CE-Scale

DIRECTIONS:
Indicate your level of agreement with each of the following statements from STRONGLY DISAGREE (1) to STRONGLY AGREE (6).

1. Teachers in the school are able to get through to the most difficult students ……… 1 2 3 4 5 6
2. Teachers here are confident they will be able to motivate their students ………….. 1 2 3 4 5 6
3. If a child doesn’t want to learn teachers here give up …………………….. 1 2 3 4 5 6
4. Teachers here don’t have the skills needed to produce meaningful student learning .. 1 2 3 4 5 6
5. If a child doesn’t learn something the first time teachers will try another way ……… 1 2 3 4 5 6
6. Teachers in this school are skilled in various methods of teaching ……………… 1 2 3 4 5 6
7. Teachers here are well-prepared to teach the subjects they are assigned to teach … 1 2 3 4 5 6
8. Teachers here fail to reach some students because of poor teaching methods ……… 1 2 3 4 5 6
9. Teachers in this school have what it takes to get the children to learn ……………… 1 2 3 4 5 6
10. The lack of instructional materials and supplies makes teaching very difficult ……… 1 2 3 4 5 6
11. Teachers in this school do not have the skills to deal with student disciplinary problems ………… 1 2 3 4 5 6
12. Teachers in this school think there are some students that no one can reach ……… 1 2 3 4 5 6
13. The quality of school facilities here really facilitates the teaching and learning process ……………………. 1 2 3 4 5 6
14. The students here come in with so many advantages they are bound to learn ……… 1 2 3 4 5 6
15. These students come to school ready to learn ……………………………….. 1 2 3 4 5 6
16. Drugs and alcohol abuse in the community make learning difficult for students here ……………………………………………………. 1 2 3 4 5 6
17. The opportunities in this community help ensure that these students will learn …… 1 2 3 4 5 6
18. Students here just aren’t motivated to learn ……………………………………. 1 2 3 4 5 6
19. Learning is more difficult at this school because students are worried about their safety ……………………………………………………. 1 2 3 4 5 6
20. Teachers here need more training to know how to deal with these students …….. 1 2 3 4 5 6
21. Teachers in this school truly believe every child can learn ………………………… 1 2 3 4 5 6
Scoring Directions for the CE-Scale

The Collective Efficacy Scale (CE-Scale) is a 21-item scale. Ten of the items in this scale are reversed scored, that is, “1” is scored “6,” “2” is scored “5,” etc. For example, the item, “If a child doesn’t want to learn teachers here give up,” is scored in reverse. Thus, a strongly agree “6” would be scored “1,” suggesting low efficacy.

To score the scale:
1. First reverse scores on the following items: 3, 4, 8, 10, 11, 12, 16, 18, 19, 20.
2. Then add the scores for all 21 items: the greater the sum, the higher the collective efficacy.
3. Average all the individual teacher scores to find a collective efficacy score of the school.

Validity and Reliability Evidence for the Collective Efficacy Scale

The development of the 21- collective efficacy scale included several phases. Scale development began initially by modifying items from the original Gibson and Dembo (1984) teacher efficacy scale to reflect collective efficacy (i.e., changing the object of the efficacy items from “I” to “We”). Next, additional items were written in response to a review by a panel of experts with experience in teacher efficacy research. Following this review, the items were subjected to a field test and then a pilot test with 46 teachers in 46 schools (1 teacher from each school). Results from the pilot study suggested that the 21 items did indeed offer a valid and reliable measure of collective efficacy (for a detailed discussion of the pilot study results see Goddard, Hoy, and Woolfolk Hoy, 2000).

Based on the promise of the results from the initial phases of our study, we decided to test the criterion-related validity, predictive validity and reliability of scores on the collective efficacy scale in a more comprehensive sample. A sample of 452 teachers in 47 randomly selected elementary schools in a large urban district in the Midwest completed the collective efficacy survey. At the school level (for a rationale see Goddard, in press), the 21 collective efficacy items were submitted to a principal axis factor analysis. All items loaded strongly on a single factor and explained 57.89 percent of the item variation. The alpha coefficient of reliability was strong (.96).

