



Styles in Teaching and Learning

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Styles are hypothetical constructs which help explain the teaching-learning process. Ten learning styles and six teaching styles are suggested.

It is fashionable today to talk about learning style and teaching style.¹ However, like so many other concepts in the professional vocabulary of educators, "style" is a double-edged sword. It can be used to clarify and analyze teaching and learning, or it can simply "paper over" inadequate and confused thinking.

Our use of "style" refers to a pervasive quality in the behavior of an individual, a quality that persists though the content may change. To illustrate first from areas outside of education, President Carter has a speaking style quite distinct and different from ex-presidents Kennedy, Johnson, or Truman. Each of them, in turn, had a distinctive style of his own, identifiable regardless of the changing content of his speeches. Similarly, the style of Van Gogh was pervasive and different from Gauguin or Cezanne; the style of

Goolagong differs from that of Wade, King, or Navratilova. In short, in every field of endeavor, people can be identified with distinctive qualities of behavior that are consistent through time and carry over from situation to situation. So it is in education, both in teaching and in learning.

Style is not to be identified with method, for people will infuse different methods with their own styles. For example, lecturing is not a style, in our conception, for people with distinctive styles will infuse their respective lectures with their own unique qualities. Thus, even when lec-

¹ Our own concern for "style" goes back some years. It was first expressed in written form in: "Learning Styles, Teaching Styles, and Individualized Instruction." *Quality and the Small School*. Denver: Colorado Department of Education, 1968. Our present analysis draws substantially on this earlier work.



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turing, the style of John Goodlad differs from that of Maxine Greene or Harry Broudy. The scholars mentioned are all excellent lecturers with distinctive styles of their own.

Before we look at some substantive variations in styles, one further point is in order. We do not consider all styles of teaching and learning to be equally valid. All too often, indefensible practices are justified with the claim, "Well, that's my style. I have mine, you have yours, and each is as good as the other." Granted that a variety of educational styles are acceptable and even desirable, but some fall outside the pale of acceptability. Since the very idea of style is based on a commitment to individualization of instruction and the development of learner autonomy, styles that encourage undue conformity and dependence are not acceptable to us.

Research on styles of teaching and learning is still in the embryonic stage. While ambitious claims are made and some elaborate charts and

guidelines provided,² we are not convinced that there is sufficient research to guide the practitioner.

We have seen two kinds of research efforts aimed at identifying and explaining styles of teaching and learning. One line of research recommends the use of questionnaires with students, whereby they identify their own learning styles. We don't believe that these questions get at style in our sense of the word, nor do we believe that young children can be participant observers of their own behavior. One questionnaire, for example, asks students to decide whether or not they work better with background music. We question whether this type of inquiry is central to learning styles or that seven-year-olds can accurately assess a gap between what their behavior is and what they think it is. This line of research seems to be very naive.

The other lines of research, such as the aptitude-treatment-interaction type discussed by Bloom or Feschbach's 69 variables, are highly sophisticated. In the future, this type of research might significantly guide practitioners. For the time being, however, we still need to observe children in classrooms and, based on experienced observation and reflection, identify variables to act upon. Thus, the ideas presented in the following lists of learning and teaching styles are based on direct observation and experience, enriched by fruitful discussions with sensitive and competent teachers.

Learning Styles

The Incremental Learner—These students proceed in a step-by-step fashion, systematically adding bits and pieces together to gain larger understandings. An analogy to bricklaying is appropriate with larger structures emerging from the careful and, at times, tedious adding of piece upon piece. Perhaps this type of learner benefits most from contemporary programmed materials.

Example: While learning about a particular concept in geography related to map reading, for example, these learners must first gather many

²Rita Dunn and Kenneth Dunn. *Administrator's Guide to New Programs for Faculty Management and Evaluation*. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1976.

facts before arriving at a generalization. They might need to know the temperature, the elevation, and the longitude, latitude, and location of mountains before generalizing about the climate of a particular place. They must gather all this information in order to comprehend the concept to see the big picture.

