The School Environment Inventory (SPI), an instrument for characterizing classroom environments, consists of 23 scales subsumed under five major headings: (a) curriculum, (b) predominant mode of teaching, (c) degree and mode of organization of teaching, (d) quality of teacher's relationship with children, and (e) characteristics of the physical environment. The inventory was designed to distinguish between primary grade classrooms in which the teacher's ideology and teaching methods varied from traditional to open and progressive, in order to meet the needs of the Differentiated Child Behavior Observation System. Because the SPI makes explicit some crucial teaching dimensions, it is expected to be useful as an independent instrument, not only for characterizing classroom environment in research studies, but also for training and supervising teachers and paraprofessionals. (Author)
THE SCHOOL ENVIRONMENT INVENTORY

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The School Environment Inventory, an instrument for characterizing classroom environment, consists of twenty-three scales subsumed under five major headings: (1) Curriculum; (2) Predominant mode of teaching; (3) Degree and mode of organization of teaching; (4) Quality of teacher's relationship, interaction with children; and (5) Characteristics of the physical environment.

The Inventory was designed to distinguish between primary grade classrooms in which the teachers' ideology and teaching methods varied from traditional to open and progressive in order to meet the needs of a specific study.¹

Because the S.E.I. makes explicit some crucial teaching dimensions, it is expected to be useful, as an independent instrument, not only for characterizing classroom environment in research studies, but also for training and supervising teachers and paraprofessionals.

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School Environment Inventory
List of Scales

I. Curriculum

Content of Curriculum

Scale 1. Richness of Curriculum

II. Predominant Mode of Teaching

Scale 2. Degree of Integration of Curriculum
Scale 3. Emphasis on Verbal-Symbolic Mode

Orientation in relation to the thinking process vs. achievement:

Scale 4. Interest in Thinking Process vs. Correct Answers
Scale 5. Emphasis on Rote Learning
Scale 6. Encouragement of Curiosity, Exploration, Experimentation
Scale 7. Emphasis on a Variety of Cognitive Skills, Processes and Styles
Scale 8. Range of Verbal Response and Expression Accepted, Encouraged or Stimulated

III. Degree and Mode of Organization of Teaching

Scale 9. Degree to which Teaching is Conducted on an Individual Basis
Scale 10. Degree of Organization
Scale 11. Degree to which Children are Allowed to Choose their own Activities
Scale 12. Flexibility of Room Arrangement and Use

IV. Quality of Teacher's Relationship, Interaction with Children

Scale 13. Dominance of Teacher
Scale 14. Formality/Informality of Conduct of Class
Scale 15. Degree to which Teacher Acts Toward Children in a Differentiated Manner
Scale 16. Approval/Disapproval Expressed by Teacher
Scale 17. Degree to which Teacher Explains Reasons

V. Characteristics of the Physical Environment

Scale 18. Size of Room
Scale 19. Room Arrangement (conventional vs. activity-oriented)
Scale 20. Appearance of Room: Cluttered/Spacious
Scale 21. Cheerfulness of Room
Scale 22. Display of Children's Products
a. Number
b. Variety
c. Emphasis on Display Per Se
Scale 23. Displays Other than Children's Products
a. Number
b. Variety
I. CURRICULUM

Content of Curriculum

1. Skill Subjects:

   Language - Reading
   Writing
   Spelling
   Grammar
   Language (not any of the above)

   Arithmetic

2. Creative-expressive activities:

   Music (creating or listening to)
   Movement, Dance
   Art - painting, sculpture (clay, wood or other), free drawing, etc.
   Writing or telling poems and stories

3. Crafts:

   Weaving, cooking, sewing and needlework, papier mache, pottery, constructions, puppet-making, making films, etc.

4. Social Studies:

   Study of the social-economic-cultural environment, past, present or future, and people's interaction with it.

5. Science:

   Any activity involving reading about, observation, exploration, experimentation, manipulation, discussion of the physical environment (animals, plants, geography, geology, weather and climate, seasons-calendar, days of month, etc.), recording experiments (process or results) in words or diagrams.

6. Play:

   Symbolic play, dramatization (based on children's own story or a book or play), block building, games of chance or skill, jigsaw puzzles, etc.

