3c) What do occupants see as the aspects of facility management that may be having an influence on the environmental quality in their specific school?

Given what you have said, in general terms, how well does your facility management team maintain the environmental quality in your school?

Prompts:
What have they done, or not done that pleases or satisfies you?

What have they done or not done that concerns you?

What suggestions can you offer to your facility management staff to improve their performance?

3. SUMMARY & NEXT STEPS

Thank you for your participation. Your responses will help us in assessing and improving the quality of the school environment here.

Take-Home Worksheet
I have a take home worksheet which I would like for you to fill out which asks you to rate the aspects of environmental quality.
Take-Home Worksheet

I would like to thank-you for taking the time to interview with me today. In an effort to extend our interview discussion of environmental quality in schools, I would greatly appreciate your responses to the questions on the following worksheet pages.

Please feel free to answer them at your leisure and send your responses to me by mail in the envelope provided with this worksheet.

As stated in the Informed Consent Form:

Participants will not be identified directly. All information gathered by participants will be confidential and used anonymously. Participation is completely voluntary and participants may withdraw from the study at any time for any reason without penalty. A decision not to participate will involve no penalty or loss of benefits to which the participant is otherwise entitled; if a subject withdraws, the information gathered from that participant will be used only with the written or verbal permission of that participant.

Again, thank-you for your participation in this project.

Jeff Lackney

Name of Participant                        Date
1. Important Attributes of Environmental Quality

Please indicate the level of importance (1=very important, 2=somewhat important, 3=not important) of each of the following attributes of environmental quality with respect to its influence on...

<table>
<thead>
<tr>
<th>Attribute of Environmental Quality</th>
<th>...Student academic performance</th>
<th>...Student social development</th>
<th>...Teacher instructional performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Functionality</td>
<td>[1] [2] [3]</td>
<td>[1] [2] [3]</td>
<td>[1] [2] [3]</td>
</tr>
</tbody>
</table>
2. **Student Academic Performance**

Which **three** attributes from the list on the previous page do you feel are **the most important** to **student academic performance**?

________________________  ______________________  ______________________

Why did you choose the three attributes you did?

____________________________________________________________________________


3. **Social Development**

Which **three** attributes from the list on the previous page do you feel are **the most important** to **student social development**?

________________________  ______________________  ______________________

Why did you choose the three attributes you did?

____________________________________________________________________________


4. **Instructional Performance**

Which **three** attributes from the list on the previous page do you feel are **the most important** to **teacher instructional performance**?

________________________  ______________________  ______________________

Why did you choose the three attributes you did?

____________________________________________________________________________
5. **Facility Management**

Please identify (with a check) the attributes of environmental quality that you feel your facility management team (a) is presently addressing, and (b) ideally should, but is not presently addressing, and why?

<table>
<thead>
<tr>
<th>Attribute of Environmental Quality</th>
<th>(a) addressing</th>
<th>(b) not addressing</th>
<th>Why have you identified these particular attributes?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Safety &amp; Security</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural Flexibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classroom Adaptability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Functionality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Interaction &amp; Communication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personalization &amp; Ownership</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Privacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History &amp; Meaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Comfort &amp; Health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological Safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensory Stimulation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crowding /Spaciousness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legibility, Orient. &amp; Wayfinding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aesthetics &amp; Appearance</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. **Personal Control**

Please identify (with a check) the attributes of environmental quality that you feel you **(a) have adequate control over**; and, **(b) do not have adequate control over**, and why?

<table>
<thead>
<tr>
<th>Attribute of Environmental Quality</th>
<th>(a) Have control</th>
<th>(b) Do not have control</th>
<th>Why have you responded as you have?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Safety &amp; Security</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural Flexibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classroom Adaptability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Functionality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Interaction &amp; Communication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personalization &amp; Ownership</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Privacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History &amp; Meaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Comfort &amp; Health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological Safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensory Stimulation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crowding /Spaciousness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legibility, Orient. &amp; Wayfinding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aesthetics &amp; Appearance</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Informed Consent Form for Principals

I am Jeff Lackney, of the Department of Architecture and Urban Planning at the University of Wisconsin-Milwaukee. My colleague, Charles Brigden, and I are conducting a research project concerning how faculty, students and staff perceive the environmental quality of their schools. We would appreciate your participation in this study, as it will assist us in making recommendations for improving the environmental quality in your school and in other schools in the Baltimore City Public Schools (BCPS).

This research project will consist of a multi-site case study of five schools in BCPS. We will interview four teachers, an administrator, the head custodian, and parents from each school participating in the study. The interview will take approximately 45 minutes. In addition, we would like to survey students from each school using a short questionnaire survey to be administered by the school. Once the interview and survey process is complete, we will conduct one teacher’s workshop consisting of four teachers from your school. This workshop will take approximately 90 minutes. Following the workshop and interviews, we may wish to conduct a short take-home questionnaire survey to be administered to the entire teaching staff to verify specific findings from the workshops, interviews, and student survey.

The four teachers willing to participate in this research project (as both interviewees and workshop participants) will be offered compensation of $75.00. Compensation will be awarded to teacher participants by mail with the conclusion of the final workshop or by February, 1996, whichever comes first. If a participant, for whatever reason, is unable to continue their involvement in the study, they will still be compensated in full.

Participants will not be identified directly. All information gathered by participants will be confidential and used anonymously. Participation is completely voluntary and participants may withdraw from the study at any time for any reason without penalty. A decision not to participate will involve no penalty or loss of benefits to which the participant is otherwise entitled; if a subject withdraws, the information gathered from that participant will be used only with the written or verbal permission of that participant.

Once the study is completed, we will be glad to give the results to you. In the meantime, if you have any questions, please ask us or contact:

Jeffery A. Lackney  
School of Architecture and Urban Planning  
University of Wisconsin-Milwaukee  
Milwaukee, WI 53211  
(414) 229-2591

If you have any complaints about your treatment as a participant in this study, please call or write:

Dr. Berri Forman, IRB  
Institutional Review Board of the Protection of Human Subjects  
Environmental Health, Safety and Risk Management  
University of Wisconsin-Milwaukee  
P.O. Box 413  
Milwaukee, WI 53201  
(414) 229-6016

Although Dr. Forman will ask you name, all complaints are kept in confidence.

I have received an explanation of the study and agree to participate. I understand that my participation in this study is strictly voluntary.

Name ___________________________________________________________ Date __________________________

This research project has been approved by the University of Wisconsin-Milwaukee Institutional Review Board for the Protection of Human Subjects for a one year period.
Jeffery A. Lackney  
Department of Architecture  
School of Architecture & Urban Planning  
P.O. Box 413  
Milwaukee, WI 53201  
7/15/95

Principal Name  
School Address  
Baltimore City Public Schools  
Baltimore, Maryland Zip Code

Dear Principal,

The University of Wisconsin-Milwaukee (UWM) and the Department of Architecture with to express their appreciation to you and your organization for allowing Jeff Lackney, Assistant Director of the Institute for Environmental Quality in Architecture, to perform scholarly research on your premises.

The researcher will require access to data necessary to conduct research for a project entitled the Environmental Quality Assessment Research Project UWM IRB Protocol No. 96-02-031.

We understand that the contact person at your organization with whom the researcher is to communicate with in regard to such access is NAME AND ADDRESS OF CONTACT PERSON HERE.

The researcher has agreed and been instructed to protect confidentiality of data collected so that no subject will be individually identifiable. Finally, the researcher will share a copy of a final report with your organization upon request.

If any problems and/or concerns arise regarding this project, please notify the UWM complaint person (Dr. Berri Forman, Dept. of Environmental Health, Safety and Risk Management, P.O. Box 413, Milwaukee, WI 53201).

Please sign a copy of this letter to acknowledge receipt and your understanding of the scope of the researcher's proposed activity. Return it to Jeffery A. Lackney at the address listed above.

Thank you for your cooperation.

