LEARNING STYLES
IN THE ESL/EFL
CLASSROOM

Joy M. Reid
Editor
University of Wyoming
Learning Styles
in the ESL/EFL Classroom
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Learning Styles in the ESL/EFL Classroom offers teachers insights into the use of student (and teacher) learning styles and provides classroom teachers with learning styles instruments that they can use with their students. The results, we hope, will empower ESL/EFL students in a wider range of educational contexts.

The area of learning styles is both complicated and fragmented. First, many researchers have investigated different aspects of learning styles; at least 21 components have been identified, although probably most individuals have only 6 to 14 strongly preferred styles (Dunn, Gemake, Jalali, & Zenhausern, 1990). Often these researchers label their learning style aspects with differing terminology, frequently obscuring understanding. In some cases, learning styles terminology and categories overlap; in other cases, very different aspects of learning styles are contrasted. This combination of complexity and fragmentation has consequently made learning styles research less accessible and practical for classroom use.

Moreover, the difference between learning strategies and learning styles has often been unclear. In this anthology, learning strategies are defined as external skills that students use, often consciously, to improve their learning; we might describe them as study skills that students can be taught that can enhance or expand their existing learning styles. Learning styles, in contrast, are internally based characteristics, often not perceived or used consciously, that are the basis for the intake and understanding of new information; students can identify their preferred learning styles and stretch those styles by examining and practicing various learning strategies.

The authors in this anthology describe learning styles that are particularly important for ESL/EFL teachers in language-learning classrooms. In an effort to provide a framework for the chapters in this book, a brief definition of each follows; then a chart lists overlapping and mutually exclusive terms. Notice that many of the terms are described similarly.

**LEARNING STYLES DEFINITIONS**

Learning style refers to an individual’s natural, habitual, and preferred way(s) of absorbing, processing, and retaining new information and skills. These learning styles persist, regardless of teaching methods and content areas (see Kinsella, this volume). In this anthology, we divide the learning-style research into three major categories: cognitive learning styles, sensory learning styles, and personality learning styles.
COGNITIVE LEARNING STYLES

Field-Independent/Field-Dependent Learning Styles

Field-Independent Learner: learns more effectively step by step, or sequentially, beginning with analyzing facts and proceeding to ideas (sees the "trees" instead of the forest).

Field-Dependent (Field-Sensitive) Learner: learns more effectively in context, holistically, intuitively, and is especially sensitive to human relationships and interactions (sees the "forest" instead of the trees).

Analytic/Global Learning Styles

Analytic Learner: learns more effectively individually, prefers setting own goals, and responds to a sequential, linear, step-by-step presentation of materials.

Global (Relational) Learner: learns more effectively through concrete experience, and by interactions with other people.

Reflective/Impulsive Learning Styles

Reflective Learner, learns more effectively when she or he has time to consider options before responding (often more accurate language learners).

Impulsive Learner: learns more effectively when she or he is able to respond immediately and to take risks (often more fluent language learners).

Kolb Experiential Learning Model

- Concrete Experiences + Abstract Conceptualization → Perception
- Reflective Observation + Active Experimentation → Process

The learning model of perception and process is further categorized into four learner types:

Converger (Common Sense Learner): learns more effectively when she or he is able to perceive abstractly and to process actively.

Diverger (Innovative Learner): learns more effectively when she or he is able to perceive concretely and to process reflectively.

Assimilator (Analytic Learner): learns more effectively when she or he is able to perceive abstractly and to process reflectively.

Accommodator (Dynamic Learner): learns more effectively when she or he is able to perceive concretely and to process actively.
Perceptual Learning Styles

*Auditory Learner:* learns more effectively through the ear (hearing)
*Visual Learner:* learns more effectively through the eyes (seeing)
*Tactile Learner:* learns more effectively through touch (hands-on)
*Kinesthetic Learner:* learns more effectively through concrete complete body experience (whole-body movement).

*Haptic Learner:* Some researchers combine the tactile and kinesthetic modalities and call them haptic; the haptic learner learns more effectively through touch and whole-body involvement.

Table P-1 offers an overview of various learning styles and of the existing instruments for measuring them.

<table>
<thead>
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<th>Table P-1 Learning-Styles Categories</th>
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<tr>
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<tr>
<td><strong>Cognitive Styles</strong></td>
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<tr>
<td>Field Sensitivity</td>
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<td>Field-Independent</td>
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<tr>
<td>Field-Dependent (Field-Sensitive)</td>
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<tr>
<td>Analytic</td>
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<td>Global</td>
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<td>(Relational)</td>
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<td>Reflective</td>
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<td>Impulsive</td>
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<td>Tolerance of Ambiguity/Intolerance of</td>
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<td>Ambiguity</td>
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<td><strong>Kolb's Experiential Learning Model</strong></td>
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<tr>
<td>Converger</td>
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<td>Diverger</td>
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<td>Assimilator</td>
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<td>Accommodator</td>
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<td><strong>Perceptual Learning Styles</strong></td>
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<td>Visual</td>
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<td>Auditory</td>
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<td>Kinesthetic</td>
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<td>Tactile</td>
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<td>Haptic</td>
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<td><strong>Environmental Styles</strong></td>
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<tr>
<td>Light</td>
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<td>Temperature</td>
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<td>Classroom design</td>
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<td>Food intake</td>
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<tr>
<td>Time</td>
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<tr>
<td>Mobility</td>
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<tr>
<td><strong>Sociological Styles</strong></td>
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<tr>
<td>Group</td>
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<tr>
<td>Individual</td>
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<tr>
<td>Teacher authority</td>
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<td>Team</td>
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<td>Pair</td>
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<th><strong>Affective/Temperament Styles</strong></th>
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<td><strong>Temperament Indicators (MBTI)</strong></td>
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<td>Thinking-Feeling</td>
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<tr>
<td>Judging-Perceiving</td>
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<tr>
<td><strong>Brain Hemisphericity</strong></td>
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<tr>
<td>Right-Hemisphere</td>
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<tr>
<td>Left-Hemisphere</td>
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</table>

*Instrument included in the Appendices
Environmental Learning Styles

*Physical Learner:* learns more effectively when such variables as temperature, sound, light, food, mobility, time, and classroom/study arrangement are considered.

*Sociological Learner:* learns more effectively when such variables as group, individual, pair and team work, or level of teacher authority are considered.

* AFFECTIVE/TEMPERAMENT LEARNING STYLES

Myers-Briggs Temperament Styles

- **Extraversion-Introversion**
  - **Extraverted Learner:** learns more effectively through concrete experience, contacts with the outside world, and relationships with others.
  - **Introverted Learner:** learns more effectively in individual, independent situations that are more involved with ideas and concepts.

- **Sensing-Perception**
  - **Sensing Learner:** learns more effectively from reports of observable facts and happenings; prefers physical, sense-based input.
  - **Perception Learner:** learns more effectively from meaningful experiences and from relationships with others.

- **Thinking-Feeling**
  - **Thinking Learner:** learns more effectively from impersonal circumstances and logical consequences.
  - **Feeling Learner:** learns more effectively from personalized circumstances and social values.

- **Judging-Perceiving**
  - **Judging Learner:** learns more effectively by reflection, analysis, and processes that involve closure.
  - **Perceiving Learner:** learns more effectively through negotiation, feeling, and inductive processes that postpone closure.

Tolerance of Ambiguity Styles

- **Ambiguity-Tolerant Learner:** learns more effectively when opportunities for experiment and risk, as well as interaction, are present.
- **Ambiguity-Intolerant Learner:** learns more effectively when in less flexible, less risky, more structured situations.
Right-and Left-Hemisphere Learners

*Left-Brained Learners:* tend toward visual, analytic, reflective, self-reliant learning.

*Right-Brained Learners:* tend toward auditory, global/relational, impulsive, interactive learning.

**FUNDAMENTALS OF LEARNING STYLES**

*Learning Styles in the ESL/EFL Classroom* is based on the following hypotheses:

- every person, student and teacher alike, has a learning style and learning strengths and weaknesses;
- learning styles exist on wide continua, although they are often described as opposites;
- learning styles are value-neutral; that is, no one style is better than others (although clearly students with some learning styles function better in a U.S. school system that values some learning styles over others);
- students must be encouraged to "stretch" their learning styles so that they will be more empowered in a variety of learning situations;
- often, students' strategies are linked to their learning styles;
- teachers should allow their students to become aware of their learning strengths and weaknesses.

**LEARNING STYLES AND INSTRUMENTS**

While learning-style research and application of survey results in the classroom remain fragmented, there is some hope that eventually many of the results will converge, allowing multidimensional learning-styles instruments to offer a "profile" of student learning styles. Until that time, teachers must use these instruments with caution, taking special care to explain to their students that no instrument is perfect, that students and styles grow and change, and that the information gained about learning styles must be used in the whole context of learning.

With the same caveats, teachers, too, may find learning style instruments illuminating. For example, my husband and I, both teachers, have discovered that we exist at opposite ends of the learning-style continuum, evidently supporting the old adage, "Opposites attract." Table P-2 catalogs our (rather extreme) learning styles:
Table P-2 Preferred (Extreme) Learning Styles

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
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<tbody>
<tr>
<td>Cognitive Styles</td>
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<tr>
<td>Field-dependent</td>
<td>Field-Independent</td>
</tr>
<tr>
<td>Global/relational</td>
<td>Analytic</td>
</tr>
<tr>
<td>Impulsive</td>
<td>Reflective</td>
</tr>
<tr>
<td>Diverger, accommodator</td>
<td>Converger, assimilator</td>
</tr>
<tr>
<td>Sensory Styles</td>
<td>Sensory Styles</td>
</tr>
<tr>
<td>Auditory, kinesthetic</td>
<td>Visual, tactile</td>
</tr>
<tr>
<td>Night, cool, moderate light</td>
<td>Morning, warm, bright light</td>
</tr>
<tr>
<td>Group</td>
<td>Individual</td>
</tr>
<tr>
<td>Affective/temperament Styles</td>
<td>Affective/temperament Styles</td>
</tr>
<tr>
<td>Introverted, intuitive</td>
<td>Extraverted, sensing</td>
</tr>
<tr>
<td>Feeling, perceiving</td>
<td>Thinking, judging</td>
</tr>
<tr>
<td>Left-handed, right-brained</td>
<td>Right-handed, left-brained</td>
</tr>
<tr>
<td>Ambiguity-tolerant</td>
<td>Ambiguity-intolerant</td>
</tr>
</tbody>
</table>

LEARNING STYLES IN THE ESL/EFL CLASSROOM*

This book is organized into four sections. In the first section, "Learning Styles: Issues and Answers," teachers who have investigated the phenomenon of learning styles write about basic issues involved with learning-style research. Gayle L. Nelson begins by demonstrating the ways culture (i.e., a learner’s background knowledge, prior educational experiences, cultural traditions, and socialization) can influence the way students learn; in her chapter, Nelson introduces the differences between middle-class U.S. public school educational techniques (which are field-independent, analytical, and visual) with Native Hawaiian and Native American learning styles (which are field-sensitive, global, and kinesthetic). She then describes the cultural backgrounds that influenced the learning styles often associated with Japanese and Chinese learners (for Japanese students, reflectivity, teacher authority, and field sensitivity; for Chinese students, field-sensitive, cooperative, relational/global learning).

The following chapters describe some issues involved with learning-style research. First, Patricia A. Eliason summarizes the difficulties with assessment of ESL/EFL student learning styles, in particular the problems ESL/EFL students face.

*All references cited in this book are listed at the end of the text.
have with understanding (e.g., reading proficiency) and responding appropriately (e.g., lack of experience with surveys) to learning-styles instruments and of translating those assessment instruments into students' native languages. Eliason suggests that learning-styles instruments be used to raise student awareness about their own styles, but that over reliance on results of learning styles instruments may cause additional classroom problems. In the third chapter, Rebecca L. Oxford discusses gender differences in language learning styles: sensory preferences, field-dependent/field-independent learners, reflective/impulsive learners, right- and left-hemisphere learners, and MBTI thinking (analytic) versus feeling (global) styles. Oxford suggests learning strategies common to each of these learning styles that students may need to be "trained" to use.

The second section, "Learning Styles, Curriculum Development, and Classroom Activities," the largest in Learning Styles in the ESL/EFL Classroom, focuses on the classroom uses and implications of learning-styles information. Emma Vieland-Sánchez discusses the use of her research to improve the curriculum and methods of ESL instruction for secondary school African-American, Asian-American, and Hispanic-American students in the Arlington, Virginia public schools. First, Vieland-Sánchez determined the field-independence/field-dependence levels of her students, discovering that a great majority of her students preferred field-dependent approaches in the classroom; then she used Kolb's Learning Style Inventory (Kolb, 1976) with her students and employed Bernice McCarthy's application of Kolb's work to plan curriculum for her ESL students.

Sharon Bassano and Mary Ann Christison co-authored two chapters in this section. The first focuses on the use of quick student-created drawings in the adult ESL classroom context as "a means of personalizing content, strengthening self-esteem and cultural pride, lowering student resistance to collaborative group work, and addressing all learning styles" as the lesson integrates all language skills. Their second chapter stresses the use of poetry in the use of language teaching for university ESL students and adult learners. According to Christison and Bassano, reading poetry aloud helps ESL/EFL learners develop a love of words and sounds, improves vocabulary, builds a positive affective classroom climate, and lends itself to instructional techniques that address different sensory and cognitive learning styles.

Other chapters in this section offer teachers assistance in using particular learning style instruments in the classroom. Nancy Kroonenberg, who teaches at the Hong Kong International School, describes her use of Lynn O'Brien's Learning Channel Preference Checklist to (1) raise teacher awareness of different learning styles, (2) identify learning style preferences of students in grades 5 to 12, (3) train students to "flex" (expand) their learning-styles repertoire, and (4) help a student whose haptic (that is, kinesthetic/tactile) learning style interfered with his reading proficiency. Next, Christopher M. Ely discusses the relevance of levels of tolerance of ambiguity in the ESL classroom. He indicates that the level of risk language learners are willing to take is tied to their level of ambiguity tolerance, and argues that knowledge of that level
can assist students in developing coping strategies to lower their “affective filters” (that is, levels of anxiety). Ely offers suggestions for measuring ambiguity tolerance, then describes lesson plans that involve reading, talking, and writing about ambiguity tolerance. Christine Stebbins briefly describes her research, which replicated Reid’s perceptual-learning-styles study with ESL students in university-affiliated intensive English language programs; Stebbins then suggests teaching techniques that establish a “culture-sensitive pedagogy”; how to use classroom materials successfully with visual, auditory, kinesthetic, tactile, group, and individual learners. Lauri Rossi-Le also writes about using perceptual learning styles, but her focus is on the adult immigrant learner; she reports on a study of the relationships between preferred learning styles and chosen strategy use in the community college ESL classroom. Her results demonstrated that “ESL students from different language backgrounds, and, by extension, different cultural backgrounds, vary in their strategic approaches to language learning.”

In the third section, “Learning-Styles Research and Classroom Implications,” the contributors examine the relationships between research and the classroom. In the next chapter, Carol A. Chapelle discusses field-independence/field-dependence (FI/FD); her university ESL students provide examples of FI/FD learners who can be trained to develop appropriate strategic competence by (1) assessing the communicative situation in the classroom, (2) setting communicative goals, (3) composing plans for achieving those goals, and (4) executing those plans. Chapelle also cautions teachers about problems with administering the GEFST to ESL students. Next, Sabrina Peck focuses on the physical and cognitive aspects of elementary school children’s learning preferences, including food intake, mobility, and sensory learning styles as well as field-independence/field-dependence. One solution to the variety of learning styles present in an elementary school classroom, Peck states, is the use of thematic units and whole language approaches. Peck then evaluates three sets of thematically based ESL materials prepared by commercial book publishers; her criteria are based on the sensitivity to multiple learning styles demonstrated by the materials.

Two chapters concentrate on the personality traits analyzed by the Myers-Briggs Temperament Sorter (MBTI; Myers & Briggs, 1987) and the more abbreviated Keirsey Temperament Sorter (Keirsey & Bates, 1978). Kristina Torkelson writes about her experiences with the Keirsey Temperament Sorter in an international teaching assistant (ITA) class. After raising student consciousness about personality types, Torkelson used her prior teaching experiences and the individual student results of the assessment instrument to develop classroom exercises that helped the Chinese ITAs deliberately expand (“flex”) their teaching skills. Finally, Patricia L. Carr and Laura B. Monroe discuss their research with post-admission university ESL and native English speaker (NES) undergraduates in freshman English courses; after describing the MBTI categories in detail, they report that “the ESL sample was extremely
homogenous, with 8 of the 16 potential MBTI personality types not represented at all. In their pedagogical implications section, Carrell and Monroe offer teachers suggestions for the arrangement and approaches best suited to these ESL students.

The fourth section, "Overview of Learning Styles in the ESL/EFL Classroom," written by Kate Kinsella, integrates the information of the first three sections and gives teachers additional suggestions and materials for using learning-styles assessment and materials in their classrooms. In fact, teachers new to the arena of learning styles might read Kinsella’s chapter in this book both first and last. Kinsella begins this section by summarizing and illustrating the meanings of various learning styles; then she takes each learning-style category individually, offering classroom teachers additional information about designing and administering instruments, analyzing the results, and then implementing the knowledge of learning styles in classroom sequences. Each subsection in her lengthy chapter contains a “classroom teaching” discussion. Kinsella centers part of her discussion on brain hemisphericity, linking that aspect of learning styles to the others in the anthology. Furthermore, Kinsella provides teachers with evaluation sheets for both students and teachers that allow class participants to assess the value of learning style pedagogy; she also ties strategy training to the learning-style-sensitive ESL/EFL classroom. Finally, she offers directions to educators that extend the “student-centered” classroom to a “student-empowered” classroom in which students can identify their learning style strengths and weaknesses, discover ways to “flex” those styles to meet the demands of various learning situations, and learn appropriate ways to ask teachers to plan their teaching activities in a culturally sensitive environment. Kinsella then sums up the purpose of this anthology: “We must go further, though, than instructional modification in our efforts to create democratic learning environments; we must actively seek and share practices with colleagues that help our students identify the obstacles that restrict their possibilities in school and in society, and equip all of the unique learners who fill our classes with the knowledge and strategies to take action toward transforming that which limits them.”

Finally, at the end of Learning Styles in the ESL/EFL Classroom, appendices contain learning styles instruments that have been discussed in previous chapters. These surveys are available for informal use by teachers in their classrooms; for formal and/or large-scale research, the authors of these learning-styles instruments should be contacted for permission to use the surveys. Addresses for the authors are listed in the Contributors section of the book; reader responses to and suggestions about the individual chapters in this book should also be sent directly to the authors, who will appreciate and value the feedback.

Joy Reid

University of Wyoming
Section 1
Learning Styles:
Issues and Answers
Chapter 1

Cultural Differences in Learning Styles

Gayle L. Nelson

Georgia State University

This chapter begins with an excerpt entitled “Careful Preparation of Lectures,” which clearly illustrates cultural differences in learning styles. As you read the excerpt, try to figure out what Robert is doing wrong; when you have finished reading, select the corresponding explanation.

Careful Preparation of Lectures

Robert felt extremely fortunate to have been invited to spend four weeks on the island of Kauai in Hawaii training four groups of young farm workers (average age of 20 years) for one week each in the use and maintenance of some new farm machinery they had just purchased. This would be the first time he would have the opportunity to combine his undergraduate training as a teacher with his graduate work as an agricultural engineer, the field in which he was presently employed.

Recalling the many hours he spent in his instructional resource lab, Robert made certain he had the most explicit diagrams of the machinery (both internal and external views) and extensive diagrams explaining use of the machines and maintenance of their parts. He was especially pleased with the diagrams he made that explained possible problems and actions one should take when a problem occurs. This media, combined with his extensive lecture notes, company operating manuals, films, books, and audio materials would assure a most successful program.

Much to his surprise, Robert found his teaching experience to be an extreme struggle, for both himself and his students. The first day seemed to go well, but the remaining four seemed long and drawn out. The students often complained about a lack of understanding. Students were restless, talkative, and seemingly uninterested in what Robert had to offer. This really confused Robert as he had assumed that they would be eager to learn the use of these machines which would ultimately improve their crop yield.
If you were asked to assist Robert with his problem, where would you focus?

1. Robert's students were much older than those he had initially been trained to teach. They should be taught according to adult learning theory.
2. Robert ignored the fact that most of his students speak Hawaiian-English (most commonly called Pidgin). He should have incorporated this in his presentation.
3. Hawaiian Americans are not as successful with learning from books and papers as other methods, and prefer to be taught with the real object.
4. The students resented Robert imposing his new technology on them and did not want this machinery interfering with the methods to which they were accustomed.

After you have chosen a response, read the corresponding explanation below.

1. Although there is an increasing body of knowledge and literature emerging that focuses on the adult learner that should be utilized when planning instruction for adults, the students in this incident were not that much older than the typical high school student. These young farm workers would not require these kinds of modifications. Please select a different response.
2. Although these students probably all speak Pidgin, they also understand and regularly speak Standard English. This is not a critical factor here. Please select a different response.
3. It has been found that Hawaiian Americans (as well as people in many other cultures without long experience with a written language) typically teach each other and therefore learn in context rather than out of context. While Robert's professional training as well as his own educational experience have stressed out-of-context learning (through books, films, and the like), which would be applied at a later time, many people learn more and become more involved and motivated when taught in an in-context situation. An out of the classroom hands-on approach would probably facilitate their learning process. This is the best response.
4. To the contrary, these people had purchased the machinery and requested Robert's presence. Please try again.

The learning style of the Hawaiian-Americans in this example is probably field-sensitive (i.e., dependent), relational, and kinesthetic. "Field sensitivity" refers to the tendency to be dependent on or sensitive to the total field, context, or situation "such that the parts embedded within the field are not easily perceived" (Brown, 1987, p. 85). The field-sensitive person tends to learn more effectively in context when the components of the learning situation have not
been separated or isolated from the total context. The Hawaiian Americans are also relational learners in that they learn more effectively through experience. Relational learners value the concrete over the abstract and are sensitive to the holistic nature of things rather than to the parts of things (Cohen, 1969). Finally, they appear to be kinesthetic learners; they learn best through "total physical involvement with the learning situation" (Reid, 1987, p. 89). These three characteristics of learning—being field-sensitive, relational, and kinesthetic—are interrelated. In general, they are more common in traditional agrarian cultures where children are frequently taught in context using authentic materials. The learners in such situations tend to be more sensitive to the nuances of human relationships and interactions and "more empathic and perceptive of the feelings and thoughts of others" (Brown, 1987, p. 86).

In contrast, Robert's learning style, one that is characteristic of most middle class Americans in the United States, is field-independent, analytic, and visual/auditory. Field-independent learners are able "to perceive a particular, relevant item or factor in a field of distracting items" (Brown, 1987, p. 89). By using diagrams of the farm machinery in a classroom instead of the actual machinery in the field, Robert decontextualized the learning. He used teaching techniques designed for field-independent learners. Related to field-independence is the middle class American tendency to think and learn analytically, "beginning with facts and then proceeding to ideas" (Stewart, 1972, p. 22). In Robert's case, he created "explicit diagrams of the machinery (both internal and external views) and extensive diagrams explaining use of the machines and maintenance of their parts" (Brislin et al., 1986, p. 206). He was thus analyzing the machinery by breaking it down into its parts, operating on a common American assumption that an effective way to understand the whole is to first understand all of its parts. Finally, Robert appears to have assumed that his students are visual and/or auditory learners. His primary teaching materials were diagrams, company operating manuals, films, books, and extensive lecture notes. As far as we know, he had no models for the tactile learners to manipulate, and he did not go outside into the field where the kinesthetic learners would learn most effectively. Edward Stewart (1972, p. 25), writing on American patterns of thinking, could have been commenting on Robert's field-independence, analytic thinking, and extensive diagrams of the machinery when he wrote that, "the Westerner is one step removed from experience." Robert's diagrams were one step removed from the actual machinery.

**LEARNING STYLE AND CULTURE**

In my discussion of Robert, I made reference to "learning style" without specifically defining it. Exactly what does "learning style" mean? Learning style has been defined as "cognitive, affective, and physiological traits that are relatively stable indicators of how learners perceive, interact with, and respond to the
learning environment" (Keefe, 1979, p. 4); as "cognitive and interactional patterns which affect the ways in which students perceive, remember, and think." (Scardella, 1990, p. 114); and as "preferred or habitual patterns of mental functioning and dealing with new information" (Ehman & Oxford, 1990, p. 311). At least 21 components of learning style have been identified although it appears that most individuals have between 6 and 14 elements that make up their strong style preferences (Dunn, Gemake, Jalali, & Zenhausern, 1990, p. 69).

On the surface, the concepts of "learning style" and "culture" appear to be contradictory. The notion of learning style implies individual differences. As Reid (1987, p. 89) points out, learning style is a "pervasive quality in the learning strategies or the learning behavior of an individual" (emphasis added). A basic assumption underlying the development of learning-style instruments is the existence of individual learning style differences. Learning-style instruments are designed to distinguish one kind of learner from another. If all students learned in the same manner, learning-style inventories would be unnecessary.

"Culture," on the other hand, refers not to what is individual but shared by a group of individuals. The key word here is shared. Culture refers to what is common to members of a group. It concerns similarities, not differences. If learning styles differ from person to person, can such a thing as a cultural learning style exist?

The correct response, as the excerpt at the beginning of this chapter illustrates, is, of course, yes. In addition to being shared, culture is also learned. Individuals are most likely not born with a genetic predisposition to learn analytically or relationally, visually or kinesthetically. They "learn how to learn" through the socialization processes that occur in families and friendship groups. As Singleton (1991, p. 120) explains:

There are, in every society, unstated assumptions about people and how they learn, which act as a set of self-fulfilling prophecies that invisibly guide whatever educational processes may occur there. They act as a kind of unintentional hidden curriculum, or what an anthropologist might call a social theory of learning.

The importance of attending to students' cultural learning styles is illustrated by two large-scale ethnographic studies. The first study involves Native Hawaiian children (Vogt, Jordan, & Tharp, 1987) and the second concerns the Warm Springs Native American Indian children in Oregon (Philips, 1983). The Native Hawaiian children in the first study were not doing well in the traditional public schools. The curriculum included a phonics reading program, and the teachers had been trained in positive reinforcement techniques that rewarded individual student achievement. After 3 years of this curriculum, student achievement was measured by standardized tests and it was found that no significant gains had occurred. As a result changes reflecting the socialization patterns of Hawaiian children at home were made. The classroom was reorganized "into
a system of teacher-independent centers with heterogeneous leveled groups, instead of traditional seatwork alone at individual desks" (Vogt et al., 1987, p. 279) in which students interacted, worked together, and helped each other. This dynamic was similar to patterns in the children's homes in which children were more frequently helped by peers or siblings than by adults. The phonics program was also dropped. Instead, students read portions of a text, talked about the events in the story in terms of their own lives, and after reading all the parts put the segments of text together and talked about its overall meaning. This emphasis on the meaning of a story is particularly appropriate for Hawaiian children because "learning at home is nearly always bound in an immediately meaningful context, usually involving joint participation" (Vogt et al., 1987, p. 279). The use of praise to reinforce individual students was also dropped. Teachers began to praise indirectly or they praised the group. By praising the group (e.g., "Good. Table 3 is ready."), the teachers were encouraging behaviors consistent with the children's social community. As a result of these changes, the Hawaiian students' scores on standardized exams increased. The findings of this study suggest (1) that cultural learning styles do exist, 2) that cultural learning styles are learned in families and through other social relationships before children are old enough to attend school, (3) that learning styles may not be particularly malleable, and most importantly, (4) that through instructional practices and classroom organization that are congruent with students' learning styles, teachers can greatly increase student learning.

