Students have diverse learning styles, and the challenge to educators is in designing a balanced curriculum across all styles, teaching essential content through a rich repertoire of instructional strategies. This short guide presents information essential to individualized teaching for diverse learning styles. The guide begins with an explanation of learning styles and profiles, including the four basic styles: (1) sensing-thinking; (2) sensing-feeling; (3) intuitive-thinking; (4) intuitive-feeling. The guide then describes the two dominant attitudes toward information processing--extroversion and introversion--and the two orientations toward closure--reflective and active--and how these various elements interact with one another. Following is a discussion of cultural differences in learning profiles and the ways various cultural groups fare in the American educational system. Finally, the guide presents An Integrative Model (AIM) to provide educators a common language with which to discuss making the essential match between content, learner's needs, instructional delivery systems, and appropriate assessments. (EV)
Instruction that Addresses the Needs of the Individual Learner While Simultaneously Honoring and Teaching to the Diversity of All Learning Styles

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Honoring the Diverse Learning Needs of All Students

Introduction:

Students have diverse learning styles. They also have learning profiles because no one is just a style. Profiles are the order of access to all one's learning styles. The dominant style is the one you use most because it works best for you; it's the most comfortable. You rely on it. The other styles are less used because they are less practiced. In effect, all learners possess, potentially, all of the styles.

Style order is modified by one's approach to the tasks. This approach is called attitude. There are two attitudes: introversion and extroversion. Style order is also modified by orientations to closure. There are also two of these: active and reflective. Every learner's profile is then changed by a dominant attitude and a dominant orientation to closure in the dominant style.

There are four basic styles. Style is composed of a dependency on one of two perception functions (sensation or intuition) and on of two judgement or evaluation functions (thinking or feeling). One perceives before one judges. The four styles are:

- **sensing-thinking** (ST)
- **sensing-feeling** (SF)
- **intuitive-thinking** (NT)
- **intuitive-feeling** (NF)

One's profile might look as follows:

- E-ST-A dominant
- E-SF-A sub dominant
- I-NT-R Tertiary
- I-NF-R Inferior

Or, one's profile might look like this:

- I-NF-R dominant
- I-NT-R sub dominant
- E-SF-A Tertiary
- E-ST-A Inferior

Extroverts can be observed in their dominant styles because they process outwardly, interactively and experimentally. Introverts are observable only in their tertiary and inferior styles because they process inwardly, subjectively, self-reflectively and require more time to come to conclusions.

The four styles, the two attitudes and the orientations to closure are briefly described on the following pages.

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Learning takes place within two sets or "preconditioners." One set represents the way information is best processed (I and E), and the other (R and A) an orientation to closure.

### INTROVERSION

The introverted learner brings energy to the learning situation by looking at the content to be learned in terms of his/her own values and interests. For learning that has any retentive value the introverted student must have time to think and reflect about that information in his/her own independent and highly individual way. How much energy the introvert invests depends on the degree to which the content increases that learner's own self-awareness and goals. Introverts seem, to those outside, as if they were quiet, shy, withdrawn, and hard to get to know. Introverts represent 25% of the student population but constitute 85% of its best students.

### EXTRAVERSION

The extraverted learner gets energy for learning by externalizing the content through personal interaction, sharing, and physical activity. For learning to have retentive value for the extravert the content needs to be assimilated in personal discussion, thru questions and answers, personal feedback, and affirmation of understanding by the teacher and peers. Thinking for the extravert is verbal interaction. The energy the extravert invests in learning is directly proportional to the opportunity s/he has for verbal give and take. Extraverts seem, to those on the outside, as if they were assertive, talkative, out-going, friendly, and easy to get to know. Extraverts generally have a difficult time in school because of independent study emphases.

### REFLECTIVE

The reflective learner wants to know how many different ways there are to do something, and whether or not all the possibilities have been explored. The reflective mind would rather operate outside of any kind of restraints to examine the situation or problem for the enjoyment of the search itself. Reflectives, unlike their active opposites, may never ask the practical or applications questions. Rather, their interests focus on the internal and personal interests invoked by the content or question being addressed. The true reflective is not one to be rushed, needs time for thought, and is a natural opponent of the strong active.

