

# Making Sense of Style

While critics grumble, advocates make a case for "transforming" classrooms based on students' individual learning styles.

Certain things about her son, Ned, left a lasting impression on Jane Arenberg. A violinist and an orchestra manager in Mount Vernon, Virginia, she'd seen him struggle at an early age with violin lessons. When his instructor tried to show Ned how to play a few notes, "his eyes rolled up to the top of his head and his attention wandered away," Arenberg recalls. But he seemed to learn much better when instructor and pupil were positioned back-to-back and Ned could play by listening and repeating.

Even Ned's relations with others were affected by his acutely auditory style. "If I raised my voice even slightly, he thought I was screaming," Arenberg says. When Ned's kindergarten teacher began doing "look-see" reading games, "Ned couldn't do it—he'd get extremely frustrated." At the end of the year, Ned's teacher said he wasn't ready for 1st grade.

After spending nearly \$1,500 to have Ned examined by specialists, one of whom suggested he'd require "massive intervention," Jane and her husband, Richard, decided another approach was called for. On a hunch that Ned's program needed to be geared more to auditory learning, they enrolled him in a 1st grade immersion classroom where students learn English and Spanish simultaneously.

In the new school, which stresses the development of language skills through verbal fluency, Ned has thrived, keeping up with the class and gaining in self-confidence. "He's doing fine in a regular school setting, after I was told that Ned would fail, and fail big time," Arenberg says.

## Winning New Converts

Ned's experiences may not be typical, but they dramatically underscore what some experts believe is a prevailing indifference on the part of schools to students' personal learning styles. That may be changing, however, as the notions that individual learning style

ASCD Photograph



Encouraging students to work together and to use resources such as audiotapes are two ways of addressing differences in learning style.

exists and that teaching matched to student style promotes achievement and self-confidence win new converts.

Several factors have contributed to the current interest in applying style theory to the classroom, observers say. The styles movement fits in with a "personalized" view of education appropriate to an increasingly diverse student population. And as dropout and student "disengagement" rates persist at alarmingly high levels, attending to style is being viewed as one way to expand teaching methods and curriculums to reach more students.

"One of the things learning styles does is focus on student strengths rather than weaknesses," says Pat Guild, coordinator of learning styles programs at Seattle Pacific University and co-editor of ASCD's Network on Learning/Teaching Styles and Brain Behavior newsletter. "There's always another way, another legitimate way, of teaching or learning something. Our job as teachers is to find those ways."

James Keefe, an expert on learning styles at the National Association of Secondary School Principals, defines learning styles as "characteristic cognitive, affective, and physiological behaviors that serve as relatively stable indicators of how learners perceive, interact, and respond to the learning environment." They include such factors as perceptual modality preferences (for example, visual, auditory, or kinesthetic ways of processing), preferences for cooperation versus competition, and individual desires regarding classroom environment factors such as lighting or temperature.

According to style theorists, a broad range of modifications—from tailoring an individual reading program to match a child's global approach (whole to part) to allowing students to sit in pairs, individually, or even on the floor—can remove barriers to learning and enhance student achievement.

Many schools that have experimented with approaches to style, using one or a combination of the many style models currently available, report that using the technique allows more children to succeed and erodes the argument that children who misbehave or fall behind academically in

traditional classrooms have limited learning ability.

"We'd blamed their mommies and daddies for having them, we'd blamed the environment and everything else," recalls Roland Andrews, principal of Brightwood Elementary School in Greensboro, North Carolina. But since the school began tailoring instruction to student style in 1986, using a model developed by Rita and Kenneth Dunn at the St. John's University Center for the Study of Learning and Teaching Styles, standardized test scores have climbed each year. "We had to look at ourselves, and it really opened our eyes," Andrews explains.

As a result of the school's foray into learning styles, teachers are now collaborating to produce materials geared toward different student strengths. The schedule has been rearranged to allow students to tackle their toughest subjects at the time of day their style indicates their ability to learn is greatest, says Andrews. And students have been given more options in how to show mastery of a concept or skill.