The Warm Springs Indian children in the second study (Philips, 1983) were also not doing well academically in the public schools. Again, the Indian children's socialization patterns at home were not congruent with the social interaction patterns in the school. In discussing the differences between the Indian children's at home communication behaviors and the communication behaviors common in schools, Philips writes, "Indian children have already acquired culturally distinctive ways of communicating or conveying information that are different from the teachers' ways of conveying information" (p. 39). Specifically, the Warm Springs children's communication and learning patterns differed from those of their teachers and schools in these ways: (1) the children learned through the visual channel, by watching someone doing something (i.e., modeling); (2) little verbal explanation accompanied the modeling; (3) children spent more time with their peers and less with adults than Anglo children; and (4) children were expected to be self-sufficient at a relatively early age.

Such cultural patterns are often in conflict with the norms of traditional schools in which oral participation is highly valued, students are expected to function as individuals, and individual achievement is rewarded. In the Hawaiian American study (Vogt et al., 1987), the structure of the classroom, instructional practices, and motivation management were modified to reflect the dominant learning style of the Hawaiian American children. Such changes were not made in the Warm Springs classroom; however, in observing the children, Philips noticed that specific factors contributed to students' successes. For
example; when the children worked in small groups where they monitored their own work and individual students were not singled out by the teacher, student performance improved.

In a manner similar to the Hawaiian American study, the Warm Springs study also supports the existence of cultural learning styles that are learned in families and other social relationships before children begin formal schooling. It provides further support for the probable transfer of these early learned patterns from the home and community to the school and for the difficulties students face if their learning styles are not compatible with the dominant learning/teaching style of the school they attend. Finally, it suggests that teachers can enhance their students' learning by adjusting their teaching styles to match their students' learning styles.

A discussion of culture-specific differences in the learning styles of ESL students is hampered by the small number of cross-cultural studies using a learning style instrument. Cultural groups that have been studied include ethnic groups within the United States (Cairns, 1985; Dunn et al., 1990; Dunn & Griggs, 1990; Ewing & Yung, 1992; Griggs & Dunn, 1989; Henry & Pepper, 1990; Ramirez & Price-Williams, 1974; Swisher & Deyhle, 1987), and ESL populations in the United States (Ismail, 1983; Reid, 1987). As one can see from the above list of studies, more research has been conducted on ethnic groups (e.g., African-Americans, Mexican-Americans) than on the international populations in the United States specifically for the purpose of studying English or obtaining a degree from an American academic institution (e.g., students from Japan). However, even though few cross-cultural quantitative studies using learning style instruments exist, it is possible to draw some conclusions based on other types of data.

LEARNING STYLES: TWO CULTURES

In this section I will discuss the learning styles of two countries. I chose Japan and the People's Republic of China (PRC) because there are more Japanese and Chinese students attending U.S. academic institutions than any other non-U.S. populations (Zikopoulos, 1992).

CONFUCIANISM

The processes of learning in Japan and the PRC have been greatly influenced by the Confucian tradition. In fact, two of the three East Asian countries most influenced by Confucian philosophic principles are Japan and China (Yum, 1988). The Confucian tradition places a high value on education, and particularly on educating the members of society in the ways humans should relate and interact with each other. Hsu (1981, p. 81) contends that the "Chinese child learns to see the world in terms of a network of relationships." The structuring
of these relationships is presented in one of the Confucian classics, the Mencius, which gives the earliest full formulation concerning the “Five Relationships”:

According to the way of men, if they are well fed, warmly clothed and comfortably lodged but without instruction, they will become almost like animals. The Sage (emperor Shun) was concerned with this and appointed Hsieh to be Minister of Instruction and teach human relations: that between father and son there should be affection, between ruler and minister there should be righteousness, between husband and wife there should be proper distinction, between elder and younger there should be proper order, and between friends there should be faithfulness. (Kalten, 1991, pp. 3-4)

This doctrine of the Five Relationships is the cornerstone of Confucian moral and social teaching “in which the individual should be concerned first and foremost with his place in the scheme of human relations” (Hsu, 1981, p. 95). Confucianism stresses the benefits of fixed hierarchical relationships in which respect is shown for age, seniority, rank, and family background. What should be of particular interest to ESL/EFL instructors who teach Chinese and Japanese students is the Confucian relationship between teacher and student. This relationship is much more hierarchical than teacher–student relationships in the United States. The teacher is more directive in making decisions about what goes on in the classroom. In the PRC, the teacher is an authority figure; Confucius taught that the teacher must know all (Hudson-Ross & Dong, 1990). Confucius and his disciples also modeled a close teacher–student relationship in which teachers, like parents, help students develop as complete well-adjusted human beings (Herbert, 1988). A Chinese graduate student once told me an ancient Chinese saying: “If a teacher for a day, a father for life.”

In addition to specifying the proper nature of relationships, Confucianism set forth four principles as guides to proper human behavior: humanism (jen), faithfulness (li), propriety (li), and wisdom (chih). These principles are reflected in the ways Japanese and Chinese learn. In particular, the principles of humanism, faithfulness, and propriety are operationalized in the learning-style dimensions of cooperation and field-sensitivity. The cardinal principle of Confucianism is humanism, defined as “warm human feelings between people” (Yum, 1988, p. 377). The second principle, faithfulness, refers to social relationships. Yum (1988, p. 377) defines faithfulness through its antithesis, “which is personal or individual interest and profit.” Faithfulness, then, is “that part of human nature which allows us to look beyond personal, immediate profit and to elevate ourselves to the original goodness of human nature” (Yum, 1988, p. 377). The third principle, propriety, is the outward form of humanism and faithfulness, the “fundamental regulatory etiquette of human behavior” (p. 377).

Within the Confucian tradition, students learn through cooperation, by working for the common good, by supporting each other, and by not elevating themselves above others. In this way, they maintain “warm human feelings,”
promote the good of the group above their own self-interest, and thus follow the principles of humanism, faithfulness, and propriety. This de-emphasis of self and concern for the group or the whole also relates to the dimension of field-sensitivity because students are sensitive to the other students that make up the learning situation.

Before I move on to discuss Japanese and Chinese learning styles, I must point out that although education in both countries has been influenced by the Confucian tradition, the two countries also differ.

**JAPAN**

Condon (1984) describes a study comparing Japanese and American kindergartens that provides insight into the cultural learning styles of Japanese students. The researchers wondered whether the American and Japanese children, if given the same directions, would draw similar or different pictures. They found differences not only in the pictures drawn, but in the drawing processes. The children were instructed to draw a picture of their family. Condon describes these processes:

To begin with, the seating arrangements in each school were different. In some American classrooms there were individual desks, while in others the children sat on the floor. In all of the Japanese kindergartens, however, the children sat around tables in groups of six or eight. Each group had its own name such as that of a flower or bird and this group served as the basic unit for many of the children’s activities.

The roles of the teachers were also different. When researchers visited a school to ask the children to draw the pictures, the American teachers invited the visitors to “go right ahead and tell the boys and girls what you want them to do.” In the Japanese schools, however, all communication was handled by the teacher. She remained the authority, the responsible person and go-between.

How the children began and how they carried out the activity also differed. Usually, as soon as an American child received a sheet of paper he or she would begin to draw. When the picture was finished, the child would hold it up to be collected or would bring it to the teacher’s desk. In the Japanese schools the children waited until all of the papers had been distributed. Then, at each table, the children looked at each other and talked a little about what they were supposed to do. Then, table by table, as if by signal, all the children would begin to draw. Throughout the activity, children would turn and look at what the others were doing. Those who finished first waited until the others were done, and when all were finished the drawings were collected.
When the children showed difficulty in drawing someone in the family, the responses of the teachers were also different. The Japanese teachers would usually assist the child, not infrequently taking the child's hand and guiding the crayon. In the American schools, the teachers encouraged the children in words: "Just do your best." "It's your father and your picture and you should try to draw him the way you see him."

Finally, the order in which the family members were drawn was also notably different. For the Japanese youngsters, the order usually began with father, then mother, then older brother or sister. The child would draw himself or herself next, and if there were still younger ones, they would be drawn last. For the American children the order seemed much more random. The only notable tendency was for some children to draw themselves first. (pp. 7–8)

What do these findings tell us about Japanese learning-styles? First, they illustrate an important characteristic of Japanese learning: reflectivity. Reflectivity, contrasted with impulsivity, refers to taking one's time to think something through, to not rush into something. In the Japanese kindergartens, the children did not impulsively or immediately begin their drawings; instead, they "waited until all of the papers had been distributed. Then, at each table, the children looked at each other and talked a little about what they were supposed to do" (Condon, 1984, p. 7). Peak (1991) cites Japanese psychologists (Kojima, 1985; Nagano, 1993) who emphasize that careful training in reflective approaches to learning tasks is an essential ingredient in Japanese students' educational successes. The results of a study (Salkind, Kojima, & Zelniker, 1978) comparing the performance of Japanese, American, and Israeli children on tasks such as identifying which of six pictures exactly matches a particular picture also point to the reflectiveness of the Japanese. At ages 5, 6, and 7, the Japanese children were the slowest of the three groups to complete the task; however, they made the fewest mistakes. In writing about a Japanese learning style, Damen (1987, p. 302) states that "to make a mistake is painful; to guess is to admit not having spent enough time in finding the correct answer. Being only partially 'right,' which may be acceptable to the impulsive learners . . . , is often seen as totally 'wrong' by those whose reflective learning styles are culturally sanctioned."

The description of the Japanese kindergartens also illustrates Japanese sensitivity to the total environment in which learning is taking place. This field-sensitivity is illustrated by the fact that "the children waited until all of the papers had been distributed" and began to draw together "as if by signal." The Japanese children's awareness of the total context, including the other students, is also illustrated by their actions of turning and looking at "what the others were doing. Those who finished first waited until the others were done, and when all were finished the drawings were collected" (Condon, 1984, pp. 7–8). Shimahara (1986, p. 20) affirms this field-sensitivity: "Japanese teachers and parents
stress the importance of the social learning environment consistently from the time children are very young." This awareness of others and uniformity of behavior stems from the Confucian tradition of valuing the common good over individual achievement.

The Japanese students' field-sensitivity contrasts with that of the American children who began drawing their pictures as soon as they received their pieces of paper. It is likely that the American children gave little thought to what others in the class were doing. They were behaving independently and individually, as their society teaches them to do.

A third component of a Japanese learning style is modeling; that is, learning by watching someone model a new skill. This practice of observing is illustrated by the Suzuki method of teaching children to play the violin. The Suzuki method "exhibits in simple, straightforward form the cultural beliefs and practices used to develop proper learning skills and attitudes in other Japanese educational settings" (Peak, 1991, p. 100). The first step of the Suzuki method is for young children and mothers to observe classes. This period of observation or period of learning through watching someone model is typical in Japanese educational and social institutions "as varied as Zen temples, junior high school tennis clubs, and places of employment" (Peak, 1991, p. 102). It is called minarai kikan. After this period of observation, the students focus on training routines and the development of learning skills that do not directly relate to making sounds on an instrument. It is only after carefully structuring the way the child mentally and physically learns to prepare to play the instrument that the child plays the first note—after 2 to 6 months of preparation. This careful structuring of the learning situation provides students with opportunities to observe someone model the skill to be learned. It also illustrates the significance of the field or context in which learning takes place (i.e., field sensitivity).

**CHINA**

In *Iron and Silk*, Mark Salzman (1986), an American, tells of his experiences in the PRC while teaching English at the Hunan Medical College in Changsha. While teaching English, Mark wanted to study martial arts. After considerable effort, he finally convinced Master Pan Qingtu, a martial arts expert, to take him as a student. At the first lesson, Master Pan demonstrated one movement and told Mark to go home and practice it. The lesson lasted only a few minutes. This incident illustrates one feature of how Chinese students learn, by watching someone model what is to be learned. This method of modeling is also illustrated when Master Pan decides to learn to speak English. He insists that Mark put certain English sentences on audiotape so that he can practice and memorize them. Later, when Master Pan wants to learn how to write English, he asks Mark to write model sentences. Mark "drew up a series of models for him to copy from" (1986, p. 136) and Master Pan sat at a little table copying the sentences over and over again.
Using a model also applies to the way Chinese students learn to compose. To improve their writing, students memorize written texts, often several pages long, that are considered exemplars of a type of discourse (Carson, 1992). In this way, the students learn, through memorization, the framework for writing and can then modify it as needed and desired (Unger, 1977). Sheridan (1981, p. 807) states explicitly that “the practice of memorization is continued so as to help students develop writing style through modeling.” Although the Japanese also use modeling as a means of teaching particular skills (e.g., the violin), they seem to be less likely than the Chinese to use modeling as a means to teach writing (Liebman, 1992).

A second aspect of Chinese learning is illustrated in Mark Salzman’s (1986) description of his first lesson with his calligraphy teacher, Hai Bin.

I noticed that when he sat down at my desk and examined my calligraphy materials, cheap as they were, he handled them with great care. He explained that, no matter what the quality of the brush or paper, one should always treat them as if they were priceless. “This prepares your mind for the serious task ahead.” (p. 93)

Hai Bin is attending to the “field,” to the context in which the learning takes place. Like the Japanese, the Chinese tend to be field-sensitive learners. With field-sensitive learners, the field as a whole dominates the perception of its parts and “an item within a field is experienced as fused with the organized ground” (Ramirez & Castaneda, 1974, p. 65). As field-sensitive learners, Chinese and Japanese students may have difficulty perceiving a particular factor in a “field” of distracting items or learning in noisy environments where several things are going on at the same time.

Related to the learning-style dimension of field-sensitivity versus field-independence is the global versus analytical dimension. Research on global versus analytical learners is still speculative (Scardella, 1990), but it appears that global learners (i.e., relational learners) prefer to begin with the whole picture, whereas analytic learners begin with the separate parts and piece them together to make a whole. It also appears that global learners process information simultaneously and look for patterns. Scardella (1990, p. 118) suggests that the Chinese pattern of thinking is global in that it “strives for unity between events or objects.” Stewart (1972, p. 25) concurs, suggesting that the Chinese do not analyze a topic divisively by breaking it down into parts and “are more likely to think by means of analogies and to make greater use of metaphors and similes in drawing conclusions.” Similarly, the Chinese tend to think by beginning with the principle or the whole and using logic to “reason downward to derivative propositions” (Hu & Grove, 1991, p. 81).

Another characteristic of Chinese learning is cooperation. The Chinese preference for cooperation contrasts with the U.S. preference for individualism and competition, a system in which the “child is trained to look at the members of his group as constant competitors and urged to put forth a maximum effort to excel”
(Maller, 1929, p. 163). In the PRC, all children are expected to maintain the same level of achievement. This equality is possible because the "cooperative nature of the culture requires that everyone help everyone else so that all may achieve" (Hudson-Ross & Dong, 1990, p. 123). Hudson-Ross & Dong (1990, p. 115) further explain that unlike "the competition and individualism that motivate American children, Chinese schooling encourages cooperation almost exclusively. Individual success is desirable, rewarded, and humbly accepted, but those who succeed give credit first to their class, parents, and country, only finally acknowledging their own contributions to personal success."

The learning-style dimension of cooperation is a natural outcome not only of the Confucian philosophical tradition, but also of collectivism as a value system. In the PRC, the primary groups are the family, the school, the work unit, and the local community; few important relationships occur outside these key groups. In Chinese schools, students are tightly integrated into small groups in which group membership is constant for all the years a child attends a particular school. These groups or class collectives are usually composed of 15 to 20 students, but occasionally include as many as 50 (Hu & Grove, 1991). In weekly class meetings, students help each other in their studies. The way that cooperation is operationalized in Chinese classrooms is different from the way it is operationalized in many other cultures. For example, in describing the cooperation of the Mexican children in a U.S. school in Los Portales, California, Delgado-Gaitan (1987, p. 357) states that the children "attempts to work together whenever they are assigned independent seatwork." The kind of cooperation Delgado-Gaitan is describing, cooperation in which students work together by interacting and talking to each other in class (e.g., collaboration), is different from the cooperation in the Chinese classroom. Cooperation in the Chinese classroom is more subtle and relates to working together to "maintain the relationships that constitute the group, to maintain cohesion and group harmony among the group members" (Carson & Nelson, 1994, p. 20). In Chinese classrooms, students seldom form small groups or pairs; instead, they sit "with backbones straight, eyes directly ahead . . . until they are called on to raise a hand, stand to recite, or take out materials to work." (Hudson-Ross & Dong, 1990, p. 115). They "expect to listen to adults, not interrupt, sit quietly and listen attentively" (Scarcella, 1990, p. 124). "They arrive, they listen, they take copious notes, they depart. Even when invited to make comments or ask questions, they are reluctant to speak." (Hu & Grove, 1992, p. 80).

These students differ from the kinds of students U. S. teachers expect to have in their classrooms, and they cooperate in a different manner than U. S. students. In the PRC, cooperation, operationalized as student interaction, frequently occurs outside the classroom, in study groups, or in other after-school groups such as the Young Pioneers (Hudson-Ross & Dong, 1990), and the membership in these groups is constant. In the United States, students may form a study group that lasts for the duration of a course (e.g., for a couple of months), but in the PRC group membership lasts for years.

These differences in groups may account for Reid's (1987) findings that ESL students in the United States do not like group work in the classroom. She
found that every "language background . . . gave group work a minor or a negative preference mean" (Reid, 1987, p. 97). It may well be that ESL students from the cooperative (i.e., collectivist) cultures of Japan and the PRC are uncomfortable with the ad hoc nature of small-group work in ESL classrooms, with groups continually forming and reforming according to the task. They are used to groups that are constant for a much longer period of time and also to groups that define their identity (e.g., being a member of a particular group within a particular school). Thus, the purpose of groups (task vs. identity) and the length of time one belongs to a group (short vs. long periods) in the PRC are different from those in the United States.

IMPLICATIONS FOR ESL/EFL CLASSROOM TEACHERS

ESL/EFL students come to our classrooms with assumptions, usually unconscious, about how learning occurs. As teachers, we also come to our classrooms with assumptions, which are also usually unconscious, about how learning occurs. When these two sets of assumptions are different, both students and teachers become frustrated. The students, like the Hawaiian-Americans described in the excerpt at the beginning of this chapter, may become restless and talkative, and lose interest in the content of the class; and their teacher, like Robert, may become confused and angry. The assumptions we make about how learning occurs are a result of our cultural programming. As ESL/EFL teachers, we need to attend to this cultural variation in learning. What can we do?

The first classroom implication relates to the dimension of competition versus cooperation. In the United States, an individualistic culture, one's worth is often based on what one has achieved, and students frequently learn through competition with each other. In Japan and the PRC, cultures that learn through cooperation, efforts at competition may result in embarrassment and loss of face for the students. Japanese students have been taught not to cause nami kaze: waves and wind (Chapman, 1993). Individual Japanese prefer not to be singled out from the rest of the class. An often-quoted Japanese proverb illustrating this phenomenon is: "The nail that sticks up gets hammered down." U.S. ESL/EFL instructors are used to praising their students. It's one way that we recognize and reward the achievement of individuals. But when teaching Japanese students, it is a good idea for ESL/EFL teachers to praise less frequently than they would with U.S. students. In particular, teachers should not repeatedly praise any one student. When teaching Chinese students, ESL/EFL teachers might also try treating the entire class as a whole, as one group. For instance, the teacher could explicitly state at the beginning of the course that the students should work together to help each other so that the whole class passes the course.

A related implication concerns the use of groups in the ESL/EFL classroom. Teachers who are culturally aware may, with good intentions, use cooperative or collaborative groups in their classes because they believe that their Japanese and Chinese are used to such groups. Scarcella (1990) even suggests
that teachers use cooperative projects, peer conferences, and cooperative games with students who have cooperative learning styles. However, the kinds of small-group work and pairwork that are used in many ESL/EFL classes are not common in Japanese or Chinese classrooms. When teaching Japanese or Chinese students, ESL/EFL teachers might consider decreasing the amount of small-group work they do in class. In making decisions about whether or not to use groups, teachers should consider the group’s purpose. If the purpose can be achieved in another way, it may be better not to use groups. For example, if a composition instructor’s primary purpose for using peer response groups is for students to get feedback on their drafts, the instructor could schedule individual conferences with students instead. If, however, the class is focused on oral skills or conversation and the instructor’s purpose for using groups is for students to converse with other students and there are no other ways to accomplish this purpose, then the instructor can use groups.

A third implication relates to the dimension of impulsivity versus reflectivity. This dimension becomes important during any kind of class discussion in which the U.S. teacher wants students to participate orally. At times the teacher’s goal may be for students to talk; it does not much matter what they say because the value is in the talking. At other times the teacher may be looking for particular responses, but if students come up with partial responses, the teacher is satisfied or even pleased. These kinds of discussions are difficult for the reflective Japanese student who wants time to arrive at the correct answer and is uncomfortable when making guesses. ESL/EFL teachers can structure classroom activities to give reflective learners more time to think about responses. For example, in reading classes, instead of moving from the reading of a text to the discussion of a text, teachers can first ask students to write down answers to questions. Teachers need to give reflective learners enough time to write their responses. If the teacher wants students to talk about what they have written, it is better, for most Japanese students, to call on them by name rather than to issue an open invitation to the class and expect someone to volunteer a response.

The next implication relates to the learning style of modeling. Chinese students memorize model texts as exemplars of good writing. They also learn information by memorizing pages or chapters of textbooks. They write this memorized material on examinations to show the examiner that they have learned the course content. This practice of memorization is linked to the Confucian tradition of reverence for authority. Confucian orthodoxy maintains that the world is explained through the Confucian classics as interpreted by Confucian scholars. Students demonstrate their reverence for both the written texts and the scholars by memorizing and then reciting the respected authorities (Robinson, 1991). This practice of producing memorized material is often perceived by U.S. teachers as cheating and/or plagiarism. Teachers preparing PRC students for study at American academic institutions need to clearly explain the dangers of “plagiarism” and teach their PRC students to paraphrase and summarize course material instead of memorizing it.
Field-sensitivity relates to at least two components of the ESL/EFL class: the total classroom environment and the content to be learned. Japanese and Chinese students are familiar with classrooms that are more controlled than many ESL/EFL classrooms. Commonly accepted practices in the United States such as the forming and reforming of groups and pairs, the random nature of seating, and allowing students to bring drinks and food to class are distracting to Japanese and Chinese students and will interfere with their learning. ESL/EFL teachers may choose to structure the class in a more orderly manner than they would for U.S. students and even forbid students from eating and drinking in class. In terms of course content, tasks that require students to analyze parts of wholes may be less effective with field sensitive learners than tasks that begin with the whole. For example, Chinese students may do better if reading teachers begin by asking questions about the general idea or message of a reading text rather than questions that involve looking at the details or parts of the text. A Chinese graduate student told me that Chinese students are unaccustomed to questions such as “Why did the author say this sentence in this way?”

Finally, in considering cultural variation in learning, maybe our most important task as ESL/EFL teachers is to learn about the particular pedagogy of our students’ home cultures. As illustrated by the two ethnographic studies (Philips, 1983; Vogt, Jordan et al., 1987) described earlier, there is a great deal of pedagogical variation even among cultures that share the same learning-style dimension. In the case of the Native Hawaiian children and the Warm Springs Indian children, that dimension was cooperation. It is not enough to know that a culture’s learning style is, for example, cooperative. Classroom implementation of a cooperative learning-style varies from one culture to another, and so ESL/EFL teachers should learn the particular variations for the cultures of their students.

**CONCLUSION**

I hope that the current interest in and research on cultural differences in learning styles results in a move away from the ethnocentric point of view that others learn as we do, or that our way of learning (and therefore teaching) is best, and toward an increased realization and acceptance of other ways of learning. ESL instructors teaching a homogeneous group of students in a host country can, in part, adapt their teaching to the learning styles of their students. ESL instructors with heterogeneous classes of mixed nationalities and learning styles, are in a more difficult situation. They might consider implementing various techniques when teaching a particular item. In this way, they are more likely to connect with the learning styles of a larger number of students. Teachers might also need to eliminate certain teaching practices from their teaching repertoires. Possible items to eliminate are those that truly cause discomfort for a portion of their students. The danger, however, is that changing one’s teaching to adjust to students’ learning styles may deny students the opportunity to develop more fully their
learning-style repertoires (Reid, 1987). The ability to learn in different ways is particularly important for pre-academic ESL students who are preparing for academic study at U.S. institutions and will encounter faculty whose teaching styles are different from the students' cultural learning styles.

NOTES


2. Scarcella (1990) suggests that the term “field-sensitive” be used in place of “field-dependent” because of the negative connotations associated with the word “dependent” in the United States.

3. The third country is Korea.


5. I wish to thank Priscilla Kanet, Chao Yu-Chan, Liao Qinghong, and Dong Zhe for their helpful suggestions, particularly in this section of the chapter.

FOR FURTHER READING

This set of intercultural books deal with cultural differences between the United States and nationals of other countries. They focus on how these differences affect interpersonal relationships such as those between teacher and student, and student and student. They also examine domains such as beliefs and values; social relationships; attitudes toward achievement, authority, competition, and cooperation; and practices such as giving gifts, using proper forms of address, and being polite.


Chapter 2
Difficulties With Cross-Cultural Learning-Styles Assessment

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The idea of understanding your own learning style carries with it a certain intrigue: are you a visual or a kinesthetic learner? An ISTJ or an ENFP? An accommodator or a diverger? For us ESL teachers, there is also great appeal in the idea of being able to diagnose our students, better understand our classes, and consequently be able to custom-design our lessons to best accommodate a wide variety of student types. In our eagerness to diagnose, however, it is important to keep in mind a few caveats regarding learning styles and cross-cultural assessment.

One of the most obvious problems in learning styles assessment lies in simply defining what we mean by "learning styles." The term has been used in various and sometimes confusing ways in the literature, often interchangeably with the terms cognitive style, affective style, or learning strategy. Whereas learning strategies refer to the methods employed by a learner in mastering material (e.g., review, monitoring, practice, negotiation of meaning) (Reid, 1987), learning styles refer to "stable and pervasive characteristics of an individual, expressed through the interaction of one's behaviors and personality as one approaches a learning task" (Garger and Guild, 1984, p. 11). Keefe (1979, p. 4) describes learning style as a conglomerate of an individual's cognitive, affective, and physiological styles; learning styles are "hypothetical constructs that help to explain the learning (and teaching) process . . . persistent qualities in the behavior of individual learners regardless of the teaching methods or content experienced."

The idea of pervasiveness or consistency seems to be a common theme.

Claxton and Murrell (1987) use an onion metaphor (adapted from Curry, 1983) in which the layers of the onion represent "layers" of learning style:

- Basic personality characteristics form the core
- Information-processing characteristics form the second layer
- Social interaction characteristics form the third layer
- Instructional preferences form the fourth and outermost layer.
Claxton and Murrell postulate that the core of the onion represents the most stable characteristics, with each successive layer being progressively more amenable to change. This metaphor is intriguing; however, one agreed-upon definition for learning style is still lacking. As Galloway and Labarca (1990, p. 113) put it, "Readers reviewing the literature on learning styles will benefit from a high tolerance of ambiguity."

