The use of learning style/teaching style ideas and materials is a serious undertaking. It is not for amateurs or for those who just want to be fashionable. These conclusions are drawn from extensive observations, in-depth interviews, and subsequent analysis of data from students and teachers who are involved in learning and teaching style activities. This type of research is phenomenological. It consists of the cataloging of overt behavior (pheno) and the analysis of the behavior to determine its underlying cause (noumena). From this, certain inferences are drawn that tell us about the nature (logos) of the learner.

Learning Style

From an analysis of what the people said and did, the following phenomenological definition of learning style was developed: "Learning style consists of distinctive behaviors which serve as indicators of how a person learns from and adapts to his environment. It also gives clues as to how a person's mind operates."

Analyses of overt behavior indicated that some people's minds operate best in concrete situations, others in abstract, and some in both. Some individuals have an ordering preference that is sequential, while others demonstrate nonsequential patterned preferences. Some use both. Some people process best through deduction, while others use forms of induction. And, again, others use both. Some individuals function best on their own, while others are most productive through group activity. Some do equally well in either situation.

The mind must also deal with such environmental factors as room temperature, humidity, lighting, noise level, and the student's age and stage of physical and emotional development.

Differences in Style

What accounts for differences in style? Are they inherited, or do we acquire them from experience? From various sources of research, style appears to be both nature/nurture in its roots. Patterns of adapting to environments are apparently available to each of us through our genetic coding system. These patterns have permitted the survival of our family, nationality, and race. Geneticists and sociobiologists are studying these mysteries.

Patterns are also made available to us through our environment and culture. These patterns are called expectations, preferred modes of behavior, mores, and laws. They are designed to promote the survival of man and his environment. Behaviorists, anthropologists, and sociologists are studying these patterns and their effects.

The third type of pattern is more esoteric in nature and is being studied by eastern and western psychologists. These patterns lie within the subjective part of our individual natures. They are properties of the self, or soul, and are used for self-actualization purposes.

Can these three types of patterns be at odds? Yes. But they may also be in total harmony.

Teaching Style

The phenomenological study of environment tells us that: "every environment places demands upon individuals for adaptation"; that is, individual needs align with the immediate and surrounding environment.

Applied to education, this means that when a teacher selects a method of presentation such as a lecture, he/she is placing certain and limited adaptation demands upon the minds of the stu-
dents. For example, a one-hour lecture could require such adaptive qualities as abstract symbol decoding, an aural modality, dependency, separative behavior, deductive reasoning, logical sequencing, the suppression of emotion and immediate verbal response, and the ability and willingness to adjust to the heat, humidity, lighting, and sound level in the room for a prolonged period of time.

This example points to the extraordinary relationship among student, teacher, and environment. It points out the numbers of adjustments a student's mind must make. But it also tells us about teaching! It is sobering to think of the powerful effect a teacher can have upon the minds of students particularly when he/she is in charge of a required course and offers only one or two means of reaching the course objectives.

Could it also be that the most successful students in a classroom just happen to have adaptive abilities that match the hidden demands being placed upon them by the teaching method? The answer is yes!

Alignment

The alignment process between learning style and environmental demands lies within the rational powers of the mind. Students who align easily are able to "read or psych out" their environments. They use both natural (inherent or innate) and artificial (learned) means of adapting. These alignment abilities permit successful adaptation to a range of environments including open classrooms, strict study halls, and unsupervised independent study activities. Students who have any degree of difficulty in alignment ability often lack the required means for adapting. Some may find themselves "trapped" in certain environments and may withdraw, tune out, or become indifferent. Others may seek to change these environments to suit their learning styles. Many discipline problems are rooted in the search for compatible alignments.

Obstacles in Diagnosis

Practitioners, researchers, and writers have been focusing their attention on the realized and potential benefits of aligning learning styles and teaching styles. As a result of their efforts, there are many materials out on the market today available to educators interested in the learning/teaching style alignment process.

We must bear in mind, however, that any idea that has the potential of doing great good, also has the potential for doing serious harm. This must be kept in mind particularly when using the many fine learning/teaching style assessment instruments available. Analysis has revealed:

1. Instruments, by their very nature, are exclusive; that is, they focus on certain variables and therefore sacrifice other possibilities.

2. Some students wittingly or unwittingly lie on any type of self-reporting instrument. Others read elements into questions and statements that are simply not there.

3. Some students have used artificial means of adapting for so long that they report these as "preferred means of learning." By doing so they run the risk of receiving prescriptions that continue to reinforce artificiality rather than receiving means that would encourage and draw upon their natural abilities.

4. An educator's attitude (either positive or negative) toward a particular student or toward the concept of diagnosis/prescription itself can
drastically influence both instrument interpretation and consequent prescription.

What do these findings mean to us? Basically they imply that educators must be wary of making prescriptions solely on the results of the instrument itself. If prescriptions are incorrect, the door is open to anger, confusion, and frustration for both the teacher and student. Further, we must be aware that there are human elements in learning that cannot be measured. This means that a teacher must use his/her intuition and sound judgment along with data from instruments. There is no teacher-proof diagnostic prescriptive tool!

From phenomenological studies of learning/teaching styles, the following inferences have been drawn:

1. Learning style consists of the outward display of qualities of the mind.
2. Diagnosis of learning style is far from being an exact science. We must, however, continue to diagnose in order to understand more about the human mind and how people learn.
3. Prescriptions based upon diagnosis must be tentative, varied, monitored, and verified by conversations with the student. In this approach, we can find out how our demands and suggestions are helping or hindering his/her learning process.
4. Teaching style is more than a methodology. It places subjective demands upon the learner who may or may not have abilities to match such demands.
5. The alignment of any style is dependent upon the capacities and abilities of both the learner and the teacher to adapt.

As we come to understand more about learning/teaching styles and how the mind operates, I believe we will improve mental health and self-understanding as well as increase learning. Learning styles and teaching styles have already revealed much to us and continued research will undoubtedly reveal more. This thrust can lead to the revitalization of "the noblest of professions."

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