### ACTIVE

The active learner wants to know what is to be done, how it is to be done, who's going to evaluate it, and what it's for. The active learner has a keen sense for how to organize time, to think objectively in terms of needed outcomes, and to work within schedules. It is the active learner who asks for behavioral details, e.g., how many questions on a test, what's a passing score, what chapters need to be read, how long the test will take, etc. In short, the active learner's orientation is to closure, but, ironically, so that s/he can get on to the next task. Accomplishments are their own reward. Work is perceived as a value in and of itself.
DESCRIBING LEARNING STYLE BEHAVIORS BASED ON THE ANALYTIC PSYCHOLOGY OF C. G. JUNG

The behavioral descriptions of the four basic learning styles come from the pairings of the perceptual and judgment functions.

When a perception function (sensation or intuition) is paired with a judgment function (thinking or feeling) four different and behaviorally observable learning styles emerge. These four styles are modified by either an introverted or extraverted orientation, and are further modified by either an active or reflective preference.

**SENSATION (S)**

The sensing-thinking (ST) learner prefers instruction that focuses on facts, drill, recall, demonstration, and especially on the physical manipulation of tangible objects. This learner likes to know exactly what is expected, how s/he's doing at each moment, wants teacher/peer feedback on what's correct, feels best with right-wrong questions, enjoys doing things already mastered, relies on factual material and is usually a good worker.

**THINKING (T)**

The intuitive-thinking (NT) learner prefers instruction that focuses on the meanings and relationships of data, on ideas, the interrelationship of ideas, and on how one can construct evidence for how things work. This learner wants to know why a thing is so, to explain its working relationships, and to understand meanings. S/he relishes experimentation, looking for cause and effect, inferring relationships, and defending ideas. They like problems that require logic, analysis, reasoning, and that can be defended based on external data. They generally are among the best students.

**FEELING (F)**

The sensing-feeling (SF) learner prefers instruction that focuses on personal values, interpersonal relationships, how learning relates to getting along better with one another, and demonstrations of empathy and support for one another. This learner likes to know how others feel, and wants support and encouragement from teacher and peers. This learner functions best in verbally interactive situations where one can learn through discussion and personal sharing. This learner learns best when content has personal meaning.

**INTUITION (N)**

The intuitive-feeling (NF) learner prefers instruction that allows for personal exploration of a subject or content of personal interest. This student brings, as does the SF, high levels of affective energy to learning tasks because of personal interest. As such the NF learner tends to function best in classrooms allowing a good deal of personal discretion, new challenges, creative and imaginative approaches, involvement in many different kinds of tasks, creative and artistic expression, and new and unusual applications of existing knowledge to new and different situations. The NF tends to excesses of degree but is often among the brightest of students if recognized and properly channeled.
Cultures, subcultures and small groups all have learning profiles!

Since all humans have learning profiles, one can carry the analogy a further and critical step to groups. Style, fundamentally, is the issue of how people communicate. People communicate in groups. The very idea of “community” is based on acceptable discourse. Common values and a common history make up the fabric of communication—the transmission of socially relevant information. Using the same learning profile information, we can now say something diagnostically and prescriptively accurate about “cultural tendencies” in groups. We are categorizing groups by central tendency since every group has people within it who are not like the group and operate peripherally to the group. Still, based on cultural tendencies, we can make generalizations about cultural and group learning profiles.

For example: the Plains Native Americans in the north central areas of the United States tend to be introverted, intuitive-feeling and reflective. This unique culture, very different from the indigenous tribes of the southwest, value sharing, cooperation, collegial decision-making, self identification as a result of how one helps and supports others, a respect for tradition and one’s elders, and a great love for the earth and their sacred relationship to it and the Great Spirit.

When these students come into America’s traditional classrooms, there is a dissonance that disables the indigenous learner. Traditional classrooms reflect the larger westernized culture which is highly and aggressively extroverted, competitive, independent, factually oriented, hurried, time dependent and hierarchically led. The demands of the traditional classrooms on these students necessitates painful choices, i.e., separate oneself from one’s peers, become competitive, surrender one’s values, speak as a single person, and become excessively verbal.