Because of the discrepancies in how the term learning style is used, and the relativeness of the idea of consistency, there is confusion over what characteristics are most important in determining a person's learning style. For example, the Myers-Briggs Type Indicator (MBTI; Myers & Briggs, 1987) measures personality traits such as extraversion-introversion; Kolb's (1976) Learning Styles Inventory measures ways we process information; and Dunn, Dunn, and Price's (1975) Learning Styles Inventory includes perceptual and physiological aspects of styles. Keeve (1979) lists more than 32 possible elements of learning style! The confusion extends the challenge of how best to measure learning styles. Most available learning styles instruments focus on one or two aspects of learning style, and none encompasses all aspects (assuming there is agreement on what "all aspects" means). According to Galloway and Labarca (1991, p. 114), "It is questionable whether investigative focus on a single trait is not unlike isolating the distinct threads of a well-knotted rope." In other words, we always view a fragmented picture of what we are measuring and cannot even agree about how best to measure learning styles. The NASSP (National Association of Secondary School Principals) Learning Style Profile (Keeve & Monk, 1986) perhaps comes closest to a comprehensive learning-styles assessment. The profile tests for 24 learning-styles variables in four categories: cognitive skills, perceptual responses, study, and instructional preferences (environmental). It is intended, however, for high school native speakers of English.

In addition to the problem of which styles to measure, many learning-styles instruments have little, if any, theory-based rationale behind them (Bonham, 1988a, 1988b; Corbett & Smith, 1984; Grasha, 1984). The validity of these tests for adults in general has been called into serious question. There are numerous ways, for example, that perceptual learning styles have been categorized: visual, auditory, tactile, kinaesthetic (Dunn, Dunn, & Price, 1975); kinaesthetic/psychomotor, visual/spatial, auditory/verbal (Keeve, 1979); visual, auditory, haptic (O'Brien, 1989); print, visual, interactive (verbalization), olfactory (James and Galbraith, 1985); visualization, written word, sound-understanding, feeling (Reinert, 1976); auditory linguistic, visual linguistic, auditory numerical, visual numerical, auditory-visual-kinaestheti combination, oral expressive, written expressive (Friedman & Alley, 1984). These divisions seem to be, as Grasha (1984, p. 47) explains, "grounded more in the experiences of the authors than in theories of human learning."

Chapelle and Green (1992) offer arguments that the tests usually used to diagnose field-independence/field-dependence in fact measure only one aspect of this style: cognitive restructuring (see Chapelle, this volume). They point out
the inconsistencies in the definition of field independence/dependence and how it is measured in the research available. Galloway and Labarca (1990, p. 128) emphasize that "no matter how long, complex, innovative, or sophisticated the instruments and measurements taken may be, there must be something...that will allow us to assign labels to traits." Otherwise, they continue, results of statistical manipulations can become "reified"—the labels become artificial entities in and of themselves, and may or may not be relevant to actual experience. Clearly, many questions surrounding the validity of learning-styles instruments remain unresolved.

ASSESSING LEARNING STYLES CROSS-CULTURALLY

The ESL instructor faces the added complication of a second language context. Some learning-styles instruments have been validated only by means of research on children or on select populations (Bonham, 1988a; Corbett and Smith, 1984). But even instruments that have reliability and validity for native speakers of English cannot be assumed reliable and valid for non-native speakers. Reid (1990) found significant differences in correlations between native speakers and non-native speakers, as well as differences among various language/cultural groups, in the process of norming her learning-styles questionnaire, and concluded that those instruments that are normed only on native speakers of English are suspect. Katz (1988) also notes that to accurately interpret individual learning styles, one must compare individual scores to the group norm of that person's culture. As ESL teachers, we must consider (1) whether the instrument has been appropriately normed, and (2) whether the design of a learning-styles instrument and/or the research results from learning-styles investigations have properly controlled for a student's length of time in the second culture, the length of time he or she has spent studying the second language, and the English proficiency of the student. All these variables could affect students' responses. Using heterogeneous linguistic groups for research can lead to "multiple sources of undocumented variance, including sociocultural, personality, cognitive, and first language factors, along with variance in second language proficiency" (Chapelle & Green, 1992, p. 62).

The interference of vocabulary is a formidable obstacle when attempting to administer a learning-styles instrument cross-culturally, even for students whose English is quite advanced. Wederspahn and Barger (1988) cite numerous terms in the MBTI that may be problematic for non-native speakers of English: words such as ingenuous, conspicuous, and cramp (as in "Does a schedule cramp you?"), and idioms such as make up your mind, get into a tight spot, and leave you cold. Making a meaningful choice, they note, demands not only knowing the dictionary meaning of these words and idioms, but also the connotations they have for a native speaker of English. Multiple meanings of words may be lost on non-native students; students raised in a society without spired churches, for example, would
not necessarily react the same as an American would if asked to choose between "spite" and "foundation" on the MBTI. When a question contrasted the words convincing and touching, "touching" was interpreted by advanced non-native students to mean physical touching, not the figurative meaning that was intended (Wederspahn & Barger, 1988). The Kolb (1976) inventory similarly expects students to understand, discriminate between, and rank-order words such as conceptualization, concrete, pragmatic, and reflecting. The ELSIE (Reinert, 1976) asks students to report on their "gut-level" reaction to words, but does not account for the possible interference of responding in a second language.

Carrell and Monroe (1993, p. 150) addressed this issue in the MBTI by adapting Form G with "extensive glossing of complex, colloquial, or culture-specific English expressions," and then limiting its use to students at or above a 450 TOEFL score; reliability/validity statistics, however, were apparently not run on the glossed version. Wallace and Oxford (1992) adapted the Keirsey Temperament Sorter (similar to the MBTI) by shortening it, and by glossing or paraphrasing key phrases; reliability for the adapted version was "moderately high" (alpha = .60) (p. 61).

TRANSLATING LEARNING-styles INSTRUMENTS

Translating the learning-styles questionnaire is one way to attempt to eliminate the language problems inherent in taking a test in a second language, but translation is not without its own difficulties. Translating a questionnaire is a little like translating poetry; the "feeling" of the original instrument is as important as the literalness of the questions being posed. As Oller (1979, p. 90) notes regarding discrete point testing, "Successful translation of items requires maintaining roughly the same style level, the same frequency of usage of vocabulary and idioms, comparable phrasing and reference complexities . . . [but] in some cases this simply cannot be done." At the very least, a translator must be knowledgeable in the field of education, and ideally, in learning styles, to capture the essence of the original. A blind back-translation (i.e., having a native speaker of the second language translate the instrument back into English again without having seen the original English version) is essential. When I attempted to have a perceptual learning-styles questionnaire translated into Japanese, there were numerous instances when a literal equivalent of a word didn't exist, wouldn't have made sense, or would have been linguistically wrong. For example, emphasis was needed to distinguish between "with hands" and "with my own hands" in Japanese ("I like to learn by working with my hands"); in another question, we substituted "draba" for "role plays" ("I enjoy learning in class by doing experiments or role plays"); and "new information" ("I like to learn new information by hearing a record, tape, or lecture") sounded strange in translation, so we substituted "new things." "Prefer" ("I prefer to learn by listening to lectures") needed to be
compared to something, as in “I prefer ______ over ______.” We substituted “I
like to learn by . . .” in this case (Eliason, 1989).

Even if items are translated appropriately, students may make different
associations, depending on the language they are tested in. Oller (1979) describes a
word association test given by Kolers (1968) to a subject whose native language
was Spanish. The associations varied when supposedly identical words were
given in translation; for example, this speaker’s associations with the word boy:
intralingual associations from English to English were boy–girl, and from Span-
ish to Spanish, muchacho–hombre; his interlingual associations from English to
Spanish were boy–niña, and from Spanish to English, muchacho–trousers. In
fact, Kolers found that the associations with supposedly identical words were the
same in only one-fifth of the cases. Inclan (1986), however, found no significant
differences in how individuals responded based on the language of the question-
naire when he administered both English and Spanish versions of the MBTI to
the same individuals; Melton (1990) similarly found no significant differences in
individuals’ scores when her perceptual learning-styles instrument was adminis-
tered in both Chinese and English, and concluded that “the language of the ques-
tionnaire did not influence the outcome” (p. 29). Melton wondered, how-
ever, if students may have misunderstood some unfamiliar concepts or words in
both languages.

An accurate translation is not impossible; the Kolb (1971) Learning Style
Inventory was translated into Hebrew and was found to have both validity and
reliability in the translated version (Katz, 1988). This version was validated with
outcomes similar to the native speaker norms, which indicated cross-cultural
equivalence. The MBTI has been translated into more than a dozen different lan-
guages; at present, the translations are at varying stages of testing for validity and
reliability. The Japanese, Spanish, French, and Korean translations, in particular,
have been used extensively, although mainly in EFL settings (Casas, 1990;
Inclan, 1986; Osawa 1981; Sim, 1990). Inclan (1986) offers a particularly thor-
ough and methodical example of the processes involved in translating the MBTI
into Spanish and running reliability and validity checks. All in all, his translation
involved the use of 10 bilingual Spanish–English informants from five different
Spanish-speaking cultures, one linguist, informal interviews with additional
native Spanish speakers, five back-translations, and numerous pilot studies.

Finally, there are cultural considerations besides language that must be rec-
ognized with any learning-styles instrument. Katz (1988) noted, for example,
some influence of culture on her sample, using the Kolb inventory: Israelis
seemed to give higher ranking than Americans to action-oriented words such as
doing, active, and practical; Katz attributed this finding to an action-orientation
in Israeli culture. Wederspahn and Barger (1988) express concerns about the
cultural context for students taking the MBTI; if an item is culture-bound, the


group results may be skewed. For example, one item asks whether one would
seek advice from other people to deal with a personal problem, or decide
instead that "nobody else is in as good a position to judge as you are" (p. 21). Wedenspahn and Barger note that the latter "would seem both arrogant and dysfunctional in cultures where interdependence is the norm" (p. 21). And, they continue, considering the importance of "face-saving" in many Asian cultures, "How will a Japanese respond... when asked to choose between telling a polite lie or the impolite truth?" (p. 12) (see also Nelson, this volume). For an instrument with forced-choice questions like the MBTI, it is important to retain the dichotomies intended in the original; if too many students in a given culture answer an item in the same way, that item does not discriminate appropriately for that culture (Casas, 1990; Inclan, 1986; Wedenspahn & Barger, 1988).

To address this issue of cultural appropriateness or desirability of test items, Inclan (1986) compared item weights (how strongly a given response indicates a preference for one personality type) in the Spanish version of the MBTI to item weights in the original English version. He found that the Spanish item weights were consistent with the English item weights for only about half of his total sample. Casas (1990) similarly found differences in item weights in his French translation of the MBTI; for example, the words calme, tranquille, and réservée were so popular overall among French Canadian subjects that they did not discriminate for the introverted option for which they were intended. Casas accounted for different item weights in the French translation of the MBTI by using adapted score sheets for French Canadian and French subjects.

In my own research, the translators had difficulty translating from a perceptual learning-styles instrument some of the concepts that had no practical equivalent in Japanese classroom experience. For example, the statement "When I can get up and move around in class I seem to learn best" is a strange concept to the Japanese, since this behavior is not typical for their culture's students. Another example was the need to differentiate in Japanese between the physical space and the group of people for the words classroom or class (Elinson, 1989).

Inclan (1986) discusses the importance of considering the affective reaction of students taking a questionnaire, along with cultural and social values. For example, in translating the MBTI, he decided to use the more formal Spanish usted (you) rather than the more informal tú; however, he shifted to a more informal tone in some of the items that one of the interviewees indicated to be very personal. Another consideration for Inclan was the many dialects of Spanish; regionalisms may evoke different affective responses from native speakers from different regions.

CONSIDERING STUDENT VARIABLES AND RELEVANCE

Students themselves bring a certain amount of unpredictability to the learning-style evaluation process. Most instruments are self-reporting, and consequently depend on students' knowing themselves sufficiently, and being willing to reveal themselves to the evaluator (Bonham, 1988b). With ESL students in particular,
the question of mutability may also hinder data gathering. That is, the question arises of whether students' learning styles change as students adapt themselves to a new culture and a new learning environment. Some research suggests that learning styles may be strongly influenced by culture. Hofstede (1986, cited in Oxford et al. 1992) described different cognitive abilities that may be related to cultural values; for example, the ability of Chinese children to recognize patterns may develop from the use of Chinese characters. Both Reid (1987) and Rossi-Le (1989) found that native language background was a factor in students' perceptual learning-style preferences. Studies by Dunn (1991, cited in Wallace & Oxford, 1992) showed significant learning style differences between various cultural groups. Oxford et al. (1992) also presented many examples of cultural influences on learning styles, and noted that "although culture is not the single determinant, and although many other influences intervene, culture often does play a significant role in the learning styles unconsciously adopted by many participants in the culture" (p. 441). If this is so, it follows that students living in a new culture might adapt to the new learning-styles environment. Reid's (1987) study, in fact, found that the learning-style preference means of non-native speakers of English who had lived and studied in the United States the longest were more similar to the preference means of native speakers of English. Students may thus report their adapted/adopted preferences as preferred (Gregorc, 1979), a reality that must be taken into consideration before making generalizations about students from any given culture.

Students may also, knowingly or unknowingly, choose answers that they believe are more desirable to their instructors (Bonham, 1988b; Grasha, 1984). In addition, the social desirability of any question can vary from culture to culture (Inclan, 1986). The design of a questionnaire may lead students to succumb to response set (when all answers fall on one end of a scale) (Bonham, 1988b; Grasha, 1984). Students who show multiple major learning-style preferences may in fact be predisposed to answer all questions positively. Students may even have a culturally-based aversion to questionnaires! When I administered my translated perceptual learning-style questionnaire, several Japanese graduate students complained about some of the wording, even after a second translation and blind back-translation seemed to rule out any mistakes. One of my translators, who was Japanese herself, told me the problem was rooted in administering any questionnaire to Japanese people, who she said were "not good subjects," and who resisted being singled out for study (Ellason, 1989).

Another student variable that is often overlooked in the literature is reading ability; most learning-styles instruments are written questionnaires that assume a literate target population. But many teachers work with ESL students who are preliterate or whose reading ability is limited. Little has been written about learning-styles assessment of these groups. Inclan (1986) administered an English and Spanish reading test to Spanish speakers along with English and Spanish versions of the MBTI, and eliminated subjects from his study who did not achieve at least a sixth-grade reading level on either or both reading tests. Carroll
and Monroe (1993) used a TOEFL cut-off score of 450 or above for their adapted version of the MBTI. Lawrence (1982) offered observation checklists as a way to infer type preferences from overt behaviors of students who were unable to read the MBTI; he cautioned, however, that the lists do not constitute a type indicator instrument. ESL instructors should note that the lists are designed for use with native speakers of English. Griffin (1987, 1990) evaluated preschool Hmong using the Kerby Learning Modality Test (Kerby, 1980), which is designed for kindergarten-age native speakers of English and measures visual, auditory, and kinesthetic closure, memory, and discrimination through the use of shapes and audiotapes. She had the audiotape translated into Hmong, using similar sound discrimination exercises, but found the kinesthetic exercises to be of questionable value because many Hmong were not familiar with using a pencil (personal communication).

Even an instrument that is well designed and valid may prove useless in the classroom if it does not relate specifically to language study. As Grasha (1984) noted, most learning-style instruments lack any frame of reference; as a result, students taking these tests adopt "multiple frames of reference, focusing on the best and worst classes, their perceptions of an ideal classroom, nothing in particular, and the average of all their classes" (p. 50). For example, a perceptual learning-styless questionnaire may ask a student to respond positively or negatively to the statement: "I like to learn by listening to lectures." If the student is used to taking college classes with a standard lecture format, the student may rate this question positively. But if the student is asked to consider the same statement as it applies to language learning, it may elicit a more negative response. If our end objective is the use of learning-style questionnaire results in the ESL classroom, we must consider whether the frame of reference of the instrument is specific to language study. In this case, a better way to frame the question might be: "I like to learn languages by listening to the teacher lecture."

Finally, we need more research that proves that the use of learning-styles information enhances learning (Bonham, 1988a; Corbett & Smith, 1984). That is, most of the available evidence today is anecdotal, or pertains to groups other than ESL students. Abraham (1985) showed that field-independent learners performed significantly better after being taught grammar using deductive methods, while field-dependent learners performed significantly better after grammar lessons taught by examples (inductive). Corbett and Smith (1984), however, found no evidence that identifying a student's perceptual strengths with ELTIE, and teaching to that preferred mode, led to greater achievement in language learning. Griffin (1987) also found that a match between learners' preferred perceptual learning styles and the media used to teach preliterate Hmong did not significantly affect literacy achievement. A study by Wallace and Oxford (1992) matched teachers with students by type using an adapted version of the Keirsey Temperament Sorter (Keirsey, 1984) (similar to the MBTI). In writing class, the level of achievement was significantly better when there was a student-teacher match, and significantly worse when there was a
student–teacher mismatch. But in other classes (structure, reading, spoken English) the student–teacher match/mismatch yielded mixed results and was not consistently a predictor of success or failure. One reason for these and other mixed results in the research could be the fact that teachers do not necessarily teach in their own preferred learning style, but may be influenced by many factors, including their teachers’ own educational experiences (Willing, 1988, cited in Wallace & Oxford, 1992). The question of learning-styles match or mismatch is complex and depends on many interdependent factors.

**USING ALTERNATIVE LEARNING-STYLES ASSESSMENTS**

Do all of these difficulties with assessment imply that sharing learning-styles information with non-native speakers of English is without merit? Fortunately, no! In spite of the difficulties with learning-styles instruments, there are valuable reasons to include learning-styles information in the ESL curriculum. Grasha (1984), in fact, argues that

> researchers may find that the relative imprecision in using learning style data to design classrooms is not resolved by trying to design better assessment tools. Rather, what is needed is a better understanding of the classroom and student motivations that affect the use of learning style information. (p. 51)

Awareness may be the key advantage that learning-styles information has to offer us, awareness on the part of both students and teachers. Dixon (1985) proposes a learner-centered approach to learning styles, where students are responsible for utilizing individual learning-styles information, and teachers are responsible for creating and fostering an environment that encourages and accommodates diversity. The teacher, then, acts as a facilitator, assisting students in deciphering and understanding instruments, encouraging students to diversify and strengthen alternative learning-style modes, using a variety of teaching methods and materials, and creating an environment marked by diversity and collaboration.

Perhaps the most convincing reason to introduce learning-styles information is that encouraging introspection on the part of the student makes him or her aware of the variety of learning styles that exist. These students may then attempt to adapt their styles or compensate in order to enhance their classroom learning. As Claxton and Murrell (1987, p. 54) emphasize, learning how to learn is an empowering experience, and learning-styles information can lead to an "increase in achievement and self-confidence that comes about when faculty and students engage in an ongoing dialogue about how the student learns, how the teacher teaches, and how each can adapt to the other in the service of more effective learning.”
Although it is tempting to look to learning-styles instruments for definitive answers, instructors are cautioned against overreliance on these instruments. Dixon (1985, p. 17) warns, "When instructors use the test results to label and group students for instruction or when students come to believe they can learn only in ways specified by learning-style instruments, the validity of the instruments is being stretched beyond supportable limits." According to Dixon (1985, p. 17), learning-styles instruments should be used instead "as tools to create awareness that learners differ and as a starting place for each individual's continued investigation of self as learner." Students should always be allowed to validate test results for themselves by discussing the results with the instructor, and deciding whether or not they agree with the results; students are the final authority on their own preferences (Bonham, 1988b; Gregorc, 1979). Dixon (1985) suggests thoroughly explaining the meanings of test items, and even enlisting students to help with critically examining the instrument itself (e.g., reliability, how it has been normed, on what populations, etc.). The class results can then be used as a springboard for a class discussion on differences. For example, if the instrument has been normed only on adult native speakers of English and your class composed primarily of Japanese students shows a low kinesthetic preference, you might discuss whether the results could be culturally significant, or whether the test is biased because students felt that the concepts were too strangely worded (such as "When I get up and move around in class I seem to learn best"). Oxford et al. (1992) suggest that teachers allow students to make cross-cultural comparisons on their own, examine stereotypes for their cultures, and discard any that are not true.

As an alternative or supplement to a questionnaire assessment, instructors can have students reflect on and write about their learning experiences: their own perceived strengths, weaknesses, and preferences, in both formal and informal learning situations. These results can be as informative as a questionnaire, and the process has the advantage of being more inclusive than instruments that focus only on certain variables to the exclusion of others (Dixon, 1985; Gregorc, 1979). As another alternative, instructors can devise their own questions, custom-made for a particular class or learning task, and poll students informally (James & Galbraith, 1985; Smith, 1982). Questions can focus on ways of perceiving and processing information, such as: What kinds of activities interest you most (e.g., reading books, listening to audiotapes or watching videotapes, doing role plays, etc.)? Do you define things in abstract or concrete terms (explain what this means)? Do you like to see the "big picture" first, or proceed step by step with problem-solving (give examples)? Environmental preferences might be elicited by questions such as: How much structure/feedback/support do you need/want? Do you work best alone or with peers? Where/when do you learn best: morning, afternoon, or evening? At a desk or in a soft, comfortable chair? With bright lights or dim lights? In a quiet room or in front of the TV? (Smith, 1982; Reid, undated). See Appendix A for Reid's informal survey.

Dixon (1983) suggests that students keep a "learning log," where they reflect daily on their learning processes rather than on the content being learned. Similarly, students can add a note to each assignment, commenting on
the processes used to complete it. In these ways, students can form generalizations about their learning processes, based on their past experiences, and also begin to observe and reflect on their current processes. Instructors can be observant too, and attentive to cues given by students (Oxford & Lavine, 1991). A student who is reluctant to participate in groups or who always sits in the back of the room may be introverted, or reflective/analytical, or both; a student who thrives on interaction and pays little attention to details is more likely extroverted and field-dependent.

APPLYING LEARNING STYLES INFORMATION TO THE ESL CLASSROOM

All the information generated about learning styles will be of little use to us as ESL instructors unless we can somehow apply it to the classroom and our way of teaching. Should we adjust to students’ learning styles or let students experience what we consider to be “typical American education” without accommodation? Should students be matched with a teacher who has similar learning styles? If so, where does one begin; for example, how would we match a kinesthetic/extroverted/field dependent/intuitive random teacher only to similar students? This would be an administrative nightmare!

Gregorc (1979) writes about the importance of the “alignment” between a student’s learning style and environmental demands; students who can align themselves easily use their preferred learning styles but also adapt well to other learning styles. Other students may not be able to align as readily. Since there is evidence that students with greater learning-style flexibility are also greater achievers (Kirby, 1979, cited in Smith, 1982), our goal as instructors should be not only to match student learning style with instructor teaching style but also to encourage students to develop in their weaker areas. As Witkin (1976, cited in Garger & Guild, 1984) states, the “development of greater diversity in behaviors within individuals seems as important an objective as the recognition and the utilization of diversity among individuals” (p. 12).

Grasha (1984) also emphasizes the importance of “stretching” the learner; he advocates allowing students to experience various alternative learning styles, even “mismatches” (with students’ cooperation and understanding), to better challenge and stimulate students. For example, students who are most comfortable working alone (introverted and field-independent) could be eased into group work with thoughtful and thorough preparation beforehand, including emphasis on the importance of group discussion skills in academia, explanations and role plays with group roles (initiator, facilitator, timekeeper, etc.), practice in observing group processes, and so on. Oxford and Lavine (1991) and Oxford and Ehrman (1993) give additional examples of how to encourage students to stretch beyond their “comfort zones.” Field-independent learners can move beyond memorization of grammar rules and vocabulary lists and attempt a more global understanding of
meaning by, for example, reading a (level-appropriate) book for meaning without looking up vocabulary words, by acting in role plays in class, or by speaking impromptu in a "safe" environment like the classroom. Field-dependent learners, on the other hand, can discipline themselves to study more structure and rules. Visual learners can practice working with audiotapes; auditory learners can try reading supplements or hands-on materials, such as computer programs; students could rotate in class between different modules with the same or similar content set up to accommodate visual, auditory, and kinesthetic preferences (Tyacke, 1991). McCarthy's (1980) 4MAT system allows students to process similar lesson content using different learning styles, reinforcing their own learning style while experimenting with less familiar or less comfortable styles.

Claxton and Ralson (1978) differentiate between instructional goals that are instrumental—intended to develop a particular skill—where a match of styles is helpful; and goals that are developmental—intended to achieve greater flexibility and personal autonomy—where alternative styles can help a person stretch and grow. For example, if students are studying vocabulary intensely for an upcoming TOEFL test (instrumental), they could probably use their time most efficiently in their preferred perceptual mode (auditory—using audiotapes or reading aloud; visual—using workbooks or computer programs). But if their vocabulary goal is to become better readers or to communicate more effectively (developmental), they might better use their time exploring and practicing with many perceptual styles, including kinesthetic—using role plays, skits, and various other communicative situations.

Examples of ways to acknowledge various learning style processes in the classroom include calling attention to concrete versus abstract experiences (e.g., by reading for facts vs. reading for inferences), or by processing material step by step versus using a "big picture" approach (Dixon, 1985) (e.g., by calling attention to organizational patterns and logical connectors in writing as well as focusing on idea generating and coherence of content). It is possible as well to use a variety of perceptual modes in the classroom (visual—reading, slides, videos, illustration; auditory—audiotapes, discussions with a partner or group, reading aloud; kinesthetic—role plays, flash cards, group activities, field trips). Claxton and Murrell (1987) give examples of how a teacher might design tests with learning styles in mind; for instance, during a multiple-choice test, impulsive thinkers may not be able to be deliberate enough to carefully consider each question, and reflective thinkers may become immobilized with the task. Pressure seems to intensify a person's reflective/impulsive style, and multiple-choice tests may not be very accurate for these reasons. Claxton and Murrell suggest questions that require a variety of forms of processing; they use terms from Kolb (1976):

- **Open-ended test questions encourage divergent thinking, alternative ways to solve problems:** "What are the various ways you could describe the effects of television in the U.S., depending on whether you were a parent, a teacher, or a TV producer?"
• Compare-contrast questions encourage assimilative thinking:
  "Compare and contrast television in the U.S. with television in your country."

• Selecting from the best alternative or having to supply specific information encourages convergent thinking: "List three arguments in support of the use of television, and three arguments against the use of television."

• Practical application questions encourage accommodative thinking:
  "As a parent, how would you deal with television use in your household?" (See Violand-Sánchez, this volume, for more information about Kolb's Learning Style Inventory.)

Oxford et al. (1992) give numerous examples of how instructors can accommodate various culturally related style differences, such as allowing Hispanic students (typically more extraverted) more opportunities for interpersonal communication, and guiding Korean students (typically field-independent) away from rote repetition to “real-life” communicative situations (see also Nelson, this volume).

CONSIDERING CLASSROOM DYNAMICS

Learning styles are one of many variables in the process of learning. Keefe (1979) diagrams the school learning process as a triangle of interaction between the learning environment, the teaching style, and the learning style of the students. Grasha (1984) adds the dynamic of content, since people with certain learning styles may prefer different content areas, and since some content areas seem to be better understood across learning styles. Other researchers have found that students’ learning styles may vary from subject to subject (Dixon, 1985).

The role of the instructor cannot be underestimated in a classroom that purports to promote diversity. The classroom environment hinges on the attitude of the instructor; instructors must be willing to look at their own learning/teaching styles objectively before they can be non-judgmental with their students. Teachers who are unaware of learning/teaching style dynamics may unconsciously watch for thinking patterns similar to their own, and penalize students who use processes that are dissimilar (Claxton & Ralston, 1978). A study by James (1973, cited in Decker, 1983) showed that teachers gave higher course grades to students with learning styles most similar to their own teaching style, and they believed these students understood the material better, when in fact the differences were not significant.