**If learning styles theory doesn't catch on, part of the reason may be the lack of unity among key advocates and researchers about how styles should influence the way teachers teach or curriculums are presented.**

### **Help for At-Risk Students**

Acknowledging the broad impact of a school-based learning styles program on all students, many advocates say so-called "at-risk" students—those whose personal behaviors, past educational records, or family problems increase the chance of failure—have the most to gain from style-based learning. In many schools, they say, the lack of alternatives to lecture- and textbook-based teaching, classroom design, or grouping factors works against under-achieving students.

"If we look at the kids who are the dropouts of the system, they have styles that are most severely mismatched with what's going on in schools," says Marie Carbo, director of research and staff development for Learning Research Associates and adjunct professor at Antioch University. "Students who aren't making it have a very definite style preference. . . . They're put under more stress because they tend to work better in soft light, in an informal design. Sociologically, they like to work with peers, and they're made to work alone. . . . The result is that students who can learn are made to feel stupid."

"All children have strengths, but everyone has different strengths, and teachers are taught to teach by talking," Rita Dunn told a session on learning styles at ASCD's 1990 Annual Conference in San Antonio, Texas. Dunn also believes that classroom design and rules restricting student movement are primary reasons children are labeled as underachievers and problem students. "They are problems because they can't sit, and they can't learn the way we're teaching them. . . . I have seen children complete the most difficult assignments, who never did before, because I let them lie on their stomachs on a floor."

The unwillingness of schools to adapt to student style becomes more pronounced as children work their way from elementary through high school, some experts believe. At-risk students "learn best through direct actual experience, cooperation and collaboration, and high levels of interaction," says Harvey Silver of Hanson Silver Strong and Associates, an educa-

tion consulting firm. "But as you go up the grade levels, school becomes more competitive, more independent, more abstract. We've designed a system that works directly against them."

### Practical Obstacles

While the notion of accommodating individual differences clearly appeals to many educators, nagging doubts have hindered the widespread integration of style-based instruction, according to both advocates and critics of the practice. In addition, some worry that the research on learning styles provides less than a compelling argument that applying its tenets will boost student achievement (see "Findings of Styles Research Murky at Best," p. 7).

A major issue facing those who attempt to use styles theory in the classroom is to what extent teachers can and should match instruction with a student's preferred mode of learning. While some advocates call for a formal instrument to assess a child's style and prescribe appropriate teaching methods, others maintain such instruments are unnecessary and may actually lead to students being improperly "labeled" as one type of learner or another. Moreover, still others feel that style is so ingrained that the only way to truly ensure that students will be taught through their own style is to place them with teachers who share that style.

Anthony Gregorc, a consultant on human development systems and a style theorist, argues that the practice of using instruments to assess student style is flawed. Students "might not put down their true position; they put down the socially acceptable one," he says. "My position is that if we're not sure . . . they'll put down accurate positions, why test them?" A strong believer that attempting to teach to all students' various styles causes teachers to burn out, Gregorc argues that team teaching, grouping teachers of different styles, is ultimately the best way to avoid harm to students and their teachers.

Dunn counters that "it is absolutely necessary" to identify student style through an assessment tool. Citing evidence that her *Learning Style Inventory* is valid, and that instruction

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matched to style boosts student achievement, "there is no reason in the world not to diagnose the learning styles of every student and provide guidelines and alternatives for teaching them through their individual strengths," she wrote in a recent newsletter of the Network on Learning/Teaching Styles and Brain Behavior (Fall 1989, Vol. 4, No. 1).

"It's not enough to diagnose style; you have to diagnose other things as well," such as students' prior knowledge or skill levels and their wants or desires, notes Helené Hodges, ASCD's director of research and information. But teachers typically don't have the time to make such detailed assessments, she points out. A broader approach may be called for with general classes, but students with special needs might benefit from detailed assessment and instructional prescriptions, she adds.

