



# Teacher attitudes about classroom conditions

Classroom  
conditions

Glen I. Earthman

*Virginia Tech, Blacksburg, Virginia, USA, and*

Linda K. Lemasters

*Graduate School of Education and Human Development,*

*The George Washington University, Washington, District of Columbia, USA*

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## Abstract

**Purpose** – This research was designed to investigate the possible relationship between the attitudes, teachers have about the condition of their classrooms when the classrooms were independently assessed. Previous research reported teachers in unsatisfactory classrooms felt frustrated and neglected to such an extent that they sometimes reported they were willing to leave the teaching profession. This paper aims to address these issues.

**Design/methodology/approach** – Eleven high schools in which the principals state the buildings are in unsatisfactory condition are identified and matched with 11 schools assessed as being in satisfactory condition. The My Classroom Appraisal Protocol<sup>®</sup> (MCAP) is used to gather impressions and attitudes of teachers. The MCAP is entered into the internet, and teachers in the selected schools are asked to voluntarily complete the instrument and submit it electronically.

**Findings** – The differences between the responses of teachers in satisfactory buildings are significantly different than those of teachers in unsatisfactory buildings at the  $p < 0.05$  level of confidence. Similar results are obtained on the attitudinal scale of the MCAP, again at the  $p < 0.05$  level.

**Research limitations/implications** – The size of the population is small, which limits applicability.

**Practical implications** – These findings clearly indicate the physical environment influences attitudes of teachers, which in turn affects their productivity. Such effects could cause morale problems in the teaching staff.

**Originality/value** – The findings indicate the condition of the classroom can cause morale problems with teachers. School authorities need to recognize the importance physical conditions have upon teachers so that negative feelings and attitudes do not pervade the faculty. Such feelings eventually may influence the achievement of students.

**Keywords** Teachers, Attitudes, Classrooms, School buildings, United States of America

**Paper type** Research paper

## Introduction

It is estimated that teachers spend over 2,000 hours each year in the classroom in either teaching or preparation activities. We know the physical environment influences how we work and how we feel about the space in which we must spend a major portion of our working time (Kielhofner, 2002). We also know that in the public schools there are good and poor classroom physical environments. For teachers, the highly stressful work regimen of working with children would mandate that the physical environment of the classroom support and assist them in helping students learn.

Any aspect of the physical environment that distracts teachers from the main emphasis of instructional activities influences the degree of their effectiveness (Anderson, 2004). When heat, cold, lighting, and acoustics, for instance, work against



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the efforts of a teacher in the classroom, some compromise or accommodation must be made in the work of the teacher. Usually, such compromises result in more intense effort on the part of the teacher to do those things that are necessary to properly teach students. Teachers and students tend to compensate for unsatisfactory conditions and limited resources. In the long run, however, the students pay for this increased work effort on the part of the teacher.

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### **Review of research**

The review of research provides a discussion of the findings of several studies in which the subject was the relationship between the school building or classroom condition and teacher attitudes. Teacher attitudes, perceptions, feelings, and morale have all been used as dependent variables in studies dealing with the possible influence the school building has upon teacher health and productivity. This review serves as a foundation of the present study, which explored the attitudes of teachers when their building was assessed as being in either unsatisfactory or satisfactory condition.

#### *Attitude and feelings*

One of the earliest studies was conducted by Karst (1984), who investigated the possible relationship between school building quality and student and teacher attitudes in a large metropolitan area in Louisiana. The population consisted of 499 students in six elementary, junior high, and senior high school buildings. A total of 130 teachers also participated in the study. The condition of the school buildings were assessed using the model for evaluation of educational buildings developed by McGuffey (1974). Based upon the assessment, the buildings were divided into upper and lower quality buildings, according to the scores assigned by the assessors.

The attitudes of the students and teachers were assessed providing data for a comparison between the two groups. No reliability or validity measures were expressed for the attitude scales. As a result, confidence in the ability of the instruments to accurately measure attitudes is not well founded. The researcher hypothesized that both teacher and student attitude scores would go up in good schools and down in poor. Teachers and students in higher quality school buildings did have better scores on the attitude scale, but teachers in poor school buildings had better attitudes than the students. In fact, as the school building improved in quality the teachers' scores remained constant. Student responses more closely conformed to the proposition that as facilities deteriorate, occupant attitudes about the school suffer. Perhaps, this speaks to the unidentified and unmeasured phenomena of teachers' willingness to tolerate inferior surroundings, relying on their own instructional prowess to compensate for the environmental shortcomings.