7. Class meetings:

   Planning activities (work, jobs) or giving work assignments
   Show and Tell
   School business (e.g., lunch money)
   Discussion of any of the above

8. Other:

   Coloring, tracing or copying pictures, cutting and pasting, breathing and other exercises, games involving physical exercise or movement.
I. (cont.)

Scale 1. Richness of Curriculum

1. Very rich:

Cues
There are many curriculum areas other than skill subjects included in the program as well as a variety of activities within these curriculum areas. A large proportion of classroom time is devoted to them.

2. Rich:

Cues
Several curriculum areas and activities other than skill subjects are included in the program. Somewhat less classroom time is accorded them.

3. Moderately rich:

Cues
Some curricular areas and activities other than skill subjects are included in the program. Less classroom time is accorded to them.

4. Limited:

Cues
The skill subjects constitute a major part of the program and most of the classroom time is devoted to them.

5. Very limited:

Cues
Curricular activities other than skills may be restricted to meetings for school business, coloring cut-out figures and other stereotyped "art" activities, but very little time is devoted to them.
II. PREDOMINANT MODE OF TEACHING

Scale 2. Degree of Integration of Curriculum

1. Very high: Skill subjects and other activities are clearly related in an integrated fashion to a social studies or science core.

2. High: There is a good deal of integration of skill subjects with other curriculum activities, e.g., cooking, dramatization of stories, science experiments.

3. Medium: There is some integration of skill subjects with other curriculum activities.

4. Low: There is little integration of skill subjects with other curriculum activities.

5. No: There is no integration of skill subjects with other curriculum activities.

Scale 3. Teacher's Emphasis on Verbal-Symbolic Mode

1. Very high: Verbal-symbolic mode is used exclusively or almost exclusively.

2. High: Verbal-symbolic mode is used considerably more than experiential mode.

3. Medium: Verbal-symbolic mode is used somewhat more than experiential mode.

4. Low: Verbal-symbolic and experiential modes used about equally.

5. Very low: Verbal-symbolic mode used less than experiential mode.
Orientation in Relation to the Thinking Process vs. Achievement:

Scale 4. Degree to which T is Interested in Children's Thinking Process vs. Correct Answers

1. T is considerably more interested in the children's thinking process than in their giving correct answers.

Cues
T tends to show interest in children's explanations; asks relevant questions to elicit the reasons for child's response to a question; encourages verbalization of thinking process; gives approval of children's thinking.

T tends to accept and/or approve evidence of their thinking even if the conclusion is incorrect.

2. T is somewhat more interested in thinking process than in correct answers.

3. T is interested both in the thinking process and in correct answers.

Cues
If child's conclusion is based on inadequate information, T may supply the necessary information to help him arrive at the correct conclusion.

T may tell child about another way of arriving at the correct conclusion or solution.

4. T is somewhat more interested in correct answers than in the thinking process.

5. T is mainly interested in correct answers.

Cues
T tends to pay little or no attention when child attempts to explain how he arrived at his conclusions.

T makes little or no attempt to encourage children to verbalize their reasoning.

T requires and gives approval only to "correct" answers or to what she considers a "proper" or relevant answer and expresses disapproval of "incorrect" answers.
II. (cont.)

Scale 5. Degree to which T Emphasizes Learning by Rote

1. Very high: Major emphasis is on learning by rote. There is little concern with understanding (of principles, of physical, causal and other relationships, of concepts, motivation, etc.). Drill is stressed.

2. High

3. Medium: About equal emphasis on rote learning and on understanding. Moderate use of drill.

4. Low

5. Very low: Major emphasis is on understanding. Little emphasis on learning by rote. There may be some drill.
II. (cont.)

Scale 6. *Degree to which T Actively Encourages Children's Curiosity, Exploration of the Environment and Experimentation with Materials and Processes*

1. Very high

**Cues**

T is always responsive to children's questions about substantive matters, e.g., about the environment (questions about matters like going to the bathroom or where things are or what they are supposed to be working on are not included). Her manner indicates that she values such questions.