For:  
Department

By:  
Authorized Signature

For the Board of Regents of the  
University of Wisconsin System  
University of Wisconsin-Milwaukee

Authorized Signature  
Title

Date

For:  
Participating Organization

By:  
Authorized Signature  
Title  
Date
Research Questions
Interview Guide for Teachers

The purpose of these interviews is to gather preliminary information from the workshop participants concerning their attitudes and experiences with the school facility. The interviews will act as a way of introducing the researcher to the workshop participants in a non-threatening way. The types of questions asked at this stage will be based on previously raised issues concerning instructional and non-instructional organizational goals. Finally, questions will be phrased with respect to specific places in the school.

I thank you for agreeing to meet with me today. I'm going to ask you some open-ended questions about the types of issues, problems and concerns you run up against on a day-to-day basis while teaching in this building. Your comments will be kept confidential. By sharing your experiences with me, you will help us understand how well the school facility meets the needs of students, teachers, parents and the community-at-large.

I'd like to ask your permission to tape record our interview. The tape will not be shared with anyone outside of the research group and comments taken from the tape will be paraphrased and confidential. The tape will help us be more accurate in representing your views. Do I have your permission? May I begin?

(1) ACTIVITIES

I'd like to first ask you some questions about your roles, responsibilities and activities in the school:

(1.1) How long have you been a teacher here at Jones School?

(1.2) Could you describe for me your typical day at this school?
   (When do you arrive, what and where are the general activities are you engaged in during the day, when do you leave the building)

(1.3) Could you describe the typical instructional tasks you are engaged in during the school day?

(1.4) Are there any other school-wide activities you are periodically engaged in that you have not mentioned?

(2) PLACES FOR LEARNING & SOCIAL DEVELOPMENT

Now, I'd like to ask you some questions related to the places in this school.

When I refer to "places," I am referring to the various spaces, areas, rooms and even locations within the school not officially named. (i.e., lounges, meeting rooms, a stairway where people meet, classroom areas, etc.)

I am interested in how places support academic learning as well as social and developmental needs:

(2.1) First, in your opinion, what are the three or four most important places in the school with respect to supporting and nurturing academic learning in your students?
   (classroom, library/media center, cafeteria, gymnasium, auditorium, corridors, restrooms, playground, entrance area, activity pockets within classrooms, etc.)

   (a) why did you mention those particular places?

   (b) what makes these places important as places of learning?

   (c) What kinds of learning, in the broadest sense, are nurtured in these places?
      (kinesthetic, emotional, cognitive, artistic expression, interpersonal relationships, self-directedness, responsibility, analysis and problem solving, and questioning, inquiry and research)
(2.2) In your opinion, what are the three or four most important places in the school with respect to supporting and nurturing social and developmental needs of your students?

(a) why did you mention those particular places?

(b) what makes these places positive social places?

(c) What kinds of social and developmental needs do you see being nurtured in these places? (communication skills, conflict resolution, interpersonal relationships, etc.)

(3) THE NATURE OF ENVIRONMENTAL QUALITY

Environmental quality -- or the quality of the physical environment of the school -- is one of the many factors affecting the educational process and a factor that is often overlooked.

Our study looks at the nature of environmental quality in the physical indoor and surrounding school setting.

Local knowledge

(1b) How do occupants perceive, if at all, the nature of environmental quality in general?

We know how to define environmental quality in a forest, a factory, an office, a home, but what is it in a school? I am interested in what environmental quality means to you.

Could you describe for me what your definition of environmental quality might be?

Prompts:
What are some attributes that you think make for an exceptional school environment?

What are some attributes that you think make for a good or bad physical setting for children or teachers?

Probes:
Could you give me a few incidents or situations to illustrate what you mean?

(1c) How do occupants perceive, if at all, the state of environmental quality in their specific school?

Using your concept of environmental quality, how would you rate the environmental quality of your school?

Prompt: How does your school perform with respect to the aspects or attributes of quality you have identified in your definition?

Many of the aspects of environmental quality you have brought up are also mentioned in the research literature. There are a few more aspects I'd like to get your opinion on....

I will describe an attribute of environmental quality and I'd like to get your reaction to it.

Is this an appropriate or important factor to you? and why you think so?

If you have any questions as to the meaning of the terms, let me know and I can clarify.

18 occupants = students, parents, teachers, administrative staff, custodial staff
Criteria for Environmental Quality

With each of the 14 attributes, the following general questions should be asked with regard to specific situations or instances concerning an attribute. There are four criteria for determining the level or nature of environmental quality: helpfulness, dependability, fairness and satisfaction. These questions address the four criteria for establishing the level of environmental quality exhibited for a particular attribute.

Helpful/Hindrance
How did this situation help or hinder your efforts to teach children?

Dependable/Not-Dependable
How often has this situation arose?

Do you know of other teachers and/or classrooms who have experienced this similar problem?

How did you resolve this situation? were you successful? if not, what would you recommend to resolve it?

Fair/Unfair
Do you think it is fair that you and your students had to endure this situation?

Satisfied/Not-Satisfied
How did you feel about that situation at the time? How do you feel about it now?

How satisfied are you with the outcome?

In your opinion, how important is this attribute? why?

Environmental Quality Attributes

1. Physical Safety and Security
The degree to which the physical environment of a place contributes to protecting occupants from harm, injury, or undue risk.

What are some of the safety and security issues you have dealt with here? (unlawful entry, drugs, guns, other issues)

Could you give me some examples (stories, incidents or situations) that can bring to life some of these issues for me?

2. Structural Flexibility
The degree to which the physical environment of a place can be easily changed to afford different activities.

Has there been any situation in which there was a need to remove walls or change the configuration of the school layout to accommodate different activities? (renovations, alterations, modernizations)

3. Classroom Adaptability
The degree to which the physical environment in a place can afford many activities without restructuring.

Have there been specific instances where you experienced problems using your classroom space effectively?

(difficulties storing, retrieving, filing, or organizing student work or books and supplies? layout of your classroom furniture? floor materials? wall surfaces and display spaces? windows? group space, size)
4. Building Functionality

The degree to which the physical environment fits the organizational structure, behavior and processes with respect to size, configuration and adjacency.

Does the layout of the building (e.g. number of floors, arrangement of rooms) fit the types of activities you and your colleagues are engaged in, or are you constantly adjusting your activities to fit the limitations of the size, configuration and location?

Have there been situations where this has been an issue?


The degree to which a place provides opportunities for social exchange, communication and interaction thereby facilitating cognitive and emotional development.

Is the school laid out in such a way to support informal social exchange among students and teachers and between teachers?

Probes:
How well does the teacher’s lounge function a place to interact with your fellow teachers?
Do corridors and common spaces offer places for interaction among teachers and students or are they simply passageways used to get from one place in the building to another?
Are corridors used, encouraged, discouraged as places for social interaction? why?

Have there been incidents or situations where social interaction has been an issue? too much, or too little?

6. Personalization & Ownership

The degree to which occupants perceive a place as offering opportunities to create a personal and self-expressive environment, and to mark it as the property of the individual.

How do you personalize your classroom?
What opportunities do children have to personalize their spaces?
Do you and other teachers have a sense of ownership of their school? Do children?
Can you give me some special examples of places in the building that have been personalized?

7. Privacy

The degree to which a place provides opportunities for a place of seclusion from others or observation; a place where one can be free from intrusion.

Do private places exist for teachers? where? are they adequate for their needs?
Do children have places for privacy? where? If children don’t have private places to go why don’t they -- what is the argument against children having private places to go to get away?

Have there been incidents or situations where privacy has been an issue for teachers or children?

8. History & Meaning

The degree to which occupants perceive a place as having historical and cultural references that create a sense of the familiar and provide a sense of meaning.
Does this school have a recognizable history? a collective memory? What is the story of this school?

9. Physical Comfort & Health
The degree to which occupants perceive a place as meeting their physiological needs with respect to thermal and air quality (thermal comfort), illumination (visual comfort) and noise (auditory comfort), odors (olfactory comfort), and surfaces (tactile comfort).

Is thermal and air quality something that is constantly an issue at your school?

Is noise and acoustics an issue or problem here at your school?

Is lighting an issue?

Have odors ever been an issue?

10. Psychological Safety
The degree to which occupants perceive a place as ensuring no harm, injury, or undue risk from the physical environment.

This attribute of EQ is slightly different from the previous attribute (safety and security). This attribute refers to perceptions of safety on the part of students and teachers despite school policies and actions.