Renovation projects are often a trying experience for teachers and students. Dawson and Parker (1998) investigated these phenomena in order to provide a descriptive analysis of the feelings of teachers about the building before, during, and after renovations. Teachers in Neville High School were the subjects in a study to determine their feelings or perceptions about the process and outcomes of the renovations. The teachers reported discomfort with many aspects of the renovation project, as well as negative feelings about their own work during that period of time. After the renovation, however, teachers reported that morale among the faculty was high and their frustration level was much lower than during the renovation. There were some

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outcomes of the renovation, however, that were particularly irksome to the faculty, including changes in classroom colors. Apparently, the faculty had little to say about the choice of colors, and the colors chosen were not what the faculty wanted. These findings point to the fact that teachers have a proprietary feeling about the space in which they work. One teacher was distressed because she had spent considerable time decorating and improving her room only to find out she would be assigned to another room. Overall, however, the renovation project was deemed a success by the faculty. The faculty reported that the changes and improvements to the physical environment greatly enhanced the teaching and learning environment and, in a way, compensated for the inconveniences the renovation work caused.

Teachers have feelings about how the building condition influences how they work and how students perform (Lowe, 1990). Lowe surveyed teachers to ascertain how they felt the school building and classroom influenced the student-learning climate. Through their responses, teachers suggested that students were affected positively or negatively through the size and organization of the school. In other words, large schools that are organized on a departmental level with no mediating organizational structure seemed to present a negative picture to students. Further, he found that teachers felt that the physical location of the school negatively impacted the student-learning climate. Teachers did feel that the physical environment influenced how well students learned and how they themselves performed.

### *Perceptions*

Positive and negative effects of the physical condition of the school can influence teacher morale (Corcoran *et al.*, 1988). Poor teacher morale, in turn, can have a negative impact on their effectiveness in the classroom, as well as the learning environment overall. Poor building conditions also can encroach upon the teachers' sense of personal safety. The possible negative effects of poor working conditions for teachers included absenteeism, lower levels of effort, less effectiveness in the classroom, low morale, and lower job satisfaction.

Teachers in two large urban areas were asked to respond to how the school building influenced their well being (Buckley *et al.*, 2004). Teachers in the Chicago and Washington, DC public schools were asked about their perceptions regarding their classrooms. Teachers rated their buildings and then responded to a series of questions relating to how they felt about them. Some teachers (40 percent) felt the classrooms were educationally inadequate. Approximately, 60 percent of the teachers reported that their schools were somewhat or very inadequate in meeting curriculum standards with regard to science labs; some schools had no available science labs. Design characteristics constituted another factor addressed by teachers. Over 40 percent of the teachers considered their classrooms to be the wrong size, whereas over 25 percent reported teaching in spaces not designed to be classrooms. A number of teachers stipulated that they would either transfer to a different school at the end of the term or leave the teaching profession because of the condition of the school building, 40 percent in Chicago and 48 percent in Washington, DC, respectively.

Buckley *et al.* (2004) did not identify the teachers who were in good school buildings as a group and did not compare how the responses of teachers in good buildings differed from those in poor buildings. Further, the evaluation of a school building by teachers was limited because they were asked for an overall assessment of the

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condition of the school building. Although this fact tended to limit the reliability of comparing teachers in school buildings they assessed as being either in poor or good condition, the three researchers discovered that the condition of school facilities was an important predictor of teacher retention and attrition.

*Climate*

Uline and Tschannen-Moran (2006) investigated the relationship between the quality of school facilities, school climate, and student achievement. The purpose of the study was to investigate the relationship between the physical environment of the school and certain social aspects of the school setting. The study focused upon the perceptions teachers had about their school buildings and how these were related to student achievement. Further, the study sought to determine if there was a mediating effect upon this relationship by school climate. Measures from the four major components of the study were: the perceptions of the teachers concerning the quality of the school facility, their perceptions of the availability of resources, their responses to the School Climate Index, and finally student achievement scores on the Iowa test of basic skills.