Criterion-related validity of the school collective efficacy scores was tested in several ways. The criterion variables examined were personal teaching efficacy (Hoy & Woolfolk, 1993), faculty trust in colleagues (Hoy & Kupersmith, 1985), and environmental press (Hoy & Sabo, 1998).

Personal teaching efficacy is a measure of a teacher’s self-perceptions of capability to educate students. It was predicted that when aggregated to the school level, teachers’ perceptions of personal efficacy would be moderately and positively related to collective teacher efficacy; a high correlation was not expected because personal and collective teacher efficacy have different referents (self versus group). Moreover, the collective teacher efficacy measure directly assesses perceptions of both perceived competence and task whereas the personal teacher efficacy measure includes only items about competence. As predicted, there was a moderate and positive (r = .54,
p<.01) correlation between personal teacher efficacy aggregated at the school level and collective teacher efficacy.

A positive relationship between faculty trust in colleagues and collective teacher efficacy was predicted, and similar to the pilot results, trust in colleagues was positively and significantly related to collective teacher efficacy ($r=.62, p<.01$).

Finally, we predicted no relationship between collective teacher efficacy and environmental press or the extent to which teachers experience “unreasonable community demands” (Hoy & Sabo, 1998). There is no a priori reason to expect that teachers’ assessments of group capabilities would be associated with their perceptions of external demands. In other words, a demanding task and external pressures do not necessarily make people feel more or less capable. It is how they handle the pressure that determines capability. As predicted, the observed relationship between collective teacher efficacy and environmental press was not statistically significant ($r=.05, n.s.$).

As a test of predictive validity, we employed hierarchical linear modeling to show that scores on the collective efficacy scale were significant predictors of the mathematics and reading achievement (measured by the 7th Edition of Metropolitan Achievement Test) of 7016 2nd, 3rd, and 5th grade students who attended the 47 sampled schools.

Taken together, these results provide, content, criterion-related, and predictive validity evidence for scores on the collective efficacy scale as well as strong reliability evidence.

References


The following are statements about your school. Please indicate the extent to which each statement characterizes your school by circling the appropriate response.

RO=Rarely Occurs     SO=Sometimes Occurs     O=Often Occurs     VFO=Very Frequently Occurs