Another example: The inner city African Americans come from a culture marked by 300 years of counterculture siege. Modern Black sub cultures in our cities are marked, as a central tendency, by an extroverted, sensate, feeling and active orientation. What is valued is direct discourse, close matriarchal and clan relationships, the need to come to concrete and practical decisions quickly, the need to find identity and security in the family (when young), and in external groupings when older. The active orientation is not only a response to the needs for self-protection, but also manifests itself in the need to keep moving, to demonstrate physical prowess, and to stay in constant contact with others. Feeling’s role is dominant since most of life is lived in the task of self definition and self invention in the face of a counterculture unresponsive to the nature of the challenge.

When these students come into America’s classrooms there is also a disabling dissonance. Traditional classrooms impose an introverted, quiet, nonverbal and competitive environment that emphasizes independent seat work, the manipulation of abstractions and concepts, the repression of personal feeling, the dismissal of personal experience, and little or no opportunity to work in groups, or to learn language skills in socially relevant settings. Skills development deals with content that is removed from the students’ personal experience. The curriculum is largely devoid of opportunities for physically active learning games, self-definitional activities through music and the arts, and an environment responsive to the needs for frequent and affirming feedback on both effort and achievement.
In effect, America's schools are, not surprisingly, largely an unexamined reflection of the value system of a Eurocultural, competitive and industrialized society. America's schools are largely extroverted, sensing, thinking and active on the lower levels, and introverted, intuitive, thinking and reflective on the upper and college levels. Students that can't adjust are deemed throwaways, tracked, judged ADD or hyperactive, or channeled into vocational/technical programs. Statistically, 68% of all drop outs are extroverted feelers; 34% sensors and 34% intuitives. Students winning merit scholarships are 85% intuitives, and more thinking than feeling. Students receiving the highest scores on the math and language arts on the Californias, The Iowas, The SAT's and The Peabody are uniformly intuitives at the .0001 level. High WISC-R scores are uniformly those of the intuitive. These data dramatize the heavily conjectural, inferential and language based dependency of the American curriculum. These data further dramatize the Western bias against feeling and self-awareness. America's schools are monuments to the role of critical and analytical thinking in rabid isolation from emotion, feeling and the need to become self-aware.

Another example. Japanese American culture represents an intact and authoritative family structure with the mother largely responsible for child care and the youngster's success in school. The family tradition in introverted, sensate, thinking and reflective. The family radiates internal discipline, the suppression of personal feelings, a commitment to and dependency on the family, its honor, and its values, and the need to strive for security and independence.

When these students come to the traditional classroom on the elementary level there is consonance on the sensate, thinking and introversion levels. Compensatory behaviors must be practiced in coming to conclusions more quickly. The Japanese American is at home with the needs for discipline, independent seat work, drill, practice, repetition and homework. The factual and sequential nature of learning is supported by family values. Pacific Rim students tend to do very well in America's schools, and to assimilate English quickly. Their disciplined and procedural ways of learning stand them in good stead in most classrooms.

Another example. White, Anglo-Saxon, Protestant, suburban middle-class, upwardly mobile Americans, represent a nearly mirror image of the schools on the secondary and college levels. Their academic and Euroculturalized values reflect an intuitive, thinking and reflective orientation. They have been, if academically successful, able to move from an extroverted to an introverted mode of processing. They function competitively, independently, aggressively, verbally, critically and analytically, and can operate within time constraints. Their intuitive capacities, an affirmation of their religious and European values, are applied in imaginative and creative ways to the process of inference, induction, evidence and utility. They are comfortable with the hierarchic organization of schools, as reflective of the larger society, because their belief system affirms that they, with work and diligence, will one day become a part of that hierarchy.

When these students come into our schools, they tend to function within their own value system. Their relation to their peers is competitive and somewhat distant. Their relationship to their teachers is an ambivalence marked by both dependency and skepticism. But even their scepticism fits the curriculum and the major teaching modes of examination and evidence.
Cultural Profiles, Multiculturalism and Teacher-Student Interaction: A New Model for Decision Making

Learners have profiles. Cultures and groups have profiles. Schools have profiles. Curriculum outcomes have profiles. Staff development emphases have profiles. Teachers have profiles.

Using the author's An Integrative Model (AIM), decision-makers now have a common language to discuss, perhaps for the first time, how to make the essential match: between content, learner's needs, instructional delivery systems and appropriate assessments.