The population was drawn from 80 middle schools in Virginia, including students and teachers. They used several survey instruments to gather data on how teachers rated the building in which they were teaching, the degree of resource support allocated, and the climate of the school. The School Climate Index (Tschannen-Moran *et al.*, 2006) was used to measure the climate of a school and was administered to approximately 1,134 teachers.

The responses of teachers to the assessment of school building quality, the availability of resources, and the school climate survey were compared. Teacher perceptions of the quality of the school facility were closely related to their perceptions of available resources to do their job. According to the researchers this would indicate that where resources were readily available for the teachers, the school facilities were in all likelihood in good condition. The perceptions of teachers concerning the quality of the school facilities also were related closely to their responses to the School Climate Index. Their findings suggested that school climate had a “mediating role” on the influence the quality of the school facility has upon student achievement (Uline and Tschannen-Moran, 2006). Their findings supported the rationale that when students are in buildings that are not in good condition, the learning is compromised. They concluded that teacher attitudes about their buildings and behaviors are related. Thus, teachers may be less enthusiastic about their jobs and less willing to put in the needed effort in helping students learn when they are in less than adequate buildings.

The studies discussed in this section have provided evidence of a relationship between the quality of the school facility and the manner in which teachers think, feel, regard, appreciate, reject, despair, or even worry about the building or classroom in which they work. The findings revealed a positive relationship between these variables and the condition of the physical environment of the school. The composite findings of these studies informed development of an instrument to assess how teachers view their classrooms.

**School building population**

The school building population chosen for the present study resulted from an earlier study by Crook (2006) in which the principal of the school assessed the condition of the

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building using the Commonwealth Assessment of the Physical Environment (CAPE) instrument (Cash, 1993). Cash developed the CAPE instrument for the purpose of assessing the condition of schools. In previous research studies (Cash, 1993; Earthman *et al.*, 1996; Hines, 1996; Lanham, 1999), the effectiveness of principal assessment was tested by means of independent assessors comparing their assessment with the assessment by the principals. The instrument consisted of 39 items related to various components of a school building. The principal was asked to state whether or not certain components were available and functional in the building, if, for example, air-conditioning or windows were present in each instructional space. They were also asked to judge the condition of certain equipment and furniture.

Item 25 of the CAPE asked the principal to assess the overall condition of the building. From the total population, 11 principals rated their building as being in unsatisfactory condition. These 11 schools were matched with 11 other schools rated by the principal as being in very satisfactory condition. The teachers in these 22 schools became the population for the current study.

### **Instrumentation**

The purpose of this exploratory study was to examine the difference in how teachers in buildings rated as being in good or poor condition felt about their classrooms and the attitudes they formed as a result. Survey methodology was selected as the best and most convenient way to measure teacher perceptions and attitudes (Babbie, 2001); to measure these two different aspects in the life of a teacher, a suitable instrument had to be found. At the time, there was no such instrument publicly available. Therefore, the researchers developed a new instrument to collect information on both perceptions and attitudes. Researchers began by reviewing instruments in related fields to identify relevant items. Further, they reviewed the corpus of research investigating the relationship between school building condition and student and teacher health, and productivity to ascertain the pertinent building components that would form a measure of classroom condition. The relative importance of various components/conditions was further examined in light of an extensive review of literature conducted for the purpose of prioritizing the importance of these various building components (Earthman, 2004). The instrument developed for this study reflected these priorities.

The final instrument covered seven building components and conditions, including thermal control, lighting, acoustics, condition of the furniture and equipment, space, science equipment, and the presence of graffiti. For each of these seven, several response items were developed, resulting in a total of 23 items to which teachers were asked to respond. The items were posed in such a manner that the respondent would indicate if the component/condition was present and functioning properly. In the case of the condition of the furniture and equipment, respondents would be asked to indicate if these were in good working condition or not. For instance, respondents were asked if the science equipment was in good repair and modern. Likewise, respondents were asked if there was graffiti present in the building and if its presence was a deterrent to student learning. All of the items on this portion of the instrument related to the components/condition of the classroom to which the teacher was assigned.