The Intuitive Learner—The learning style of these students does not follow traditional logic, chronology, or a step-by-step sequence. There are leaps in various directions, sudden insights, and meaningful and accurate generalizations derived from an unsystematic gathering of information and experience. The quality of their thinking generally exceeds their verbal ability to describe the steps by which conclusions are reached. It is easier to describe with hindsight how a concept was learned than to predict in advance the steps by which they will learn.

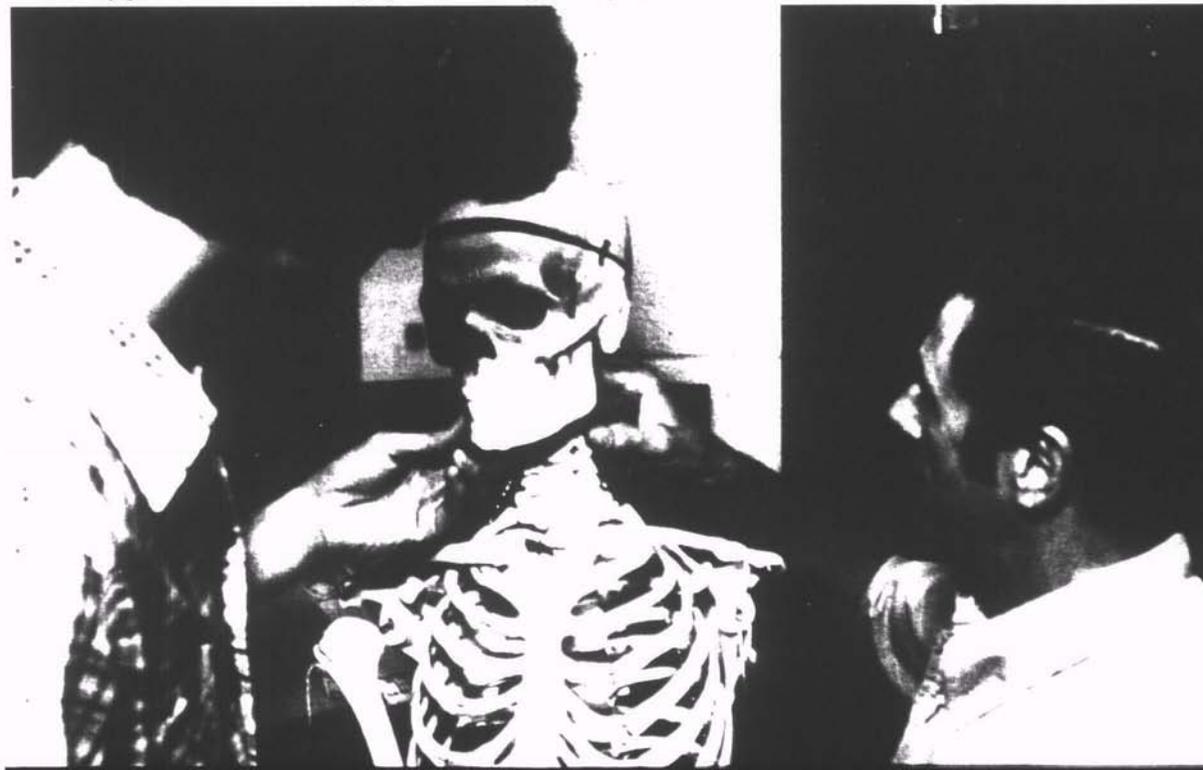
Example: In contrast to the map work of the incremental learner, the intuitive type will try to generalize from fewer elements and from sparse guidelines, skipping steps in the cognitive chain. Consequently, they make more wild guesses and errors. They work faster, but they must learn to

retrace their thinking and make explicit evidence for their conclusions.

