

#### 4. FACILITY MANAGEMENT, ENVIRONMENTAL QUALITY AND THE EDUCATIONAL PROCESS

*Mr. Spearing, wanting to proactively address teacher needs and concerns, developed a "customer response form" placing copies of the form in each teacher's mailbox to encourage their feedback on problems that they might have related to the physical environment of their school. Soon he was addressing problems of needing heat, supplying bathrooms, setting clocks, fixing running sinks, coaxing Ms. Johnson's uncooperative audio-visual screen, repairing a damaged outlet in Ms. Bennick's room, adjusting legs on a classroom table, replacing duct tape used to conceal computer network wires running along the floor of the computer room that children keep tripping over, air ventilation, fixing a stuck door outside the boys bathroom, replacing flickering fluorescent lights in Ms. Henderson's classroom, reserving the VCR for a Mr. Jennings, installing a pencil sharpener in Ms. Leadbetters classroom, repairing a broken top drawer of Ms. Hopper's desk and fixing a damaged puzzle rack in Ms. Anger's room, replacing the intercom speaker switch, and repairing a rug at the entrance of Ms. Blackmore's room. One teacher who used Mr. Spearing's customer response form exclaimed, "I am happy to have you as my personal custodian."*

Many other examples could be provided from all five schools in this study. Mr. Spearing's contribution to building and maintaining the educational "stage" speaks for itself.

The contribution of custodians in providing a stage set for education is often overlooked and underrated. Most educators implicitly assume that the custodian and maintenance staff play an important but somewhat minor role in the goals of education.

However, from this study a different picture emerges. Although perceived as playing a supportive role in education, facility management is seen paradoxically as having significant control, even responsibility over the very environmental qualities that educators in these schools see as influencing educational outcomes.

The Organization for Economic Co-operation and Development<sup>14</sup> cogently describes what it believes to be the role of facility development in improving the quality of the educational process:

Another development which has its foundations in the widespread movement towards decentralization of educational administration concerns the way in which resources, once provided are used and managed. This is an aspect of the role of school leaders which is often neglected but where they can make a significant contribution to the life of the institution . . . in so far as they lead to greater job satisfaction and better running of the establishment they can be welcomed as contributing to the quality of schooling.

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<sup>14</sup>OECD (1989). Schools and quality: An international report. Paris, France: Organization for Economic Cooperation and Development, p. 122.

## Facility Management and Environmental Quality

An across case analysis reveals that facility management services are perceived by school occupants as having a critical role in both maintaining and improving several of the environmental qualities identified by working groups in the study.

**According to the working groups, facility management is seen as having significant influence over four environmental qualities:**

<p><b>Physical Comfort &amp; Health</b> <b>Safety &amp; Security</b> <b>Aesthetics &amp; Appearance</b> <b>Personalization &amp; Ownership</b></p>
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These four out of the total of ten environmental qualities are seen as being domains of facilities management, and concurrently domains that occupants experience less influence over.

Between cases, on the other hand, the influence JCI-managed schools differs from match schools in the study.

- **JCI-managed schools appear to have 24% less perceived environmental concerns adversely affecting educational outcomes than match schools.**

This suggests that JCI facility management is contributing to the educational process by creating a slightly more favorable physical environment than match schools.

Through these four environmental qualities, facility management is perceived by the working groups as having varying influence on Student Academic Performance, Student Social Development and Teacher Instructional Performance.

What follows are some examples of the impact of facility management upon these four environmental qualities.

### Physical Comfort & Health

- Bernard takes very seriously his company's motto "to meet and exceed the expectations of the customer," and for him, that means making sure floors are shining, trash is emptied, rugs are vacuumed, chalktrays are cleaned, making best use of the most innovative products on the market, and engaging in intensive staff training aimed at continuous improvement. The principal, when asked to evaluate how well she feels the school is doing with respect to environmental quality states, "I think in terms of a clean environment, a sanitary facility, I think we're well above average...we're very good in that area." A teacher from the working group was also insistent about the custodial care explaining, "The floors sparkle...the custodians work very hard [and] meet my needs, they're wonderful. The school is attractive to students and people who come in [and] the staff has done everything they can do to keep it attractive." (32)
- The custodian is keenly aware of thermal comfort problems and tries to alleviate them for teachers however he can. When it gets warm, the custodian will unlock the windows to

get some relief to a localized part of the building. Even when the custodian opens a window, however, one teacher located further in the interior of the building remarks, "If there is a nice breeze coming through the window I can't feel it." (138)