Although T may sometimes answer these questions directly, her tendency is to help children to find the answers for themselves (1) by asking relevant questions herself, (2) by encouraging them to try to figure things out for themselves through reading, experimentation with materials, etc., and (3) by providing or suggesting materials, activities, experiences which may lead to further explorations.

T may ask questions herself in order to stimulate children's curiosity.

By expressing curiosity herself, T may, as a model, stimulate children's curiosity.

2. High

3. Moderate

**Cues**

T may be responsive to children's substantive questions much of the time.

T is more likely to give answers or explain reasons than to encourage or help them to find out for themselves.

T sometimes expresses curiosity.

T sometimes encourages children to ask questions, to manipulate or otherwise explore materials, etc.

4. Little encouragement

**Cues**

T shows little interest in children's substantive questions.

T does not give children opportunities to explore.

T may stress right and wrong way of doing things.
II. Scale 6 (cont.)

T tends to give explanations or answer child's questions, i.e., does not stimulate child to find out for self.

T seldom expresses curiosity.

5. No encouragement

Cues
T may ignore children's questions, or tell them she is too busy to answer them.

When children make spontaneous remarks which do not fit in with her plans or preconceived ideas, T may ignore them or tell them to keep quiet.

T restricts children's exploratory behavior as much as possible.

T never expresses curiosity.
II. (cont.)

Scale 7. Teacher's Encouragement, Stimulation of Other Cognitive Skills, Processes and Styles

Includes:
(1) Perceptual discrimination
(2) Ability to see similarities and differences, to generalize, abstract, classify
(3) Problem-solving
(4) Making hypotheses, estimates, guessing what will happen if...
(5) Memory
(6) Divergent, imaginative thinking
(7) Symbolic representation (including symbolic play, block building, making diagrams, maps)

1. Very great: Teacher devotes much time and effort to development of these skills, etc.

2. Great

3. Moderate: Devotes some time and effort to development of these skills, etc.

4. Little

5. None: Devotes no time to development of these skills, etc.
II. (cont.)

Scale 8. **Range of Verbal Response and Expression Accepted, Encouraged or Stimulated by T**

1. Very wide range

   **Cues**
   T accepts and may encourage or stimulate verbal expression of child's personal experiences and associations (including metaphorical ones), taking off from content being taught or discussed but going farther afield.

   T accepts and may encourage or stimulate verbal expression of feelings not necessarily related on a manifest level to content under discussion.

   In a group discussion, T is more likely to be a participant-guide, not the major question-asker.

2. Wide range

3. Moderately wide range

   **Cues**
   T accepts and may encourage or stimulate verbal expression of child's personal experiences and associations related directly to subject matter being taught or discussed.

   T accepts and may encourage or stimulate verbal expression of feelings on a superficial level which are related to subject matter being taught or discussed.

4. Less narrow range

   **Cues**
   Although T's aim is to get answers to her questions, she accepts a certain amount of discursiveness and rambling on the children's part before reminding them of the question she wants answered.

   Occasionally accepts expression of feeling and personal associations.

5. Narrow range

   **Cues**
   T accepts only direct responses to her questions, which tend to be closely related to the content. In a group activity, this may take the form of a question-answer period with T asking the questions and the children answering.

   T discourages responses which might lead to expression of negative feeling.

   T accepts only those questions or comments which are directly related to the subject matter being taught or discussed.
III. DEGREE AND MODE OF ORGANIZATION OF TEACHING

Scale 9. Degree to which Teaching is Conducted on an Individual Basis

1. Very high: Teaching is conducted primarily on an individual basis.

Cues
Teacher spends much of her time working with individual children.
Assigned work is tailored to individual child.
Teacher may work with small groups on joint projects (e.g., an experiment or mural) or on a common problem area (e.g., children all have difficulty with a particular kind of math problem).
Teacher may limit work with large groups or the whole class to presenting new work, discussions, meetings, reading a story and similar activities.
There are large periods of time when children are working on their own, individually or in groups, except when they have questions and need help from the teacher.

2. High: A large proportion of the teaching is conducted on an individual basis.

3. Medium: Teaching is conducted about equally on an individual and group basis.

Cues
Teacher sometimes works with individual children, helping them with their work as well as checking it.
Drill is conducted in groups and/or with the whole class, but children also work individually on workbooks, worksheets or on other curricular activities.