From your perspective, how safe do your teachers and students feel in school?

Have there been incidents or situations where physical safety has been an issue?

11. Sensory Stimulation
The degree to which occupants perceive a place as providing a stimulating environment for learning that is safe yet challenging.

From your perspective, how stimulating are classrooms -- that is, how bright and cheerful are they? how creative or inspiring are they for children?

Can you provide any examples in your school of sensory stimulation and its importance to children’s learning?

12. Crowding /Spaciousness
The degree to which occupants perceive a place as limiting opportunities for privacy, personal control or behavioral freedom.

Are classrooms crowded? what is the range of class sizes typically in your school?

Do teachers complain of crowded conditions or have they simply gotten use to it? How do they cope?

Have there been incidents or situations where crowding has been an issue?

13. Legibility, Orientation & Wayfinding
The degree to which occupants perceive a place as fostering a sense of orientation within the environment that reduces confusion and facilitates wayfinding.

How easy is it to find your way around the building?

Can visitors easily find their way?

What strategies have you used to improve wayfinding through the building?
14. Aesthetics & Appearance
The degree to which occupants perceive a place as attractive and provoking.

What are your views concerning the appearance of the building interior? and exterior?

What specific aspects of the school do you pay attention to regarding appearance? (corridors, shiny floors, exterior landscaping, paint) and why?

Do you receive comments from visitors to the school concerning its appearance?

How often have you felt the need to voice your concerns about the appearance of the building?

From your experience, has the custodial staff been responsive to your needs and concerns?

Do you have any suggestions for the custodial staff concerning the upkeep of the building that you have not previously made them aware of?

Anything you want to add that I have not addressed?

Now I’d like you to reassess your building based on this expanded list of attributes of EQ .

1c) How do occupants perceive, if at all, the state of environmental quality in their specific school?

How do you rate the environmental quality of your school considering the attributes you feel are the most important to teaching and learning?

How might you see improving those aspects of environmental quality your school has not performed well in?

SUMMARY & NEXT STEPS
Thank you for your participation. Your responses will help us in assessing and improving the quality of the school environment here.

Take-Home Worksheet
I have a take home worksheet which I would like for you to fill out which asks you to rate the aspects of environmental quality.

Workshop Participation
Our next step in the research process will be to conduct a workshop with three or four teachers from this school. The purpose of the workshop will be to help us narrow our focus on the issues and concerns you and other teachers from your school have raised concerning this school building.

The result of the workshop will be a survey questionnaire that we will administer to a larger group of teachers at your school.

As a result of our discussion here, do you feel comfortable and willing to participate in a small group 90-minute workshop with a few of your colleagues later this term?
Take-Home Worksheet

I would like to thank-you for taking the time to interview with me today. In an effort to extend our interview discussion of environmental quality in schools, I would greatly appreciate your responses to the questions on the following worksheet pages.

Please feel free to answer them at your leisure and send your responses to me by mail in the envelope provided with this worksheet.

As stated in the Informed Consent Form:

Participants will not be identified directly. All information gathered by participants will be confidential and used anonymously. Participation is completely voluntary and participants may withdraw from the study at any time for any reason without penalty. A decision not to participate will involve no penalty or loss of benefits to which the participant is otherwise entitled; if a subject withdraws, the information gathered from that participant will be used only with the written or verbal permission of that participant.

Again, thank-you for your participation in this project.

Jeff Lackney

Name of Participant __________________________ Date __________________________
1. Important Attributes of Environmental Quality

Please indicate the level of importance ((1)= very important, (2)= somewhat important, (3)= not important) of each of the following attributes of environmental quality with respect to its influence on...

<table>
<thead>
<tr>
<th>Attribute of Environmental Quality</th>
<th>...Student academic performance</th>
<th>...Student social development</th>
<th>...Teacher instructional performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Functionality</td>
<td>[1] [2] [3]</td>
<td>[1] [2] [3]</td>
<td>[1] [2] [3]</td>
</tr>
</tbody>
</table>
2. Student Academic Performance

Which three attributes from the list on the previous page do you feel are the most important to student academic performance?


Why did you choose the three attributes you did?


3. Student Social Development

Which three attributes from the list on the previous page do you feel are the most important to student social development?


Why did you choose the three attributes you did?


4. Teacher Instructional Performance

Which three attributes from the list on the previous page do you feel are the most important to teacher instructional performance?


Why did you choose the three attributes you did?


5. Facility Management

Please identify (with a check) the attributes of environmental quality that you feel your facility management team (a) is presently addressing, and (b) ideally should, but is not presently addressing, and why?

<table>
<thead>
<tr>
<th>Attribute of Environmental Quality</th>
<th>(a) addressing</th>
<th>(b) not addressing</th>
<th>Why have you identified these particular attributes?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Safety &amp; Security</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural Flexibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classroom Adaptability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Functionality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Interaction &amp; Communication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personalization &amp; Ownership</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Privacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History &amp; Meaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Comfort &amp; Health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological Safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensory Stimulation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crowding /Spaciousness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legibility, Orient. &amp; Wayfinding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aesthetics &amp; Appearance</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. Personal Control

Please identify (with a check) the attributes of environmental quality that you feel you (a) have adequate control over; and, (b) do not have adequate control over, and why?

<table>
<thead>
<tr>
<th>Attribute of Environmental Quality</th>
<th>(a) Have control</th>
<th>(b) Do not have control</th>
<th>Why have you responded as you have?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Safety &amp; Security</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural Flexibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classroom Adaptability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Functionality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Places for Social Interaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personalization &amp; Ownership</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Privacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History &amp; Meaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Comfort &amp; Health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological Safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensory Stimulation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crowding /Spaciousness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legibility, Orient. &amp; Wayfinding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aesthetics &amp; Appearance</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Informed Consent Form for Teacher Participants

I am Jeff Lackney, of the Department of Architecture and Urban Planning at the University of Wisconsin-Milwaukee. My colleague, Charles Brigden, and I are conducting a research project concerning how faculty, students and staff perceive the environmental quality of their schools. We would appreciate your participation in this study, as it will assist us in making recommendations for improving the environmental quality in your school and in other schools in the Baltimore City Public Schools (BCPS).

This research project will consist of case studies of five schools in BCPS. We will interview four teachers, an administrator, the head custodian, and parents from each school participating in the study. The interview will take approximately 45 minutes. In addition, we would like to survey students from each school using a short questionnaire survey to be administered by the school. Once the interview and survey process is complete, we will conduct one teacher's workshop consisting of four teachers from your school. This workshop will take approximately 90 minutes. Following the workshop and interviews, we may wish to conduct a short take-home questionnaire survey to be administered to the entire teaching staff to verify specific findings from the workshops, interviews, and student survey.

The four teachers willing to participate in this research project (as both interviewees and workshop participants) will be offered compensation of $75.00. Compensation will be awarded to teacher participants by mail with the conclusion of the final workshop or by February, 1996, which ever comes first. If a participant, for whatever reason, is unable to continue their involvement in the study, they will still be compensated in full.

Participants will not be identified directly. All information gathered by participants will be confidential and used anonymously. Participation is completely voluntary and participants may withdraw from the study at any time for any reason without penalty. A decision not to participate will involve no penalty or loss of benefits to which the participant is otherwise entitled; if a subject withdraws, the information gathered from that participant will be used only with the written or verbal permission of that participant.

Once the study is completed, we will be glad to give the results to you. In the meantime, if you have any questions, please ask us or contact:

Jeffery A. Lackney
School of Architecture and Urban Planning
University of Wisconsin-Milwaukee
Milwaukee, WI 53211
(414) 229-2591

If you have any complaints about your treatment as a participant in this study, please call or write:

Dr. Berri Forman, IRB
Institutional Review Board of the Protection of Human Subjects
Environmental Health, Safety and Risk Management
University of Wisconsin-Milwaukee
P.O. Box 413
Milwaukee, WI 53201
(414) 229-6016

Although Dr. Forman will ask your name, all complaints are kept in confidence.

I have received an explanation of the study and agree to participate. I understand that my participation in this study is strictly voluntary.