- Good custodial responsiveness and general maintenance can go only so far. At some point, building systems that operate inefficiently must be addressed as well. The condition of the aging mechanical system along with the lack of adequate bathroom ventilation have continued to concern teachers: "We have a much better regulated system now, but it still gets cold in here," one teacher remarked summarizing the general feeling on the second floor. Cutting down air in the one pod only has the effect of eliminating air in another. (142)
- The custodial team leader echoes the concerns of teachers, "Cleanliness is the most important thing," he says. "At first, bathrooms smelled so bad, it was so distracting...there was trash in the hall due to no trash cans...it took six months for me to be in total control of what I wanted to do here." (142)

### Safety & Security

- Due to several recent thefts by intruders, the custodian has established a new policy to lock the main entrance doors very soon after classes start and again directly after dismissal. (31)
- The custodial and maintenance staff has taken a number of steps to decrease the likelihood of unwanted intruders, as well as building and car break-ins and graffiti. Three security cameras were installed on the outside of the building by the maintenance staff in the past year. Safety in the parking lot from assault, auto vandalism as well as safety from intruders continues to be a high priority for this school. The head custodian makes rounds around the building at regular intervals throughout the day to make sure exit doors are indeed locked from the outside. (142)
- To Team Leader Ervin, environmental quality means safety and cleanliness. The school has had no safety accidents in the school since he has been there. He states, referring to his employer, "They train you to death, safety is central." In addition to his concern for safety within the school, Ervin cleans the grounds every morning and intermittently throughout the day. There was glass everywhere, but now that is under control. "Its the first thing visitors look at," he says. (142)

### Aesthetics & Appearance

- Many of the on-going efforts of the principal, such as improving the condition of the building and grounds have been aided by the presence of their private facilities management company. Ms. Grafton states, "They have kept up the grounds much better now...these guys get out every morning and do it over and over...its a problem still but there seems to be some recognition from the community." She continues to explain that with the help of her custodial staff, the school was instrumental in cleaning up the city alley all the way to Milton Avenue. (25)
- The working group agreed with the principal that the interior of the building itself is clean, inviting, and well maintained. As one teacher remarked, "Looks well for the most part...the inside of the building? I would invite the President over!" (31)
- Bernard, the school's head custodian, acting on his own initiative, was for a time able to empty the Urban Services dumpster from the adjoining property by hauling off garbage to a nearby landfill. (32)
- Mr. Crawford, the head custodian, recognizing the poor state of the building grounds remarks, "We go out everyday to contain that...its very hard, very hard." One teacher defending the custodian, remarked, "I used to have a group of kids that would come out and clean up two or three days of the week, we'd go out in the morning just to help the custodians who couldn't do all of this. The principal Ms. Kavelaris adds, "I would like to see the outside environment be more attractive," but admits the problem may be due in part to the structure of their custodial contracts that required custodians. Nevertheless some teachers feel there are plenty of people to do this work now. As one teacher stated, "Our grounds should be kept better than they are." (138)
- Graffiti problems have been resolved by relentlessly attacking the problem through the use of a pressure chemical wash on the back of the building where most of the graffiti appears. "Its been a year since I've had to use the wash," the custodian says. (142)

### Personalization and Ownership

- Referring to the upkeep of the grounds, Ms. Blake says it is a never-ending battle, but one the custodial staff feels is well worth the effort. She remarks, "They are in competition with crime," when it comes to keeping the school grounds safe and clean. According to the parent liaison, as a result of the efforts made by the custodial staff, some in the community have actually begun to take notice of the school's determination to maintain a positive appearance encouraging some in the neighborhood to police those individuals who keep defacing the property. (25)
- In addition to these environmental qualities, the custodian acts as a role model and mentor for the students. Ervin's official responsibilities are blurred by his involvement with the students: "I look out for them...I like to tell them my story whenever I can." In a way, "Mr. Ervin," as the students call him, serves as a makeshift authority figure for students. (142)
- The only problem Ervin has now is, 'kids throwing trash on the grounds,' but he is patient with them stating that "Sometimes they have no place to put trash so they put it on the ground." Instead, he tries to instill a sense of responsibility in the students to take pride in their school.(142)

### Educators and Environmental Quality

Even with the myriad of problems and concerns that custodians deal with on a daily basis, many environmental problems remain that educators do not hold them responsible for. To add to this, educators are often not always aware of these problems they face or how to address them.