The attitudinal portion of the instrument consisted of 18 items. These items probed the response of teachers to the components/condition of their classrooms and asked how they reacted to each. There were three groups of items in this section of

the instrument. One group of items, asked the teacher to respond to how the condition of the classroom might influence personal feelings of enjoying work, dreading going to work in the morning, or making oneself feel good about teaching. The second group of items asked the teachers to reflect upon how the condition of the classroom influenced how they worked, whether positive or negative. The third group of items asked the teachers to express their feelings about how the condition of the classroom might influence student learning and health.

The final two sections of the instrument dealt with demographic data and the assessment by the teacher on the general condition of the building in order to compare teacher perceptions with the independent assessment by the principals. Teacher demographic data included gender, ethnicity, area of certification, and years of experience.

The completed instrument, called My Classroom Appraisal Protocol<sup>®</sup> (MCAP), consisted of a total of 48 items, plus one additional item for teacher building assessment. With the exception of the building assessment and the demographic items, participants assessed the components/condition of the classrooms along a five-point scale from 5, strongly agree to 1, strongly disagree. The final instrument was subjected to content validity, asking teachers in three school buildings to respond and complete the instrument. At the same time, teachers were asked to complete an assessment of the instrument for purposes of future administration. Revisions to the items resulted from this pilot administration of the MCAP. A Cronbach  $\alpha$  was completed on the results of this administration, yielding an  $\alpha$  of 0.92, indicating a high level of reliability.

### Participants

Teachers in the school buildings selected were recruited to complete the survey. Recruitment letters, containing the consent form and information about how to respond to the survey, were distributed to potential respondents in each school building. The letters also included the URL for the web site along with instructions for accessing the survey instrument. Principals at the identified schools were asked to distribute the information sheet to the teachers by placing the letters in their mailboxes. The MCAP was put on the Virginia Tech electronic survey web site. Electronic surveying provides participants the greatest degree of anonymity, assuring that only the researchers see participants' responses (Mertler, 2003). In the case of research here reported, teachers voluntarily responded while the survey was open, with 165 individual responses obtained from eight different school buildings. The demographic data obtained from the teachers provided a measure for comparison. The responses were divided into two groups, one from teachers in unsatisfactory school buildings and the other from teachers in school buildings rated satisfactory.

### Results

The purpose of this research was to find out if there were significant differences in responses concerning the perceptions of teachers working in buildings rated as being in either satisfactory or unsatisfactory condition. Analyses were limited to descriptive and correlation statistics, largely due to the small sample size (Babbie, 2001). This exploratory study did not include sufficient numbers of teachers and other data points from which to draw inferential conclusions.

As stated, the instrument measured teachers' perceptions of the various components/condition of the facility, as well as their attitudes about their classrooms.



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The results from the survey provided insight into how teachers perceived their physical surroundings as represented by their classroom. Responses from building components/condition items were summed to provide a mean score of all teachers in both good and poor school buildings. The responses for the strongly agree and agree category were combined into one score. Likewise, the scores for the strongly disagree and disagree also were combined. This was done to provide a better comparison between two groups of teachers. The two scores were compared by means of a *t*-test analysis. The results of the *t*-test indicated a significant difference at the  $p < 0.05$  level of confidence.

The responses of teachers in buildings rated as being in satisfactory condition were significantly higher than teachers in unsatisfactory school buildings. Interestingly, enough, about a quarter of the teachers in poor buildings were unable to either agree or disagree with the statements about the condition of their classrooms.

The second portion of the MCAP contained items related to attitudes teachers may have as a result of the condition of the classroom. As in the previous section of the instrument, the scores of the teachers were summed to provide a mean score for all teachers in the two groups of buildings. A simple *t*-test analysis was made of the two independent scores of responses. The results of the *t*-test indicated a significant difference between the two mean scores of agree and disagree for the two groups of teachers. The difference was significant at the  $p < 0.05$  level of confidence. The results of this analysis would indicate the responses of teachers in buildings rated as being in satisfactory condition were higher than teachers in buildings rated as being in unsatisfactory condition. Thus, attitudes of teachers in better schools were more positive and upbeat than the teachers in inferior schools. This would seem to suggest that if a teacher is assigned to a classroom space that is in good and inviting condition, the teacher will have a more positive attitude. Conversely, the attributes of a classroom in unsatisfactory condition would work to produce more negative attitudes on the part of the teacher or, at best, attitudes that are less positive than what a satisfactory classroom could inspire.