The language of style is neutral. There is no right or wrong style or profile. The challenge to educators' professionalism is to be able to design a balanced curriculum across all the styles, and to teach all essential content across the styles through a rich repertoire of instructional strategies.

The goals of the AIM program are to provide teachers with the skills and knowledge to:
1. Diagnose and prescribe to styles
2. Categorize, by styles, the demands of any curriculum objective
3. Develop a repertoire of teaching strategies in each style.
4. Develop a repertoire of assessment devices for each style, and
5. Design curriculum units balanced across all the styles.

But why do this? Because most classrooms have students representing all of the styles. Because any curriculum content to be learned well requires processing across each of the four styles. But, more than that, each student has the right and the need to develop their potential to the fullest. By learning to process any content around and through each of the styles, the student learns two things: how the content is to be understood and applied, and who they are in the process of developing a positive self-concept and a hunger to be a lifelong learner.
Strategies and Assessment Devices by Styles

Strategies and assessment devices can be quickly categorized by styles based upon their demands for perception and judgment. If the demands are for content mastery that is based on drill, recall, or following a correct sequence, and is generally focused on facts, then the style is largely ST. If the content requires analysis, inference, evaluation, the making of an argument based on evidence, and/or the problem is open-ended, then the style is largely NT. If the content is self-reflective, group or pairing processed, evokes feelings and values, and relates to past experience, the style is largely SF. If the content requires imagination, the application of metaphor, the finding and solving of problems of personal significance, and lends itself to artistic and creative expression, the style is largely NF.

A meta strategy is any set of instructional procedures that cover all the styles within any time period.

Authentic Assessment devices, balanced around the learning profile wheel, assures that all objectives are processed appropriately in each of the styles.
Bob Hanson is an internationally known authority on psychological type, learning profiles, and the educational applications of Analytical Psychology. He is well known for his services to the faculties of the A.S.C.D. National Curriculum Institutes, the National Academy of School Executives, the Study Institutes of Phi Delta Kappa, the Ti-in Network, and the National Staff Development Council.

Bob holds the B.A. with honors in Sociology and Dramatic Literature from the University of Nebraska, and masters degrees in history, theology and computer science (Yale, the University of the South, and Columbia, respectively), and the doctorate (Columbia) in psychology and communications theory. Bob has done graduate work at Oxford, Minnesota, Drew and Temple Universities, and has taught on the graduate facilities of Kean and Rider Colleges in New Jersey, the Harvard summer Principal's Institutes, Teachers College, and McGill's Distinguished Lecturer Series. He is a director and lecturer of the Jung Center of Philadelphia and holds a certificate in Analytical Psychology from the Jungian Institute in Zurich.

Bob is the founder and for 24 years was the president of Hanson Silver Strong & Associates, Inc., and now is president of J. Robert Hanson & Associates, Inc. The corporation provides consulting services to the public and private sectors in learning styles and profiles, management and teaching styles, teaching strategies, curriculum design and assessment, and organizational renewal.

Bob served as manager of educational research and evaluation for the RCA Service Company, as general manager of educational planning for RCA corporate staff in Cherry Hill, NJ, as the Director of a national prototype program on adaptations of Outward Bound training to urban school settings, and as high school teacher and administrator. As a management consultant he has served school districts and state and federal departments of education throughout the United States, Canada, Europe and Asia. In New Jersey he served as the Director of the Department of Education’s Design Center. Under the auspices of the U.S. Office of Education he was principal author and trainer for the Title III, ESEA’s Validation of Exemplary Projects’ effort.

Bob has authored a comprehensive analysis of learning style models, a series of research monographs, and with Harvey Silver and Richard Strong a three volume set entitled Dealing with Diversity. Bob has also served as an organizational development consultant to the N.J. Superior Court System, Digital Equipment Corporation, Government Studies and Systems, the U.S. Department of Labor, the N.J. Institute for Law and Justice, the Department of Defense Dependent schools, and the International Association of English Speaking Schools.

Bob is married and lives in Pownal, Me. His wife, Mary Leigh, is a psychotherapist. They have seven sons and eight grandchildren.
Instruction That Addresses the Needs of the Individual Learner

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Sincerely,

Lilian G. Katz
Director

Enclosures