4. Low: Little teaching on an individual basis.

5. Very low: Teaching is conducted primarily on a group basis.

Cues
Since much of the drill in skill subjects is conducted in groups or with the whole class, teaching of children individually is very limited and involves checking their work and responding to questions or requests for help.
There is very little opportunity for children to work without teacher-direction or teacher-involvement.
Teacher frequently gives the same assignment to all children.
III. (cont.)

Scale 10. Degree of Organization

1. Very high

Cues
T seems to know exactly what she is going to do and when and how she is going to do it.

All necessary materials are prepared and available.

The sequence in which T presents material is logical and well-ordered.

T's directions are given in logical order.

When children work at their own rate or on different content or projects, the T is aware of where they are and is prepared for the next step.

When necessary, T makes plans with children for future activities (e.g., a party or trip).

2. High

Cues
Most of the time T seems to know what she is going to do and when and how she is going to do it.

The sequence in which she presents material is usually logical and well-ordered.

Her directions are generally given in logical order.

Necessary materials are usually prepared and available.

Teacher is very well organized, but there is little individualization of teaching and/or teacher tends to teach directly from Teacher Guides.

3. Medium

Cues
T may know what she is going to do and how, but some necessary materials may not have been prepared in advance and must be taken care of by T at the last minute.

There are times when T's presentation of materials or directions is not in logical order.

T may be prepared sometimes and not at others.
III. Scale 10 (cont.)

There may be times when children are not able to proceed with their individual work because T is not up to date or does not have a clear idea of the next step.

T is well-organized but there is little individualization of teaching and/or T tends to teach directly from Teacher-Guides.

4. Low

Cues
T frequently does not seem to know what she is going to do.

There may be periods in which children are waiting around with nothing to do and T appears to be unaware of this.

Necessary materials are not prepared in advance.

T's lack of preparation may be evidenced in the lack of logical sequence in which she presents material or gives directions to the children.

5. Very low

Cues
T is confused, disorganized.

Materials are not prepared in advance.

There is clear evidence of lack of planning and lack of logical sequence in her presentation of material and giving directions to the children.
III. (cont.)

Scale II: Degree to which Children are Allowed to Choose Their Own Activities

1. Very high
   
   **Cues**
   Except for special scheduled activities (e.g., art, music, trips), children may choose their activities during a considerable part of the school day.

2. High
   
   **Cues**
   Except for special scheduled activities, children may choose their activities during a large part of the school day. There is little restriction on the type of activity they are allowed to choose.

3. Medium
   
   **Cues**
   During certain parts of the day, when there are no special scheduled activities, the children are allowed to choose their activities.

   There may, however, be some restrictions on choice of activities other than skill subjects. The reasons for restrictions may vary, e.g., too much trouble or mess, punishment for "bad" behavior, or limits on the number of children for each activity.

4. Low
   
   **Cues**
   Occasionally children are allowed to choose their own activities. Choice may be limited to a very few activities and a short period.

5. Very low
   
   **Cues**
   T seldom or never allows children to choose their own activities. T generally determines what the children will do and for how long.
III. (cont.)

Scale 12. Flexibility of Room Arrangement and Use

1. Very high

**Cues**
Children may not have own desks.

Work areas are set up for specified activities but can be used for other activities.

There is fluidity of movement, depending on needs of the children and the work, within the room and in the hall, or outdoor space if it is adjacent to the classroom.

2. High

**Cues**
Children may not have own desks.

Work areas are set up for specified activities but can be used for other activities.

There is fluidity of movement within the classroom.

The hall may be used as additional work space.

3. Medium

**Cues**
Children may not have own desks.

Work areas are set up for specified activities and tend to be used this way.

The hall may be used as additional work space.

4. Low

**Cues**
Children have own desks. They may move to other desks for different activities, but movement is limited.

5. Very low

**Cues**
Children have their own desks and sit at them most of the time.
IV. QUALITY OF RELATIONSHIP, INTERACTION WITH CHILDREN

Scale 13. Dominance of Teacher

1. Very high

Cues
Regardless of the type of activity, the Teacher is the dominant figure: the focus of the children's attention, the source of knowledge and the holder of power by virtue of her/his role.