The Sensory Specialist—This student relies primarily on one sense for the meaningful formation of ideas. While the other senses are intact and functioning, one sense tends to predominate. Among these learners, the most commonly identifiable styles are the visual and the auditory specialists. As the labels imply, the visual learner gains much more from seeing or reading about the concept to be learned, while the auditory learner needs oral explanations, recordings, or lectures. In the past, not fully cognizant of these different styles, many teachers used multisensory methods that, in shotgun fashion, reached many of the students. Because the learner's "sensory specialty" is but a small segment of the presentation, the shotgun method is not particularly efficient and carries the danger of boredom due to repetition.

The sensory specialist style of learning has been recognized by various educators. Russell and Fea, for example, state that: "Children are visually, auditorially, or kinesthetically oriented concerning ability to learn. Perhaps teachers need diagnostic devices to determine which avenue of

The sensory generalist uses all or many of the senses in gathering information and gaining insights.





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learning is the best for an individual child, so that a clear, definite, unified pattern of a symbol is possible for that child.³

Examples: Sheri, when studying her spelling, looks at the word carefully, then shuts her eyes to visualize it. This is a successful method for her in learning to spell. By contrast, Steven must write the word at least eight times and seems to learn to spell kinesthetically. Kevin must spell the word aloud because he learns how to spell orally/aurally.

The Sensory Generalist—These students use all or many of the senses in gathering information and gaining insights. They rely on sight, sound, touch, smell, and any other relevant sense to gather ideas and to test them against their prior knowledge as well as against the data their senses provide.

Related to the sensory generalist is the oversensitive learner. This oversensitivity is not used in the psychological sense, but refers to the learner who constantly has all "antenna" out to receive sensory stimuli from all sources. Unless this learner is helped to block out some stimuli, he or she is unable to make use of those most relevant to desired learnings. This type of learner may have to function in a setting where some sensory deprivation is purposely arranged.

There are children who, when working on special projects, choose to work away from others in a less stimulating environment. A simple three-sided cardboard screen, like a study carrel, can be used at times to shield such students from the complexity of the environment.

Example: Judy was significantly helped by her teacher when she was moved from a central location in the classroom so that she would not be surrounded on all sides by stimulating movement and color.

The Emotionally Involved—There are students who function best in a classroom in which the atmosphere carries a high emotional charge. At least two such types of classrooms can be identified. The first one provides an emotionally colorful and vivid learning atmosphere through the teacher's use of poetry, drama, lively descriptions, and the teacher's own obvious enjoyment and involvement in the substance of learning. The second type of emotionally involving classroom is one in which the teacher and students carry on active, open discussions where disagreements are

³David H. Russell and Henry R. Fea. "Research on Teaching Reading." N. L. Gage, editor. *Handbook of Research on Teaching*. Chicago: Rand McNally and Company, 1963. p. 47.

common. Strong positions are stated, defended, adopted, or discarded after dynamic interplay of ideas and activities. In both classrooms, the emotional tone is easily observed although the former focuses on subject matter while the latter focuses on interaction based on positions taken.

Examples: In studying about early statehood, the teacher typically introduces children to the material through a dramatic reading of exciting accounts of true experiences, songs and poetry, or lively discussions of movies and filmstrips depicting the subject. Some pupils, who would not react to a straight intellectual presentation of statehood materials, become involved in a vivid emotional experience and proceed to cognitive learning based upon this initial involvement.

The second type of learning style based on emotional involvement is exemplified by Andy, who responds best in a classroom characterized by an open, but friendly, clash of ideas. Whether in reading or math, social studies or art, Andy thrives on disagreement, rivalry, and critical interaction.⁴

The Emotionally Neutral—Some students function best in a classroom where the emotional tone is low-keyed and relatively neutral. Interpersonal conflicts are subdued; the immediately perceived tone of the class is intellectual rather than emotional. The teacher focuses on the task at hand in an objective fashion, minimizing the emotive coloration of teaching behavior, and helps students move from emotional expression to intellectual understanding and analysis. The student whose learning style falls in this category tends to be threatened or distracted in the previously discussed classroom of high emotional atmosphere.