#### *Classroom components/conditions*

There were 23 different items in the first part of the survey instrument and the responses between teachers in buildings rated as being in satisfactory condition and teachers in buildings rated as being in unsatisfactory condition were all significantly different at the  $p < 0.05$  level of confidence. There were some items where the responses of teachers were particularly interesting. Table I contains a selection of significant responses elicited from the teachers.

This part of the survey instrument included items asking teachers to identify the condition of their classrooms and to make a judgment about the condition. Data from the table indicate that there is a difference between how teachers in unsatisfactory and satisfactory buildings perceive the physical environment. The most notable difference appears to be in the item related to the attractiveness of the physical attributes of the classroom, with a difference of 48.8 percentage points between teachers in unsatisfactory buildings and those in satisfactory buildings.

Other large differences in mean scores were in the following items: the air quality of the classroom (40.3 percent), condition of the equipment and desks (36.8 percent), classroom temperature in spring (36.8 percent), and the location of the school building (30.8 percent). For all of these items, there is also a noteworthy difference in the

When asked, teachers respond. . .		Satisfactory schools (%)	Unsatisfactory schools (%)
My classroom is well lighted	Agree	90.3	72.2
	Disagree	7.6	24.1
The air quality is good	Agree	68.1	27.8
	Disagree	22.2	57.4
Graffiti negatively affects students	Agree	15.9	31.7
	Disagree	47.5	41.8
Have sufficient wall space	Agree	82.6	69.1
	Disagree	14.2	27.3
Equipment is in good condition	Agree	88.3	57.5
	Disagree	11.7	29.6
Physical attributes attractive	Agree	76.6	27.8
	Disagree	11.7	48.1
Classroom is too hot in Spring	Agree	23.2	60.0
	Disagree	55.7	21.8
Would like to change physical features	Agree	61.1	81.1
	Disagree	43.1	9.1
Ceiling leaks	Agree	3.3	23.6
	Disagree	90.4	65.5
Desks are in good condition	Agree	80.8	47.3
	Disagree	14.4	34.5
School is in good location	Agree	87.1	56.3
	Disagree	6.5	25.5

**Table I.**  
How teachers view their classrooms

**Note:** Percentages do not equal 100% because of neutral responses

disagreement with the stated item. For instance, on the item relating to the attractiveness of the physical attributes of the classroom, 76.6 percent of the teachers in the satisfactory schools agreed with the statement, only 11.7 percent disagreed with the statement. In contrast, the teachers in schools rated as being in unsatisfactory condition, only 27.8 percent of them agreed with the statement, whereas 48.1 percent of the teachers disagreed.

In spite of the fact that for all of the items in Table I, a significant difference between the responses of teachers in satisfactory and unsatisfactory buildings was found, there were several items in which there were a sizeable number of teachers who responded to the neutral anchor on the five-point scale. Some of the neutral responses to these items were as high as 25 percent, or approximately a quarter of the respondents. This is rather a high rate of neutral responses when one considers that teachers spend at least six to eight hours a workday in their classroom environment. This might indicate either ambivalence to the component/conditions specified in the item or a lack of attention on the part of the teachers. Either way, this type of response does indicate that some teachers are not as aware of their physical surroundings as are other teachers, or the condition of the classroom is not as important to them. Table II indicates those items in which there were a sizeable number of teachers who responded in a non-committal manner.

#### *Teacher attitudes*

Having established that there were significant differences in responses between the two groups of teachers when asked about the condition of their classrooms and how it



affected them, researchers then considered the attitudes expressed by the teachers regarding these classroom components/conditions. Table III displays data relative to this part of the MCAP.

*Teacher satisfaction*

The first seven items in Table III are positive statements reflecting the feeling of teachers about their classroom. The majority of teachers in satisfactory schools responded very favorably to these items. The responses ranged from 56.8 to 77.9 percent of the teachers either strongly agreed or agreed with the statement. In contrast, 20-32.7 percent of the teachers in unsatisfactory buildings strongly agreed or agreed with these statements. Approximately, 30 percent of the teachers answered these items with a neutral response, indicating they could not agree or disagree with

Item	Satisfactory schools (%)	Unsatisfactory schools (%)
Graffiti negatively affects students	26.6	25.5
Classroom too cold in winter	25.3	21.8
Physical attributes attractive	11.7	24.1
Classroom too hot in spring	21.1	18.2
More students in classroom than should be	18.1	21.8