School systems themselves are not without bias; schools in the United States favor "cognitive" learners, and are biased against field-dependent and kinesthetic learners (Bloom, 1976, cited in Decker, 1983). Ramirez and Castaneda (1974) argue that the "cognitive learner" has been traditionally defined narrowly as the field-independent, analytical student. They advocate
instead a more comprehensive theory that acknowledges and encourages bicogni
tive development, that includes field-sensitive (field-dependent) ways of
knowing. U.S. schools are dominated by objectivism, which emphasizes detach-
ment, analysis, and individual rather than communal learning (Magolda, 1992).
But students coming from backgrounds other than Anglo may be more familiar
and more comfortable with relational ways of knowing, depending more on the
intuitive and subjective modes, learning styles which should also be honored in
our schools (Claxton & Murrell, 1987). American schools have also tradition-
ally relied predominantly on visual and auditory modes of instruction (Keefe,
1979). To counteract these biases and to empower students as much as possible,
instructors need to continually and actively explore learning-style
processes with their students. Claxton and Ranson (1989) cite ways administra-
tors can support instructors in integrating learning-styles information into the
classroom. Magolda (1992) extensively discusses how to incorporate relational
ways of knowing into every aspect of learning—from the classroom to extracur-
ricular activities to the campus-at-large.

CONCLUSION

We might go so far as to say that attention to learning styles and individual
learner differences has the potential to transform education by challenging the
underlying assumptions of a system that, historically, has not been learner-centered
(Magolda, 1992). As we continue to explore the area of learning styles in
Teaching ESL, we may very well find that the most important outcome for learn-
ing-styles assessment and information dissemination is not whether we label our-
selves and our students as visual or kinesthetic, as ISTJs or ENFPs, or as
accommodators or divergers, but rather whether we are able to acknowledge
and celebrate the various types and processes we and our students bring to the
classroom, while continuing to both accommodate and diverge.

NOTES

1. See the Preface for definitions of these terms.
2. For additional information on translations of the MBTI, contact Jerry
MacDaid, General Manager, Center for Applications of Psychological
Type, 2815 NW 13th St., Suite 401, Gainesville, FL 32609: Telephone
(800) 777-CAPT).
FOR FURTHER READING


The authors examine approaches to learning style at four levels: personality, information processing, social interaction, and instructional methods. Includes interesting discussion on the relationship between styles and epistemologies (ways of knowing), in our school systems: “separate” (objectivism) vs. “connected” (relational) knowing.


A collection of articles on foreign language and second language instruction. The authors focus on learning styles, the teaching-learning process, and the individualization of second/foreign language instruction.


Magolda presents four distinct ways of knowing—absolute, transitional, independent, and contextual—drawn from a longitudinal study of over 100 college students. She discusses the implications this has for academic and student affairs, including how to teach responsibly to and support different ways of knowing.


Promotes a philosophy of education based on “cultural democracy,” which assumes that a person has a legal and moral right to identify with her/his own ethnic group. Discusses fostering the formation of a bicultural identity, and bicognitive development, which enables a person to effectively function in two (or more) cultures.
Chapter 3
Gender Differences in Language Learning Styles: What Do They Mean?

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Do girls and women have language learning styles different from those of boys and men? Research suggests the answer might be "Yes." What are these differences, and what do they mean? To understand the topic, let us turn first to a definition of learning styles. Then we will explore gender differences in learning styles in some detail, followed by a discussion of why these differences might emerge. The last part of the chapter discusses implications for future research and classroom practice.

Readers should realize that the generalizations made in this chapter do not refer to every individual woman or man. A brief discussion such as this can show only the broad sweep or tendency, not the particular exceptions that can and do exist.

DEFINITIONS

Learning styles are the general, broad approaches used to learn a subject. According to Cornett (1983, p. 9), "Learning style is a consistent pattern of behavior but with a certain range of individual variability. . . . Styles then are overall patterns that give general direction to learning behavior." Learning styles include an array of cognitive, affective (emotional and attitudinal), and social aspects (Oxford, 1990c; Schmeck, 1988).

Language learning styles are the general approaches used to learn languages. Language learning styles include not just cognitive styles (Shipman and Shipman, 1985) but a whole range of social and affective factors too (Oxford, Hollaway, Horton-Murillo, 1992; Oxford & Lavine, 1991). For a given person, the style used in language learning is likely to be a direct reflection of the individual's
overall learning style—the style that is normally applied in most learning or working situations.

Each person’s learning style (including his or her language learning style) contains a variety of dimensions about which research exists: sensory preference; field-independence or field-dependence (or field-sensitivity); reflection or impulsivity; and objective/impersonal or subjective/empathic orientation. These are only a few of the many possible dimensions, some of which are explained in Shipman & Shipman (1983), Oxford (1990a, 1990c), and Oxford & Lavine (1991).

**GENDER DIFFERENCES IN SENSORY PREFERENCE**

One of the most obvious aspects of learning style concerns sensory preferences. These are the perceptual modes or learning channels through which students take in information. They include visual, tactile, kinesthetic, and auditory (see Reid et al., this volume, and Stebbins, this volume).

Visual students prefer to learn via the visual channel. Therefore they like to read a lot, which requires concentration and time spent alone. Visual students need the visual stimulation of bulletin boards, videos, and movies. They must have written directions if they are to function well in the classroom. In Rossi-Le’s (1989) study, being a visual learner was predictive of using visualization strategies like mental imagery to learn a new language, but visual learners were not so likely to use affective strategies to calm themselves down or to strengthen their motivation (see Rossi-Le, this volume).

The visual sense is the most popular one in our North American culture—and in many other cultures also. In hundreds of informal style surveys involving language teachers and learners, I have discovered that 50–80 percent of the people in any group say they are visual learners or that the visual sense is a major part of their sensory preference (e.g., in a visual and tactile combination). The proportion of visual students in groups of language teachers and learners appears to increase with age to some degree.

There is little or no research that suggests gender differences in visual style preference. That does not mean that such a difference does not exist; it simply seems not to have been studied, particularly in the language classroom.

Tactile and kinesthetic preferences are often grouped together in a category called “hands-on” or “haptic” style (O’Brien, 1991; Oxford & Lavine, 1991). Language learning activities—for both child and adult learners—should involve some movement for kinesthetic people and some manipulation of objects for tactile people. Tactile students need to touch and handle objects. They are happy making collages, three-dimensional models, shadow-boxes, or other artwork that can be related to language learning. Tactile learners in Rossi-Le’s (1989) study demonstrated significant use of strategies for authentic language use but showed a negative preference for memory strategies (which usually involved...
auditory or visual associations of various kinds). Kinesthetic students require movement and frequent breaks in activity. These are the students who cannot sit still for longer than 20 minutes at a time. They like Total Physical Response activities, games, and role plays that let them get out of their chairs and move around. Being a kinesthetic learner in Rossi-Le's (1989) study positively predicted employing strategies for using the language authentically, but it negatively predicted using strategies that involved working independently.

A learning style preference characterized by tactile and kinesthetic channels might be related to the spatial ability prominent in the masculine gender role, a finding reported in some studies (Hansen, 1982; Hyde & Linn, 1986; MacCoby & Jacklin, 1974; Weiner & Robinson, 1986). Because males do seem to have an edge in some spatial learning tasks (Feingold, 1992), language teachers might expect that their tactile and kinesthetic students would more often be males than females. It is also possible to predict that nontraditional females (women who have chosen to follow gender-role patterns different from the traditional norm) would show these preferences more frequently than traditional females.

Auditory students enjoy the oral–aural learning channel. Thus, they want to engage in discussions, conversations, and group work. These students typically require only oral directions. Rossi-Le (1989) found that being an auditory learner was a significant predictor of using memory strategies, using strategies for authentic language use, and using self-management strategies like planning and evaluating.

Linkages between gender and auditory preferences are not clear, but listening studies (Eisenstein, 1982) suggest that auditory ability in a foreign language might be greater in females than in males. One reason for this is that females—much more often than males—use strategies that elicit input from others (Oxford & Nyikos, 1989). Females ask three times as many questions as males (Fishman, 1978) and tend to focus on the speaker with significantly greater interest, empathy, concern, and politeness than do males (Lakoff, 1975; Kramarae, 1981; Tannen, 1986, 1990). Although in North American society there are far fewer auditory students than visual students, those who are auditory are often or usually females, according to the present author’s informal surveys and observations (Oxford, 1993a).

**GENDER DIFFERENCES IN FIELD-INDEPENDENCE/FIELD-DEPENDENCE (FIELD-SENSITIVITY)**

Gender differences have often been found for field-independence/field-dependence through many different measures: tests of perception in tilted rooms, embedded figures tests, and rod-and-frame tests. The term “field-dependence” often has pejorative connotations, because field-independence has been shown to be related to certain kinds of school achievement. A better but less well known term for field-dependence is “field-sensitivity.”
Field-independence refers to the ability to separate easily the key details from an ambiguous context through the use of analysis. Research with people of all ages suggests that field-independent people are less sensitive to the social context, are more detached and more logical than field-dependent people, and prefer more structured, analytical forms of learning (Oxford, 1990a). Perhaps field-independent people have a stronger spatial or kinesthetic sense than do field-sensitive individuals, because many of the tests used to assess field-independence involve figuring out the orientation of an object in a spatial relationship to other objects.

In contrast, field-dependence (or "field-sensitivity") is the lesser ability to separate details from the background easily and the greater tendency toward forming global impressions. Field-dependent people tend to be more sensitive to the social context, are perceived as more outgoing and more considerate than their field-independent peers, and perform well with less structure in their learning (Oxford, 1990a). Field-dependent individuals typically like auditory learning that involves social interaction.

Field-independence and field-dependence can be linked to gender. As adolescents and adults—and sometimes even children—males are usually more field-independent and females are more field dependent (Good & Brophy, 1986; Shipman & Shipman, 1985, but see Lusk & Wright, 1981, for a different view). Field-independent learners, often males, have advantages in language achievement (Hansen & Stansfield, 1981), but this might be related to the analytic nature of most written language achievement tests and many grammar-based (analytic) language learning activities. Analytic, field-independent learners ordinarily select logic-based learning strategies, such as deductive reasoning (Oxford & Lavine, 1991).

Field-sensitive individuals, often females, with their more interpersonal and global orientation, might do better in less analytic aspects of overall communicative competence, such as sociolinguistic competence, discourse competence, and strategic competence, but more evidence is needed on this point. Global, field-dependent learners choose nonanalytic strategies that involve searching for the main idea and intuitively guessing from multiple contextual clues—frequently social ones—when some pieces of information are missing (Oxford & Lavine, 1991).

Language teachers should probably offer a combination of both more structured, analytical activities and less structured, globally communicative activities. In this way, all students receive what they need, regardless of whether they are male or female, field-independent or field-dependent.

GENDER DIFFERENCES IN REFLECTION AND IMPULSIVITY

Reflection is defined as the tendency to stop and consider options before responding, often resulting in greater accuracy, while impulsivity is the tendency

to respond immediately, more fluently, and often inaccurately. (Unfortunately, fast-accurate and slow-accurate are not part of the typical research paradigm of reflection and impulsivity.) When gender differences in reflection and impulsivity are found in children and adolescents, females are usually more reflective and males are more impulsive (Shipman & Shipman, 1985; Belenky, Clinchy, Goldberger, & Tarule, 1986).

In the language classroom, the reflective learner (often a female) considers different angles and the social context before responding and is devoted to answering correctly. The impulsive learner (frequently a male) jumps in with a quick response and may want to dominate, regardless of the correctness of the response.

In the foreign language area, the “perceivers” on the Myers-Briggs Type Indicator or MBTI (Myers & McCaulley, 1990)—those learners who could refrain from leaping to conclusions too rapidly and who might therefore be called reflective learners—were better at learning languages than the “judgers”—those who needed quick (more impulsive) closure (Ehrman & Oxford, 1988, 1989, 1990). The perceivers/reflectives stayed open to gather new clues, that would help them to understand the meaning (see Carrell & Monroe, this volume). Likewise, in other foreign language research, impulsive learners had problems because of their premature, inaccurate responses; an imposed “wait time” was helpful (Parry, 1984; Galloway & Labarca, 1991). However, too much concern for accuracy can induce destructive anxiety that diminishes performance, as Ehrman & Oxford (1990) found empirically. Extreme reflection in a language learning situation can be immobilizing, especially in a fast-moving, intensive program (Leaver, 1991). A balance between reflection and impulsivity appears desirable for language learning, especially when fluency and accuracy are both important.

Reflection and impulsivity in mother tongue use might be viewed in the context of this statement: “Women speak and hear a language of connection and intimacy, while men speak and hear a language of status and independence” (Tannen, 1990, p. 42). Socially attuned reflection is more valued in the former language, and aggressive impulsiveness is more valued in the latter language. Many of these differences in mother tongue use are echoed in the use of a foreign or second language. For instance, men dominate second language conversations, but women initiate more “negotiations of meaning,” trying to understand and communicate clearly (Gass & Varonis, 1986).

However, if females are more reflective than males, what are we to make of the frequent assumption that reflection is associated with analytic, field-independent language learners—who are more often males than females? And how does the assumption that males are more field-independent fit in with the finding that females are often more accurate in spelling and grammar than males? Here’s a tentative answer: perhaps there are at least two kinds of reflection that apply to language learning. One type might be analytic reflection that allows the person to apply grammar and spelling rules logically, analyze carefully in order
to come up with the right answer, discourage equal-partner conversational interaction, and conduct detailed self-evaluation (a reflection that males might sometimes prefer). Another type might be global reflection that enables the learner to recognize and use holistic patterns of grammar and spelling, instinctively comprehend social interactions and situations without analysis, encourage conversational interaction, and conduct global self-evaluation (a reflection that females might prefer). No one has looked at these possibilities, which are still in the realm of speculation, but research could easily be applied to them.

GENDER DIFFERENCES IN OBJECTIVE/IMPERSONAL STYLE AND SUBJECTIVE/EMPATHIC STYLE

Belenky and colleagues (1986) conducted extensive interviews with college men and women. These researchers argue that in general the two genders have different ways of knowing, men more often through “objectivity and thinking” (abstract analysis) and women more often through “subjectivity and feeling” (personalized experience). This finding supports research with the MBTI showing that a majority of women in our culture have more of a feeling approach (emotional, personal, subjective, empathic, merciful) than a thinking approach (analytic, impersonal, objective, factual, just) (see Lawrence, 1984; Myers & McCaulley, 1980 for descriptions of these poles).

This research might suggest that males and females, in general, employ different routes in language learning. More males than females might take the thinking approach, thus focusing on rules, facts, and logic and avoiding the more personal interactions. More females than males might like the feeling approach, in which there is a great deal of social interaction, a high degree of empathy, and cooperative learning.

Such suppositions are backed by research on learning strategies (the specific behaviors used to enhance learning). Language learning strategies are statistically and conceptually related to learning styles. Learners tend to use learning strategies that fit into their overall learning styles (see Rossi-Le, this volume). The research shows that females use socially-based learning strategies more often than do males. For instance, Politzer (1983) reported that female college students used social strategies for language learning significantly more often than their male peers. Ehman & Oxford (1989, 1990) found that females in an intensive adult learning setting, compared with males, reported significantly greater use of language learning strategies in four categories, two of which were heavily social: strategies for negotiating meaning (often in a social situation) and functional practice strategies (typically involving social interaction). Oxford & Nyikos (1989) discovered that female college students, contrasted with males, used more strategies to elicit conversation from others. In a study of high school language learners, females tended to use many social and affective strategies more often than males (Oxford, Park-Oh, Ito, & Sumrall, 1993).
Puerto Rican students learning ESL had gender differences in strategy use, with females consciously employing strategies significantly more often than males in the social category and nearly significantly in the affective area (Green & Oxford, 1982). Table 3-1 summarizes these findings.

<table>
<thead>
<tr>
<th>LEARNING STYLE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Females</strong></td>
<td></td>
</tr>
<tr>
<td>Field-dependent</td>
<td>Sensitive to social context in learning</td>
</tr>
<tr>
<td>Global</td>
<td>Tends toward overall impressions</td>
</tr>
<tr>
<td>Right-hemisphere</td>
<td>Prefers intuitive responses to learning</td>
</tr>
<tr>
<td>Auditory</td>
<td>Prefers to converse, discuss, do group work</td>
</tr>
<tr>
<td>Reflective</td>
<td>Pauses before answering; more accurate</td>
</tr>
<tr>
<td>MBTI perceiver</td>
<td>Stays open to gather new clues for learning</td>
</tr>
<tr>
<td>MBTI feeling</td>
<td>Emotional, personal, subjective, empathetic</td>
</tr>
<tr>
<td><strong>Males</strong></td>
<td></td>
</tr>
<tr>
<td>Field-independent</td>
<td>More detached, logical in learning</td>
</tr>
<tr>
<td>Analytic</td>
<td>Prefers structured, deductive learning</td>
</tr>
<tr>
<td>Left-hemisphere</td>
<td>Prefers analytic learning</td>
</tr>
<tr>
<td>Tactile</td>
<td>Prefers manipulating objects</td>
</tr>
<tr>
<td>Kinesthetic</td>
<td>Prefers total-body involvement</td>
</tr>
<tr>
<td>Impulsive</td>
<td>Answers quickly; more fluent</td>
</tr>
<tr>
<td>MBTI judge</td>
<td>Needs quick closure in learning</td>
</tr>
<tr>
<td>MBTI thinking approach</td>
<td>Analytic, impersonal, objective, factual</td>
</tr>
</tbody>
</table>

**POSSIBLE SOURCES OF GENDER DIFFERENCES IN LANGUAGE LEARNING STYLES**

So far this chapter has explained potentially important differences in language learning styles. Some auditory style preferences have been shown more by females than by males, and tactile or kinesthetic style preferences relate more closely to males than to females. In many investigations females have been found to be more reflective than males. Research tends to show that, compared with women, men are somewhat more field-independent, analytic, objective, and logically minded in processing language and in other areas of life, while women have been found to tend toward being more field-sensitive, globally patterned, subjective, and capable of using emotions. Where do these gender differences come from? Several sources can be postulated for gender differences in language learning styles. Among these are brain hemisphericity and socialization.
GENDER DIFFERENCES IN BRAIN HEMISPHERICITY

Brain hemisphericity or lateralization (right, left, and integrated) is a feature of many learning style surveys. Each hemisphere deals with language differently. The left hemisphere interprets the meaning of words, while the right hemisphere interprets verbal tones, patterns, and musical qualities of language, according to Leaver's (1986) foreign language research. Right-hemisphere-dominant individuals — those whose right side of the brain typically dominates their thinking processes — tend to be more field dependent (less able to separate the details from a confusing background), global, and emotion-oriented, according to Willing (1988). Left-hemisphere-dominant people — those whose dominant brain hemisphere is the left — are more field-independent, analytic, and logic-oriented (Willing, 1988; Leaver, 1986).

What about gender differences in brain dominance? We see from several sources ( Springer & Deutsch, 1989; Elias, 1992; Associated Press, 1992) that:

- In men, the left hemisphere might be more lateralized (specialized) for verbal activity and the right hemisphere may be more lateralized for abstract or spatial processing.
- Women might use both the left and the right hemispheres for both verbal and spatial activity, thus showing more integrated brain functioning and less hemispheric differentiation.
- In women as compared to men, part of the corpus callosum (the bundle of brain fibers linking the left and right hemispheres) is bigger in relation to overall brain weight, allowing more information to be exchanged between the two hemispheres.

Based on such research, we could postulate that males might usually process language learning information more readily through the left-hemispheric, analytic mode, but females might more often process language learning data through an integration of left- and right-hemispheric modes. Other researchers (e.g., Fausto-Sterling, 1985) contradict the idea that brain hemispheres are more integrated in females than in males or that brain hemispheric differences can make a significant difference. The prevailing opinion seems to be, however, that there are indeed gender differences in brain hemisphericity that deserve consideration and further exploration. Certainly our understanding of language learning styles — for both ESL and foreign languages — would benefit if these differences were explored.

GENDER DIFFERENCES IN SOCIALIZATION

Socialization — that is, the way we bring up our young and integrate them into society through a vast network of social roles — might also be a great influence on gender differences in language learning styles. Here are some examples of
socialization at work for boys and girls, according to research involving English-speaking populations in the United States:

Parents respond differently to boy babies and girl babies from the first hours of life (Rubin, Provenza, & Lucia, 1974; Smith & Lloyd, 1978) and after that teach their children “sex-appropriate” behaviors (Bem, 1974, 1975; Jacklin, 1983).

With sons, parents emphasize achievement, competition, and control of feelings, but with daughters, they stress interpersonal skills and expression of feelings (Block, 1973).

Very early in life masculine behavior is seen as assertive and bold, while feminine behavior is viewed as tender and passive (Bem, 1974, 1975; Hudley, 1993; Gilligan, 1982; Hyde & Linn, 1986; O‘Reus, 1979; Mansanet, 1989; Nyikos, 1990).

In school, teachers support the previous socialization patterns, paying more attention to aggressive, disruptive boys than to girls with identical behavior, and responding to passive and dependent girls (Serbin & O’Leary, 1975)—although teachers prefer the behavior of girls (Bennett, Gottesman, Rock & Cerullo, 1995).

Teachers’ judgments of students’ academic skill is related to teachers’ assessment of gender-related behavior (Bennett, Gottesman, Rock, & Cerullo, 1995).

Even differences in cognitive abilities, such as reading comprehension, can be attributed to socialization (Mills, 1980; Slavin, 1988).

The subordinate role of women in our society may have a great deal to do with the different socialization of boys and girls, men and women (Jacklin, 1982; Kramarac, 1983; Nyikos, 1990; Eccles, 1989; Slavin, 1988; Crawford & Gentry, 1989; Thorne et al., 1983; Tannen, 1990).

**Implications for possible research responses**

Based on what we know to date about gender differences in language learning styles, what are some possible responses that teachers might make? How should learning style researchers react in the future? Here are five possible responses.

1. **Ignore them.** We can totally ignore observed gender differences, as suggested by Baumeister (1988); reporting any of these differences might perpetuate and legitimize them, thus continuing the unequal social treatment of women and men. However, burying these differences will prevent us from understanding what is going on in front of us and seems to be a cowardly approach. We need to reject this response.

2. **Downplay them.** We can downplay gender differences while reporting them, because many of these differences—though statistically significant—are small (Chipman, 1988). However, we must remember that some of the differences are large. For example, gender differences in spatial ability and aggression
are large and stable, and they appear to have bearing on gender differences in language learning styles. The second response is thus unacceptable, because de-emphasizing gender differences would cause us to lose some potentially useful explanatory information desperately needed in the language field.

3. Go deeper. A third response, to look at gender differences from multiple angles and in greater depth, is more promising than the first two responses. Feingold (1992) wants researchers to look not just at differences in overall means for males and females, but also at gender differences in the degree of variability within each group; males tend to be much more variable than females on many cognitively-based traits. Hyde (1981) enjoins researchers to look at the actual size of a statistically significant difference, not just at the existence of that difference. Rothblum (1988) suggests that nonsignificant and small sex differences should be published to emphasize any similarities—not just differences—between females and males. All of these suggestions can be applied to the language learning area with great success. These recommendations would bring greater depth and comprehensiveness to our research.

4. Balance. We can create a feminist epistemology combining the best of two major research traditions. Riger (1992) wants to see a new feminist way of knowing, in which the scientific tradition enlarges to honor ("female") personalized, naturalistic, socially contextualized, qualitative research on an equal footing with ("male") objectified, experimental or quasi-experimental, socially decontextualized, quantitative research. Actually, Cronbach (1975) and Lincoln & Guba (1985) presented the idea of such a balance long ago, and many researchers in psychology and education have heeded the call. In the language learning area, and particularly in the realm of language learning styles, a blend of qualitative and quantitative research is very valuable (see the strong argument and examples put forth by Ehrman & Oxford, 1990). This is more than just a feminist epistemology; it is a totally human epistemology, designed to benefit all human beings. Certainly this is the way language learning research should go.

5. Be honest. The final response calls for greater truth in reporting research findings. The American Psychological Association argues that even in the traditional quantitative model all researchers should specify the number of males and females in every study (Gunston, Lucchetta, Rhodes, Pardie, & Segrist, 1992; see also Denmark, Russo, Frieze, & Sechzer, 1988). Incredibly enough, many major studies have been conducted in psychology, education, and medicine using only male subjects and then extrapolating the results to females as well as males. Some of the researchers, while inappropriately generalizing to the total population, were at least honest enough to announce the fact that only males were included, but many other researchers who used only male subjects tended to hide that fact. We have passed the naive stage in which it seemed all right to ignore who the subjects were and how the generalizations were made. We have reached a stage in which greater truth and comprehensiveness are essential in reporting results.
Thus, the first two responses must be rejected. The third and fifth responses can be fully accepted, while the fourth response might be adopted using a broader concept of ways of knowing.

**IMPLICATIONS FOR LANGUAGE INSTRUCTION**

Five classroom implications of the research discussed in this chapter concern assessing styles, accepting gender-related differences, applying style results in learner training, using style results for tailoring instruction, and employing the findings to prepare the learning environment.

1. **Assess language learning styles.** It is very important to assess the learning styles of language students and teachers. This can be done by using one or more learning-style instruments (Schmeck, 1983; Oxford & Lavine, 1991). A useful style inventory often used in language classes is the Style Analysis Survey (SAS; Oxford, 1993a), found in Appendix A. Another is The Learning Channel Preference Checklist (LCPC; O'Brien, 1990), also included in Appendix A.

2. **Accept gender-related differences.** Language teachers and students should not be surprised if gender-related differences appear in the style assessments. All participants should feel free to discuss these differences openly, bringing up any sociocultural (and perhaps biological) influences that might have helped create any contrasts between females and males. For instance, if more women than men appear to be subjective and empathetic in their language learning styles, and more men than women appear to be objective and impersonal in their language learning styles, this is worth pointing out and discussing. It is useful to emphasize what useful skills and attitudes that people of different styles can learn from each other, both across and within gender boundaries. In addition, cross-gender likenesses should also be highlighted in the discussion.

3. **Apply style results in learner training.** Helping students understand their language learning styles can become part of general “learner training” (Wenden, 1991; Wenden & Rubin, 1987; Ellis & Sinclair, 1989; Brown, 1989, 1991; Cohen, 1990; O'Malley and Chamot, 1990; Oxford, 1990b). Learning training consists of enabling students to understand their learning styles and the learning strategies typically associated with these styles. It also includes training students to “stretch” their learning styles through systematic use of new, relevant learning strategies. For example, an analytic student might need to learn to use global strategies such as predicting, summarizing, synthesizing, and guessing from context. A global student might need training in how to apply analytic strategies such as reasoning, breaking material into parts, and distinguishing key details from minor details. Learner training provides procedures to use strategies that might be beyond the normal style boundaries of each student.

4. **Use style data for tailoring instruction.** By using the data on language learning styles, teachers are better able to spot any style conflicts in the language
classroom. Teachers can also vary their instructional techniques to meet the needs of students with contrasting styles of learning. An important suggestion is to provide a wide range of activities (analytic and global; visual, auditory, tactile, and kinesthetic; reflective and impulsive). Teachers might also try using an imposed "wait time" that requires or encourages impulsive or conversation-dominating students (often males) to reflect before responding; offering speeded games and skills that make good use of these students' rapid answering; giving reflective students (often females) lots of opportunity to think and ask questions before responding; and consciously encouraging some students to be more spontaneous through multiple activities in small groups.