Teacher allows little or no autonomous, self-directed or child-group-directed activity.

Teacher does not allow open expression of opinion nor accept children's suggestions as useful and valuable.

Although Teacher may use children to take over certain "teacher"-functions (e.g., as monitor when Teacher is out of the room, distributing materials, testing another child), this does not detract from Teacher's dominance.

2. High

3. Medium

Cues
T is dominant mainly when there are teacher-directed activities for the whole or part of the class; the power is in her hands and she is the major source of knowledge.

There may be long periods when the children are working on different activities, individually or in groups, and come to the T only when they need help.

T allows some self-directed, autonomous, or child-group-directed activity.

T allows some open expression of opinion and sometimes recognizes the usefulness or value of a child's suggestion.

4. Low

5. Very low

Cues
T shares her central position with the children.

T encourages and promotes cooperative work contacts between children, encourages autonomous, self-directed activity on the part of the children.

T accepts and encourages open expression of opinion and recognizes the usefulness and value of the children's suggestions when they are.
IV. (cont.)

Scale 14. **Formality/Informality of Conduct of Class**

1. Very informal
2. Informal
3. Somewhat formal
4. Formal
5. Very formal

**Cues**

(1) Teacher's tone of voice.
(2) Teacher's manner of speaking—conversational vs. didactic.
(3) Where teacher sits or stands—above, separate vs. mingling (not just checking their work), sitting on floor or sofa with children.
(4) Do children have to wait to put their coats away, go the bathroom, etc., until teacher calls them?
(5) Does teacher tend to call on children in groups (e.g., by rows, by sex) to do such things?
(6) The way children address teacher (e.g., first name).
(7) Kind of language acceptable to teacher: formal and correct; informal, slang or childish expressions; wide range, depending on situation.
(8) Do children have to ask permission to engage in an activity, go out of the room?
(9) Do children work at desks? at their own desks?
(10) Amount of free talking, moving around allowed.
(11) How much emphasis on politeness for the children and in teacher's own manner?
(12) Is snack taken as a group all at once, or individually when children want it?
(13) Arrangement of desks and/or tables.
(14) Presence of rugs, pillows, comfortable chair/couch or couchlike arrangement.
IV. (cont.)

Scale 15. **Degree to which Teacher Acts Toward Children in a Differentiated Manner**

1. Very high: Teacher's manner of response to the children is generally highly differentiated.

**Cues**
Teacher tends to talk to the children individually.

Teacher's voice and manner vary when dealing with different children.

Teacher is interested in and concerned with children's individual interests, likes and dislikes.

Teacher responds to (or is obviously aware of) the child's moods, feelings, worries, joys, etc.

There may be indications that Teacher knows a great deal about what the children are like in terms of personality, home background, emotional and other needs and problems.

2. High: More often than not T treats the children in a differentiated manner.

3. Medium: Sometimes T treats the children in a differentiated manner.

4. Low: There is little differentiation in teacher's treatment of the children.

**Cues**
Differentiation, when it occurs, is on the basis of the child's work or behavior (good or bad) or some special reason unconnected with her understanding of or concern for individuals in general, e.g., personal preference or dislike, ethnic background.

5. Very low: Teacher treats the children as if they were an undifferentiated mass.

**Cues**
Teacher tends to address the group as a whole.

Teacher's voice and manner are the same for all children.

Teacher seems to know little about the children as individuals— their personalities, interests, likes, dislikes or home background.
IV. (cont.)

Scale 16. Approval/Disapproval Expressed by Teacher

1. Expressions of approval predominate. Little or no disapproval expressed.
2. More frequent expressions of approval than of disapproval.
3. Expressions of approval and disapproval about equal.
4. More frequent expressions of disapproval than of approval.
5. Expressions of disapproval predominate. Little or no approval expressed.