Example: Jane, a very bright 12-year-old, was constantly upset in the classroom of Ms. A, who carried on a very active, bold program rife with disagreement and high emotion. When transferred into Ms. B's subdued intellectual classroom, Jane's performance improved markedly. An examination of her school history shows that Jane, who is rather intense, always works best in classrooms of subdued emotional tone.

Explicitly Structured—These students learn best when the teacher makes explicit a clear, unambiguous structure for learning. Limits and goals are carefully stated, guiding the intellectual tasks



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to be achieved as well as the behaviors that will be acceptable and unacceptable in the classroom. These students function best when they feel safe and at home in a well-defined structure. An open-ended, loosely structured learning setting interferes with this student's style and thus lessens learning.

The learning styles of two boys, Mike and Steve, can be contrasted to illustrate the preference for the explicitly structured and for the open-ended structure described below.

Example: Mike typically asks the teacher exactly what is expected of him, what sources he should use, what form his report should take, how long it should be, and similar questions. Once given clear and specific answers, he proceeds to do a conscientious job. In learning situations

⁴ See: Michael Scriven. "The Methodology of Evaluation." In: Ralph W. Tyler, Robert M. Gagne, and Michael Scriven. *Perspectives of Curriculum Evaluation*. Chicago: Rand McNally and Company, 1967. p. 47.

where he must define his goals, select his sources, and decide on a method of presenting his findings, Mike is unhappy and insecure. He constantly seeks guidance from peers and from adults.

Open-Ended Structure—There are students who feel at home and learn best in a fairly open-ended learning environment. The overall structure of the classroom is sufficiently visible, yet there is place within it for divergence, for exploration of relevant yet not explicitly preplanned phenomena. A tight structure is resisted by such students because they see connections between what they are learning and many other facets of life.

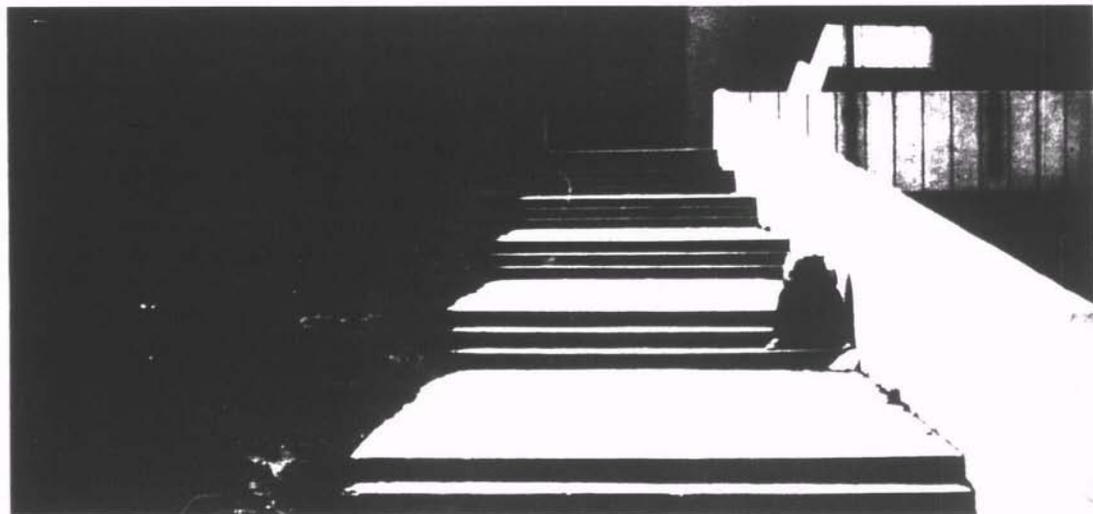
Example: Steve, who is of the same age and intelligence as Mike, thrives in the less defined, more open-ended classroom. In fact, where the tasks and directions are explicit, Steve always tries to change or loosen them. He seeks more elbow room for his own ideas and enjoys the challenge presented in the open structure. He comes up with novel ways of presenting reports, does less well when he must follow a prepared form or predetermined sequence of activities.