5. Employ style results in preparing the learning environment. Style data can also help the teacher prepare a language learning environment that accommodates females and males alike. The learning environment can establish the class as inclusive, welcoming everyone. Lively bulletin boards, attractive exhibits of cultural artifacts (especially touchable or manipulable items), eye-catching wall decorations, videos, tapes, creative use of space with areas for movement activities, comfortable seating (a small sofa or cushion along with regular desks), and flexibly placed "centers" for individual reading or group activities can send positive messages to all students (see also Oxford, Hollaway, & Horton-Murillo, 1992).

CONCLUSION

This chapter has explored gender differences in four areas of language learning styles. This is a very new field, but one that deserves the attention of researchers, teachers, and students. Because of social and possibly biological influences, a number of gender differences exist in approaches to learning a second or foreign language. These differences influence classroom dynamics and student success. The chapter has provided implications for future research and classroom practice.

FOR FURTHER READING


This is a landmark book that discusses the possibility that males and females might have distinctly different “ways of knowing”: males more objectively and females more subjectively. The focus is on the latter through a series of interviews.


This is a helpful article on sex-related differences. Although it concerns learning strategies instead of learning styles, nevertheless some important points emerge.

This article is the most in-depth treatment of gender research concerning learning styles and learning strategies. This article should be consulted by anyone interested in understanding the style–strategy link and any gender influences on that link.


This is the first article that looked at gender differences in behaviors people use to learn another language. It set the stage historically for a series of later investigations on gender differences in learning strategy use and in learning style.
Section 2
Learning Styles,
Curriculum Development, and Classroom Activities
Chapter 4
Cognitive and Learning Styles of High School Students:
Implications for ESL Curriculum Development

Emma Violand-Sánchez
Arlington Public Schools, Arlington, Virginia

BACKGROUND

In the early 1980s I requested a meeting with a group of 20 ESL students who were not attending their secondary school classes regularly. They had been identified by their teachers as potential dropouts. All were Hispanic, and most were male. I wanted to understand why they did not seem motivated to learn. I was surprised when I met them and found them to be energetic and talkative. Most of the students led responsible lives; they worked and helped their families. Carlos, who managed a parking lot at night, said, “Señora, I am bored. I am repeating the intermediate ESL level and I can’t stand it anymore. I’m tired of studying gerunds again! Can’t we study things we can use? Why do we need two periods of grammar? Why can’t we study science?”

I realized that his questions made sense. There seemed to be a mismatch between the curriculum and the students’ learning needs. These students did not feel that grammar was meaningful to them. Most of them were repeating a level because they had not passed an exit test; moreover, they were receiving two periods of grammar, one period of writing and speaking, and one period of social studies, vocabulary, and study skills. As a curriculum supervisor for ESL in Arlington, Virginia, I realized more research was needed to document the need to change the curriculum, the instructional approaches, and the scheduling of classes in conjunction with the students’ needs.

Nationwide, the need to improve the academic performance of limited English proficiency (LEP) students in our public schools has been widely
documented. However, the need to make major changes had not been evident in the Arlington public school ESL program. The High Intensity Language Training (HILT) program in Arlington had been hailed as "one of the best in the nation" in the March 1986 issue of the Washington Post. Many of our students excelled after exiting the program. But even as we marveled at their progress, we were also painfully aware that a segment of our student population was not so successful. The Hispanic dropout rates were increasing because of the deficiencies in their previous schools. How could we improve the instruction of language minority students?

In an effort to discover why language minority high school students were not performing well, I embarked on research concerning the cognitive and learning styles of high school students in our school district. I wanted to find out if there were differences between native English speakers (NESs) and language minority students. This chapter presents an overview of my research and its application to instructional and curriculum development. The chapter is divided into three sections: (1) the conceptual framework of the cognitive and learning-style instruments used in this study; (2) the results of the research that impacted curriculum development; and (3) the implementation of a curriculum model of instruction for students not yet proficient in English.

FIELD-DEPENDENCE/FIELD-INDEPENDENCE

Field-dependence (FD) and field-independence (FI) are known as cognitive styles (Witkin et al., 1971). They refer to how people learn rather than what they learn. Cognitive styles like FD and FI influence the ways that students learn, how teachers teach, how students and teachers interact, and even the educational and/or vocational choices the students make. According to Witkin et al., (1971), the "field" (or environment) influences the observer's perception along a continuum whose two extremes they call FD and FI. Individuals with a FD mode of perception are unable to perceive elements (or themselves) as separate from their background or environment. They are also considered global learners; that is, they learn holistically (perceiving the forest) rather than discretely (perceiving the trees). In contrast, FI individuals, also called analytic learners, perceive the field (and themselves) as separate from the surrounding environment.

Witkin's Group Embedded Figures Test (GEFT) shows how individuals have to overcome the influence of a complex design to locate a simple figure. Figure 5–1 gives an example from the GEFT.

When confronted with items such as the sample drawing, FD individuals have difficulty seeing a simple figure in an item embedded in a complex pattern. In contrast, FI individuals are able to overcome the influence of the embedded design to locate the simple figure.
RESEARCH WITH HIGH SCHOOL STUDENTS

More than 30 years of cognitive-style research has identified characteristics of individuals who cluster near each pole of the FD/FI continuum. Table 4–1 lists those characteristics.

Using the GEFT, I conducted my study with 257 high school students (Violand-Hainer, 1988). Of these students, 101 were LEP and 156 were English Proficient (EP) students. Table 4–2 shows the population of the study.

These high school students were enrolled in 15 different English classes distributed across five levels of English instruction:

- Limited English Proficient (ESL), Intermediate (Level A) 43
- Limited English Proficient (ESL), Advanced (Level B) 58
- English Proficient (EP), Basic (Remedial Level C) 40
- English Proficient (EP), Regular (Level D) 41
- English Proficient (EP), Intensified (Level E) 75

RESULTS

Results of the GEFT, illustrated in Figure 4–2, indicate significant differences in field-dependent/field-independent identity by ethnic group membership. There were individual differences within ethnic groups, but the group GEFT means indicate that African-American (black) and Hispanic students as groups tend to be field-dependent. White students, as a group, tend to be field-independent. These results parallel those made by earlier researchers (Ramirez & Castaneda, 1974; Winkin & Berry, 1976; Hale-Benson, 1987).

Figure 4–3 shows the results of field-dependent/field-independent identity as they relate to class placement. The trend indicates that as students from all native language backgrounds except English become more proficient in English, they
Table 4-1 Characteristics of Field-Dependent versus Field-Independent Learners

<table>
<thead>
<tr>
<th>FIELD-DEPENDENT</th>
<th>FIELD-INDEPENDENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perception</strong></td>
<td></td>
</tr>
<tr>
<td>Rely on surrounding perceptual field or context for information</td>
<td>Perceive objects as separate from the field or context</td>
</tr>
<tr>
<td>Experience their environment in a global fashion by conforming to the prevailing context</td>
<td>Scan an item from the field in an analytical fashion</td>
</tr>
<tr>
<td><strong>Problem Solving</strong></td>
<td></td>
</tr>
<tr>
<td>Accept other people’s views before making a judgment</td>
<td>Solve problems independently based on factual information</td>
</tr>
<tr>
<td><strong>Motivation</strong></td>
<td></td>
</tr>
<tr>
<td>Seek approval from authority figures through praise</td>
<td>Experience independence from authority which leads to reliance on their own standards</td>
</tr>
<tr>
<td>Are extrinsically motivated by externally defined goals</td>
<td>Are intrinsically motivated and have self-designed goals</td>
</tr>
<tr>
<td>Are affected by criticism</td>
<td>Are less affected by criticism</td>
</tr>
<tr>
<td><strong>Human Relations</strong></td>
<td></td>
</tr>
<tr>
<td>Are strongly interested in people</td>
<td>Tend to be socially detached</td>
</tr>
<tr>
<td>Get closer to the person who they are interacting with and are emotionally open</td>
<td>Show tendency to physical and psychological distance</td>
</tr>
<tr>
<td>Are socially oriented</td>
<td>Are task-oriented</td>
</tr>
<tr>
<td><strong>Learning</strong></td>
<td></td>
</tr>
<tr>
<td>Like to work with others</td>
<td>Prefer to work independently</td>
</tr>
<tr>
<td>Seek guidance and demonstration by the teacher</td>
<td>Like to try new tasks without the teacher’s help</td>
</tr>
<tr>
<td>Prefer to learn material with social content and relevance to own experience</td>
<td>Interested in concepts for their own sake</td>
</tr>
<tr>
<td>Want organization to be provided</td>
<td>Can self-structure situations</td>
</tr>
<tr>
<td>Use a spectator approach to concept attainment</td>
<td>Use hypothesis-testing approach to attain concepts</td>
</tr>
<tr>
<td>Perform better on essay and open-ended tests</td>
<td>Perform better in multiple choice and cloze tests</td>
</tr>
</tbody>
</table>

Source: Adapted from Witkin, Moore, Goodenough, & Cox, 1977; and from Ramirez & Castaneda, 1974.

also tend to become more field-independent. Specifically, Hispanic and Asian English Proficient (EP) students were generally more field-independent than counterparts with lower language proficiency. This was the most unexpected finding in my research: students in lower level classes had the lowest GEFT scores,
Table 4–2 Population Demographics for the GEFT

<table>
<thead>
<tr>
<th>ETHNICITY</th>
<th>LIMITED ENGLISH PROFICIENT (LEP) (N=101)</th>
<th>ENGLISH PROFICIENT (EP) (N=156)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>57</td>
<td>22</td>
</tr>
<tr>
<td>African-American</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td>Hispanic</td>
<td>44</td>
<td>19</td>
</tr>
<tr>
<td>White</td>
<td>0</td>
<td>93</td>
</tr>
</tbody>
</table>

Figure 4–2 GEFT Results by Ethnic Group

Source: Vieland-Hainer et al., 1988, p. 175.

placing them in the field-dependent category. However, the most proficient English group, regardless of first language background, was field-independent.

This research indicated that LEP students as a group tend to exhibit preference for field-dependence, and that cognitive style preferences are related to the students' academic performance as measured by achievement tests in reading and mathematics. Therefore, many of our recommendations for instructional improvement focused on meeting the needs of these students, in particular in three identified areas. First, field-dependent students are very sensitive to their environment. These students need to feel they belong to the classroom and that they are accepted in the school. They need guidance, support, and structure; they
may get discouraged unless they maintain a positive relationship with teachers and with their peers. I have known many students who lose their motivation to learn because they feel alienated and isolated. Many students who are newcomers to the country and the school need to be encouraged to participate in class activities. In my experience, LEP students are more motivated by teachers who foster an affective learning environment, who take time to establish a trusting relationship with the students. These field-dependent students respond well when teachers show an interest in them and encourage them to work with others.

Second, field-dependent students benefit from positive peer interaction and cooperative learning opportunities. For example, extracurricular activities with students who are at the same stage of acculturation and language proficiency are beneficial. However, field-dependent students are reluctant to join clubs when they do not know the sponsors or other student members. Most students avoid situations where they feel self-conscious about how they speak English or when they must attend an activity by themselves. In our school, we have formed HILT Advisory Student Committees elected by HILT students in the program; these committees are responsible for planning activities only for LEP students and for joint activities with mainstream students. The process of integrating these students so as to make them feel welcome and valued is a gradual one.

Third, I also observed how some field-dependent students who feel alienated from their home and school try to seek acceptance from their peers by getting involved with the "wrong crowd." This may become one of the factors
involved in their own failure. These field-dependent students tend to lose motivation when they are affected by the low expectations, the criticism, and the classroom environment of remedial classes. I believe a better understanding of the students' most effective cognitive styles will improve their levels of achievement and their involvement in school.

**CURRICULAR CHANGE**

Our high school system in Arlington (and indeed most U.S. school systems) is largely field-independent in its testing, curriculum, and classroom approaches (Carter, 1988; Magolda, 1992; Scardella, 1990). Standardized tests in particular perpetuate a biased system (Cohen, 1969; Green, 1986). Even though studies have consistently demonstrated cognitive style to be separate from intelligence (Witkin, Oltman, Raskin, & Karp, 1971), it clearly influences performance on certain assessment measures. For example, a field-independent student may be able to memorize facts and consequently to score high on multiple-choice tests, while a field-dependent student may understand the concept but have difficulty identifying isolated facts in multiple-choice tests. Consequently, if we are to look at the whole learner, no significant decision for entering or exiting a program of study should be made in terms of performance on only one standardized test. LEP learners, for example, would benefit from being evaluated using a portfolio approach. Schools need to look at the whole learner and take into consideration the complex variables surrounding how students learn.

In addition, U.S. school systems reward students who are intrinsically motivated, analytical, and independent learners (Green, 1986; McCarthy, 1987). Indeed, there seems to be a fallacious belief that an analytical rather than a global approach is better for learning (Kolb, 1984b). The step-by-step approach to instruction, especially when teaching specific skills, is highly valued and encouraged in this country. U.S. schools simply give more importance to the "parts" than to the whole, losing sight of the forest in an effort to over-analyze a leaf. However, the increasing cultural diversity in the U.S. school system is reflective of the expanded ethnic and linguistic populations in the United States. Therefore, we must reconsider the learning and teaching styles present in U.S. classrooms.

The results of my research demonstrated that many of our ESL students felt most comfortable with an FI approach in the classroom, which led us to change the way ESL instruction, especially at the lower levels of language proficiency, is delivered in Arlington. We no longer teach language from a (FI) grammatical approach; instead, we decided to emphasize a thematic presentation of concepts because FD students can more readily understand how the facts relate to the global theme. Just as important, we use a thematic approach that relates new language information to students' experiences and knowledge, something that Carlos (quoted at the beginning of this chapter) specifically demanded.
KOLB'S EXPERIENTIAL LEARNING MODEL

If our educational program was to address the whole learner, and if our students were to enhance their present functioning through alternative modes of learning, then Kolb's (1976) experiential learning model would be useful in learning about and then teaching LEP students. I chose David Kolb's learning-style model because of the availability of an excellent classroom application of the model by Bernice McCarthy (1980): the 4MAT System of Teaching to Learning Styles with Right/Left Mode Techniques.

Kolb's experiential learning theory and learning-styles typology provides a framework for the teaching and learning process. Although much of his research has been conducted on the learning environments and the learning styles preferred by university students, the application of his research to curriculum development, when combined with my research with LEP students, proved useful in our K-12 HILT program. Indeed, I believe it could also be implemented in other school systems. This curriculum model accommodates different learning styles while focusing on an integrated thematic approach. The example that follows demonstrates some of the problems we were facing in the HILT program.

Picture yourself teaching a class of 20 or more LEP students. It is the end of the period, and you are assigning homework. You say "Please write a paragraph on your experience in learning a new language for our next class. Are there any questions?" Immediately one student raises his hand and asks, "Why do we have to write a paragraph on learning a new language?" You give the reason. Some students are taking notes on the assignment. Another student asks, "I know what to do, but how long do you want the paragraph to be?" You repeat the assignment and ask for further questions, but you hope no one has one because the bell is about to ring.

Looking around, you notice that some students are next to the door ready to leave while others are asking their friends what to do. One student says, "What if I write a paragraph on my experience when I arrived in the United States instead of writing about learning a new language? The assignment is boring." Finally the bell rings and two students stay behind. One student quietly asks, "What do I have to do?" The one who wanted to change the topic tries to convince you to change the assignment. You ask yourself, "Why do students have to make things so complicated?"

The students in this class exhibit different approaches to learning and to completing classroom tasks. The questions students raise reflected aspects that needed to be clarified in order for them to understand and carry out their assignment. The behavior of the students reveals the characteristics of their differing learning styles. As educators, we need to be aware that in any class the students have differing preferences for the way they perceive and process a learning task.
Kolb (1984, p. 25) states that "it is the combination of how people perceive and how people process that forms the uniqueness of learning style (emphasis added)." Kolb's investigation of learning styles begins with the examination of differences in learning orientations based on the degree to which people emphasize the four modes of the learning process: concrete experiences, reflective observation, abstract conceptualization, and active experimentation. His Learning Styles Inventory (LSI) is a 12-sentence self-description questionnaire (Kolb, 1976); it measures a person's relative emphasis on each of the four modes of the learning process. Each item asks the respondent to rank endings of 12 sentences according to how well she or he prefers to learn something. In the LSI, Kolb asks learners to respond to such statements as:

When I learn

<table>
<thead>
<tr>
<th>I am</th>
<th>I am</th>
<th>I am</th>
<th>I am</th>
</tr>
</thead>
<tbody>
<tr>
<td>happy</td>
<td>fast</td>
<td>logical</td>
<td>careful</td>
</tr>
</tbody>
</table>

Kolb's model is particularly useful because it follows the natural progression of the learning cycle:

1. Students are motivated by getting involved through their **concrete experiences**.

2. They analyze their experiences through **reflective observation**.

3. Students assimilate new concepts through **abstract conceptualization**.

4. They practice their new material through **active experimentation**.

Finally, the students personalize information and accommodate their newly acquired knowledge to higher level experiences.

In addition to the four steps Kolb identifies in the learning cycle, he combines two dimensions of **perception** (concrete experience and reflective observation) with the two dimensions of **process** (active experimentation and abstract conceptualization). Results of his LSI place the learner into one of four categories: Diverger, Assimilator, Converger, or Accommodator. Figure 4-4 shows Kolb's learning cycle.

Bernice McCarthy (1980, 1987) adapted Kolb's model in her *4MAT System: Teaching to Learning Styles with Right/Left Mode Techniques*. McCarthy (1980) describes Kolb's four learning styles as follows:

*Style One: Diversers (Innovative Learners).* These learners seek personal meaning and have a need to be involved personally. They perceive information concretely and process it reflectively. They are divergent thinkers who believe in their own experience. These students are interested in people and culture, and they function through social interaction. They model themselves on those they respect. Their favorite question is "Why do I need to learn this?"
Figure 4-4 Kolb's Learning Cycle

Learning from Feeling (Concrete Experience)
- Learning from specific experiences
- Relating to people
- Sensitivity to feelings and people

Diverger

Accommodator

Learning by Doing (Active Experimentation)
- Ability to get things done
- Risk taking
- Influencing people and events through action

Learning by Watching and Listening (Reflective Observation)
- Careful observation before making a judgment
- Viewing things from different perspectives
- Looking for the meaning of things

Converger

Learning by Thinking (Abstract Conceptualization)
- Logical analysis of ideas
- Systematic planning
- Acting on an intellectual understanding of a situation

Source: E.V. Hainer et al., 1990, p. 36.
Style Two: Assimilators (Analytic Learners). These learners seek facts and intellectual competence; they need to know what experts think. They perceive information abstractly and process it reflectively. They learn by thinking through ideas, and they function well in traditional classrooms. These students are less interested in people and more interested in facts. They need to know the “important things,” and they prefer the chain of command. Their favorite question is “What do I need to learn?”

Style Three: Convergers (Common Sense Learners). These students seek usability and have a need to know how things work. They perceive information abstractly and learn by testing theories in active practical ways. They judge things by their usefulness, and they function through kinaesthetic awareness. They see authority as necessary but will work around it if forced. They learn by doing rather than by watching. Their favorite question is “How does this work?”

Style Four: Accommodators (Dynamic Learners). These students learn through self-discovery. They perceive information concretely and process it actively. They are adaptable to change and relish it; they excel in situations calling for flexibility. They are at ease with people and often reach accurate conclusions in the absence of logical justification. These learners tend to disregard authority. Their favorite question is “What if . . . ?” (p. 43)

In any classroom we find all four styles represented in the student body. No learning style is better than another; they are simply different. Each learning style is special and has its own particular strengths and weaknesses. However, in order to prepare our students for future challenges, we must help them adjust and function in styles that may not be the most comfortable for them.

RESEARCH WITH HILT HIGH SCHOOL STUDENTS

The same students who completed the GEFT also took Kolb’s LSI. The results showed that 80 percent of the LEP students were divergers: they preferred concrete experiential and reflective observation approaches rather than abstract conceptualization and active experimentation (converger) approaches to learning (Violand-Sánchez, 1988). That is, our LEP students preferred to be involved in experiences dealing with immediate human situations in a personal way. They emphasize “feeling” and previous experience as opposed to “thinking” and experimentation. Similar to Carlos, these students are more interested in their present reality and their personal experiences than in theories or grammatical structures. They have an intuitive (reflective) approach to problem solving rather than a theoretical or experimental approach, and they based their present learning on their past experiences.

Given the results of our research, we decided that our instruction should be more concrete and based on our students’ past experience. Consequently, a com-
prehensive staff development program was initiated in Arlington to incorporate workshops and courses on learning styles. Because we wanted to make learning meaningful for our ESL students, we teachers developed and shared lesson plans such as the ones published by the National Clearinghouse for Bilingual Education Program Information Guide, *Integrating Learning Styles and Skills in the ESL Classroom: An Approach to Lesson Planning* (Violand-Hainer et al., 1990).

CURRICULUM DEVELOPMENT

The Arlington ESOL/HILT Department now uses an instructional model that integrates language, content, and learning styles. ESL teachers in the Arlington school district have found Kolb's model practical and meaningful as they have begun to integrate learning styles into their daily teaching. The foundation for our curriculum model was based on the research results: that students need to relate new learning to their previous experiences (reflection), and that teaching language in context (concrete experience) was more beneficial than teaching language in isolation.

That is not to say that we ignore field-independent students in the HILT program. Indeed, I believe that cognitive adaptability is essential in our increasingly complex society. Field-dependent students need to develop analytical skills to cope in a technological society without losing their skills in human relations, conceptual understanding, and task orientation. Field-independent students need to collaborate with other students without losing their analytical skills and task orientation. All students need to understand relationships as well as the social context of what they are learning. Therefore, teachers should encourage students to integrate and develop alternative modes of learning while they are refining their preferred cognitive style. ESL teachers need practical strategies on how to reach students with different cognitive styles, but they should also use strategies that address and foster flexible, bicognitive development. The ultimate goal is integration and development of alternative skills and modes of learning while directing and refining all students' natural gifts.

In Arlington, HILT teachers are involved in all stages of the curriculum development process. Interested staff members meet throughout the year to brainstorm ideas. Elementary and secondary specialists provide the needed leadership so that teachers can work during the summer, in a non-pressured atmosphere, to develop and write curriculum guides for their peers. The curriculum development process that has evolved over 5 years includes these steps:

- Identify essential objectives in the county or curriculum, as well as students' needs.
- Identify a unifying theme.
- Identify the major concepts.
- Plan activities that include concrete experiences, concept development, practice, and application.
Incorporate skills and learning strategies.  
Find materials (visuals, texts, textbooks, and realia).

In the HILT program, we have found that one way to encourage meaningful learning at all academic levels is through integrated, thematic units that teach essential concepts (Fagan, Johnson, & Violand-Sánchez, 1991–92), which are defined as “significant ideas that relate to other significant ideas in a way that can be connected to the main body of the content and can create meaning for students in their own lives” (McCarthy, 1987, p. 83). These concepts originate from state and local objectives for different content areas, and they form the basis for LEP students’ success in the mainstream.

This conceptual approach is different from language models that emphasize skills and grammatical structures for LEP students. In the past, both elementary and secondary HILT students studied English in isolated bits and pieces. Students had reading class with one teacher, studied English grammar in another class, and developed their oral language skills in yet another. This traditional approach often disassociated language learning from cognitive or academic development; it rarely required students to use new language knowledge in the application of higher order thinking skills (Snow et al., 1989). Secondary HILT teachers often expressed concern that their students were resistant to responding, in writing, to what they had read because of the constraint of using specific grammatical structures (e.g., “Answer all these questions using the past tense”). We realized that our students needed to practice in all these language areas, but principally because of their field-dependent, concrete experiential learning preferences, they needed more meaningful and unified contexts.

At the secondary level, we identified four themes. Then we identified several concepts within each unit. For example, the concept “All persons are special, unique individuals who have valuable qualities” is part of the theme of “Self.” Students read fiction and nonfiction selections that relate to the theme; they write stories about personal experiences; record new information in their learning log; and do projects related to the theme. Teachers offer instruction in thinking skills such as problem solving and development of analytical skills, and students learn how to apply learning strategies in the classroom. We also expanded our assessment of student work to include portfolios.

We developed units around each theme, with sequential activities that

- activate the students’ prior knowledge or create an experience that students can relate to;
- provide information for understanding the concept;
- reinforced students’ newly acquired knowledge through practice;
- apply this knowledge to new situations.

Figure 4–5 uses the Kolb model to demonstrate our process.
Integrated thematic units developed recently for elementary students include the Global Education Series: “Study of a Country, Hispanic Heritage,” units I, II, and III; “Immigration”; and “Interdependence, Water, and Our Earth.” Summer Units include “Sports,” “Transportation,” and “Inventions.” Secondary thematic units include “Self,” “Relationships,” “Responsibilities,” and “Discovery.” Summer units include “Heroes in Everyday Life” and “Unexplained Mysteries.”

CONCLUSION

In Arlington, we have both theoretical and empirical evidence of the benefits of using integrated thematic units. Such a model helps LEP students:

- Build on what they know, and form relationships.
- Tie together concepts from different subject areas.
- Learn skills that cut across all content areas.
- Develop an understanding of concepts, language, and skills necessary for academic success.
- Find their learning meaningful through application to real-life situations.

The assessment component of the integrated model includes portfolios, test information, and documented teacher observation. Authentic assessment
activities that provide standards for assessing specific concepts, language, and processing in classroom situations are currently being developed. In addition, elementary staff have identified the most essential knowledge LEP students need in order to enter the mainstream on grade level. This essential knowledge identifies what needs to be taught, while the integrated thematic units tell how to deliver instruction.

NOTE

1. Some of these units are available from the National Clearinghouse for Bilingual Education, 1118 22nd Street, N.W., Washington, DC 20037.

FOR FURTHER READING


This book is an accessible introduction to learning differences but also provides entertaining examples and information for the reader.


McCarthy presents a model for teaching that works "at all ages and with all subject matters." Her model is based on the individual and diverse learning styles of students, on student responsibility for learning, and on the need to approach pedagogy from the background knowledge available to students. It is an excellent resource for teachers.


The Bilingual Education Program provides a series of thematically based lessons that grew out of a curriculum model that encourages students to relate new learning to their previous experiences (reflection), and that teaches language in the context of concrete experience. The instructional model integrates language, content, and learning styles.
Chapter 5
Drawing Out Communication: Student-Created Visuals as a Means for Promoting Language Development in Adult ESL Classrooms

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This chapter focuses on the use of quick student-created drawings in the classroom as a means for promoting personalized content, strengthening personal self-esteem and cultural pride, lowering student resistance to collaborative group work, addressing all learning styles, and integrating language skills practice. We will describe the kinds of classrooms that use drawing activities successfully, then give several rationales for this sort of classroom practice. Finally, we will outline a sampling of strategies and offer a few examples of content.

SCENARIO

We are observing a low-intermediate adult education ESL class, whose 37 students come from 7 different language backgrounds. They have worked together for only 3 weeks.

Ms. Muller gives each student a blank 5 x 7 index card and a handful of crayons. “I’m going to give you some instructions,” she says. “Listen carefully. Take a crayon and make some quick pictures on your card. Please don’t write
words—use only pictures. Number one, make a picture of something delicious—anything that you think is delicious."