_________________________________________  _______________________
Name                                                Date

This research project has been approved by the University of Wisconsin-Milwaukee Institutional Review Board for the Protection of Human Subjects for a one year period.
Child Survey Questionnaire
Instructions to Teachers

The Environmental Quality Assessment Project
Conducted by the School of Architecture and Urban Planning
University of Wisconsin-Milwaukee

We are conducting a study that investigates the quality of your school's physical environment. We would like to get as many views on the quality of your school as we can -- including your students.

The purpose of the Child Survey Questionnaire is to obtain the child's perspective often left out of such evaluations of school physical environments. We believe the survey may provide some indication of the criteria by which children perceive and judge some aspects of environmental quality.

We ask, if possible, that you give your students about 10 minutes to complete this survey.

In administering this questionnaire to your students please read the following to your class:

"I would like you to answer a few questions about your school.

There are no right or wrong answers, only your feelings and opinions.

Take your time, don't rush and answer as many questions as you feel comfortable answering."

Thank-you for your participation!

Jeff Lackney
Principal Investigator
Dear Student,

We would like to ask you a few questions about your school

What is your favorite place in school? why?

- What places in your school are fun to learn in? why?

- What do you like most about your classroom?

- What don't you like about your classroom?

Thank-you for your help!
Could you draw a picture of your favorite place?

Thank-you for your help!
Parent Survey Questionnaire

The purpose of the parent survey questionnaire is to allow the widest possible range of perspectives into the assessment. The survey may provide additional indications of the criteria by which parents and community members perceive and judge some aspects of environmental quality.

We are conducting a survey to assess the quality of the learning environment for your child. We would greatly appreciate your comments and suggestions; they will help us to continuously improve our efforts to provide your children with a safe, secure, comfortable and satisfying experience.

1. What comments does your child often make about his or her school building and playgrounds? (If your child is near by do not hesitate to ask his or her opinion)

2. What are your concerns about the school you feel the school should focus on, or be aware of?

3. How have your experiences been when you have visited the school concerning the following areas:
   - safety and security?
   - appearance?
   - orderliness?
   - cleanliness?
   - others...

4. Imagine, for a moment, that you are an architect designing an elementary school. What room would you put the most time and effort into if you wanted to create the greatest opportunity for learning? why?

Thank you for your participation. Your responses will help us in assessing and improving the environmental quality of the Jones school for the whole community.
Research Questions
Interview Guide for Custodians

The purpose of interviewing non-instructional staff prior to instructional staff is to gain an understanding of the types of issues, problems and concerns that students and teachers voice to others beside the researcher. This information will be useful in providing a context for questions to be asked of teachers in the next stage of data collection.

I thank you for agreeing to meet with me today. I'm going to ask you some open-ended questions about the types of issues, problems and concerns you run up against on a day-to-day basis while maintaining this school. Your comments will be kept confidential. By sharing your experiences with me, you will help us understand how well the school facility meets the needs of students, teachers, parents and the community-at-large.

I'd like to ask your permission to tape record our interview. The tape will not be shared with anyone outside of the research group and comments taken from the tape will be paraphrased and confidential. The tape will help me be more accurate in representing your views later on in the research process. Do I have your permission? May I begin?

0. Background questions

How long have you been here? What are your roles and responsibilities as part of the staff of Jones Elementary School?

In general, what are the kinds of concerns/complaints you typically respond to by teachers concerning the school facilities?

(prompts: hot/cold, appearance, operations of equipment, furnishings, environmental controls, doors, windows, cabinets, sinks, etc.)

Could you give me a recent example of the circumstances surrounding a few of these complaints?

How are these concerns/complaints typically resolved?

(prompts: delegate them? report them? deal with them on the spot?)

A far as you know, how many of these complaints actually get recorded and documented or logged?

Can you give me any other examples? What other types of problems do you encounter?

...... I'd like to turn, now, to the subject of environmental quality.....

1. THE NATURE OF ENVIRONMENTAL QUALITY

Our study looks at the nature environmental quality in the school setting. Environmental quality -- or the quality of the physical environment of the school -- is one of the many factors affecting the educational process and a factor that is often overlooked.

Local knowledge

(1b) How do occupants\(^\text{19}\) perceive, if at all, the nature of environmental quality in general?

\(^{19}\) occupants = students, parents, teachers, administrative staff, custodial staff
I am interested in what environmental quality means to you -- generally.

Could you describe for me what your definition of environmental quality might be?

Prompts:
What are some characteristics that you think make for an exceptional school environment?

What are some characteristics that you think make for a good or bad setting for children or teachers?

Probes:
Could you give me a few incidents or situations to illustrate what you mean?

(1c) How do occupants perceive, if at all, the state of environmental quality in their specific school?

Using your definition of environmental quality, how would you rate the environmental quality of your school?

Prompt: How does your school perform with respect to quality as you have defined?

I have a few more aspects of quality I’d like to get your opinion on....

I will present you with a characteristic of environmental quality and I’d like to get your reaction to it.

I’m particularly interested in situations or examples from your experience of where these aspects of quality have come up.

Is this an appropriate or important factor to you? and why you think so?

If you have any questions concerning the meaning of the terms, let me know and I can clarify.

Environmental Quality Attributes

1. Safety and Security
   The degree to which the physical environment of a place contributes to protecting occupants from harm, injury, or undue risk.

What are some of the safety and security issues you have dealt with here? (unlawful entry, drugs, guns, other issues)

Could you give me some examples (stories, incidents or situations) that can bring to life some of these issues for me?

What are the school’s policies concerning these safety and security issues?

In your opinion, how important is this attribute? why?

5. Social Interaction & Communication
   The degree to which a place provides opportunities for social exchange, communication and interaction.

Is the school laid out in such a way to support informal social exchange among students and teachers and between teachers?

Have there been incidents or situations where social interaction between students and teachers has been an problem? too much, or too little?

Probes:
Are corridors used, encouraged, discouraged as places for social interaction? why?

Are common spaces often used as places for informal social exchange or are they simply spaces you pass through?

Do corridors offer places for interaction among teachers and students or are they simply passageways used to get from one place in the building to another?

What places in the building that lend themselves to useful informal interaction? (administrative lobby, common spaces, corridors, bathrooms)

In your opinion, how important is this attribute?

6. Personalization & Ownership

The degree to which occupants perceive a place as offering opportunities to create a personal and self-expressive environment, and to mark it as the property of the individual.

Do teachers and children have a sense of ownership of their school overall?

How do teachers personalize their classrooms?

What opportunities do children have to personalize their spaces?

Can you give me some special examples of places in the building that have been personalized?

In your opinion, how important is this attribute? why?

7. Privacy

The degree to which a place provides opportunities for a place of seclusion from others or observation; a place where one can be free from intrusion.

From your experience here, has there been incidents or situations where the need for privacy has been an issue for teachers and/or children? (prompt: to get away from the children)

Do private places exist for teachers? where? are they adequate for their needs?

Do children have places for privacy? where?

If children don't have private places to go why don't they -- what is the argument against children having private places to go to get away?

In your opinion, how important is this attribute? why?

8. History/meaning

The degree to which occupants perceive a place as having historical and cultural references that create a sense of the familiar and provide a sense of meaning.

Do you know the story of this school? How it came to be, its history?

What kind of meanings does this school have for you personally?

How important is this attribute? why?

9. Physical Comfort & Health
The degree to which occupants perceive a place as meeting their physiological needs with respect to thermal and air quality (thermal comfort), illumination (visual comfort) and noise (auditory comfort), odors (olfactory comfort), and surfaces (tactile comfort).

Is thermal and air quality something that is constantly an issue here?

Is noise and acoustics an issue or problem here at your school? How was it resolved?

Is lighting an issue? How was it resolved?

Have odors ever been an issue?

How important is this attribute? why?

10. Physical Safety
The degree to which occupants perceive a place as ensuring no harm, injury, or undue risk from the physical environment.

This attribute of EQ is slightly different from the previous attribute (safety and security). This attribute refers to perceptions of safety on the part of students and teachers despite school policies and actions.

From your perspective, how safe do your teachers and students feel in school?

Have there been incidents or situations where physical safety has been an issue?

How important is this attribute? why?

11. Sensory Stimulation
The degree to which occupants perceive a place as providing a stimulating environment for learning that is safe yet challenging.