The Damaged Learner—While this category is too broad, too inclusive to be identified as a learning style, it is sufficiently important and commonplace to merit discussion. These are stu-

dents who are physically normal yet damaged in self-concept, social competency, aesthetic sensitivity, or intellect in such a way that they develop negative learning styles. The disability is superimposed on an otherwise identifiable learning style. They may systematically avoid learning, reject learning, fantasize, or pretend that they are learning. We can contrast them with their counterpart "normal learners" who might simply be comfortable in a bad habit, who might be temporarily scared, or who are not yet autonomous in learning. Damaged learners need special attention and special treatment depending on their particular damaged approach to the learning situation. It is suggested that a case study be made of this kind of student in order to have a defensible diagnosis and to formulate a program to reduce or eliminate the damage.

The Eclectic Learner—Students who can shift learning styles and function profitably may find one or another style more beneficial, but can adapt to and benefit from others. Historically, these students succeeded in our institutions because they adapted themselves from classroom to classroom and used whatever style was most advantageous at the moment. Teachers tend to prefer such learners since these learners make the necessary adjustments, and the teachers can continue their own teaching styles.

The damaged learner's self-concept, aesthetic sensitivity, social competency, or intellect is impaired in such a way that negative learning styles are developed.



Teaching Styles

Just as there are many learning styles, there are also identifiable styles of teaching. This fact is no great revelation, since we have recognized for centuries certain variations in the way teachers have approached their tasks. We are all aware of the systematic questioning of Socrates as well as the organized lecture method. Historically, emphasis has been placed on styles or general methods of teaching, for it was assumed that if one followed a recognized method of good teaching, all educable students would learn.⁵ The percentage of those who did learn and were awarded scholarly degrees was sufficiently high to perpetuate this belief. The recent commitments to individualize instruction and to lower the dropout rate should force us to reexamine teaching styles and their relative merits.

The idea of teaching style is quite different from the method of instruction used by a teacher. It refers to a classroom mode, a pervasive way of approaching the learners that might be consistent with several methods of teaching. Two teachers may both use lectures, small group discussions, and audiovisual devices, and still differ identifiably from each other. To make this point clear, several styles of teaching are briefly identified.

The Task-Oriented—These teachers prescribe the materials to be learned and demand specific performance on the part of the students. Learnings to be accomplished may be specified on an individual basis, and an explicit system of accounting keeps track of how well each student meets the stated expectations.

The Cooperative Planner—These teachers plan the means and ends of instruction with student cooperation. They are still "in charge" of the learning process, but with their adult experience and professional background, they guide the students' learning. Opinions of the learners are not only listened to, but are respected. These teachers encourage and support student participation at all levels.

The Child Centered—This teacher provides a structure for students to pursue whatever they want to do or whatever interests them. The genuinely emergent curriculum would fit this style, for preplanning by the teacher always takes a back seat to the interest and curiosity of the child. This

style is not only extremely rare, it is almost impossible to imagine in its pure form because the classroom, with its adult-child ratio and adult-responsible environment, automatically encourages some interests and discourages others.

The Subject Centered—These teachers focus on organized content to the near exclusion of the learner. By "covering the subject," they satisfy their consciences even if little learning takes place.

The Learning Centered—These teachers have equal concern for the students and for the curricular objectives, the materials to be learned. They reject the over-emphasis of both the "child-centered" and "subject-centered" styles, and instead help students, whatever their abilities or disabilities, develop toward substantive goals as well as in their autonomy in learning.

The Emotionally Exciting and Its Counterpart—These teachers show their own intensive emotional involvement in teaching. They enter the teaching-learning process with zeal and usually produce a classroom atmosphere of excitement and high emotion. Their counterparts conduct classrooms subdued in emotional tone, where rational processes predominate, and the learning is dispassionate though just as significant and meaningful as in the classrooms of the emotionally more involved teachers.