The students hesitate at first, looking around at each others' cards and giggling a little self-consciously. Someone draws an ice cream cone. Four more people draw ice cream cones. Someone draws a glass of beer, another a yellow sun. Others draw chocolate bars, a chicken, a cup of coffee, a banana. Mrs. Muller draws what may be a peach on her large piece of paper taped to the board. We are not sure. The students are amused.

"Number two," Ms. Muller smiles, "Make a picture of something you have that you really like a lot . . . a possession . . . something you would not want to lose. Quickly! You have only 1 minute!" Students ponder, and then we see a watch, a ring, a Camaro, a necklace, a Bible. The teacher draws her possession as well . . . a cat.

"Number three, make a picture of something that is scary . . . something you are a little afraid of." Students jump right in and draw spiders, snakes, airplanes, hypodermic needles. This exercise continues for about 8 minutes, with the students drawing quick pictures of the "face of a favorite friend," a "bad habit they have," a "record they like to listen to," and so on.

When all the drawings are completed, the students are arranged into groups of three. "You have 3 minutes per person to share with your group anything you like about your pictures. Choose the ones you would like to talk about. Ask each other questions."

The students hesitate for a few seconds, but then their animated conversation and laughter fill the room as the students share their awkward drawings and stories. After each group member has had the opportunity to share something about his or her life and listen to the others, everyone is assigned to a new group and the sharing continues.

A kitchen timer rings to signal the end of this activity. Ms. Muller asks five or six students to share with the entire group something they learned while listening to their classmates. She then assigns homework. "Please choose four pictures on your cards and write two paragraphs. Title your page All About Me.

Aside from being an entertaining, lighthearted way to stimulate oral fluency practice, this 30-minute lesson plan models five major principles of exemplary second language instruction. In order to help students become communicatively competent in a second language, ESL instructors aim to:

1. structure real and natural language experiences, as opposed to only repetitive practice or mechanical manipulation of vocabulary and structure;

2. provide opportunities to explore relevant, meaningful, more personalized topics, in addition to the "external" themes presented in textbooks;

3. create a relaxed, friendly environment where students are free to guess, experiment, and discover what they are able to do in their new language without fear of embarrassment or constant correction;
4. encourage students to take more initiative and responsibility in their acquisition process via small-group and partnered tasks, independent of the teacher's supervision and direction; and

5. address all learning styles—visual, kinesthetic, auditory, and oral—in order to reach each student and to provide repetition without tedious redundancy.

WHO RESPONDS BEST TO DRAWING ACTIVITIES AS PART OF LANGUAGE ACQUISITION AND IN WHAT KINDS OF CLASSROOMS?

Visual communication is universal and international; there are no limitations imposed by pronunciation, vocabulary, or grammar. It can be used by both young and old, beginners or advanced students. It can be perceived and conceived by literate and pre-literate students alike. Therefore, "picture language" allows beginning students to convey facts and ideas early on in their learning process when other means of expression are not yet adequately developed. More proficient students may utilize drawings as a means of gathering their thoughts for conversation and writing, for creating group projects, and for illustrating personal narratives.

Young children very naturally take to a basket of crayons; no coaxing is needed to start them. On occasion, we have found that some older students may look at the crayon basket with amazement or shyness—or even hostility—the first time it is brought out. However, it is quite simple to win over even the most skeptical student. For example, we have found that if the teacher models the activity with his or her own rough, inept drawings on large chart paper—a cause for great hilarity among the students—resistance is inevitably lowered. If we show student samples of other drawings and related writing created by previous students, they know what is expected: not fine art, but rather a simple visual to talk and write about. Keeping the drawing time short—even timing it with a kitchen timer—is helpful, as is circulating throughout the room and offering assistance and encouragement where necessary. The rationale is very quickly established with the first drawing experience: the quality of the drawing is not important. What is important is the oral sharing and the related writing that the drawing stimulates.

Drawing activities can be as effective in homogeneous, intensive programs as in open-enrollment, multi-level, and multicultural adult classes. They can be suitable for both small-group tutorials and classes of 40 learners. Of course, we always consider student needs, background, and goals when choosing strategies or topics to work with. Actual content and process must be modified according to the group's age level, proficiency level, and academic background. If, for example, we
were working with a class of highly advanced young adults who are striving to raise their TOEFL scores, we probably would leave the crayons in the closet. If we were working in Saudi Arabia with Saudi fighter pilots whose sole objective is to translate their textbooks, drawing activities would be highly inappropriate. However, if our students have (1) oral fluency, (2) interpersonal/social communication, and (3) expressive writing as goals, we can include drawing as a viable strategy.

**HOW DO STUDENT-CREATED DRAWINGS HELP TO PERSONALIZE CONTENT AND PROMOTE REAL LANGUAGE USE?**

The starting point of an effective curriculum must be the present situation of the learners, a reflection of their background and their aspirations. Such a curriculum must reach out to their perceptual world, relating directly to their families, their work, their past experiences, and their purposes. In many traditional classrooms, instructional content is arbitrarily based on the content of whatever text is available, content that may be entirely unrelated to the concerns, interests, and realms of the students’ experiences. Many educational plans fail because they are designed according to the instructor’s own personal model of the world or that of a generic curriculum, without taking into consideration the lives or situations of those to whom a particular program is directed.

Artwork, always emotionally charged, arises from and stimulates feelings, and it can be used within any curriculum. Students’ drawings, when appropriately cued by the teacher, consistently represent their world: their joy, anger, confusion, needs, dreams, and frustrations. Through the unconstrained symbols they create and the language evoked by these symbols, we learn more about the students we work with. We see their celebrations, their hopes, and their crises come to life on paper. The visual learner is engaged with the color and design of his or her life. The kinesthetic learner’s hand shapes personal contours on paper. Oral and auditory learners describe and listen to brief tales of each other’s worlds when we leave the textbook behind. It is no longer, “Repeat after me: Mr. Bascomb is a banker. Ulta Hackney is a movie star. Tony is a waiter.” Rather, referring to our own drawings, the language becomes, “In my country, I was a farmer, but now I am a dishwasher. In El Salvador, Luis worked in a shoe factory, but now he is a janitor. My friend Martin was an electrical engineer, but now he is a taxi driver.”

Every “work of art” our students produce, which, more often than not, is a simple crayon scribble on colored paper, may hold within it a secret story. Creative insights appear out of nowhere—not just for us, the teachers, but often for the students themselves. They see, for example, that Chantha, a Cambodian housewife and mother of four, has drawn a picture of herself floating down through the clouds in a parachute. The class is astounded, and they want to know her former occupation!
HOW DO DRAWING ACTIVITIES HELP TO PROMOTE A COOPERATIVE COMMUNITY SPIRIT IN THE CLASSROOM?

Emphasizing what is singular and particular to each person, students' drawings stress the unique and the personal. At the same time, however, the thoughts and experiences that spring suddenly and unconsciously from a handful of Crayolas help learners to develop a special empathy for their peers. It is immediate, shared experience. Students are allowed for a short time to see and listen to both themselves and each other, to compare and contrast ideas and experiences on many different levels, using all modalities.

The drawings, of course, are only a starting point, an entry into verbal and written experiences in English. Through drawings and the corresponding narratives, students become aware of how much they have to say, how interesting, and often how similar their experiences have been. They find that they are, in fact, "in the same boat" and can begin to support and understand each other.

Conversely, in a culturally mixed class, student's horizons can be broadened with each drawing and describing activity. Students who are asked to "Draw your favorite foods and describe how they are cooked," or "Draw a picture of the house you used to live in and describe it for your partner; then tell your partner what you liked or didn't like about that house," or "Draw a picture of the perfect wife or husband and tell us about him or her" become more aware of (and we hope appreciative of) culturally different viewpoints, rituals, and values.

WHAT ARE THE COGNITIVE ADVANTAGES TO DRAWING ACTIVITY IN THE LANGUAGE CLASSROOM?

In addition to their affective significance, drawing activities, depending on the topic chosen or the process engaged in, are an aid toward cognitive language development. The making of art is a complex function, engaging manual, emotional, and intellectual features. This is readily apparent as we witness the look of concentration on our students' faces, the way in which they "tune out" all environmental distractions during the few minutes of drawing time. We see a sort of integration of their imaginative, intuitive, nonrational "right" brain with various elements of the cognitive, analytic "left" brain processes—the rational ordering of parts as they decide what they are going to say about this drawing and how they are going to say it.

Regarding skills development, students have often told us that they recognize the multisensory value of the drawings. They must, for instance, listen carefully to understand the assignment; they must learn to think in the new language if they are to explain their work to others; they must develop strategies for both verbalizing and eliciting meaningful talk with their peers; and they must practice and strengthen their listening skills in order to learn about their peers' pictures and lives.
Regarding cognitive language development, teachers should consider drawing opportunities and assignments in light of their students’ lives and needs. For example, students might be asked to draw pictures concerning specific vocabulary that will be reviewed and reinforced during a lesson:

- "With your partner, draw a house plan on a large piece of paper. Cut out furnishings from magazines and catalogues and paste them in the correct rooms. Label the pictures."
- "Draw your partner. Describe what she or he is wearing."

Or they might be asked to draw pictures concerning discrete grammar points that will be practiced in the context of real communication, with no conscious focus on a linguistic goal on the part of the students:

- "Here is $1,000. Imagine that you are going to use it to go on vacation. Draw a picture of where you will go on your vacation. Tell your partner about when you will go, who will go with you, how you will get there, what you will do there, and when you will return."
- "Think about five years from now. Draw a picture of something you would like to have, something you would like to see, something you would like to do, or where you would like to live."

**HOW ARE DRAWING ACTIVITIES DESIGNED AND IMPLEMENTED?**

Depending on the students’ language proficiency level, the amount of interest that is generated by a certain topic, and the amount of time you have to spend, drawing activities can be presented via several different strategies.

**INDIVIDUAL WORK**

**Beginners: Oral Practice with Minimal Writing**

Give students paper and crayons (or felt pens). Set a time limit of 5 to 10 minutes. Pose a question that ties in with the lesson theme of the day. Ask them to draw and label their pictures. As they begin to draw, go around the room from student to student, making encouraging comments, asking questions, and offering assistance with the writing (not the drawing). When they are finished, have them hold up their pictures in groups of four or five for a few minutes, with each one taking turns saying anything they want about their own drawings. Then tack or tape the pictures on the walls around the room or tape them to the chalk-
board. Ask the students to do a “gallery walk,” moving about the room to consider the pictures one by one. Ask questions, and elicit comments from the group and from the “artists” themselves. Leave the drawings on display, if possible, to stimulate further comment and conversation. Sample topics might be:

- Look at your partner. Draw your partner’s face. Ask your partner four questions. Write your partner’s name, nationality, age, and birthday under the picture.
- Make pictures of four good things you have in your house. Write the names of these things under the pictures.
- Today is Mei Fong’s birthday. Draw a picture of a present for Mei Fong. Write “Happy Birthday” on the picture and sign your name.

Intermediate: Oral Practice with Short Written Passage

Ask students to work with crayons or felt pens and then ask them to write a brief passage about their drawing on a separate sheet of paper. The drawings may be shared first in small groups, then with the whole class by groups of volunteers who stand up in front of the room together. Teacher and students ask questions or make comments to the artists. Comparisons may be made for similarities or differences in content or style. All drawings may be posted around the room for a day or two for further perusal. Some sample topics for this strategy might be:

- In one day there are 1,440 minutes. Think about yesterday. Think about five good minutes you had yesterday. What were you doing or where were you when you had five good minutes yesterday? Make a picture and write about your picture. Share your picture and your writing with your group.
- Make a picture of someone in your family who is special. Write that person’s name and why you think that he or she is special. Tell your partners about your special person.
- Make a picture of a bottle of vitamins—special vitamins called Vitamin X. These vitamins can help you change in some way. Write about how Vitamin X can help you change if you take them everyday. Tell your partners about this wonderful vitamin.

Advanced: Journal Work (More Writing)

When the drawings are completed, ask the students to write a page in their journals that describes the situation or event depicted. To offer a little more structure,
give them some specific questions to consider. These journal entries may be shared orally with the whole class or a partner, or they may be kept private, depending on student choice. Additionally, students should be able to choose whether or not they want the teacher to read their writing or respond to it. Some good topics for journal work are:

- What are the 10 most important qualities of a good friend? Make a list. Draw the perfect friend and describe him or her in detail.
- Make four pictures of something you like to taste, to smell, to feel, and to see. Write about these pictures.
- Make a picture of a person you knew in the past—a person you will never forget. Write about this person. Where did you know him or her? What will you especially remember about that person?

**DYADS**

Dyad drawings may be carried out by all levels of language learners. In a dyad drawing, two students create a drawing together, write about the picture together, and share with another dyad.

**Beginners: Oral Practice with Minimal Writing**

- Pull four word cards out of the vocabulary box. (Words they have studied might include lamp, window, rabbit, sun). Your partner will also pull out four word cards. On a large piece of paper, make pictures with your partner of all the word cards. Label the pictures.
- On a large piece of paper, work with your partner. Draw a creature from another planet. Answer the questions on the worksheet. How many noses does it have? How many eyes does it have? How many feet? Heads? Arms? What color is it? What is its name?

**Intermediate: Oral Practice with Some Writing**

- On a large piece of paper, draw a picture of a grandmother. Your partner will draw a picture of a small boy standing next to the grandmother. The little boy has three questions for the grandmother. Your partner will write the boy’s three questions. You will write the grandmother’s three answers.
- On a large piece of paper, draw a picture of an immigrant. Your partner will draw a picture of an American standing next to your immigrant. The immigrant has three questions for the American. Please write the three questions. Your partner will write the American’s answers.
Advanced: More Writing and Some Oral Work

- Work with a partner on one large piece of paper. Design a new car. Write a description of the new car.
- With a partner, invent a machine. Draw a picture of the machine. This machine can do anything. Invent a machine that does many important things for you. Write about this machine.

SMALL GROUPS

Following are three sample small group art projects using scissors, paste, and piles of old magazines.

Beginners: Oral Practice with Minimal Writing

- Form groups of four. Give each group a large piece of paper. Ask students to fold their paper into three columns. Have them label the columns “We like,” “We have,” and “We want.” Then they will cut out pictures and paste them in the correct columns, creating a group chart. The charts are hung around the room and presented to the rest of the class by one or two volunteers from each group.

Intermediate: Oral Practice with More Writing

- Students draw a grid according to your model (Figure 5–1). Working in groups of four, they draw their “self-portraits” in the first column and then cut out magazine pictures pertaining to themselves to paste in the squares. They then hang their charts around the room and take turns asking the other class members questions about their charts.

<table>
<thead>
<tr>
<th>NAME</th>
<th>LIKES</th>
<th>EATS</th>
<th>DRINKS</th>
<th>HAS</th>
<th>BUYS</th>
<th>READS</th>
<th>NEEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
<td><img src="image5.png" alt="Image" /></td>
<td><img src="image6.png" alt="Image" /></td>
<td><img src="image7.png" alt="Image" /></td>
<td><img src="image8.png" alt="Image" /></td>
</tr>
</tbody>
</table>

Figure 5–1
Advanced: More Writing with Some Oral Practice

- Students search through magazines for pictures and words that they think represent American culture. Each group pastes their pictures onto a large piece of paper in collage fashion. Have them write collaborative paragraphs to describe their vision of American culture. These are hung around the room and described for the rest of the class by group members.

CONCLUSION

The teachers in our programs have successfully used student-created drawings for fluency building for several years, and we have had an overwhelmingly positive response from the students. Children naturally love to create visual materials, and that innate need for creative expression does not stop in childhood. At times students may initially feel hesitant: "Pero . . . yo no sé dibujar, maestra!" They worry about drawing well and wonder what the rationale may be behind this seemingly unorthodox methodology. Because of the initial resistance of some students, we do not suggest that drawing activities be used on the first day of class. However, with only one or two exceptions, our experience invariably suggests that students who have come to have confidence in their teacher and who feel an empathy with their fellow students, confront their teacher's enthusiastic model with a willingness to experiment. Once learners realize that they can't do it "wrong," and that the only criterion for success is full, open participation, they lose their doubts and stop resisting.

Any foreign student who unself-consciously wields a crayon to facilitate and enhance communication is as much engaged in language acquisition as one who is laboriously piecing together words to form a sentence in a workbook. An immigrant who loses himself or herself for 10 minutes of class time in drawing and labeling a picture of a treasured possession brought from his or her homeland is as much on the road to fluency development as one who is participating in intricate pattern practice or substitution drills.

Invention, improvisation, and discovery, when integrated into and expressed through all modalities, are sure hallmarks of successful teaching and learning. They are fundamental both to the process of making artistic forms and to the construction of a second language. These are qualities and experiences we want to promote in ourselves as effective teachers and in our students. And with a sense of adventure and willingness to experiment, drawing activities can further this aim.

FOR FURTHER READING

The resources below offer ESL/EFL teachers a variety of activities for students of many learning styles and strategies, from drawing in the classroom to cooperative
tasks, from using students' previous background knowledge to experimenting with strategy and style use, from left- and right-brain environments to visual and kinesthetic activities.


Chapter 6
Meeting Language Learners’ Sensory-Learning-Style Preferences

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International, multilingual, multicultural—these are all apt descriptors for the 2200 students of the Hong Kong International School (HKIS). Using an American curriculum, teachers work with preprimary through secondary school students of some forty nationalities, 57% of them holding United States passports. The passport, however, gives no hint about language background. In a Spring 1993 survey that I conducted of over 100 high school students, 65% of the students indicated that the first language they heard at home was another language than English or another language plus English. The most frequent languages cited were: Cantonese, Mandarin, Shanghaiese, Japanese, Korean, and Swedish. A smattering of students mentioned Urdu, Hindi, Finnish, and Icelandic.

When students enter the Hong Kong International School, they must demonstrate fluency in conversational English, and above grade 1, adequate writing skills. In the elementary and middle schools, English for Speakers of Other Languages (ESOL) students having difficulty with language in the classroom (4-5% of the student body) may be pulled out to receive support from a specialist in the learning center. In the elementary school, specialists also go into regular classrooms to provide help for a larger number of students. In the high school, between 18 and 22 students each year (out of 630) are designated to regularly attend one of two levels of ESOL courses. They may be in the course(s) for as short as an academic quarter or as long as two years. All of these students are speakers of Cantonese, Mandarin, Korean, or Japanese.

It is not unusual for our students to be tri- or quadri-lingual because of family background, schooling, and moves from country to country. One tenth-grade girl, born to an English-speaking family, speaks fluent French and Portuguese after having lived in France and Brazil, is now studying Mandarin. In our school, language ability is highly valued; students need to become not only more competent in English but must also master French, Mandarin, or Spanish as well as the "languages" of mathematics, biology, poetry, and computers.
In teaching a variety of "languages" to our multilingual student body, how can we take into account the numerous linguistic and cultural variables of both teachers and students? As we try to modify teaching styles and to work with preferred sensory learning styles more effectively to improve language proficiency, how can we ensure respect for all our student's cultural background? How can we create a more supportive linguistic learning environment for all our learners? These basic questions were my focus as I began research in the field of learning styles.

CHOOSING AN ASSESSMENT INSTRUMENT

As a high school teacher who was unaware of the term "learning styles" until the late 1980s, I was flabbergasted by the confusing terminology of the field and its multitude of instruments, many bearing little or no resemblance to the others. While there was a wealth of research to choose from, little material addressed the cultural and linguistic background of students.

Reid's Perceptual Learning Style Preference Questionnaire (1984; 1987) was, at first, the only instrument that seemed geared to cultural and/or linguistic differences. It appealed to me because it was self-scoring and had just six categories. Its drawback, however, from my perspective, was that it had been used only with university students, and I wanted an instrument that had been used effectively in elementary and secondary schools.

Such an instrument did exist: The Learning Channel Preference Checklist (O'Brien, 1991). It was also self-scoring, limited to three categories, and had been used in upper-elementary through high school. This Checklist was originally developed for native English speakers in grades 5-13 by Lynn O'Brien as part of her Strengthening of Skills study skills program and was later administered separately to thousands of students across the United States and abroad. A feature of the Checklist was that it requested students' ethnicity (Asian, African-American, Caucasian, Hispanic, Native American), so results could be reported for the entire population and/or for individual ethnic backgrounds.

In my own teaching setting, however, ethnicity did not seem to be a clear distinguishing factor because so many of our students are Asian. To me, linguistic and cultural background appeared to be more significant. O'Brien permitted us to modify her categories so that she was able to sort our students' results based on their linguistic backgrounds. As the Checklist is not geared specifically for language learners, several of the questions were inappropriate for our study, and O'Brien gave us permission to modify these questions.

The Learning Channel Preference Checklist was first developed in 1985; was reworked in 1988 and 1990; and has since been established as an instrument with high reliability (Oxford, 1992). It looks at three sensory learning-style preferences or modalities: visual, auditory and haptic (that is, kinesthetic and tactile). There are a total of 36 statements that students rate on a five-point scale from 5 ("almost always") to 1 ("almost never"). Sample questions include:
1. I can remember something better if I write it down.

23. It's hard for me to picture things in my head.

35. For extra credit, I'd rather create a project than write a report.

(O'Brien, 1990, p. 7)

See Appendix A for the complete Learning Channel Preference Checklist.

ADMINISTERING THE INSTRUMENT

If teachers want to be sure of reaching more than one sensory learning preference in administering the Checklist, they should read the list of statements out loud (perhaps also discussing the meaning of the statements), while the students themselves read the survey in print. This method gives the student with an auditory learning-style preference an equal advantage to the "visual" student in completing the Checklist. That strategy, however, often proves quite annoying to the "visual" students. In December 1990, I administered the questionnaire to my HKIS high school colleagues in small workshop groups. Among the first group of six colleagues, two extremes were represented. Midway through the Checklist, I explained why I had been reading it aloud and indicated that I would permit colleagues to complete the second half in silence. A language colleague immediately protested: she knew that she was highly auditory and found it "pure pleasure" to look into space as I read each statement because she did not have to "labor" over reading each one. She was dismayed that the auditory component would be discontinued. Another language colleague approached me in private afterwards, telling me how frustrated she had been when I had read the Checklist aloud. She revealed that she was deaf in one ear, so she would look up to watch my lips as I read, and each time she returned to the printed page to write her answer, she lost her place. She found this most irritating. Moreover, many colleagues (and, later, many students) were irritated by the pace I created by reading the statements; many wanted me to read faster or slower than I was reading. From this experience with my colleagues, I learned that a teaching style that appeals to one student may be anathema to another.

In 1990 we administered the Learning Channel Preference Checklist to 612 students. In this study, results were broken down along O'Brien's ethnicity lines and our own linguistic lines, despite the limitations of both categories for our diverse student body. I undertook a second study in October 1991 with a smaller group of 126 students primarily from ESOL classes. Three high school French classes were also surveyed; these classes had a mixture of native and non-native English speakers.

Among virtually all ethnic and linguistic groups of males and females in grades 3 through 12, students had a visual preference, although in many cases
this rated only slightly higher than the auditory or haptic preferences. Several
other conclusions, none of which were surprising, were drawn from the studies:

- students of a particular ethnic or linguistic background could not be
  stereotyped as a group;
- many students showed a fairly balanced profile (i.e., all three modal-
  ities were nearly equal);
- age and gender seemed not to be factors in determining preferences;
- some students indicated a preference for two modalities.

TEACHING TO A STUDENT’S LEARNING
STYLE PREFERENCE?

Do teachers, in general, provide students with opportunities that appeal to style
differences? While the majority of students in my school, and a majority of some
6,000 native English and ESOL speakers assessed by O’Brien (in 1991) indicated
a visual preference, O’Brien (1989, p. 86) discovered that 80 percent (!) of
instruction is delivered in an auditory fashion, even though “less than 10 percent
of the student population shows this as their strongest learning channel.” My own
observations in a number of public and private schools in Hong Kong, New York,
and New England have indicated a strong preponderance of teacher-centered
classrooms, with teacher delivery of lectures (i.e., appealing to auditory learners)
as the focus of instruction. There seems to be a lack of congruity between method
of delivery and preferred mode of “reception.”

How receptive are students to lectures and other teaching methodologies that
are dependent on listening skills? Comments from language and social studies col-
leagues in relation to all students, but especially to ESOL students, alerted me to
the fact that students’ listening skills might not be highly developed. Perhaps
because we at HKIS teach English as a foreign language (EFL) to students who
may not have intensive, ongoing opportunities to listen to English, many of our
students may have limited (or narrow) listening skills. In an attempt to determine
the proficiency of my students’ listening skills, I read aloud a short story to a group
of 16 talented 10th graders, all of them fluent in Cantonese and strong in English.
A typical reaction in their journals to the question, “How much of the story did
you understand when the teacher read it aloud yesterday?” was:

I feel very unsure as if I’ve lost in an unknown country. I can understand
just a few sentences and the outline of the story, then I’m loss. And actu-
ally I don’t know the most important part because there are so many
words I cannot recognize and I feel quite boring.

I was surprised because this response came from a 15 year old who was at the top
of the class; while I had known there was some difficult vocabulary in the short
story, I had assumed she would have grasped its general gist.
The next day, I reread the story aloud while the students read along silently. When I again asked for a reaction, the same student replied: "I understood most of the story but still there is some sentences I cannot follow. But this time, I have more confidence and do not feel unsure." The visual tool (as well as the previous day's experience) had helped her. Finally, I let the class read the story quietly, each at his or her own speed. The same young lady then responded: "I totally understand what the story is about although I still have some words which are unknown. To me, I feel very happy and satisfied when I really know what the story is about." Granted, the student had now had access to the story for a third time, but it seems that she had virtually no comprehension when she had had only auditory access to the story.

I subsequently took the same students through a similar activity, encouraging them to take notes at each stage and not to "tune out" even if the going got tough. First, they listened to a single 50-second news item on video while the screen was covered. Then the students listened to the same item again, this time with the screen in view. Finally, students were presented with a newspaper article about the same item from that morning's paper. At each stage, students were asked to monitor their comprehension. Frustration was especially high during the first stage but was less so when students had images and some printed words on the screen to assist their comprehension. As I had already surmised, the newspaper article, which provided the information in a printed visual format, was the most easily understood part of this comprehension activity.

As a result of such classroom performance, and because of the preferences of our ESOL students on the Learning Channel Preference Checklist, we were concerned about the students' listening ability. Thus, the high school ESOL teacher decided to administer the listening portion of the Tests of Achievement and Proficiency (TAP; 1987) achievement test to her students. The TAP tests are given every October to all students in grades 9 through 11, but only the reading comprehension and writing portions are administered; the listening portion was administered for the first time at the end of the first quarter of 1992 and again at the end of the fourth quarter. We were not surprised to discover that early in the year, 15 out of 21 students ranked in the 20th percentile or below. We were distressed to find that by the end of the year, despite significant daily work with listening comprehension, while some students had shown substantial improvement, several had lower scores. In fact, 7 out of 12 students in the ESOL 1 class were still below the 20th percentile. We realized that our students' preferences for visual learning revealed in the results of the Learning Channel Preference Checklist, were accurately describing their skills and strategies, and that we would need to reconsider our curriculum in light of our new knowledge about their listening comprehension.