1. The teachers accomplish their work with vim, vigor, and pleasure..............… RO SO O VFO
2. Teachers' closest friends are other faculty members at this school.............. RO SO O VFO
3. Faculty meetings are useless.............................................................................. RO SO O VFO
4. The principal goes out of his/her way to help teachers...................................... RO SO O VFO
5. The principal rules with an iron fist................................................................. RO SO O VFO
6. Teachers leave school immediately after school is over.................................... RO SO O VFO
7. Teachers invite faculty members to visit them at home.................................... RO SO O VFO
8. There is a minority group of teachers who always oppose the majority............ RO SO O VFO
9. The principal uses constructive criticism........................................................... RO SO O VFO
10. The principal checks the sign-in sheet every morning.................................... RO SO O VFO
11. Routine duties interfere with the job of teaching............................................ RO SO O VFO
12. Most of the teachers here accept the faults of their colleagues....................... RO SO O VFO
13. Teachers know the family background of other faculty members.................... RO SO O VFO
14. Teachers exert group pressure on non-conforming faculty members.............. RO SO O VFO
15. The principal explains his/her reasons for criticism to teachers.......................... RO SO O VFO
16. The principal listens to and accepts teachers' suggestions............................... RO SO O VFO
17. The principal schedules the work for the teachers.............................................. RO SO O VFO
18. Teachers have too many committee requirements........................................... RO SO O VFO
19. Teachers help and support each other............................................................ RO SO O VFO
20. Teachers have fun socializing together during school time............................. RO SO O VFO
21. Teachers ramble when they talk at faculty meetings......................................... RO SO O VFO
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<td>RO</td>
<td>SO</td>
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<td>22. The principal looks out for the personal welfare of teachers.</td>
<td>RO</td>
<td>SO</td>
<td>O</td>
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<td>23. The principal treats teachers as equals.</td>
<td>RO</td>
<td>SO</td>
<td>O</td>
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<td>24. The principal corrects teachers' mistakes.</td>
<td>RO</td>
<td>SO</td>
<td>O</td>
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<td>25. Administrative paperwork is burdensome at this school.</td>
<td>RO</td>
<td>SO</td>
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<td>26. Teachers are proud of their school.</td>
<td>RO</td>
<td>SO</td>
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<td>27. Teachers have parties for each other.</td>
<td>RO</td>
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<td>28. The principal compliments teachers.</td>
<td>RO</td>
<td>SO</td>
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<td>29. The principal is easy to understand.</td>
<td>RO</td>
<td>SO</td>
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<td>30. The principal closely checks classroom (teacher) activities.</td>
<td>RO</td>
<td>SO</td>
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<td>32. New teachers are readily accepted by colleagues.</td>
<td>RO</td>
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<td>SO</td>
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<td>RO</td>
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<td>35. The principal checks lesson plans.</td>
<td>RO</td>
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<td>36. Teachers are burdened with busy work.</td>
<td>RO</td>
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<td>37. Teachers socialize together in small, select groups.</td>
<td>RO</td>
<td>SO</td>
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<td>38. Teachers provide strong social support for colleagues.</td>
<td>RO</td>
<td>SO</td>
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<td>39. The principal is autocratic.</td>
<td>RO</td>
<td>SO</td>
<td>O</td>
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<tr>
<td>40. Teachers respect the professional competence of their colleagues.</td>
<td>RO</td>
<td>SO</td>
<td>O</td>
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<tr>
<td>41. The principal monitors everything teachers do.</td>
<td>RO</td>
<td>SO</td>
<td>O</td>
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<tr>
<td>42. The principal goes out of his/her way to show appreciation to teachers.</td>
<td>RO</td>
<td>SO</td>
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Administering the OCDQ-RE Instrument

The OCDQ-RE is best administered as part of a faculty meeting. It is important to guarantee the anonymity of the teacher respondent; teachers are not asked to sign the questionnaire and no identifying code is placed on the form. Most teachers do not object to responding to the instrument, which takes less than ten minutes to complete. It is probably advisable to have someone other than an administrator collect the data. It is important to create a non-threatening atmosphere where teachers give candid responses. All of the health and climate instruments follow the same pattern of administration.

Scoring

The responses vary along a four-point scale defined by the categories "rarely occurs," "sometimes occurs," "often occurs," and "very frequently occurs." (1 through 4, respectively).

Step 1: Score each item for each teacher with the appropriate number (1, 2, 3, or 4). Be sure to reverse score items 6, 31, 37.

Step 2: Calculate an average school score for each item. In the example above, one would add all 15 scores on each item and then divide by 15. Round the scores to the nearest hundredth. This score represents the average school item score. You should have 42 average school item scores before proceeding.

Step 3: Sum the average school item scores as follows:

- Supportive Behavior (S)=4+9+15+16+22+23+28+29+42
- Directive Behavior (D)=5+10+17+24+30+34+35+39+41
- Restrictive Behavior (R)=11+18+25+31+36
- Collegial Behavior (C)=1+6+12+19+26+32+37+40
- Intimate Behavior (Int)=2+7+13+20+27+33+38
- Disengaged Behavior (Dis)=3+8+14+21

These six scores represent the climate profile of the school.

How does your school compare with others? We have supplied information on a large and diverse sample of New Jersey elementary schools, which gives a rough basis for comparing your school with others. The average scores and standard deviations for each climate dimension are summarized below. Standard deviations tell us how close most schools are to the average; the smaller the standard deviation, the closer most schools are to the typical school.
Mean (M)            Standard Deviation (SD)

Supportive Behavior (S)         23.34                             7.16
Directive Behavior (D)           19.34                             5.43
Restrictive Behavior (R)         12.98                             3.42
Collegial Behavior (C)            23.11                            4.20
Intimate Behavior (Int)            17.23                            4.10
Disengaged Behavior (Dis)      6.98                             2.38

To make the comparisons easy, we recommend you standardize each of your subtest scores. Standardizing the scores gives them a "common denominator" that allows direct comparisons among all schools.