Others take the stance that teachers have a duty to "stretch" outside their own styles and that planning lesson content and activities with several broad style "types" in mind is the best way to make use of styles theory. "I think a teacher has a responsibility as a professional to go out of his or her style," asserts Bernice McCarthy, director of Excel, Inc., and developer of the 4MAT approach to style-based instruction. By planning lessons with style in

mind, teachers "give the majority of kids a better chance," she adds.

Nona Bock, a veteran teacher at the Pierce School in Brookline, Massachusetts, uses 4MAT to help plan for her 5th and 6th graders. Although some worry that attempting to teach to style by providing alternative activities means classes will cover less ground, Bock counters that teachers become more selective in choosing content. "You're possibly doing more activities for one concept, but you're also finding out what you really have to teach."

### No Excuses

Some critics also have argued that teaching to every student's style is impractical and, in any case, seeks to reinforce a student's strengths without bolstering his or her weaknesses.

"In order to implement [learning styles theory] in the classroom, much of the learning would have to be independent," asserts Barak Rosenshine, professor of educational psychology at the University of Illinois. "From a management point of view, it's a difficult thing to do."

"By analogy, if it's so difficult to deal with diversity in learning levels, it's got to be even more difficult to deal with different styles," agrees Robert Slavin, a researcher at Johns Hopkins University. "It's hard to imagine."

Keefe believes that some researchers have overstressed students' preferences with regard to classroom environment. "They assume that merely by modifying the environment, you can make a difference," he says. "That's simply not true. If one only takes into account the environmental end of the model . . . then kids could use that as an excuse." A comprehensive model developed by a task force sponsored by the NASSP, he says, includes 32 elements of style, including cognitive, affective, and physiological styles. (Keefe and Barbara Ferrell elaborate on these points in their article on p. 57.)

Others argue that, to some extent, expert teachers have always accommodated students' individual differences, for example, by explaining new concepts several different ways or giving students several options for demon-

strating mastery. The key to applying style, they note, is to teach difficult new information through a student's style but also help that student "stretch" by learning through other styles. Thus, a student who learns well independently and by listening to a teacher's presentation, for example, would be asked at other times to work in groups or do a hands-on project.

"The majority of people in the field would agree with that approach," says Lois LaShell, director of graduate education programs at Antioch University. Such an approach helps erode the argument that students will use one element of their style as a crutch to avoid completing assignments or behaving well in class. "Learning style is not an excuse for any kind of behavior," notes Guild, adding that students still must fulfill expectations for their classwork.

That includes students who aren't presently experiencing success. "What we're saying is that they *can* learn, if they're taught in a way that allows them to learn through their strengths, so that tactile learners can master the same material as auditory or visual learners if you put it into a format that allows them to learn," says Carbo. "The brain power is there, but they have a different style of learning."

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Rita Dunn, director of the Center for the Study of Learning and Teaching Styles at St. John's University, frequently tells audiences such as the one at ASCD's Annual Conference last spring that by applying her learning style model in their schools, "within six weeks, I promise you, kids who you think can't learn will be learning well and easily." Such statements clearly rankle some researchers, who are not only unconvinced that style-based instruction produces large gains but that it is responsible for any gains at all. Allegations and countercharges of shoddy scholarship and vested interests have clouded the issue and made it all the more difficult for practitioners to decide what's worth pursuing.

A visible sign of the acrimony saturating the debate is a blistering exchange in the pages of *Exceptional Children*, in which Dunn and special education researchers Kenneth Kavale and Steven Forness lock horns over the effectiveness of modality-based instruction. A meta-analysis by Kavale and Forness concluded that the practice "is ineffective. . . . Although the notion of modality-based instruction remains intuitively appealing, the evidence is not supportive" (Kavale and Forness 1987).

Dunn subsequently accused the researchers of selection bias and charged that their inaccurate conclusions would "mislead practitioners who might otherwise use the promising strategy of modality-based instruction with selected children" (Dunn 1990). Kavale and Forness countered that Dunn may have a "mercenary" interest in such research because of the center's investment in assessment devices and other products (Kavale and Forness 1990).