From your perspective, as you walk through the classrooms in the building, how stimulating are classrooms -- that is, how bright and cheerful are they? how creative or inspiring are they for children?

Can you provide any examples in your school of sensory stimulation and its importance to children’s learning?

In your opinion, how important is this attribute? Why?

12. Crowding/Spaciousness
The degree to which occupants perceive a place as limiting opportunities for privacy, personal control or behavioral freedom.

Do teachers complain of crowded conditions or have they simply gotten use to it?

How do they cope?

Are classrooms crowded? what is the range of class sizes typically in your school?

Have there been particular incidents or situations where crowding has been an issue?

How important is this attribute?

13. Legibility, Orientation & Wayfinding
The degree to which occupants perceive a place as fostering a sense of orientation within the environment that reduces confusion and facilitates wayfinding.
Can visitors easily find their way through the building?

What strategies have you used to improve wayfinding through the building?

How important is this attribute? why?

14. Aesthetics & Appearance
The degree to which occupants perceive a place as attractive and provoking.

Do you receive comments from visitors to the school concerning its appearance?

What specific aspects of the school do you pay attention to regarding appearance? (corridors, shiny floors, exterior landscaping, paint) and why?

How important is this attribute? why?

3. FACILITY MANAGEMENT AND PERCEPTIONS OF QUALITY

I'd like to ask a few questions with regard to your perceptions of facility management and its role in maintaining a quality environment to teach and learn in.

Local knowledge

(3b) What do occupants see as the aspects of facility management that may have an influence on the environmental quality of the school?

Generally speaking -- what ways do you think facility management (custodial and maintenance and operations services) contributes to environmental quality in a school?

Which characteristics of quality do you think facility managers can influence?

(3c) What do occupants see as the aspects of facility management that may be having an influence on the environmental quality in their specific school?

Can you describe for me some examples or instances of when you felt you had an opportunity to contribute to the "improvement of environmental quality" of this school?
Informed Consent Form for Custodial Staff

I am Jeff Lackney, of the Department of Architecture and Urban Planning at the University of Wisconsin-Milwaukee. My colleague, Charles Brigden, and I are conducting a research project concerning how occupants of schools perceive the environmental quality of their schools. We would appreciate your participation in this study, as it will assist us in making recommendations for improving the environmental quality in your school and in other schools in the Baltimore City Public Schools (BCPS).

This research project will consist of a multi-site case study of four schools in BCPS. We will interview four teachers, an administrator, the head custodian, and parents from each school participating in the study. The interview will take approximately 45 minutes. In addition, we would like to survey students from each school using a short questionnaire survey to be administered by the school. Once the interview and survey process is complete, we will conduct one teacher's workshop consisting of four teachers from your school. This workshop will take approximately 90 minutes. Following the workshop and interviews, we may wish to conduct a short take-home questionnaire survey to be administered to the entire teaching staff to verify specific findings from the workshops, interviews, and student survey.

Participants will not be identified directly. All information gathered by participants will be confidential and used anonymously. Participation is completely voluntary and participants may withdraw from the study at any time for any reason without penalty. A decision not to participate will involve no penalty or loss of benefits to which the participant is otherwise entitled; if a subject withdraws, the information gathered from that participant will be used only with the written or verbal permission of that participant.

Once the study is completed, we will be glad to give the results to you. In the meantime, if you have any questions, please ask us or contact:

Jeffrey A. Lackney  
School of Architecture and Urban Planning  
University of Wisconsin-Milwaukee  
Milwaukee, WI 53211  
(414) 229-2591

If you have any complaints about your treatment as a participant in this study, please call or write:

Dr. Berri Forman, IRB  
Institutional Review Board of the Protection of Human Subjects  
Environmental Health, Safety and Risk Management  
University of Wisconsin-Milwaukee  
P.O. Box 413  
Milwaukee, WI 53201  
(414) 229-6016

Although Dr. Forman will ask you name, all complaints are kept in confidence.

I have received an explanation of the study and agree to participate. I understand that my participation in this study is strictly voluntary.

Name __________________________ Date __________________________

This research project has been approved by the University of Wisconsin-Milwaukee Institutional Review Board for the Protection of Human Subjects for a one year period.
Group Workshop #1

The first three phases have all been divergent phases. The goal of the next phases will be to converge the data and issues on those aspects of environmental quality that are salient to individuals and the organization. The purpose of the workshop will be to prioritize the issues for consideration and to use the results of this workshop to develop a survey questionnaire to be distributed to a larger sample of teachers within each school.

Part I: Introductions (5 minutes)

I would like to thank you for agreeing to meet for this workshop today.

The total time of the workshop will be 90 minutes. The workshop will be broken into 5 parts:

1. Introduction (5 min.),
2. Presentation of Preliminary Results (10 min.),
3. Discussion (35 min.),
4. Prioritization (30 min.) and
5. Evaluation (5 min.), Final Remarks (5 min.).

We have gathered information from several interviews with yourselves, students, parents, staff and administration. We have compiled the results and would like to share them with you.

The purpose of this workshop is to:
1. get your reactions to these results, and
2. to have you prioritize the issues and concerns most salient to you as a group.

Our research team will use the results of this workshop to develop a refined survey questionnaire to be distributed to a larger group of teachers within each school.

I'd like to ask your permission to tape record our interview. The tape will not be shared with anyone outside of the research group and comments taken from the tape will be paraphrased and anonymous. Do I have your collective permission? May I begin?

Part II: Presentation of Preliminary Results (10 minutes)

At this point, the results of the principal's, custodial, teachers' interviews and child and parent surveys will be summarized.

Part III: Discussion (35 minutes)

This part of the workshop will consist of a series of questions I will pose to you concerning the results. The purpose of this part is to gather further clarification from you about what the data means from our various perspectives and to discover the degree of agreement on each issue. May I begin?

Part IV: Prioritization (30 minutes)

This part of the workshop will consist of a series of silent voting on each of the issues raised in the previous two parts.

Part V: Evaluation (5 minutes)

This final part consists of the group will assess the degree of success of, and discuss ways to improve the workshop process.

Part VI: Closing Remarks (5 minutes)

Thank you all for participating in the workshop. I would appreciate it if you could participate in a final workshop in a few months to review the results of the wider teacher survey questionnaire. If you are interested please let me know so that I can schedule the follow-up workshop. If you would like to receive a copy of the final report please let me know.
Teacher Survey Questionnaire

This survey questionnaire is designed to illicit reactions from a wider sample of the teacher population of the school. The questionnaire is intended to be the result of the most salient issues, concerns and questions related to environmental quality identified by all the workshop participants across all schools in the study.

This instrument will be the primary tool for assessing other schools in the district. The tool may be transferred to other districts, however, it is advised that each school district tailor their survey questionnaire to the needs and concerns of that district as a whole by completing a similar action research process represented by the previous steps.

This survey is the final phase of the Environmental Quality Assessment Project. We expect that the completion of this survey will take 15-20 minutes.

The objective of this study is to understand how physical environmental quality contributes to the educational process. Concurrently, we are interested in identifying aspects of environmental quality that are of concern in your school.

Prior to this survey, we interviewed your principal and four teachers, the head custodian, and your parent liaison. In addition, we asked the classroom teachers to have their students draw pictures of their favorite places in the school and tell us why they liked them. Finally, we conducted a workshop with these same teachers and your principal to determine possible issues or concerns within the school's environment.

By responding to this survey you are consenting to participate in this study.

Participants will not be directly identified. All statements or information gathered from participants will be confidential, and will be reported in the aggregate only. Once the study is completed, we will be glad to share the results with you.

It is our sincere hope that through our work with you on this project we succeed in supporting your school's on-going efforts toward improvement.

Jeff Lackney
Principal Investigator
School of Architecture & Urban Planning
University of Wisconsin-Milwaukee
### 1. SAFETY AND SECURITY

**SAFETY & SECURITY** refers to the degree to which you feel the school building contributes to protecting occupants from harm, injury, or undue risks related to... Safety might include slippery floors, unsafe playground equipment, emergency lighting, child safety in parking lots... Security might include outdoor lighting, unlawful entry of intruders, drugs, weapons, stolen items, or surveillance.