The Interaction of Learning Style and Teaching Style

Under separate headings, we have presented brief descriptions of learning styles and of teaching styles, but it must be obvious that the two are closely interrelated. Different instructional problems arise and different outcomes are achieved depending on the combinations found in various classrooms. For example, the incremental learner who functions most effectively in an explicitly structured classroom will function quite differently with a teacher who has a subject-centered, task-oriented style than will a classmate whose style may be intuitive and favoring a more open structure. This is consistent with the analysis of Kagan who concludes, "New pedagogical pro-

⁵ See, for example: Harry S. Broudy. "Historic Exemplars of Teaching Method." In: N. L. Gage, editor. *Handbook of Research on Teaching*. Chicago: Rand McNally and Company, 1963.

cedures should acknowledge the interactions between the dispositions of the learner and the material, and tailor presentations to the preferred strategy of the child."⁶

It is tempting to speculate about the effects of these various combinations. Speculation alone, however, will provide no reliable knowledge. At this point, we must realize that both "learning styles" and "teaching styles" are hypothetical constructs offered as useful tools to understand and perhaps explain certain important aspects of the teaching-learning process. Clearly, the styles identified are not entirely exclusive of each other. Some overlapping readily appears and properly so, since human beings do not come in pure types in order to fit our intellectual constructs. It would be useful to view these styles as reflecting the emphasis of the dominant mode of a learner or a teacher. In other words, the visual learner still gains some benefits from lectures or oral reports, and the intuitive learner does not always avoid step-by-step, incremental learning.

We make the assumption that most human beings can be changed, and therefore, to some extent at least, both learning and teaching styles can be modified. It is our further belief that as professionals, teachers must be willing to examine and to alter their teaching styles if evidence or the judgment of other professionals warrants such change. Such change must always be guided by the key consideration: Will this change help or hinder the learner in developing toward autonomy?

Two misconceptions should be examined briefly to prevent certain misunderstandings. The first of these identifies student interest with learning style. It is safe to say that every learning style can benefit by student interest and that teachers, regardless of their styles, hope to engender interest in their students. From Plato through Quintilian, Comenius to Dewey, as well as current educational theorists, everyone hopes to have students interested in the means and ends of education. While it is true that greater effort tends to follow interest and involvement, this fact does not favor one style over another and can work to the benefit of all styles.

The second likely misconception is the association of intelligence with a particular style of learning—an erroneous notion often used to bolster one's preference for one learning style over

another. The incremental learner may be just as intelligent as the intuitive one; the emotionally involved learner just as bright as the emotionally neutral one. It is safe to assert that high intelligence is useful in any style of learning.

It should be clear by now that the idea of learning styles is offered here in an exploratory fashion without highly specific delineation.⁷ Hopefully, clear and precise definitions will be formulated after trying out the ideas in practice and after the insights gained from experience have taken the idea on a "friendly shake-down cruise." Innovation is impossible "if the demand for precision becomes a fetish."⁸ Learning style is a relatively new concept; "some newly introduced concepts . . . are expressions in search of a definition. . . . These are the terms around which we build our pedagogical knowledge."⁹

⁶ Jerome Kagan. "Information Processing in the Child." In: Paul H. Mussen, John J. Conger, and Jerome Kagan, editors. *Readings in Child Development and Personality*. New York: Harper & Row, Publishers, 1965. p. 323.

⁷ Many variables related to "style" await further analysis and research. For example, what are the relationships between teaching and learning styles and developmental processes? To illustrate this concern, we note that most children up to the age of seven would need a three dimensional model of a room to understand certain spatial relationships or size. Whereas children around nine or ten can get these from a two dimensional model or diagram.

⁸ James E. McClellan and B. Paul Komisar. "Preface to the American Edition." In: Charles D. Hardie. *Truth and Fallacy in Educational Theory*. New York: Bureau of Publications, Teachers College, Columbia University, 1962. p. viii.

⁹ *Ibid.*, p. viii.



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