In an interview, Dunn defended the findings of research on learning style, conducted at St. John's and more than 60 other institutions, and noted that research studies showing gains for style-based instruction have won 15 national and international awards. "The research shows that every single time you use learning styles, children learn better, they achieve better, they like school better."

Marie Carbo, director of research and staff development for Learning Research Associates, also believes instruction based on students' preferred style results in higher achievement. "When this has been put into practice by people who have had, especially, four or five days of training, very often the results have been phenomenal, not just significant. We've had some gains of 10 times as high as students were achieving before," she says. "I've seen changes in students in a matter of minutes, where we've just put them in a situation, removed the stress from the learning, put them in a very relaxed state, and provided them with the methods that helped them learn instantly, on the spot."

Even some of those advocating a move to style-based education, however, question the strength of research evidence. "Mostly advocates do the [research] work," asserts James Keefe of the National Association of Secondary School Principals, adding that potential conflict of interest has hindered the field's broader acceptance within the research community.

"I think a lot of it is suspect," says Anthony Gregorc, a former professor at the University of Connecticut and now a consultant on human development systems. "My contention is that one of the reasons that some of these scores are going up . . . is that the kids sense that someone cares. It may have very little to do with a beanbag chair or something else." Stanford University Professor Richard Snow, whose review of studies on "aptitude-treatment interaction" is frequently cited by critics of learning styles research, says evidence that matching instruction to students' preferences will boost their scores "is rather slim." Researchers purporting such gains "really don't validate their ideas with strong, scientifically based methods," he asserts.

Others argue that much of the research evidence being cited is based on doctoral dissertations, that purported gains may be short-lived, and that large-scale studies with experimental and control groups are needed to provide a convincing argument that styles-based education works.

"What has never been studied, to my knowledge, is the question of whether teachers who adapt to students' styles get better results than those who don't," says Robert Slavin, a researcher at Johns Hopkins University. "It's a totally different thing to say that it's appropriate to have instruction [matched] to your learning style . . . than to say that a teacher who is doing this will be even more effective than a teacher who isn't."

That may be a moot point to educators who insist their students are better off now that learning styles have become a factor in their schools. Jack Jenkins, who directs the P.K. Yonge Lab School at the University of Florida and has watched some students spend as many as 13 years at the school, says a styles-based approach produces positive gains for students, both in the short term and over the long haul. "You may get an immediate surge in achievement. I want to sustain that and be sure what you get is not novelty."

#### References

- Dunn, R. (1990). "Bias Over Substance: A Critical Analysis of Kavale and Forness' Report on Modality-Based Instruction." *Exceptional Children* 56, 4: 352-356.  
 Kavale, K.A., and S.R. Forness. (1987). "Substance Over Style: Assessing the Efficacy of Modality Testing and Teaching." *Exceptional Children* 54, 3: 228-239.  
 Kavale, K.A., and S.R. Forness. (1990). "Substance Over Style: A Rejoinder to Dunn's Animadversions." *Exceptional Children* 56, 4: 357-361.

—John O'Neil

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**Cautious Acceptance**

Despite some of the potential pitfalls, most experts say learning style theory has left its mark on many schools, although not all apply it categorically and probably most subtly change their teaching methods, classroom designs, or curriculums where appropriate without slavish adherence to one of the many style "models." Learning styles has become a ubiquitous insert-offering, and many teachers speak knowingly of "sensing-feelers" and "abstract sequentials." Keefe believes a general knowledge of learning style "is almost universal in education," though he estimates only about 10 percent of schools apply learning style theory consistently.

Whether the idea of styles-based education is due to take off or continue to transform only a limited number of schools is anyone's guess, experts say.