Computing Standardized Scores of the OCDQ-RE

First: Convert the school subtest scores to standardized scores with a mean of 500 and a standard deviation of 100, which we call SdS scores. Use the following formulas:

SdS for $S=100 \times \frac{(S-23.34)}{7.16} + 500$

Then compute the difference between your school score on $S$ and the mean of 23.84 for the normative sample ($S-23.84$). Then multiply the difference by 100 [100 X ($S-23.84$)]. Next divide the product by standard deviation of the normative sample (7.16). Then add 500 to the result. You have computed a standardized score (SdS) for the supportive behavior subscale ($S$).

Next: Repeat the process for each dimension as follows:

SdS for $D=100 \times \frac{(D-19.34)}{5.43} + 500$
SdS for $R=100 \times \frac{(R-12.98)}{3.42} + 500$
SdS for $C=100 \times \frac{(C-23.11)}{4.20} + 500$
SdS for $Int=100 \times \frac{(Int-17.23)}{4.10} + 500$
SdS for $Dis=100 \times \frac{(Dis-6.98)}{2.38} + 500$

You have standardized your school scores against the normative data provided in the New Jersey sample. For example, if your school score is 600 on supportive behavior, it is one standard deviation above the average score on supportive behavior of all schools in the sample; that is, the principal is more supportive than 84% of the other principals. A score of 300 represents a school that is two standard deviations below the mean on the subtest. You may recognize this system as the one used in reporting individual scores on the SAT, CEEB, and GRE. The range of these scores is presented below:
If the score is 200, it is lower than 99% of the schools.
If the score is 300, it is lower than 97% of the schools.
If the score is 400, it is lower than 84% of the schools.
If the score is 500, it is average.
If the score is 600, it is higher than 84% of the schools.
If the score is 700, it is higher than 97% of the schools.
If the score is 800, it is higher than 99% of the schools.

There are two other scores that can be easily computed and are usually of interest to teachers and principals. Recall that two openness dimensions were determined in the second-order factor analysis of the OCDQ-RE. Accordingly, the two openness measures can be computed as follows:

Principal Openness = \((S_dS \text{ for } S)+(1000-S_dS \text{ for } D)+(1000-S_dS \text{ for } R)\) \(\frac{3}{3}\)
Teacher Openness = \((S_dS \text{ for } C)+(S_dS \text{ for } Int)+(1000-S_dS \text{ for } Dis)\) \(\frac{3}{3}\)

These openness indices are interpreted the same way as the subtest scores, that is, the mean of the "average" school is 500. Thus, a score of 650 on teacher openness represents a highly open faculty.

We have changed the numbers into categories ranging from high to low by using the following conversion table:

- Above 600 VERY HIGH
- 551-600 HIGH
- 525-550 ABOVE AVERAGE
- 511-524 SLIGHTLY ABOVE AVERAGE
- 490-510 AVERAGE
- 476-489 SLIGHTLY BELOW AVERAGE
- 450-475 BELOW AVERAGE
- 400-449 LOW
- Below 400 VERY LOW

We recommend using all the dimensions of OCDQ-RE to gain a finely tuned picture of school climate.

**Computer Scoring Program**
A computer scoring program is available from Arlington Writers, 1881 Marblecliff Crossing Ct., Columbus, Ohio 43204. The program, which runs on Windows, will score each subtest, standardize school scores, and provide indices of openness. For further information, contact Arlington Writers (fax 614-488-5075).
OHI-S

DIRECTIONS:
The following are statements about your school. Please indicate the extent to which each statement characterizes your school by circling the appropriate response.