At present, while some teachers at HKIS continue to lecture, read aloud, and use audio cassettes without the preparatory help of advanced organizers or listening strategy activities, many other teachers are beginning to "attack" listening skills by planning activities and teaching strategies that will help students to better cope. In this age of increasing use of video, students must be instructed in
strategies to become active listeners. Thus they are assigned listening tasks as they preview new material. Because we believe that the passive “learner” acquires little or nothing at all, we strive to identify and respond to our students’ learning-style preferences so that they can employ the strengths of their learning styles and strategies to become active successful learners. In one social studies class, each student within a small group is held responsible for summarizing a segment of a video for the rest of the group. This method forces each student to focus on a portion of the video, to relate it orally, and to listen to the content being delivered both from the video and from classmates. Another social studies teacher has students create mind maps or clusters as they view a video. In other words, students convert one visual (plus auditory) medium into another visual one so that they can visualize and organize the material that is being transmitted.

Language textbooks are beginning to exhibit a heightened awareness of learning styles. In a recent French textbook, Discovering French (Blou) (Valette & Valette, 1993), for example, teachers are told that structures are introduced in a variety of ways to match students’ learning styles:

- Structures in context (in dialogues)—for those who learn best by hearing and repeating
- Charts and brief explanations—for those who need to understand a pattern before practicing it
- Cartoon drawings (where appropriate)—for those who find it helpful to visualize a concept in picture form. (p. 198)

Many teachers and researchers believe that teaching to a student’s learning-style preferences can influence the effectiveness of that student’s learning and retention (Galloway & Labarca, 1991; Oxford, 1991). In addition to helping our students become more aware of their preferred learning styles, we can raise student consciousness about the different forms of textbook presentations so that they can learn to choose which aspect of the presentation works best for them.

**STYLE FLEXING**

What Oxford, Levine, Ehrman and Fechter call “style wars” (1992), or mismatch in teaching and learning styles, have often been cited as a major reason for poor performance by ESOL students (Harshbarger, Ross, Tafoya, & Via, 1986; Oxford et al., 1991; Willing, 1988) as well as some U.S. minority groups (Dunn, 1991; Hilliard, 1989, p. 69; Ehrman & Oxford, 1989). However, differences in preferred learning styles may not be the sole cause for style mismatches. For example, while we might think that our Chinese students have not developed oral/aural skills in English because they are shy or because of inadequate English skills, Cordeiro
(1989) reminds us that within traditional Chinese culture, one "loses face" for making a mistake in front of a class. Teachers must therefore be aware that a Chinese student might not speak out until she or he is sure of the answer. Of course, other factors may also impede classroom participation: additional traditional cultural values from the home, secondary cultural differences, and prior schooling may all contribute to "mismatch." (See Nelson, this volume, for more information on culture and learning styles.)

But even if we could identify and remember each student’s preferred learning style, we would certainly set a dangerous precedent if we were to label students by their learning preferences and teach only to those preferences. While all students should have ample opportunity to learn through their preferred style, they also need to be open to the idea of "style flex"—that is, students should be encouraged to diversify their style preferences (Friedman & Alley, 1984, p. 78; Oxford & Lavine, 1991; Wallace & Oxford, 1992). While they may learn best through a particular style, they must develop other styles because teaching is delivered in a number of modes. Similarly, teachers must assess their own learning and teaching styles and work toward "flexing" these styles. As Mosston and Ashworth (1990, p. 3) state: "Skillful teaching is the ability to move deliberately from style to style as the objectives change from one teaching episode to another."

Teachers also need an array of teaching styles and strategies to communicate ideas effectively and to reach all students' sensory preferences while at the same time stretching students' learning styles. For ESOL students as well as other students, sentences presented orally may need to be reworded, and sometimes sketches may need to be used. Pantomime may be brought into play, gestures may be used for reinforcement, and basic instructions may need to be written on the board (Cordero, 1988). Some colleagues have been rather aghast at this simple, commonsense idea, or at my suggestion that they put an outline and/or vocabulary on a transparency, board, or handout. Yet these same colleagues, when presented with a proposal orally at a faculty meeting, are the first ones to demand to see it in print! Unfortunately, I am at times also guilty of ignoring the visual component (even though I myself learn best in a visual fashion). I recently gave a homework assignment orally, only to have a student ask me after class, "So we have to revise our first draft tonight?" I had told them not to do it that night but to wait until the following evening. Chagrined, I encouraged this student to relay the message to her peers, all of whom were hanging in the doorway in anticipation of hearing the response to her question.

REFLECTING ON LEARNING

O’Brien’s major intent in administering her Checklist is for students to start to reflect upon how they learn best (1989, p. 88). Indeed, when we first administered the Checklist, students, teachers, and parents immediately dialogued about different learning-style preferences. Because the Checklist was short and self-scoring, in
less than the length of a class period students could fill in the Checklist, score it and then discuss it with classmates and the teacher. Student brothers and sisters would tell me how they had similar or different preferences. Teachers of Mandarin background students would compare their students' results with those of students from French and Spanish backgrounds. Parents would discuss the results with me, often being curious about how two children brought up in the same family could have such divergent learning-style preferences.

Some students were remarkably reflective about how their individual learning preferences focused the way in which they learn. One of our 1991 graduates experienced only 2 years in an "American/international" school outside of the Japanese school system. At first, some of our methodologies were a distinct mismatch for her. Yet, it was just this discordance that was the focus of her college application essay in which she was asked to "discuss one or two academic interests or out-of-class activities that have meant the most to you." She wrote:

The American history class I took in grade eleven awoke my interest in international politics and relations. When I was getting a Japanese education, I didn’t like history. There, teachers repeated what was written in the textbooks... All I had to do was memorize the chronological events and the major, yet trivial, facts, in order to pass the exams. Memorization by rote was boring! However, in my American history class, I was intrigued by the teacher’s lectures which not only explained the textbook, but also told us the stories behind the events with slides, movies and music. The oral presentations, term paper, and other projects, such as role-plays, were very hard and nerve-racking for me, because I wasn’t accustomed to being innovative in an academic field. Nevertheless, this kind of work, in a long run, helped me understand how and why the U.S. became the way it is now—these projects were like time machines that took me back to the past.

In talking with this Japanese student, I learned she had felt in the beginning that there was a distinct mismatch between her preferred learning style(s) and the teaching styles of her teachers. Slowly, she began to realize that she had been a product of her Japanese education, and that how she had been taught to learn during most of her schooling really was not the most effective learning style for her. However, few second language students, let alone first language students, were as reflective as this young lady.

REFLECTION TRAINING FOR STUDENTS

Fortunately, students can be trained to become more reflective about their own learning. One way I approach this is through portfolio assessment. During the course of a quarter, I collect samples of students’ work in manila folders. These samples include drafts and final versions of essays, pages from learning logs/journals, quizzes, tests, peer and self-assessments of projects and oral presentations,
and more. Initially, students answer questions in writing about their progress in terms of reading, writing, listening, and speaking skills. Then I ask them to focus on one or two areas they especially want to work on. I have an individual conference with each of them during which we work together to develop strategies to enhance learning, based especially on the areas that they have pinpointed for growth. Then I do a writeup based on the conference. At the mid-point in the year, I ask the students to respond to the following questions: "What areas do you feel need the greatest attention during the rest of this school year? What are some ideas and strategies which you have for improving these areas? What could the teacher be doing to support and help your efforts?" In response to these questions, Gee Heng wrote:

I think that the teaching plan this year is fairly balanced. I would feel comfortable if the current holistic approach (reading, writing, listening and speaking) were kept. However, I would like to suggest a shifting of emphasis from grammar to more practical areas such as listening comprehension, etc. Personally, I need to work on speaking, although I don’t enjoy it as I’m very weak in oral work.

Part of my response to him was:

(Gee Heng) Speaking poses a greater problem for you, especially in whole-class situations. We need to work on strategies which will put you more at ease. Some of these are increased opportunities to communicate in small groups and whole-class discussions which are on topics of high interest.

In response to other students’ reflections, I wrote:

(Lindsay) As you stated, you need to work on the cassette. In turn, I need to find ways for the class to retain and use the vocabulary. I agree that the vocabulary is quickly lost when it is not reinforced. There are also some strategies which you can try—such as keeping a list of several useful words from each section of the cassette. Review these words and try to introduce them into your speaking.

(Chung Yau) When you write, you are often translating in your head. We need to work on getting your writing to flow. One way to approach this is to write quickly, then to go back and make adjustments and corrections. Your writing will also improve as your vocabulary is broadened. In addition to vocabulary building strategies which I use in class, it would be good to keep a list of a few new and useful words from each chapter.

I repeat the process (students responding to questions, followed by a conference with me) twice more during the year. One of the end-of-year questions is, "Which strategies in my write-ups worked well for you? Less well? Explain." A
reflective response came from Ming, a Chinese/Japanese student. She stated that she knew she was a visual learner and that charts and drawings that I had encouraged her to make had helped her to better comprehend literary works we were reading. This was a strong argument for me that the strength of this process is not in the conferences nor in the teacher writeups; it is in making students more reflective about their own learning.

USING PARTICULAR STRATEGIES

Of course, reflection alone does not guarantee successful learning. To make the Learning Channel Preference Checklist an effective learning tool, O'Brien (1990) provides strategies that students with each type of sensory learning preference can use for themselves. An excerpt from one of three lists of suggestions appears below; the complete lists appear in Appendix A.

Suggestions for Visual Learners

- You will learn better when you read or see the information. Learning from a lecture may not be as easy. Try some of these suggestions and create some more that will work for you.

- Write down things because you remember them better that way (quotes, lists, dates, etc.)

- Look at the person while they are talking. It will help you stay focused.

- It's usually better to work in a quiet place. However, many visual learners do math with music playing in the background. (1990, p. 4)

It is often difficult to know how seriously students try O'Brien's suggestions or strategies, but one particular student comes to mind in his "strategy success." This freshman was struggling through every one of his courses that year. A meeting involving his teachers, counselor, the student, and his parents came to the decision that he would drop one course to have more time for the others. The counselor asked me to administer the Learning Channel Preference Checklist to him. The next day the student and I sat down privately and within a half-hour we knew that he had a very high "haptic" preference and very low "visual" and "auditory" preferences. During our discussion he and I even discovered that his haptic style was much more "kinesthetic" than "tactile." I remembered a suggestion from O'Brien's (1990, p. 6) "haptic" list: "If you have a stationary bicycle, try reading while pedaling. Some bicycle shops sell reading racks that will attach to the handle bars and hold your book." The student and I talked about the idea, but after that session I did not think about him too often until he
appeared at my classroom door 2 weeks later. He was so excited and much more verbal than he had ever been before. "Yes," he exclaimed. "The idea works!" He had purchased a bicycle reading rack and had gone to the health club in his apartment building, lugging along his social studies volume. He told me he was so proud of himself because he could read and concentrate for at least 20 minutes on the exercise bike! Prior to that, he noted that he had never been able to read his social studies book for more than 3 minutes. While I was unable to measure what learning had gone on, this student had obviously undergone an attitudinal change and his sense of pride had certainly taken a leap forward.

ADJUSTING TEACHING STYLE

O'Brien's (1990) suggestions for strategy use with individual students have prompted me to think about how I could better respond to students' preferred learning styles in the classroom. I began my analysis by evaluating two projects in my advanced classes that put emphasis on learning and creativity. In the first, I wanted students to read a novel and later take responsibility for reviewing sections of it with the class. In the second, I wanted students to read part of St. Exupéry's The Little Prince, then create plans in addition to those in the book and teach a moral to the class. In both these assignments, my original intent was to have students write, but I realized that my objectives were cloudy. Why would only one "format" suffice? I then turned to O'Brien's (1990, p. 5) suggestions for "auditory" learners, where she advises students to "ask your teachers if you can turn in a tape or give an oral report instead of written work." I decided to allow greater latitude in the format, since the main objective was not a written product. Given increased choices, students subsequently produced and presented to the class outstanding posters, puppet shows, songs, videos, and role plays that helped all students to master the material. While most of these students have a "visual" learning preference, I have come to realize that "visual" has two components—text-visual and picture-visual—and that photos, videos, and the like, when used effectively, may be stronger visual learning devices for sustained learning than is the printed or written word.

Next I examined my objectives for communicative competence. One desired outcome in a language class is for students to talk. Yet many of my Asian students are reticent about speaking. Some are naturally shy; some are unsure about their language ability; some have come out of a passive educational system and perhaps do not want to "lose face" by giving a wrong answer. Could I overcome this obstacle without embarrassing them? Pair and small group work, of course, is one way. I decided to try a new approach: to have students engage in "chat mode" on an electronic mail bulletin board. Pairs of students with each member seated in a different section of the computer lab, "chat" on the computer about a given subject. Often, a current political or school topic is the focus, and students take different sides on the issue. Students don't have to look
at anyone or anything except the screen, and the computer is friendlier with
"wait time" than are many classmates and teachers. If we eventually have an oral
debate on the same topic, students have simulated the discussion in a "safer,
nonauditory" environment before attempting to speak.

I have also discovered that computer use has been advantageous for the "haptic"
and/or "visual" student. Fingers on the keyboard seem to have a different
impact than pen/pencil on paper, and tactile students respond well to this
medium. The students who exhibit the most learning growth via computer word
processing are often those students with poor handwriting. I have observed a
number of adolescent boys for whom writing by hand is either physically painful
or so messy that they become easily discouraged. The computer is a tool that lowers
physical pain and gives a "hands-on" opportunity. During the 1992–1993
school year, for midterm examinations, I took two advanced classes into a com-
puter lab and gave students the choice of writing by hand or word processing the
exam. In both classes, more than half the students opted to use the computer.
However, during the final exam, I decided not to allow the computer option
because of technical malfunctions. Several students expressed dismay at not being
able to use a computer. When I asked why they were disappointed, they said they
felt they could better organize their ideas by seeing a neat copy on the screen; the
visual component, they said, enhances their thinking skills and ultimately learning.

CONCLUSION

In the reality of the classroom, it is impossible to always take all of the linguistic
and cultural variables and sensory learning preferences into account. Also, it is
impossible to constantly remember how each student learns best. But adminis-
tering the Learning Channel Preference Checklist and discussing the results
makes students aware and reflective about their own sensory learning prefer-
ences. Then, by working closely with students, teachers can become aware of
how students best learn. Teachers can then analyze and modify their own teach-
ing styles, introduce students to learning strategies that will work toward their
preferences and give students tools to "stretch" their styles. In this way, the "style
wars" that often exist between teacher and learner can be greatly reduced.

NOTE

1. We are grateful to Lynn O'Brien for her permission to use the Learning
Channel Preference Checklist, and its accompanying explanatory material,
in this anthology. See Appendix A for the survey.
FOR FURTHER READING


This article places emphasis on increased awareness and application of learning style theory, stating that both preferred teaching and learning styles are identifiable. Teachers should give all students the opportunity to learn via their preferred learning style, yet they must also encourage them to learn via other styles. That is, teachers must provide activities that assist students in developing flexible learning styles.


Hillard poses a vital question: "Is matching teaching styles to students' cultural learning styles the answer to low achievement among 'minority' students, or an excuse not to teach all students in effective ways—or both?" He believes that teachers' lack of understanding of students' behavioral style leads to mistakes in estimating students' intellectual potential, to misreading students' academic achievement, to misjudging students' language ability, and to difficulty in communicating with students. The author points out that classroom instruction can be enriched by an appropriate sensitivity to style.


This is a learning style-based program for students in grades 5 through 13 that teaches them how to learn. Based on both brain research and learning-style theory, this program teaches strategies for students to enhance their preferred learning style, be it auditory, visual, or haptic.


Scarcella and Oxford provide an accessible teaching model that has as its foundation individual learner needs, learning styles, and learner strategies. Although this is the initial, theoretical book in a wide-ranging series of books based on the theory, many of the chapters contain practical advice and activities for classroom teachers.
Chapter 7

Tolerance of Ambiguity and the Teaching of ESL

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"Uncertainty"—the word denotes a feeling that for most people is not particularly pleasant. This mental state is, however, commonly experienced by ESL learners, and it is a feeling that may inhibit students' risk taking and interfere with their acquisition of new learning strategies.

It is difficult for a native speaker of a language to appreciate the linguistic uncertainty facing the second language (L2) learner. Under most circumstances, when native speakers receive linguistic input intended for them, they are relatively certain of its meaning. Native speakers rarely doubt or wonder about the grammatical correctness of their speaking (or even their writing). The native speaker has no need to agonize over the correct pronunciation of an everyday word, and seldom wonders whether a particular word or phrase can be used in a certain type of interactional setting.

But think for a moment about the enormous linguistic uncertainty that ESL students face each day. For example, consider an intermediate ESL listener who, in talking with an American friend, doesn't understand a particular utterance. The learner may well experience discomfort, caused in part by the lack of communication but also by uncertainty regarding the cause of the breakdown. Did the friend use some words not yet studied by the learner? Was it a case of rapid pronunciation of words that were in fact already known? Perhaps it was a problem of an advanced grammar structure not yet encountered. Or maybe the native speaker was talking about something in the L2 culture that the ESL student was unaware of.

As much uncertainty as ESL learners face in the "receptive" areas of listening or reading, this lack of determinacy is dwarfed by that inherent in the "productive" skills of speaking and writing. For ESL students who are, say, participating in an unstructured role-play situation or working in pairs to produce a written dialogue, the opportunities for uncertainty are endless. "Do I use past or present perfect here?" "Will that word I learned yesterday work in this
"Am I pronouncing the letter "r" as an /r/ or as an /l/—or a "p" sound as a /p/ or a /b/?"

What makes this enormous linguistic uncertainty particularly problematic is that there is no real escape from it in the L2 environment. Students face this feeling in their ESL classes, outside of the class in the "real world," and even at home—in the middle of doing their assignments or watching TV. Moreover, there is no rapid cure for this feeling; in fact, the uncertainty may actually increase as the student becomes a more sophisticated L2 user and begins to ponder about questions of style, levels of formality, situational appropriateness, and lexical nuance.

DEFINITION AND IMPLICATIONS

Given the myriad opportunities for uncertainty in L2 learning, ESL teachers may well be interested in finding out to what degree and in what ways different students are affected by this feeling. Fortunately, the field of psychology provides us with a concept and a theoretical framework for exploring such uncertainty: "tolerance/intolerance of ambiguity." The construct of intolerance of ambiguity has been defined by Budner (1962, p. 29) as "the tendency to perceive . . . ambiguous [novel, complex, or insoluble] situations as sources of threat." A more extensive description is provided by Norton (1973, p. 608), who conceived of intolerance of ambiguity as "a tendency to perceive or interpret information marked by vague, incomplete, fragmented, multiple, probable, unstructured, uncertain, inconsistent, contrary, contradictory, or unclear meanings as actual or potential sources of psychological discomfort or threat." Evidence of the debilitating effect of tolerance of ambiguity is reported by McLain (1993), who found that individuals who were more tolerant of ambiguity were also more willing to take risks and were more receptive to change.

Tolerance of ambiguity, then, clearly merits consideration in teaching ESL. If a student experiences a feeling of "threat" or "discomfort" when confronted with linguistic uncertainty and is less inclined to take risks, ESL learning may be seriously hampered. This may occur in at least three areas of language learning: (1) learning individual linguistic elements (phonological, morphological, syntactic, semantic, etc.); (2) practicing language learning skills; and (3) adopting those skills as permanent strategies.

In the first area, it is not difficult to see why discomfort can lead students to resist the acquisition of individual elements of language. Take, for instance, a student whose native language (L1) does not distinguish between "unreal" and "real/possible" conditions. Each time the student attempts to use the English conditional system, he or she may experience uncertainty about whether a particular situation is a "real" or an "unreal" one. Or consider how the uncertainty of a student "fishing" for correct L2 sounds can lead to such discomfort and embarrassment that the learner may just give up and use L1-like sounds.
The next area where intolerance of ambiguity needs to be dealt with is in
the learning of new skills, such as brainstorming in the writing process, listening
for contextual clues, or controlling spoken input to make it more comprehens-
ible. Here, the potential for linguistic uncertainty is even greater than in the
learning of linguistic elements because teachers often have ESL students work
with learning strategies that involve considerable risk taking, such as guessing
meaning or gathering information from native speakers outside of the class-
room. Let's say, for example, that we want to teach a group of students how to
skim reading material to predict content. We might begin by showing the learn-
ers how they can examine illustrations, reflect about major and minor headings,
and read a few selected paragraphs, all the while asking themselves questions
about their own prior knowledge and forming hypotheses about the content. As
we observe the students’ learning, we may notice that some students seem to
internalize this skill more rapidly than others. Our first tendency might be to
assume that the difficulties that some students are having with the skill are due
solely to insufficient interest or practice. It may be, however, that the students’
acceptance and absorption of the new skill is being hampered by task-related
uncertainty that acts as an unseen, subconscious source of resistance. That is,
the students’ reaction to the ambiguity inherent in the prediction task may be
making some of them reluctant or unable to internalize the skill.

A third area where tolerance of ambiguity can be involved is in strategy
training, in which we not only have students practice a particular skill, but also
prepare them to use the skill on their own in the future. The necessity for such
training is becoming more evident as we find that students can become fairly
proficient at using a particular skill in the classroom but still never employ it
outside the classroom. An increasing number of researchers and teachers recog-
nize the need to have our students become more independent in using skills and
in directing their own learning.

Suppose, for example, that we want to go beyond mere practice of the skill
of skimming discussed above. We decide to carry out strategy training
designed to motivate and prepare the students to use prediction on their own
in the future as they read academic textbooks. How will tolerance of ambiguity
affect some students’ reaction to this training? Clearly, students who felt
uncomfortable earlier will be even more frustrated now. If students feel dis-
comfort at merely practicing a skill, how much more reluctant will they be to
incorporate this skill into their own active repertoire of learning strategies?
Moreover, we may be puzzled that some students who previously seemed to
have mastered the skill have difficulty using it consistently on their own. This
should not really surprise us, though, since the absence of teacher guidance
and of specifically assigned tasks may lead to more uncertainty and may
heighten the sensation of discomfort.

An additional observation regarding strategy training may be in order. It is
generally accepted that for students to alter their strategy use, they must actually
be willing to change. It is important to recognize, however, that receptivity to
change can be influenced by a number of factors. If we do not take into account individual difference variables, such as tolerance of ambiguity, in our strategy training, some students may not only tend to resist or reject those strategies that cause internal discomfort, but may even generalize this resistance to strategy training as a whole.

MEASURING TOLERANCE OF AMBIGUITY

The first problem in trying to assess the influence of tolerance/intolerance of ambiguity is to develop a means of measuring the construct. Several researchers in L2 acquisition have used an early scale devised by Budner or a later one devised by Norton. Since neither of these scales is specifically concerned with language learning settings, I thought it would be interesting to develop a tolerance of ambiguity instrument designed for the purpose of measuring individual differences in the specific environment faced by the L2 learner. One version of this situation-specific tolerance of ambiguity scale (see Appendix A) consists of 12 items, representing various aspects of language learning and use, including pronunciation, speaking, listening, reading comprehension, lexical development, and grammar learning.

We should note that there are several issues that, as ESL teachers, we need to consider in constructing and using individual difference instruments. The first of these is student level. We need to examine each item carefully to make sure that it is grammatically and lexically appropriate for the student's English level. Often it is necessary to simplify or totally rewrite an item to make it comprehensible to a particular group of ESL students. Second, if we are using a scale designed for a specific situation, such as the tolerance of ambiguity scale discussed here, it is important to have the items really represent the types of language learning that the students are experiencing—that is, the instrument needs to have face validity for the students themselves. (Note that as we alter scales, it is also necessary to test them for reliability in their new form.) Finally, if we have a group of students who all speak the same L1, we can use a translated form of an instrument—noting, though, that for accurate translation we need to follow certain procedures carefully.

These three issues came into operation in a Korean version of the tolerance of ambiguity scale that I used recently with university EFL students in Korea. I began with a series of rigorous back-translations (see Ellis, this volume, for a detailed discussion of issues regarding the translation of instruments). Then, realizing that some of the items and most of the wordings would not evoke in the students a clear enough picture of their former and current learning experiences, I rewrote the items many times, pilot-testing them with individual Korean students. Following administration of the instrument in Korea, the scale was further refined for reliability.
STUDENTS, TEACHERS, AND TOLERANCE OF AMBIGUITY

The most important way we can use the results of a tolerance of ambiguity instrument is to help our students come to grips with the psychological cross-currents that they feel in the L2 learning process. The first step is to raise our students' consciousness about uncertainty. Here, as in any type of consciousness raising, the primary need is to bring to an individual's attention something that is already influencing him or her at a subconscious level.

We can begin this process by administering a tolerance of ambiguity instrument. Then, before reporting the results to our students, we can embark on a period of awareness training, the aim of which is to have students face up to their own uncertainty. One method is to use a written simulation, in which the teacher presents students with a handout describing a situation with a high potential for uncertainty. For example:

In your writing class, the teacher and students have been talking about world population growth. The students have done some brainstorming and organizing and have developed a list of short phrases on the topic. For tomorrow’s class, the teacher has asked you to write a paragraph on this topic. It’s 9:00 P.M. and you’ve just started to do your homework. You look at the list of phrases and begin to think about how to put them into a paragraph. Before you begin to write, what are the things that you have to decide? As you write each sentence, what decisions about language do you have to make?

Students can either jot down ideas on the handout or be given a few minutes to think about the situation. Then, in a whole-group discussion, the teacher can elicit students' reactions. At first, students will tend to mention decisions and uncertainty regarding the development of the content of the paragraph. Gradually, the teacher can have students think about the types of questions and uncertainty about language that are likely to arise. It is often effective here, and elsewhere, for the teacher to talk about the uncertainty that he or she has felt during L2 learning.

For homework, the teacher can assign a short reading that discusses the psychological construct of tolerance of ambiguity in a nontechnical way (see the example appended to this chapter). This reading can present the concept, describe one or more language learning situations in which intolerance of ambiguity can be a problem, and point out that it is natural for people to feel such an emotion. In a follow-up discussion of the reading, students' individual feelings can be gently elicited. The students are now ready to benefit from knowing their tolerance of ambiguity scores. They should meet individually with the teacher to discuss their responses to the items on the instrument or at least the implications of their total score.
There are several interesting alternatives to some of the steps described above. The first is an interactive in-class discovery procedure. The students brainstorm a paragraph together, with the teacher recording the sentences on an overhead projector or the blackboard. The teacher can elicit information regarding decision making, asking the students, as they develop the paragraph and sentences, what kinds of things they are unsure about— that is, what linguistic and developmental uncertainty is in their minds as they write. A second option involves having students introspect at home as they carry out the task. To do this, students are provided with detailed instructions for writing a paragraph. The instructions include requests for the students to record (either on paper or with a tape recorder), at various points in the composition process, problems that they are experiencing, questions they have, and things they are not sure about. It is often best to have students do this part of the assignment in the L1 to prevent another layer of uncertainty from being added. The next day in class students’ responses can be shared (in the L2, in a multilingual ESL setting) with the whole class, sometimes after they have first had a chance to talk in pairs or small groups.

After consciousness raising, the next and perhaps more difficult step is empowerment, helping students to make changes in their feelings about uncertainty. To do this, students need to view language uncertainty in a more positive light. Learners should discover that a moment of linguistic uncertainty is a key that can unlock a particular aspect of language: that uncertainty is really an opportunity to discover something new about the L2. To help students realize this truth, the teacher can have learners participate in activities and tasks characterized by uncertainty and show them, step by step, how each instance of uncertainty can be used for progress in L2 acquisition. The ideal forum for this is in sessions with individual students, held at least once every few weeks. The teacher can engage the student in a receptive or productive language use activity, and then, as the learner faces problems, discuss with the learner what is going on in his or her mind. Our real goal in this work is to have the student move from feeling embarrassed or unhappy at linguistic uncertainty to seeing himself or herself as a linguistic researcher or problem solver. If working individually with students is impossible, whole-group and small-group activities can also be helpful, although it is not always easy to elicit truthful responses about inner feelings from students in front of their peers.