Scale 17. Degree to which Teacher Explains Reasons

1. Very frequently explains reasons.
2. Frequently explains reasons.
3. Sometimes explains reasons.
4. Seldom explains reasons.
5. Never explains reasons.
V. CHARACTERISTICS OF THE PHYSICAL ENVIRONMENT

Scale 18. Size of Room

1. Large
2. Medium
3. Small

Scale 19. Room Arrangement (conventional vs. activity-oriented)

1. Fixed desks (or movable desks in fixed positions) in rows; no defined work or content areas.
2. Fixed desks (or movable desks in fixed positions) in rows. There may be one or two small, defined work or content areas.
3. Movable desks and/or tables. There may be one or two small, defined work or content areas.
4. Movable desks and/or tables. Several defined work or content areas.
5. Movable desks and/or tables. Room is subdivided into work or content areas.

Scale 20. Appearance of Room: Cluttered/Spacious

1. Room gives impression of spaciousness or, if small, lack of clutter.
2. Room appears somewhat cluttered.
3. Room appears cluttered.

Scale 21. Cheerfulness of Room

1. Very cheerful
2. Moderately cheerful
3. Not cheerful
V. (cont.)

Scale 22. Display of Children's Products

a. **Number**
   1. Many
   2. Some
   3. Few or none

b. **Variety**
   1. Many different kinds
   2. Some different kinds
   3. Very few different kinds

c. **Degree of Emphasis on Display Per Se**
   1. Little emphasis on display per se. The emphasis seems to be on the children's needs and interests.
   2. Display per se seems to have some importance, but the products displayed and the mode of display seem to indicate that there is some relation to children's needs and interests.
   3. Display per se is most important. There appears to be little relationship to children's needs or interests.
   4. Don't know

Scale 23. Displays Other than Children's Products

a. **Number**
   1. Many
   2. Some
   3. Few or none

b. **Variety**
   1. Many different kinds
   2. Some different kinds
   3. Very few different kinds (which may be mainly related to skill subjects)
Additional Scales

The following dimensions of teacher style and tone are listed here (but not scaled) because our observations in the study classrooms indicated that they permeated many other aspects of teaching behavior.

1. Punitiveness of Control
2. Consistency of Teacher's Behavior and Mood
3. Maturity of Manner
4. Degree of Teacher's Involvement in Teaching
Glossary

II. Scale 3

Verbal-Symbolic: Use of verbalization, explanation, books, pictures, symbolic representational materials (e.g., games or other materials for developing better perceptual discrimination) or methods (graphs, diagrams, etc.). Also includes use of audio-visual aids in reading, reading story and discussion of story.

Experiential: Use of sensory motor experiences (tactile, kinesthetic, motor, etc.); use of concrete objects; provision of relevant experiences and activities (e.g., trips, animals in the room which children feed, take care of, handle, observe).

Scale 4

Thinking process: Reasons for child's conclusions or questions, explanation of how child arrived at answer to question, child's mode of solving a problem, etc.

Scale 5

Rote learning: Children are taught the steps involved in solving a problem, but not the principle; memorization of facts is emphasized regardless of whether children understand; drill is stressed.

Drill: Review of previously taught material.

Scale 8

Response and expression: Refers to subject matter and type of response (personal experiences, feelings, associations, etc.).

Encouragement: May include active interest in and attention to what a child is saying and/or intermittent nods, gestures, sounds and/or verbal response.

Stimulation: May include asking a child to clarify what he is saying, making responses which require further elaboration by the child, suggestions about content of writing.

III. Scale 12

Work area: Portion of room set up for work in a specific curriculum area.

IV. Scale 13

Self-directed: Child (or group of children) initiates an activity and works without teacher-direction or teacher-involvement.
Additional Scales

1. Punitiveness: Use of sarcasm, shaming, strong criticism; hurting a child—though not necessarily consciously—when holding, moving him; use of physical punishment.


   Inconsistency: Inconsistency in affectional relationships with children, in ability to control feelings, in the mode and quality of control; observable mood swings; manifested in impulsive changes in program or previously-made decisions.

3. Mature: T tends to be well-controlled emotionally, natural in manner, realistic.

   Immature: T tends to be self-pitying, complaining, demanding; frequently concerned with own needs, desires, feelings, and not the children’s.

4. Involvement: Refers to T’s interest and investment in:

   (1) the teaching role; includes development of curriculum, relationships with children, organization of physical space

   (2) the children: their growth and development (physical, social-emotional, intellectual)

   (3) the teacher’s own growth and development as a teacher.