**Table II.**  
Neutral responses to classroom conditions

My classroom...		Satisfactory schools (%)	Unsatisfactory schools (%)
Is so nice I look forward to work	Agree	63.9	20.0
	Disagree	9.3	37.5
Is so inviting that I feel good	Agree	65.9	25.5
	Disagree	9.5	40.0
Enhances my teaching efforts	Agree	70.5	29.1
	Disagree	13.7	49.1
Makes me feel happy	Agree	63.8	20.0
	Disagree	9.6	32.8
Makes me feel satisfied	Agree	77.9	32.7
	Disagree	10.5	49.1
Helps student learn	Agree	70.5	21.8
	Disagree	12.7	41.8
Makes students feel happy	Agree	56.8	18.2
	Disagree	10.5	41.8
Makes me want to leave teaching	Agree	4.3	14.8
	Disagree	92.6	72.2
Makes me want to transfer	Agree	2.2	18.1
	Disagree	93.6	65.5
Makes it difficult to teach	Agree	12.6	43.8
	Disagree	77.9	34.6
Hinders student learning	Agree	13.8	46.3
	Disagree	80.0	42.6
Causes me health problems	Agree	10.3	36.6
	Disagree	81.1	54.6
Causes student health problems	Agree	10.6	36.4
	Disagree	81.1	50.9

**Table III.**  
Teacher attitudes about their classrooms

**Note:** Percentages do not equal 100% because of neutral responses

the statements. Further, the number of teachers in unsatisfactory classrooms disagreeing or strongly disagreeing with these statements was much higher than those teachers in satisfactory classrooms who agreed with the statements.

*Transfers.* One precise observation can be made about how the physical condition of the building influences the actions of teachers regarding transferring from or remaining in the current school building. As stated earlier, Buckley *et al.* (2004) reported that more than 40 percent of teachers in both Chicago and Washington, DC considered either transferring out of the current building or even leaving teaching as a profession. This was not so with the teachers in this study. Whether in an unsatisfactory building or a satisfactory building, the vast majority of teachers said they disagreed with the statement that classroom conditions would cause them to leave teaching or transfer from the present building. These responses were 92.6 percent disagreement for teachers in satisfactory schools and 72.2 percent for teachers in unsatisfactory buildings. The same held true for the question regarding transferring out of the building. The majority of teachers, 93.6 percent of teachers in good schools and 65.5 percent of teachers in unsatisfactory buildings, said they did not plan on transferring out of the building. These figures are in stark contrast to the findings of Buckley *et al.* (2004).

*Support/hindrance to teaching and learning.* When asked if the classroom hindered their efforts in teaching, 43.8 percent of teachers in unsatisfactory buildings agreed with the statement. In contrast, 77.9 percent of the teachers in buildings rated satisfactory disagreed with the statement. A large percentage (46.3 percent) of the teachers in buildings rated unsatisfactory felt the classroom hindered student's learning. In contrast, 80.0 percent of the teachers in schools rated as satisfactory disagreed with the statement, indicating they believed the classroom was a supportative element in student learning.

*Effects on student and teacher health.* Last, the teachers were asked if the building caused them or their students any health problems. Teachers in buildings rated satisfactory reported they did not agree with the statements that the classroom caused them or their students any health problems. In both items relating to their own health and that of the students, 81.1 percent stated the classroom did not cause any health problems. In contrast, over one-third (36.6 and 36.4 percent, respectively) of the teachers in buildings rated unsatisfactory agreed that the classroom caused them and their students health problems of some sort.

All of the items in Table III showed significant differences between the responses of teachers in satisfactory and unsatisfactory schools; however, there were a sizeable number of teachers who marked the middle, or neutral, response mode. The numbers of teachers responding in this manner in some cases reached over a quarter of the total population of teachers. Table IV portrays those items in which a large percentage of teachers chose a neutral response.

The responses above indicate a substantial portion of teachers feel ambivalent about their workspaces.