Please circle the single most appropriate response to each question asked below.

#### [1] How frequently do SAFETY & SECURITY issues occur?

<table>
<thead>
<tr>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Yearly</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### [2] Do you feel that the manner in which SAFETY & SECURITY concerns have been dealt with at your school have been fair or unfair to teachers and students?

<table>
<thead>
<tr>
<th>Fair</th>
<th>Somewhat Fair</th>
<th>Neutral</th>
<th>Somewhat Unfair</th>
<th>Unfair</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### [3] To what degree do you feel you have control over your personal SAFETY at your school?

<table>
<thead>
<tr>
<th>Complete Control</th>
<th>Significant Control</th>
<th>Some Control</th>
<th>Little Control</th>
<th>No Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### [4] Have SAFETY & SECURITY concerns helped or hindered the efforts of your school to provide a safe environment for teaching and learning?

<table>
<thead>
<tr>
<th>Very Helpful</th>
<th>Somewhat Helpful</th>
<th>Neutral</th>
<th>Somewhat Hinder</th>
<th>Very Hinder</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### [5] Overall, how pleased or disappointed are you in the extent to which SAFETY & SECURITY concerns have been addressed?

<table>
<thead>
<tr>
<th>Very Pleased</th>
<th>Somewhat Pleased</th>
<th>Neutral</th>
<th>Somewhat Disappointed</th>
<th>Very Disappointed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### [6] How important do you think SAFETY & SECURITY is in supporting the goal of...

(a) maintaining a safe, healthy and nurturing learning climate?

(b) increasing student achievement?

<table>
<thead>
<tr>
<th>Very Important</th>
<th>Somewhat Important</th>
<th>Neutral</th>
<th>Somewhat Unimportant</th>
<th>Very Unimportant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### [7] Additional comments?

### 2. BUILDING FUNCTIONALITY

**BUILDING FUNCTIONALITY** refers to the degree to which you feel the various places within the school building are functionally compatible with your educational programs and activities. Specific issues related to building functionality might include problems with conducting cooperative learn instructional space, adequacy of space size and configuration of classrooms, assembly spaces or other spaces within the school.

Please circle the single most appropriate response to each question asked below.

#### [1] How frequently do you encounter issues of BUILDING FUNCTIONALITY?

<table>
<thead>
<tr>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Yearly</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### [2] Do you feel that problems of BUILDING FUNCTIONALITY have been fair or unfair to teachers and students?

<table>
<thead>
<tr>
<th>Fair</th>
<th>Somewhat Fair</th>
<th>Neutral</th>
<th>Somewhat Unfair</th>
<th>Unfair</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### [3] To what degree do you feel you have control over the BUILDING FUNCTIONALITY in the school?

<table>
<thead>
<tr>
<th>Complete Control</th>
<th>Significant Control</th>
<th>Some Control</th>
<th>Little Control</th>
<th>No Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### [4] Have BUILDING FUNCTIONALITY concerns helped or hindered the efforts of your school to provide an effective environment for teaching and learning?

<table>
<thead>
<tr>
<th>Very Helpful</th>
<th>Somewhat Helpful</th>
<th>Neutral</th>
<th>Somewhat Hinder</th>
<th>Very Hinder</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### [5] Overall, how pleased or disappointed are you in the extent to which BUILDING FUNCTIONALITY concerns have been addressed at your school?

<table>
<thead>
<tr>
<th>Very Pleased</th>
<th>Somewhat Pleased</th>
<th>Neutral</th>
<th>Somewhat Disappointed</th>
<th>Very Disappointed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### [6] How important do you think BUILDING FUNCTIONALITY is in supporting the goal of...

(a) maintaining a safe, healthy and nurturing learning climate?

(b) increasing student achievement?

<table>
<thead>
<tr>
<th>Very Important</th>
<th>Somewhat Important</th>
<th>Neutral</th>
<th>Somewhat Unimportant</th>
<th>Very Unimportant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### [7] Additional comments?
3. CLASSROOM ADAPTABILITY

CLASSROOM ADAPTABILITY refers to the degree to which you feel that the physical classroom space can be adapted to different and desired activities and functions. Specific issues related to Classroom Adaptability might include the inability to accommodate different furniture arrangements or rooms for instructional needs, problems with book, supply, student and personal storage, not enough display space, structural obstructions, etc.

Please circle the single most appropriate response to each question asked.

<table>
<thead>
<tr>
<th>Question</th>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Yearly</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] How frequently do you experience CLASSROOM ADAPTABILITY as a hindrance to your efforts?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[2] Do you feel that concerns related to CLASSROOM ADAPTABILITY have been fair or unfair to teachers and students?</td>
<td>Fair</td>
<td>Sometimes Fair</td>
<td>Neutral</td>
<td>Somewhat Unfair</td>
<td>Unfair</td>
</tr>
<tr>
<td>[3] To what degree do you feel you have control over the ADAPTABILITY of your classroom?</td>
<td>Control Complete</td>
<td>Significant Control</td>
<td>Some Control</td>
<td>Fair Control</td>
<td>No Control</td>
</tr>
<tr>
<td>[4] Have the ADAPTABILITY concerns you experience within your classroom helped or hindered your efforts to provide an effective environment for teaching and learning?</td>
<td>Very Helpful</td>
<td>Sometimes Helpful</td>
<td>Neutral</td>
<td>Somewhat Hindering</td>
<td>Very Hindering</td>
</tr>
<tr>
<td>[5] Overall, how pleased or disappointed are you in the extent to which your classroom is ADAPTABLE?</td>
<td>Very Pleased</td>
<td>Sometimes Pleased</td>
<td>Neutral</td>
<td>Somewhat Disappointed</td>
<td>Very Disappointed</td>
</tr>
<tr>
<td>[6] How important do you think CLASSROOM ADAPTABILITY is in supporting the goal of...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) maintaining a safe, healthy and nurturing learning climate?</td>
<td>Very Important</td>
<td>Sometimes Important</td>
<td>Neutral</td>
<td>Somewhat Unimportant</td>
<td>Very Unimportant</td>
</tr>
<tr>
<td>(b) increasing student achievement?</td>
<td>Very Important</td>
<td>Sometimes Important</td>
<td>Neutral</td>
<td>Somewhat Unimportant</td>
<td>Very Unimportant</td>
</tr>
</tbody>
</table>

[7] Additional comments?

4. PLACES FOR SOCIAL INTERACTION (SOCIAL PLACES)

SOCIAL PLACES refers to the degree to which you feel that places within the school building provide opportunities for meaningful social exchange and specific issues related to SOCIAL PLACES might include classrooms that do not provide opportunities for small group instruction, places in the promote informal social exchange such as a lobbies, hallways, restrooms, and playgrounds, etc.

Please circle the single most appropriate response to each question asked.

<table>
<thead>
<tr>
<th>Question</th>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Yearly</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] How frequently are concerns over SOCIAL PLACES an issue at your school?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[2] Do you feel that the quality of SOCIAL PLACES within your school are (a) fair or unfair to teachers?</td>
<td>Fair</td>
<td>Sometimes Fair</td>
<td>Neutral</td>
<td>Somewhat Unfair</td>
<td>Unfair</td>
</tr>
<tr>
<td>(b) fair or unfair to students?</td>
<td>Very Helpful</td>
<td>Sometimes Helpful</td>
<td>Neutral</td>
<td>Somewhat Hindering</td>
<td>Very Hindering</td>
</tr>
<tr>
<td>[3] To what degree do you feel you have control over SOCIAL PLACES in your school?</td>
<td>Control Complete</td>
<td>Significant Control</td>
<td>Some Control</td>
<td>Fair Control</td>
<td>No Control</td>
</tr>
<tr>
<td>[4] Have SOCIAL PLACES helped or hindered the efforts of your school to provide a safe environment for teaching and learning?</td>
<td>Very Helpful</td>
<td>Sometimes Helpful</td>
<td>Neutral</td>
<td>Somewhat Hindering</td>
<td>Very Hindering</td>
</tr>
<tr>
<td>[5] Overall, how pleased or disappointed are you in the extent to which opportunities for SOCIAL PLACES have been provided at your school?</td>
<td>Very Pleased</td>
<td>Sometimes Pleased</td>
<td>Neutral</td>
<td>Somewhat Disappointed</td>
<td>Very Disappointed</td>
</tr>
<tr>
<td>[6] How important do you think SOCIAL PLACES are in supporting the goal of...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) maintaining a safe, healthy and nurturing learning climate?</td>
<td>Very Important</td>
<td>Sometimes Important</td>
<td>Neutral</td>
<td>Somewhat Unimportant</td>
<td>Very Unimportant</td>
</tr>
<tr>
<td>(b) increasing student achievement?</td>
<td>Very Important</td>
<td>Sometimes Important</td>
<td>Neutral</td>
<td>Somewhat Unimportant</td>
<td>Very Unimportant</td>
</tr>
</tbody>
</table>

[7] Additional comments?
5. PERSONALIZATION & OWNERSHIP

PERSONALIZATION & OWNERSHIP refers to the degree to which you feel the school building offers opportunities to create a personal and self-environment and engender a sense of ownership. Specific issues related to personalization and ownership might include student work display individual students to personalize desks and work areas, personal lockers, personalization of classrooms by teachers, parental volunteering, residents respect school grounds, etc.