Two critical environmental qualities that are of concern with most working groups in the study are Classroom Adaptability and Building Functionality. Some examples of these problems follow:

- There were issues beyond noise and distraction and classroom layout that teachers appeared to be more concerned about: adapting their classrooms to future technologies.(31)
- Teachers feel that implementing the cooperative learning philosophy physically within their classroom with specific areas or corners for math, writing, art and science is difficult, if not impossible, even though they were given a short in-service instruction course on how to layout their classrooms to fit the philosophy.(32)
- One of the highest priority issues identified by teachers were problems with open space. Although most admitted that open space promotes collegiality among teachers, noise and distraction continue even with the recent purchase of new portable bulletin boards. A previous principal enforced a strict policy of openness and would not allow any partitions or dividers at all; they are all very appreciative of the efforts of the present principal to address their concerns over open space.(138)
- Probably the most complex problem that teachers are concerned with is the distraction caused by open instructional space. In addition to the typical problems of open space areas (visual and auditory distractions for teachers and students) these areas are inefficiently laid out and organized, obstructed by structural columns and do not provide nearly enough wall space, or enough floor area for activity centers. There seems to be no correspondence between the size, shape and configuration of the makeshift classrooms and the educational activities that are contained within them. (142)

Sixty-nine percent of teachers feel they have little or no control over the building functionality at their school.

In addition, only 41% of teachers responding to the survey feel that the manner in which building functionality concerns have been dealt with have been fair to somewhat fair, as well as somewhat to very hindering (38%) in providing an effective environment for teaching and learning. Overall, only 31% of teachers are somewhat to very pleased with how building functionality concerns have been addressed.

With respect to Classroom Adaptability, an environmental quality that teachers would be expected to be in control of, only 34% of teachers feel they have significant to complete control over the classroom adaptability at their school. In addition, only 38% of teachers feel that the manner in which classroom adaptability concerns have been dealt with at their schools has been fair or somewhat fair, and only 30% feel the degree of Classroom Adaptability has been somewhat to very helpful in providing an effective environment for teaching and learning.

Problems of Classroom Adaptability and Building Functionality are not seen by the schools studied as areas where facility management has any expertise. However, the findings indicate that teachers in these schools do not seem to have the expertise to address them either.

### Facility Management, Educational Processes & Outcomes

*Ms. Kavelaris remarks, that she deals with facility management issues "more than I want. I don't want to talk about panic bars, to me that's not exciting, but I know its in my purview. But, I'd like it to be dealt with and be gone so that our focus can be just on academics. So, I'm not happy when I have to make a case about something we expect to be working and its not working." She estimates that her attention to facility management issues may account for as much as 10 to 15% of her workload as principal.(138)*

Clearly, there are many factors that influence educational outcomes, with environmental qualities being only one of those factors. Correspondingly, facility management services, through the maintenance and improvement of environmental quality, have a limited, yet significant role in influencing educational outcomes by ensuring an optimal environment for effective teaching and learning.

The four environmental qualities mentioned above, Physical Comfort & Health, Safety & Security, Aesthetics & Appearance, and Personalization & Ownership are, as indicated by Finding #2, perceived by the working groups as having an influence on various aspects of Student Academic Performance, social development and Teacher Instructional Performance. The diagrams on the following pages illustrate relationships between facility management, environmental concerns and associated environmental qualities and educational outcomes.

### Student Academic Performance

Facility management was found to directly address three of the six environmental quality concerns most commonly associated with student performance across schools:

- Physical Comfort & Health (thermal comfort, air flow and ventilation)
- Safety & Security (safety from intruders)
- Personalization & Ownership (ownership of building grounds)

### Student Social Development

Facility management was found to directly address four of the seven environmental quality concerns most commonly associated with Student Social Development across schools:

- Physical Comfort & Health (thermal comfort, air flow and ventilation)
- Safety & Security (safe places to play, safety from intruders)
- Personalization & Ownership (ownership of school grounds)
- Aesthetics & Appearance (cleanliness, orderliness and character)

### Teacher Instructional Performance

Facility management was found to directly address two of the four environmental quality concerns most commonly associated with Teacher Instructional Performance across schools:

- Physical Comfort & Health (thermal comfort, air flow and ventilation)
- Safety & Security (safety from intruders)