RO=Rarely Occurs  SO=Sometimes Occurs  O=Often Occurs  VFO=Very Frequently Occurs

1. Teachers are protected from unreasonable community and parental demands.... RO SO O VFO
2. The principal gets what he or she asks for from superiors................................. RO SO O VFO
3. The principal is friendly and approachable....................................................... RO SO O VFO
4. The principal asks that faculty members follow standard rules and regulations...RO SO O VFO
5. Extra materials are available if requested.......................................................... RO SO O VFO
6. Teachers do favors for each other....................................................................... RO SO O VFO
7. The students in this school can achieve the goals that have been set for them.....RO SO O VFO
8. The school is vulnerable to outside pressures..................................................... RO SO O VFO
9. The principal is able to influence the actions of his or her superiors............... RO SO O VFO
10. The principal treats all faculty members as his or her equal............................. RO SO O VFO
11. The principal makes his or her attitudes clear to the school.............................. RO SO O VFO
12. Teachers are provided with adequate materials for their classrooms............... RO SO O VFO
13. Teachers in this school like each other............................................................. RO SO O VFO
14. The school sets high standards for academic performance............................ RO SO O VFO
15. Community demands are accepted even when they are not consistent with the educational program................................................................. RO SO O VFO
16. The principal is able to work well with the superintendent............................ RO SO O VFO
17. The principal puts suggestions made by the faculty into operation.................... RO SO O VFO
18. The principal lets faculty know what is expected of them................................... RO SO O VFO
19. Teachers receive necessary classroom supplies............................................... RO SO O VFO
20. Teachers are indifferent to each other............................................................. RO SO O VFO
21. Students respect others who get good grades...................................................... RO SO O VFO
22. Teachers feel pressure from the community..................................................…..RO SO O VFO
25. Administrative paperwork is burdensome at this school...............................….. RO SO O VFO
26. Teachers are proud of their school.................................................................…..RO SO O VFO
27. Teachers have parties for each other.............................................................. ...RO SO O VFO
28. The principal compliments teachers.............................................................. RO SO O VFO
29. The principal is easy to understand...............................................................RO SO O VFO
30. The principal closely checks classroom (teacher) activities..........................…. RO SO O VFO
31. Clerical support reduces teachers' paperwork............................................... RO SO O VFO
32. New teachers are readily accepted by colleagues.........................................RO SO O VFO
33. Teachers socialize with each other on a regular basis...................................….. RO SO O VFO
34. The principal supervises teachers closely.................................................... …RO SO O VFO
35. The principal checks lesson plans..................................................................…..RO SO O VFO
36. Teachers are burdened with busy work.........................................................….. RO SO O VFO
37. Teachers socialize together in small, select groups......................................…... RO SO O VFO
38. Teachers provide strong social support for colleagues................................……RO SO O VFO
39. The principal is autocratic.............................................................................… RO SO O VFO
40. Teachers respect the professional competence of their colleagues...............RO SO O VFO
41. The principal monitors everything teachers do..............................................…. RO SO O VFO
42. The principal goes out of his/her way to show appreciation to teachers......... RO SO O VFO
Administering the OHI-S Instrument

The OHI-S is best administered as part of a faculty meeting. It is important to guarantee the anonymity of the teacher respondent; teachers are not asked to sign the questionnaire and no identifying code is placed on the form. Most teachers do not object to responding to the instrument, which takes less than ten minutes to complete. It is probably advisable to have someone other than an administrator collect the data. It is important to create a non-threatening atmosphere where teachers give candid responses. All of the health and climate instruments follow the same pattern of administration.

Scoring

The responses vary along a four-point scale defined by the categories "rarely occurs," "sometimes occurs," "often occurs," and "very frequently occurs." (1 through 4, respectively). When an item is reversed scored, "rarely occurs" receives a 4, "sometimes occurs" a 3, and so on. Each item is scored for each respondent, and then an average school score for each item is computed by averaging the item responses across the school because the school is the unit of analysis.

**Step 1:** Score each item for each respondent with the appropriate number (1, 2, 3, or 4). Be sure to reverse score items 8, 15, 20, 22, 29, 30, 34, 36, 39.

**Step 2:** Calculate an average school score for each item. In the example above, one would add all 60 scores on each item and then divide the sum by 60. Round the scores to the nearest hundredth. This score represents the average school item score. You should have 44 school item scores before proceeding.