Please circle the single most appropriate response to each question asked.

[1] How frequently are issues pertaining to PERSONALIZATION & OWNERSHIP discussed at your school?

<table>
<thead>
<tr>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Yearly</th>
<th>Never</th>
</tr>
</thead>
</table>

[2] Do you feel that the opportunities for PERSONALIZATION & OWNERSHIP within your school are

(a) fair or unfair to teachers?

(b) fair or unfair to students?

<table>
<thead>
<tr>
<th>Fair</th>
<th>Somewhat Fair</th>
<th>Neutral</th>
<th>Somewhat Unfair</th>
<th>Unfair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair</td>
<td>Somewhat Fair</td>
<td>Neutral</td>
<td>Somewhat Unfair</td>
<td>Unfair</td>
</tr>
</tbody>
</table>

[3] To what degree do you feel you have control over the PERSONALIZATION & OWNERSHIP of your classroom and school overall?

<table>
<thead>
<tr>
<th>Complete Control</th>
<th>Significant Control</th>
<th>Some Control</th>
<th>Little Control</th>
<th>No Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Helpful</td>
<td>Somewhat Helpful</td>
<td>Neutral</td>
<td>Somewhat Unhelpful</td>
<td>Unhelpful</td>
</tr>
</tbody>
</table>

[4] Have PERSONALIZATION & OWNERSHIP issues helped or hindered the efforts of your school to provide an effective environment for teaching and learning?

<table>
<thead>
<tr>
<th>Very Helpful</th>
<th>Somewhat Helpful</th>
<th>Neutral</th>
<th>Somewhat Unhelpful</th>
<th>Unhelpful</th>
</tr>
</thead>
</table>

[5] Overall, how pleased or disappointed are you in the extent to which PERSONALIZATION & OWNERSHIP concerns have been addressed at your school?

<table>
<thead>
<tr>
<th>Very Pleased</th>
<th>Somewhat Pleased</th>
<th>Neutral</th>
<th>Somewhat Disappointed</th>
<th>Very Disappointed</th>
</tr>
</thead>
</table>

[6] How important do you think PERSONALIZATION & OWNERSHIP is in supporting the goal of...

(a) maintaining a safe, healthy and nurturing learning climate?

(b) increasing student achievement?

<table>
<thead>
<tr>
<th>Very Important</th>
<th>Somewhat Important</th>
<th>Neutral</th>
<th>Somewhat Unimportant</th>
<th>Very Unimportant</th>
</tr>
</thead>
</table>

[7] Additional comments?

6. PRIVACY

PRIVACY refers to the degree to which you feel that there are places within the school building which provide opportunities for an individual or a small group of students to be alone from the intrusion of others. Specific issues related to privacy might include the availability of places to have private conversation, to be alone moment to collect your thoughts, and/or places for students to be alone for a few minutes.

Please circle the single most appropriate response to each question asked.

[1] How frequently are concerns for PRIVACY at issue in your school?

<table>
<thead>
<tr>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Yearly</th>
<th>Never</th>
</tr>
</thead>
</table>

[2] Do you feel that the opportunities for PRIVACY within your school are

(a) fair or unfair to teachers?

(b) fair or unfair to students?

<table>
<thead>
<tr>
<th>Fair</th>
<th>Somewhat Fair</th>
<th>Neutral</th>
<th>Somewhat Unfair</th>
<th>Unfair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair</td>
<td>Somewhat Fair</td>
<td>Neutral</td>
<td>Somewhat Unfair</td>
<td>Unfair</td>
</tr>
</tbody>
</table>

[3] To what degree do you feel you have control over your PRIVACY?

<table>
<thead>
<tr>
<th>Complete Control</th>
<th>Significant Control</th>
<th>Some Control</th>
<th>Little Control</th>
<th>No Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Helpful</td>
<td>Somewhat Helpful</td>
<td>Neutral</td>
<td>Somewhat Unhelpful</td>
<td>Unhelpful</td>
</tr>
</tbody>
</table>

[4] Have PRIVACY concerns helped or hindered the efforts of your school to provide a effective environment for teaching and learning?

<table>
<thead>
<tr>
<th>Very Helpful</th>
<th>Somewhat Helpful</th>
<th>Neutral</th>
<th>Somewhat Unhelpful</th>
<th>Very Unhelpful</th>
</tr>
</thead>
</table>

[5] Overall, how pleased or disappointed are you in the extent to which PRIVACY concerns have been addressed?

<table>
<thead>
<tr>
<th>Very Pleased</th>
<th>Somewhat Pleased</th>
<th>Neutral</th>
<th>Somewhat Disappointed</th>
<th>Very Disappointed</th>
</tr>
</thead>
</table>

[6] How important do you think PRIVACY is in supporting the goal of...

(a) maintaining a safe, healthy and nurturing learning climate?

(b) increasing student achievement?

<table>
<thead>
<tr>
<th>Very Important</th>
<th>Somewhat Important</th>
<th>Neutral</th>
<th>Somewhat Unimportant</th>
<th>Very Unimportant</th>
</tr>
</thead>
</table>

[7] Additional comments?
7. PHYSICAL COMFORT & HEALTH

PHYSICAL COMFORT & HEALTH refers to the degree to which you feel the indoor environment meets your physiological needs with respect to their quality, illumination, noise and odors. Specific issues related to physical comfort and health might include classrooms that are either too hot inadequately circulated air, lighting quality, acoustic and noise issues and unpleasant odors.

Please circle the single most appropriate response to each question asked.


[2] Do you feel that the manner in which PHYSICAL COMFORT & HEALTH concerns have been dealt with at your school have been fair or unfair to teachers and students? Fair Somewhat Fair Neutral Somewhat Unfair Unfair

[3] To what degree do you feel you have control over PHYSICAL COMFORT & HEALTH issues at the school? Complete Control Significant Control Some Control Little Control No Control

[4] Have PHYSICAL COMFORT & HEALTH concerns you have identified above helped or hindered the efforts of your school to provide a safe environment for learning? Very Helpful Somewhat Helpful Neutral Somewhat Hindered Very Hindered

[5] Overall, how pleased or disappointed are you to the extent to which PHYSICAL COMFORT & HEALTH concerns have been addressed at your school? Very Pleased Somewhat Pleased Neutral Somewhat Disappointed Very Disappointed

[6] How Important is PHYSICAL COMFORT & HEALTH in supporting the goal of...
   (a) maintaining a safe, healthy and nurturing learning climate?
   (b) increasing student achievement?

[7] Additional comments?

8. SENSORY STIMULATION

SENSORY STIMULATION refers to the degree to which you feel the school building provides a stimulating environment for learning that is safe yet.

Please circle the single most appropriate response to each question asked.