### Limitations

There are several limitations that restrict the generalization of results from this study. The first limitation is that of a small response. Teachers in 22 high schools were asked to volunteer for the study, but only 165 usable responses were recorded. There may be

several reasons for the poor response rate. The first might be that the principals failed to properly distribute the information sheet with the instructions to the teachers in the building. Second, teachers are not as familiar with electronic surveys and may not respond. In addition, teachers may have limited access to the internet (Wright, 2005). In spite of the fact that electronic surveying is the easiest method of responding to a survey, teachers might not be familiar enough to feel confident in responding. Moreover, the URL for the web site to access the MCAP instrument was rather long, and there may have been some teachers who felt it was too much of an effort to log into the website to find the survey instrument (Wright, 2005). Teachers might not have properly understood the nature and importance of the research project. Teachers are not normally asked about the condition of their classrooms and how that space might influence their attitudes about their personal and professional life.

### Conclusions

Clearly, the teachers in buildings rated satisfactory view their classrooms more positively than do teachers in unsatisfactory buildings. These teachers view their classrooms as pleasant places in which to work and for students to learn. Further, they view the classroom as a healthy place for them and their students. These perceptions stand in obvious contrast to perceptions reported by teachers in buildings deemed unsatisfactory.

Teachers in satisfactory buildings also have more positive attitudes about their classrooms and how that space influences them and their students. Teachers in satisfactory buildings were happy with their classrooms and looked forward to teaching in these places. This is in contrast to what teachers in unsatisfactory buildings reported. The poor physical condition of the classroom in unsatisfactory buildings, however, does not seem to cause the teachers to want to leave it. When asked if poor classroom conditions would cause them to leave the profession or transfer from the building, by a sizeable majority, teachers in these buildings said they would neither transfer nor leave the profession. It may be that the geographic isolation of these two groups of teachers influenced their responses. As compared with teachers in urban centers, teachers in the central and southwestern portions of Virginia may simply have fewer options. An alternative view might suggest stubborn determination and commitment to the students they serve.

The results of this research are the snapshots of the attitudes teachers have about their classrooms at a given time. There may be a cumulative effect of such attitudes over a period of years (Earthman and Lemasters, 2004), and additional research is indicated to address this possibility. The preponderance of research seems to indicate

Item – my classroom is . . .	Satisfactory schools (%)	Unsatisfactory schools (%)
Look forward to work	25.5	45.5
So inviting I feel good	24.5	43.5
Enhances my teaching	15.8	21.8
Makes it difficult to teach	9.5	21.8
Makes me feel happy	26.6	36.4
Helps students learn	16.8	36.4
Makes students feel happy	32.6	40.0

**Table IV.**  
Neutral responses  
to attitudinal items

that negative perceptions and attitudes about school facilities carried over a period of years, eventually leads to low morale and burnout, even among the most undaunted of teachers.

Over a quarter of the teachers in unsatisfactory school buildings in this study reported they were unhappy with their physical surroundings in the classroom. In contrast, teachers in satisfactory buildings reported the reverse of this. The feelings of unhappiness on the part of these teachers naturally play out in how they approach their teaching responsibilities and even how they interact with students.

Principals shoulder primary responsibility as the stewards of their schools' learning environment. As such, they are well positioned to advocate for necessary physical changes and improvements, relying upon the research regarding the beneficial influence building conditions can have upon students and teachers to make their case. Principals should also insist upon a positive maintenance program to keep the building in a good state of repair and in clean condition. This pro-active stance on the part of principals should emanate from their first-hand knowledge of the building. District authorities are best able to promote an adequately funded maintenance and operations budget and guard against reductions of funding in lean years. Attention to building quality issues and articulation of those issues between school principals and teachers might improve the quality of the advocacy between school principals and district-level administrators.

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### About the authors

Glen I. Earthman is Professor Emeritus at Virginia Polytechnic Institute and State University where he continues to advise doctoral students on research. He also has served as the Director of the US Department of Education sponsored National Clearinghouse for Educational Facilities. His research interests extend to all phases of school facilities, but he has concentrated on exploring the relationship between school building condition and student and teacher health and productivity. Glen I. Earthman is the corresponding author and can be contacted at: [earthman@vt.edu](mailto:earthman@vt.edu)

Linda K. Lemasters is an Associate Professor of Educational Leadership and Policy Studies at The George Washington University in Washington, DC. She is Program Coordinator for Educational Administration and Leadership, editor of *Educational Planning*, and serves on the Executive Boards of the National Association of Professors of Educational Administration and the International Society of Educational Planning.

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