**Step 3:** Sum the average school item scores as follows:

- Institutional Integrity (II)=1+8+15+22+29+36+39
- Initiating Structure (IS)=4+11+18+25+32
- Consideration (C)=3+10+17+24+31
- Principal Influence (PI)=2+9+16+23+30
- Resource Support (RS)=5+12+19+26+33
- Morale (M)=6+13+20+27+34+37+40+42+44
- Academic Emphasis (AE)=7+14+21+28+35+38+41+43

These seven scores represent the health profile of the school. You may wish to compare your school profile with other schools. To do so, we recommend that you standardize each school score. The current data base on secondary schools is drawn from a large, diverse sample of schools from New Jersey. The average scores and standard deviations for each health dimension are summarized below:
Mean (M)  | Standard Deviation (SD)
---|---
Institutional Integrity (II) | 18.61 | 2.66
Initiating Structure (IS) | 14.36 | 1.83
Consideration (C) | 12.83 | 2.03
Principal Influence (PI) | 12.93 | 1.79
Resource Support (RS) | 13.52 | 1.89
Morale (M) | 25.05 | 2.64
Academic Emphasis (AE) | 21.33 | 2.76

**Computing the Standardized Scores for the OHI-S**

Convert the school subtest scores to standardized scores with a mean of 500 and a standard deviation of 100, which we call SdS score. Use the following formulas:

\[ \text{SdS for II} = 100(\text{II} - 18.61)/2.66 + 500 \]

First compute the difference between your school score on II and the mean for the normative sample (II-18.61). Then multiply the difference by one hundred\([100(\text{II} - 18.61)]\). Next divide the product by the standard deviation of the normative sample (2.66). Then add 500 to the result. You have computed a standardized score (SdS) for the institutional integrity subscale.

Repeat the process for each dimension as follows:

\[ \text{SdS for IS} = 100(\text{IS} - 14.36)/1.83 + 500 \]
\[ \text{SdS for C} = 100(\text{C} - 12.83)/2.03 + 500 \]
\[ \text{SdS for PI} = 100(\text{PI} - 12.93)/1.79 + 500 \]
\[ \text{SdS for RS} = 100(\text{RS} - 13.52)/1.89 + 500 \]
\[ \text{SdS for M} = 100(\text{M} - 25.05)/2.64 + 500 \]
\[ \text{SdS for AE} = 100(\text{AE} - 21.33)/2.76 + 500 \]

You have standardized your school scores against the normative data provided in the New Jersey sample. For example, if your school score is 700 on institutional integrity, it is two standard deviations above the average score on institutional integrity of all schools in the sample; that is, the school has more institutional integrity than 97% of the schools in the sample. You may recognize this system as the one used in reporting individual scores on the SAT, CEEB, and GRE. The range of these scores is presented below:
If the score is 200, it is lower than 99% of the schools.
If the score is 300, it is lower than 97% of the schools.
If the score is 400, it is lower than 84% of the schools.
If the score is 500, it is average.
If the score is 600, it is higher than 84% of the schools.
If the score is 700, it is higher than 97% of the schools.
If the score is 800, it is higher than 99% of the schools.

**HEALTH INDEX**

An overall index of school health can be computed as follows:

\[
\text{Health} = \frac{\text{SdS for II} + \text{Sds for IS} + \text{SdS for CI} + \text{SdS for PI} + \text{SdS for RS} + \text{SdS for M} + \text{SdS for AE}}{7}
\]

This health index is interpreted the same way as the subtest scores, that is, the mean of the "average" school is 500. Thus, a score of 650 on the health index represents a very healthy school, one that is one and a half standard deviations above the average school, and a score of 400 represents a very sick school climate. Most school scores, however, fall between these extremes and can only be diagnosed by carefully comparing all elements of the climate.

**Computer Scoring Program**

Computer scoring program for the OHI-S is available from Arlington Writers, 1881 Marblecliff Crossing Ct., Columbus, Ohio 43204. The program, which runs on Windows, will score each subtest, standardize school scores, and provide index of health. Further information on the scoring program can be obtained from Arlington Writers (Fax 614-488-5075).