Carbo says an initial surge of interest in learning styles in the late 1970s and early '80s has died down, but that the current climate of school reform may lead educators to take a new look at styles. "The education system is in such a desperate state that people are beginning to look at some of the learn-

ing styles research because a number of us in the field are having such dramatic results. People are looking for answers, and I think they're more likely to be open [to new approaches]."

"I think there's a movement for honoring diversity that learning styles fits very well," McCarthy notes. However, greater acceptance of styles will take more research and evaluation of programs currently in place, she says. "The crux of the whole styles movement, if it's ever going to be implemented . . . is how to evaluate this stuff, and to create standards of excellence and still have some criteria that ex-

perts can agree on. . . . If you don't measure it, no one will honor it."

If learning styles theory doesn't catch on, part of the reason may be the lack of unity among key advocates and researchers about how styles should influence the way teachers teach or curriculums are presented. "We have not moved to a unified field—everyone clings to his or her own model," LaShell says. "Teachers ask: 'Which one should I use?' and end up saying: 'I won't use anything.'"

Stephen Garger, coordinator of secondary education at the University of Portland in Oregon, notes that truly

**Link Between Style, Culture Proves Divisive**

Among the many controversies associated with learning styles, perhaps the most explosive is the relationship being explored by researchers between learning style and cultural background.

According to some styles theorists, knowledge that students from particular cultural backgrounds may be more likely to exhibit particular learning styles is potentially valuable to teachers, who may then modify their methods or curriculums. Others, however, resist efforts to generalize about culture and style in such a manner, worrying that it may result in discriminatory treatment or excuses for student failure.

The volatile nature of the issue was drawn sharply into focus in 1987, when a New York state education department report on high school dropouts sparked a political imbroglio over the report's description of stylistic tendencies of African Americans. The paper said these styles included such characteristics as the "tendency to view things in their entirety and not in isolated parts . . . preference for inferential reasoning rather than deductive or inductive reasoning" and the "tendency to approximate space, number, and time instead of aiming for complete accuracy."

Following several months of controversy over the accuracy and implications of the passage, the New York Board of Regents appointed a panel to study the issue; the panel's report, issued in 1988, recommended that the Regents "avoid the use of language and construction which is generalized to entire populations with no recognition of the amount of diversity within all groups of students."

Even with such cautions, however, some worry that the potential for misuse of the learning style-culture connection is high. "If we begin to categorize ethnic groups in terms of style proclivities, it smacks of racism and discrimination," says Helené Hodges, ASCD's director of research and information. The matching of styles of cultural groups that have suffered discrimination with teaching methods may also foster concern that "if you teach us that way . . . you'll keep us in our place," says Lois LaShell, director of graduate education programs at Antioch University.

Pat Guild, coordinator of learning styles programs at Seattle Pacific University, argues that understanding the relationship between culture and style is a valuable tool for teachers. "It's important for teachers to look at the relationship between culture and style," she says. "Teachers are sick and tired of being told that, because they're not black, they can't teach black kids, or that if they're not Asian, they can't teach Asian kids."

One reason the notion of learning style linked to culture is so controversial is that some assume incorrectly that some styles are more valuable than others. "Style in and of itself is neutral," says Guild. "That differences are equally valuable is an attitudinal shift that hasn't happened yet," adds Bernice McCarthy, director of Excel, Inc.

—John O'Neil

Photograph courtesy of P.K. Yonge School.



Students at the P.K. Yonge Laboratory School in Gainesville, Florida, benefit from a broad array of activities and teaching strategies that consider their stylistic strengths.

implementing notions about learning style will require systemwide changes in education. "We know that people learn differently. The problem is trying to fit this knowledge into a system that's not set up to accommodate individual differences. I'm saying, let's hang in there and change the system—I think styles is a way to do that."

Because notions about individual difference are not indigenous to school culture, Gregorc argues that the movement to integrate styles-based learning will continue its tottering course, "never getting enough energy to really build it in, but never dying out because it has some truth in it." □

**John O'Neil** is Editor of *ASCD Update* and *ASCD Curriculum Update*.

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