[1] How frequently are issues of SENSORY STIMULATION a concern at your school? Daily Weekly Monthly Yearly Never

[2] Do you feel that the concerns for SENSORY STIMULATION have been fair or unfair to teachers and students? Fair Somewhat Fair Neutral Somewhat Unfair Unfair

[3] To what degree do you feel you have control over SENSORY STIMULATION in your classroom and school overall? Complete Control Significant Control Some Control Little Control No Control

[4] Have SENSORY STIMULATION concerns helped or hindered the efforts of your school in providing a safe environment for learning? Very Helpful Somewhat Helpful Neutral Somewhat Hindered Very Hindered

[5] Overall, how pleased or disappointed are you in the extent to which SENSORY STIMULATION concerns have been addressed at your school? Very Pleased Somewhat Pleased Neutral Somewhat Disappointed Very Disappointed

[6] How Important is SENSORY STIMULATION in supporting the goal of...
   (a) maintaining a safe, healthy and nurturing learning climate?
   (b) increasing student achievement?

[7] Additional comments?
9. CROWDING/SPACIOUSNESS

CROWDING/SPACIOUSNESS refers to the degree to which you feel the school building cannot adequately accommodate the number of students and staff occupying it. Specific issues related to crowding/spaciousness might include problems with overcrowding in classrooms, congested hallways, administrative offices and other spaces in the school building.

Please circle the single most appropriate response to each question asked.

| [1] How frequently is CROWDING/SPACIOUSNESS an issue at your school? |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Daily | Weekly | Monthly | Yearly | Never |
| Fair | Somewhat Fair | Neutral | Somewhat Unfair | Unfair |

| [2] Do you feel that the manner in which CROWDING/SPACIOUSNESS concerns have been dealt with at your school have been fair or unfair to teachers and students? |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Complete Control | Significant Control | Some Control | Little Control | No Control |
| Very Helpful | Somewhat Helpful | Neutral | Somewhat Hindering | Very Hindering |

| [3] To what degree do you feel you have control over the CROWDING/SPACIOUSNESS at the school? |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Complete Control | Significant Control | Some Control | Little Control | No Control |
| Very Helpful | Somewhat Helpful | Neutral | Somewhat Hindering | Very Hindering |

| [4] Have CROWDING/SPACIOUSNESS concerns you have identified above helped or hindered the efforts of your school to provide a safe environment for learning? |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Very Helpful | Somewhat Helpful | Neutral | Somewhat Hindering | Very Hindering |

| [5] Overall, how pleased or disappointed are you in the extent to which CROWDING/SPACIOUSNESS concerns have been addressed at your school? |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Very Placed | Somewhat Placed | Neutral | Somewhat Disappointed | Very Disappointed |

| [6] How important is CROWDING/SPACIOUSNESS in supporting the goal of... |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| (a) maintaining a safe, healthy and nurturing learning climate? |
| Very Important | Somewhat Important | Neutral | Somewhat Unimportant | Very Unimportant |

| (b) increasing student achievement? |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Very Important | Somewhat Important | Neutral | Somewhat Unimportant | Very Unimportant |

| [7] Additional comments? |

10. AESTHETICS & APPEARANCE

AESTHETICS & APPEARANCE refers to the degree to which you feel the school building is attractive and provoking. Specific issues related to a school's appearance might include the appearance and upkeep of the exterior of the building, the visual appearance of the building entrance and lobbies, cleanliness of floors, wall and ceiling surfaces, the orderliness and cleanliness of classrooms, etc.

Please circle the single most appropriate response to each question asked.

| [1] How frequently do concerns with AESTHETICS & APPEARANCE arise at your school? |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Daily | Weekly | Monthly | Yearly | Never |
| Fair | Somewhat Fair | Neutral | Somewhat Unfair | Unfair |

| [2] Do you feel that the manner in which AESTHETICS & APPEARANCE concerns have been dealt with at your school have been fair or unfair to teachers and students? |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Complete Control | Significant Control | Some Control | Little Control | No Control |
| Very Helpful | Somewhat Helpful | Neutral | Somewhat Hindering | Very Hindering |

| [3] To what degree do you feel you have control over the AESTHETICS & APPEARANCE of the school? |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Complete Control | Significant Control | Some Control | Little Control | No Control |
| Very Helpful | Somewhat Helpful | Neutral | Somewhat Hindering | Very Hindering |

| [4] Have AESTHETICS & APPEARANCE CONCERNS you have identified above helped or hindered the efforts of your school to provide a safe environment for learning? |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Very Helpful | Somewhat Helpful | Neutral | Somewhat Hindering | Very Hindering |

| [5] Overall, how pleased or disappointed are you in the extent to which AESTHETICS & APPEARANCE concerns have been adequately addressed at your school? |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Very Placed | Somewhat Placed | Neutral | Somewhat Disappointed | Very Disappointed |

| [6] How important is AESTHETICS & APPEARANCE in supporting the goal of... |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| (a) maintaining a safe, healthy and nurturing learning climate? |
| Very Important | Somewhat Important | Neutral | Somewhat Unimportant | Very Unimportant |

| (b) increasing student achievement? |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Very Important | Somewhat Important | Neutral | Somewhat Unimportant | Very Unimportant |

| [7] Additional comments? |
Group Workshop #2

This workshop will consist of interpreting the findings from the survey and beginning the process of developing recommendations for action to improve environmental quality in the schools being assessed.

---

Part I: Introductions (5 minutes)

I would like to thank you for agreeing to meet for our final workshop today. The total time of the workshop will be once again 90 minutes. The workshop will be broken into 5 parts:
1. Introduction (5 min.),
2. Presentation of Preliminary Results (10 min.),
3. Discussion (35 min.),
4. Recommendations (30 min.) and Evaluation (5 min.),
5. Final Remarks (5 min.)

We have gathered information from the teacher survey questionnaire. We have compiled the results and would like to share it with you.

The purpose of this workshop is to:
1. get your reactions to these results, and
2. to have you consider recommended actions that might be taken to improve the environmental quality conditions within the school.

Our research team will use the results of this workshop to develop a final report to be publicly distributed.

I'd like to ask your permission to tape record our interview. The tape will not be shared with anyone outside of the research group and comments taken from the tape will be paraphrased and anonymous. Do I have your collective permission? May I begin?

Part II: Presentation of Survey Results (10 minutes)

At this point, the results of the principal's, custodial, teachers' interviews and child and parent surveys will be summarized.

Part III: Discussion (35 minutes)

This part of the workshop will consist of a series of questions I will pose to you concerning the results. The purpose of this part is to gather further clarification from you about what the data means from your perspective and to discover the degree of agreement on each issue. May I begin?

Part IV: Recommendations (30 minutes)

This part of the workshop will consist of a series of silent voting on each of the issues raised in the previous two parts.

Part V: Evaluation (15 minutes)

This final part consists of the group assessing the degree of success of the workshop process.
Group Workshop #3

The final workshop will consist of developing more detailed recommendations for action to improve environmental quality in the schools being assessed. The content of the workshops will be summarized and a final report will be developed that summarizes all the results of the study and the findings and interpretations of the working groups.

The objective of this final part is to apply the knowledge gained during the evaluation to improve the environmental quality of the places evaluated. Problems are fed back into the processes that can best address those problems. The final step calls for addressing the continuous improvement of the assessment procedure itself.

Part I: Identify nature of problems

From the previous step, a series of environmental concerns, issues and problems has emerged. These problems can be categorized or classified as either problems of knowledge, design or implementation. From this classification, it will be easier to identify change agents to help address the problem.

- List the problems and/or issues that have surfaced from surveys:
  - Which problems are due to problems of knowledge?
  - Which problems are due to problems of design?
  - Which problems are due to problems of implementation?
  - Which problems are due to problems of operations?

Part II: Identify processes to address prioritized issues

This part of the workshop identifies the process by which particular problems or issues can be resolved.

- Which problems could be solved through increasing the knowledge of occupants or facility managers toward these problem/issue? How?
- Which problems/issues could be solved through improving operations and management procedures? How?
- Which problems could be solved through redesign and construction? How?
- Which problems could be solved by engaging the regulatory process? How?

Part III: Evaluating effectiveness of procedure

- Have all places been assessed, and if so, has all relevant data been collected?
- Are there problems with the scope of the project which have surfaced? If so, what are they and how might the scope be revised to accommodate/address these problems?
- Are there problems with the manner in which problems have been categorized and assigned to a particular process?
  - If so, what are they and how might this procedure be revised to accommodate/address these problems?
- What was the most valuable part of this procedure for the school?