INDIVIDUAL DIFFERENCES AND TOLERANCE OF AMBIGUITY

We have been focusing on the negative aspects of disliking uncertainty, of intolerance of ambiguity, in L2 learning. If intolerance of ambiguity can be harmful, does it follow that it is helpful for students to be very tolerant of ambiguity? Not necessarily. It may be that very high tolerance of ambiguity can also lead to language learning problems. For instance, picture a student whose approach to L2
learning is what we could call "contrastive"; the student feels that there is (or should be!) a one-to-one correspondence between L1 and L2 structural elements or vocabulary and that one language can be directly mapped onto another. As a result, in speaking and writing the L2, the student tends to translate from the L1 to the L2. One corollary of such a language learning approach may be a high tolerance of ambiguity: the student may not be looking for—and hence not find—cues that would produce uncertainty. The student's conviction about the nature of languages and language learning will serve to mask counter-evidence in available input, with the result that uncertainty or doubt will be greatly diminished. In this case, a high tolerance of ambiguity would be a troubling symptom: an indication of a lack of sensitivity to L2 data. The unfortunate result is likely to be relatively early and permanent pidginization or fossilization of incorrect pronunciation, grammar, vocabulary, and pragmatic use. If this is a student who desires to learn the language well, the lack of linguistic accuracy is likely to cause her or him a great deal of frustration.

The ideal case, of course, is that of the learner who is neither inhibited by low tolerance of ambiguity nor oblivious to linguistic subtleties. The student who is aware of, but not threatened by, linguistic differentiation, and who treats it as an occasion for introspection, experimentation and, ultimately, learning, is the one for whom tolerance of ambiguity will be a help, not a hindrance.

THE TEACHER AS RESEARCHER

It is important for teachers to realize the limits of current research on the learner. Besides tolerance of ambiguity and the other individual difference variables discussed in this volume, it is certain that there are many other factors operating in the minds and hearts of our students that warrant investigation. Classroom teachers are in the best position to observe these variables and, by themselves or in partnership with researchers, develop ways of isolating and quantifying these variables. It is important, therefore, that previous research not constrain or restrict teachers' consideration and investigation of individual differences. Rather, research should help teachers become more careful, systematic observers of classroom phenomena, and stimulate fresh, creative thought. In this way, our field will make more rapid progress toward the goal of having teachers and students understand—and improve—L2 learning.

NOTES

1. It should be noted that McLain (1993) did not conduct an analysis to definitively establish causality between the variables.

2. It is interesting to speculate that tolerance of ambiguity could explain at least part of the functioning of the "affective filter" posited by Dulay and
Burt (1977) and elaborated upon in Dulay, Burt, and Krashen (1982). If such screening does take place, it may be that some of the input (grammatical, etc.) that is most filtered out is that involving considerable uncertainty, due to the discomfort stemming from low tolerance of ambiguity.

3. See also the tolerance of ambiguity scale designed by McLain (1993).

4. A number of psychologists have suggested that we must consider the interaction of person and situation in predicting behavior (see, e.g., Mischel, 1977, 1981; Shoda, Mischel, & Wright, 1989).

5. For details regarding the Korean and other versions of the tolerance of ambiguity instrument, the author may be contacted at: Department of English, Ball State University, Muncie IN 47306-0460.

6. I usually embed this within a larger questionnaire; students are not told of the nature of the questionnaire scales at this time.

7. Many other situations are possible, as long as the learning involves a language processing behavior that can be easily monitored, such as reading a difficult passage, listening to a tape, or planning a presentation.


APPENDIX

Sample Reading Passage

Uncertainty in Learning English

Language learning can be interesting and enjoyable, but sometimes it makes us uncomfortable. One source of this discomfort is uncertainty. Think for a moment about the uncertainty involved in learning a language. When you’re speaking English, sometimes you’re not sure which verb tense to use. If you’re writing a composition, you might look up a word in an L1/L2 dictionary and find two or three possible English words to use—which one is right? When you are pronouncing English words, sometimes it’s hard to know if the pronunciation is correct, isn’t it? There is also a great deal of uncertainty when we are listening in a second language: we often have to guess (predict) exactly what the speaker is talking about.

The main problem with language-learning uncertainty is how we feel about it. If uncertainty makes us feel very uncomfortable, this feeling can make us too cautious and can slow down our language learning. Many students need to learn how to deal with this uncertainty, and even to make it work for them in a positive way. In this class, we’ll be finding out just how to do this.

The important thing to remember is that uncertainty in language learning is natural. If we don’t feel uncertain about some things, we’re probably not noticing some things about the language!
For further thought:

1. Look back at the examples of things that can cause uncertainty in learning a second language. Think of four or five other times when a language learner might feel uncertainty.

2. Think about your first language. If an American friend were trying to learn it, what might cause uncertainty for him or her?

FOR FURTHER READING


Chapelle's dissertation was the groundbreaking work in the investigation of the role of tolerance of ambiguity in second language acquisition.


Further discussion of global and situation-specific measurement of individual differences is provided by Ely; the 1989 article reports on a research study on the relationship between tolerance of ambiguity and students' strategy preferences.


Ommaggio's monograph is one of the most interesting, yet generally neglected, pieces of pedagogical work on individual differences. She presents a wealth of detailed class activities for dealing with a large number of personality and cognitive style variables.
Chapter 8
Expanding Student Learning Styles through Poetry

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Classroom practice in teaching English as a second (TESL) or foreign language (TEFL) has changed dramatically in the past decade. Instead of following more standard practices for language teaching, many teachers are experimenting with different methodologies and tasks in the language classroom. One offshoot of this experimentation has been the use of more poetry in second and foreign language teaching. This is evidenced by the increasing number of books and papers published in language teaching journals (Bassano & Christison, 1989; Behn & Twichell, 1992; Moore, 1993; Maley & Duff, 1989; Synder, 1989) as well as by demonstrations and workshops on poetry at professional conferences (Christison, 1982; Marwin, 1988; Adkins & Munn, 1992, 1993). Using poetry in the language classroom is no longer thought to be the domain of an elite few but instead is being used by both native and nonnative teachers alike. More and more teachers are discovering the important benefits of using poetry in their language classrooms. In this chapter, we will demonstrate how poetry can be beneficial for ESL learners, and in particular how poetry can enhance student learning styles.

**BENEFITS OF USING POETRY**

1. Poetry helps develop a love of words and sounds in language learners. The use of poetry in language stems from a long oral tradition. Long before we were able to read or write in our first language, we enjoyed poetry. Some of our fondest memories of childhood revolve around listening to songs and rhymes from our adult caretakers or chanting and rhyming during childhood games with our friends. In the real world outside of the language classroom, poetry is everywhere.
It is natural and spontaneous. It is an extension of play and work. It can make our play more fun and our work seem easier. Recalling the rhymes associated with early childhood games such as hopscotch, jump rope, and tag brings back a flood of pleasant memories associated with both language and community.

Using poetry in the language classroom can touch our second language learners in the same way. Introducing poetry early on in the language learning experience can also help nurture a love of words and sounds in all language learners, both adults and children. In our classrooms we have found that language learners have fun with and enjoy poetry. It is almost automatic for them to start chanting and repeating the new words and rhythms. This love of words and sounds provides a firm foundation on which to build more advanced language skills. That is, language learners who discover how to enjoy a language, who love the sounds and words of a new language, are well on their way to success in acquiring that language.

2. Poetry aids in building a positive affective climate in the classroom. Another benefit to using poetry in the language classroom is that beginning language students can read and enjoy short poems in English when they do not have the skills to tackle longer, more complicated pieces of prose. These early, successful experiences with short poems build self-confidence and encourage personal expression in ways that other written materials may not. Carefully selected poems not only will appeal to students' interests but also will address emotional and psychological needs. For example, consider the short poems of William Carlos Williams such as "Poem" (1991). There are only 27 words in this poem about a rose. Every word is important. Learners who have had experiences with flowers or gardens would feel emotionally and psychologically supported with this selection for the ESL classroom.

3. Poetry assists language learners in vocabulary development. Poetry can be an important tool for building vocabulary. This is a particularly valuable concept for TESL/TEFL. Although poems occasionally contain invented words or unusual combinations of words, poets most often draw their vocabulary from the same source as everyone else. The words in poems that teachers choose for the language class are the same words that are used in telephone conversations, grocery lists, homework assignments, final examinations, store advertisements, road signs, and the like (Christison, 1982). A carefully chosen poem therefore contains the vocabulary that students will use in real-life situations. Moreover, the ideas expressed in poetry reflect the students' own experiences and ideas.

For example, an excellent follow-up activity to the Williams Carlos Williams poem (1986) "This Is Just to Say," is to ask the students to write their own notes within the model framework. This activity not only helps students to use specific vocabulary, but also reveals much to the teacher about the students' personal lives and experiences.

4. Poetry lends itself to instructional techniques that address different learning styles. A language teacher can be certain that language learners have different strengths and learn in different ways. Reid (1987), Hansen and Stansfield (1981,
1982), and Wong Fillmore (1976) have all questioned students in order to identify their learning-style preferences. They found that students learn in a variety of ways and that they have different ideas about how they learn best. There are many variables that affect their learning-style preference, such as native speaker orientation, sex, length of time in the United States, level of education, and age difference. For example, some language learners are visual; they seem to learn best when the language lesson contains many important visual cues. Other learners find that auditory cues support their learning experiences more significantly. Still others benefit from tactile or kinaesthetic activities. Teachers must remember that good language teaching includes a variety of language tasks that address different learning styles. The activities described in this chapter suggest that poetry lends itself well to a variety of learning styles.

5. Implementing poetry in the language learning class provides opportunities for learner-strategy instruction. Poetry provides excellent opportunities for implementing tasks to practice a variety of metacognitive, cognitive, and social-affective strategies (O'Malley & Chamot, 1987, 1992) and for teachers to provide learner-strategy instruction. A lesson with poetry could focus on metacognitive skills by asking the students to preview the main ideas of the poems or to judge how well they had accomplished a learning activity. Similarly, poetry lends itself well to developing cognitive skills such as classifying words or concepts, writing down key words or phrases, using visual images, guessing meanings, or completing missing parts. Poetry also provides an excellent opportunity to develop socioaffective skills. Students can be asked to elicit additional information from their peers and work together to check their information.

THREE LANGUAGE LESSONS

To illustrate how poetry can benefit the language classroom in the ways we have suggested, we selected three poems and three generic strategies for presenting them. The poems were chosen because they contain subject matter that seems to be of high interest for the learners and they are also short. The lessons we present are appropriate for secondary-school-age through adult learners. There are three steps to each lesson: (1) prepoetry, introducing the ideas, focusing in and activating background knowledge; (2) during the poem, conducting the language activities with the poem; and (3) evaluation of the lesson, providing a brief evaluation of the lesson according to the five benefits previously cited for using poetry.

□ LESSON 1, CLOZE TECHNIQUE: “RECIPE” BY BOBBI KATZ (1971)

I can make a sandwich     I can make ______________

I can really cook         I can really ___________
I made up this recipe
That should be in a book.
Take a jar of peanut butter
Give it a spread,
Until you have covered.
A half a loaf of bread.
Pickles and pineapple,
Strawberry jam
Salami and bologna
And 1/2 a pound of ham
Pour some catsup on it.
Mix in the mustard well.
It will taste delicious
If you don’t mind the smell.

Prepoetry Activities
The purpose of the prepoetry activities is to focus the students on the task and to find out what the students already know about the content of the poem you are planning to introduce. “Recipe” by Bobbi Katz (1971) is about the author’s experiences in sandwich making. Give each student a copy of the following questions. Ask them to take about 6 or 7 minutes to answer the questions individually, and then work in small groups to share answers to their questions.

1. Who cooks in your house?
2. Do you ever cook?
3. What kinds of things do you cook?
4. What kind of sandwiches do you like best?
5. Have you ever made a sandwich?
6. What things do you like on your favorite sandwich?
Conduct a large group discussion with the students and use the discussion to create a chart on the blackboard with the headings: Who cooks? What is cooked? Favorite sandwiches? Ingredients? A sample chart appears in Table 8-1. Find out which students have cooked, what they cook, what their favorite sandwiches are, and what ingredients go into the sandwiches.

During the Poem Activities

Tell the students that they are going to work with a poem about making a sandwich. Show them the complete poem on an overhead projector or on the blackboard. Explain to them that some words are missing from the poem. Tell them that their job is to decide what words to put in the blanks. Stress the idea that you are not looking for one correct word; emphasize the point that many different words will work. Then, hand out copies of the cloze poem to pairs or small groups of students. One person should be the secretary. Instruct the pairs or groups to read the poem together and decide what words to put in the blanks. Tell everyone to experiment and be creative. Do the first blank space as an example with the large group. Get at least three suggestions for words that could go in the blanks. Then, give the students about 10 minutes to fill in the blanks with words of their own choosing.

Next, have the person who is the secretary in the pair or small group take the paper and move to another partner or group. Give the students about 5 to 7 minutes to share their information orally and get suggestions from the new secretaries. Then the secretaries should return to their original partners or groups who can discuss any changes they may have made or are considering. In our classes, students are always interested in reading their versions to the entire class, so we allow time for large group sharing.

**Student Version 1**

I can make a cake
I can really cook
I made this chocolate cake
That should be in a book.
Take 50 chocolate candy bars
Give it a spread
Until you have covered
A half a large pan
Sugar and pineapple
Raspberry jam
Salami and bologna
And 1/2 pound of butter
Pour some flour on it.
Mix in the eggs well.
It will taste delicious
If you don’t mind meat!

**Student Version 2**

I can make a sandwich
I can really cook
I made up a recipe
That should be in a book.
Take a jar of jelly
Give it a spread
Until you have covered
A half of bread
Banana and pineapple
Strawberry jam
Salami and bologna
And 1/2 pound of hamburger
Pour some mayonnaise on it.
Mix in some catsup well
It will taste delicious
If you don’t mind the smell.
After that, you may or may not follow up with the original poem. Our students have generally been interested in the author's version.

**Evaluating the experience**

1. **Develops a love of words and sounds:** This cloze activity encourages play with the rhythm and sound in the poem. The activity is open-ended so learners can experiment with the rhythm and sounds inherent in the poem.

2. **Builds a positive classroom climate:** Since students are told from the very beginning that there are no wrong answers, they feel comfortable and relaxed in experimenting with and creating their own versions of the poem. They also have an opportunity to work one on one with class members, using nonpersonal information in a nonthreatening and low-stress environment. Success with this activity paves the way for future collaborative efforts with their classmates.

3. **Aids in vocabulary development:** This poem contains everyday vocabulary that students will need and use in their daily lives. In addition, the cloze activity itself focuses students on the vocabulary choices that will be possible within the given context. Students naturally begin to think of all the vocabulary that could fit into the category of cooking.

4. **Addresses different learning styles:** Auditory, visual, and kinesthetic learners will all find tasks that address their learning styles. Listening to directions, interacting with peers, and presenting original poems are all auditory tasks. Working with the cloze handout is a visual/tactile activity. The second partner or group sharing and the oral presentation of the poem addresses the needs of auditory and kinesthetic learners.

5. **Encourages learner-strategy instruction:** The cloze technique with poetry provides opportunities for teaching the cognitive strategies of predicting and inferencing as well as the socioaffective strategy of cooperation. The cloze activity also encourages metacognition—learners self-evaluate as they present their original poems, listen to their classmates, and compare their poems with that of the author.

**Lesson 2, Strip Poetry: "Money" by Richard Armour (1975)**

- Workers earn it,
- Spendthrifts burn it,
- Bankers lend it,
- Women spend it,
- Forgers fake it,
- Taxes take it,
- Dying leave it,
Heirs receive it,
Thrifty save it,
Misers crave it,
Robbers seize it,
Rich increase it,
Gamblers lose it,
I could use it.

**Prepoetry Activity**

This activity focuses students on the topic of money and is designed to find out what students already know about money. Ask the following question: “If you had $5,000 to spend in any way you wanted, what would you do with it?” Share answers with the large group. Write notes on the board. Students will give different answers to this question. Point out that people do different things with the money they have.

**During the Poem Activity**

Ask the students to make a list of words that they do not understand and then compare their lists with their partners’ lists, getting help with and clarification about the vocabulary words. Together they should make a list of words to ask the teacher or other classmates.

Copy the verbs and nouns in the poem on posterboard or construction paper, for example, heirs, forgers, taxes, bankers, and receive, fake, take, and lend. On the blackboard, make two columns with these words—one for verbs and one for nouns. Tape the nouns in a straight line on the left of the blackboard and the verbs in random order on the right. The verbs can then be moved right to match the noun. See Table 8–1.

The next task is for the students to match the verbs to the nouns. What do these people and things do with the money? For example, bankers lend, forgers fake, and taxes take. Ask for partner volunteers to move the verbs on the right

<table>
<thead>
<tr>
<th>NOUNS</th>
<th>VERBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>bankers</td>
<td>earn</td>
</tr>
<tr>
<td>heirs</td>
<td>lend</td>
</tr>
<tr>
<td>taxes</td>
<td>fake</td>
</tr>
<tr>
<td>workers</td>
<td>receive</td>
</tr>
<tr>
<td>forgers</td>
<td>take</td>
</tr>
</tbody>
</table>
side of the board next to the appropriate nouns. Give other students a chance to move words they do not agree with. They should keep working until the teacher lets them know they have the correct matches.

Next, show the students a copy of the poem. Tell the students that they are going to read a poem about money, using these nouns and verbs. Read the poem aloud to the students. Ask them to find the words that rhyme. The teacher may need to give examples, ask questions, circle rhyming words, and so on, to get the students started: “Where are these words located in the line?” “What is the last word in each line?” “What does ‘it’ stand for?” “Where are the rhyming words with respect to each other?” “Does each line have a rhythm?” “Clap your hands to mark the rhythm.” “Can you change the rhythm?” (The teacher can demonstrate this for the students.)

Ask the students to put away or turn face down their copies of the poem. Pass out small cards with one line of the poem written on each card. Ask them to memorize the line and hand the card back to you. Then, in a strip story activity, have the students find their rhyming partner and put the poem back together again. Give them some useful phrases to use to help clarify: “Excuse me, what did you say?” “Can you repeat that please?” “I don’t think I understand you.” Ask them to stand with their partners when they find a match. Once each student has a partner, have them recite the entire poem orally. (It doesn’t really matter in what order the couplets are given).

Evaluating the Experience

1. **Develops a love of words and sounds in the new language.** This poem lends itself well to experimenting with the rhythm and sound of the language since it is written in rhyming couplets and has a definite rhyme scheme and meter. The activities give students an opportunity to work with the rhyme in the strip poetry activity and the rhythm through the clapping activity.

2. **Builds a positive affective climate.** The prepoetry activities are structured and the students are prepared so that all the learners can be successful in participating. Although correct answers are necessary for completion of the task, the tasks are carried out in a very nontthreatening atmosphere; students have opportunities to make revisions with partners and they have continual feedback from the teacher. When answers are finally checked with the large group, students have confidence that they have the correct answers because the group has clarified them. Students also enjoy strip poetry activities with the large group; we have found that students are very supportive of each other and enjoy the matching and sequencing activities.

3. **Aids in vocabulary development:** The strip poetry activity provides many opportunities for students to learn common vocabulary related to money. The vocabulary is introduced, reintroduced, and used in the strip poetry extension activity. Because the same vocabulary is used in several ways in this lesson, there is a greater opportunity for learners to increase their vocabulary.
4. **Addresses different learning styles:** A variety of activities is used in this lesson. Clapping the rhythm of the poem, manipulating vocabulary cards, and organizing the strip story poems are all important kinesthetic activities. Visual learning styles are addressed in the display of vocabulary on cards, the handout material, the strip story cards, and reading the poem.

5. **Provides opportunities for learning-strategy instruction:** The strip poetry activity presents an excellent opportunity to teach advance organization, grouping, and cooperation. The prepoetry activity provides an opportunity to practice metacognition through *advance organization* by previewing the main ideas and concepts of the poem. By classifying words as important money words and classifying them according to their attributes (i.e., verbs or nouns), students practice an important cognitive strategy called *grouping*. In addition, they worked together with their peers to pool their information and complete a learning task.

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**LESSON 3, MATCHING: “MUMMY SLEPT LATE AND DADDY FIXED DINNER”**

**BY JOHN CIARDI (1962)**

Daddy fixed the breakfast.
He made us each a waffle.
It looked like gravel pudding.
It tasted something awful.

“Ha, ha,” he said, “I’ll try again.
This time I’ll get it right.”
But what I got was in between
Bituminous and anthracite.

“A little too well done? Oh, well,
I’ll have to start all over.”
That time what landed on my plate
Looked like a manhole cover.

I tried to cut it with a fork:
The fork gave off a spark.
I tried a knife and twisted it
Into a question mark.

I tried it with a hacksaw.
I tried it with a torch.
It didn’t even make a dent.
It didn’t even scorch.
The next time Dad gets breakfast
When Mummy’s sleeping late,
I think I’ll skip the waffles.
I’d sooner eat the plate!


Prepoetry Activity

The vocabulary of this poem is related to breakfast and cooking, but the focus for the students should be on the division of labor in America families. Ask the students to work in pairs. With their partner, ask them to make a list of at least 20 jobs that need to be done in a family. Then, with the whole class, consider an American family of three people: a mother, a father, and a daughter or son. Decide who usually does the jobs. Is the distribution of jobs equal among family members? Ask the partners to make a second list that divides the important jobs equally among family members. What jobs have you done? Which jobs do you usually do? What jobs are easiest? most difficult? Do you do the same jobs all the time? What happens when you try to do a new job for the first time? Have the partners join another pair and share their answers.

Tell the students they are now going to work with a poem about a job that is usually done by one family member but must now be done by another. Hand out the poem to the students. Ask them to read the poem and circle any words they do not know. Then give them a few minutes to share lists with a partner, or seek clarification from another classmate or the teacher. Then give them the following questions to answer about the poem:

1. What family member usually cooks?
2. Who is cooking breakfast in the poem?
3. What is he cooking?
4. Who is the breakfast for?
5. What does the breakfast taste like?
6. What does the author of the poem plan to do next time?

During the Poem Activity

Write the poem on small strips of paper, with one-half line on each piece. Mix the pieces and give one strip to each student. Ask them to memorize what’s on the strip and then return the strip to the teacher. When everyone has memorized their sections, give them 5 to 10 minutes to mix and mingle with each other until they find their partners. Once everyone has a match, conduct a large group oral sharing to check the answers.
Evaluation of the Lesson

1. Develops a love of words and sounds: The oral matching activity focuses on the rhythm and sounds of the language. Students repeat their lines to other class members until they find a match. They enjoy the opportunity to use the language interactively with their peers.

2. Builds a positive affective climate: The activities are low stress and non-threatening. They encourage student interaction. Students feel relaxed in the learning tasks and enjoy working together. Success in the learning activity is almost guaranteed.

3. Aids in vocabulary development: In this lesson, students have time to identify the vocabulary they do not know and have an opportunity to work with these words in a variety of ways—clarification with a partner and interactively with several peers in the matching activity with the whole group.

4. Addresses different learning styles: Kinesthetic styles are addressed in the large-group matching and pair-work activities. The entire poem as well as the strips of poetry are important for visual learners. Auditory learners will find their strengths addressed in the matching activity where they have to speak and listen in order to get the poem back together again.

5. Encourages learning-strategy instruction: This lesson provides an opportunity to practice several different learning strategies such as self-evaluation, auditory representation, and questioning for clarification. The strip poetry activity provides an opportunity for the students to practice self-evaluation by judging how well they have accomplished their learning activity. They also play back in their minds the sounds of the words and phrases they have memorized and practice the cognitive strategy of auditory representation. The strip poetry activity also provides excellent opportunities to question for clarification by eliciting from the teacher or peers additional explanation and rephrasing in order to find their matching partner.

CONCLUSION

There are important benefits to using poetry in the ESL/EFL classroom, in particular, helping develop a love of words and sounds in language learners, building a positive climate in the classroom, assisting in vocabulary development, addressing different learning styles, and providing opportunities for learner-strategy instruction. In this chapter, we have shown that it is possible to plan poetry lessons that include all five of these benefits. In addition, the three lessons we have presented in this chapter have provided examples of poetry that meet the criteria for poetry selection for language learners; they are short and of high student interest. We also suggest a format for poetry lessons for language learners that include prepoetry, during the poem, and after the poem activities.
These are all important considerations in planning and implementing a lesson using poetry. We hope this chapter has encouraged you to continue making your language lessons richer and more various through the use of poetry, as well as given you some concrete ideas that you may find useful.

FOR FURTHER READING

This book is a compilation of suggestions for practice in the art of poetry. The exercises are various in approach, style, and content. They are provocative, challenging, entertaining, and excellent for language learners. This is because the contents are grouped by level of inquiry rather than by level of expertise. Many of the exercises travel well from one level to another. Though not an anthology, it does contain an extensive appendix that lists all published works referred to in the text.

This resource book, republished by Alta Books, is for second language teachers. It contains ideas about using poetry in the classroom, and a short anthology of poems and how to use them. The book is applicable for teachers of adult second language learners.

This book contains numerous activities by a variety of authors. Most of the poems and activities are adaptable for second language learners such as "Fill-in-the-blank Poem," "Cut-and-Shuffle Poem," and "Line Endings."

This edited anthology has two sections, the first on the learner, the second on the teacher. All articles support the claim that collaboration encourages students to learn about learning, and "to increase their awareness about language, and about self, and hence about learning" (p. 3). Many of the authors base their classroom activities on our cooperative learning areas: classroom environment and social tasks; process tasks such as peer tutoring and goal setting; and progress monitoring and evaluative tasks (Bassano & Christison, 1988).
Chapter 9
Culture-Specific Perceptual-Learning-Style Preferences of Postsecondary Students of English as a Second Language

Christine Stebbins
University of Wyoming

Investigation of preferred learning styles among native English speakers (NESs) has been extensive and covers cognitive, affective, and physiological domains. However, before the 1980s relatively little was known about the preferred styles of English as a second language (ESL) speakers. Early research with American minorities (Cohen, 1969; Hale, 1982; Ramírez & Castaneda, 1974) suggested that ethnicity played a role in learning differences among the groups studied. Later research also posited that cultural values influence learning, with significant differences in attitudes, perceptions, and interpersonal relationships between non-Western and Western cultures (Decker, 1983; Hvitfeldt, 1986). Until the pioneering research by Reid (1984), however, little was known about the learning styles of international ESL students. Before Reid's work, ESL classes were taught with little teacher awareness of the style differences that delineated ESL students from each other and from NESs.

For these international students, many of whom are only moderately proficient in English when they arrive in the United States, second language (L2) learning can be quite problematic. Students from diverse cultural, language, and educational backgrounds must quickly master the L2 at the same time they are assuming new life-styles and academic responsibilities. This can be especially true for newcomers who are teaching assistants (TAs) or research assistants (RAs) with departmental duties in addition to their own scholarship (see Torkelson, this volume). These academic duties usually entail the need for immediate and extensive oral and written communication with NESs, who often have little patience with speakers/writers who lack native language proficiency. Yet some
ESL students struggle in L2 classes because the alien classroom atmosphere and unexpected teaching approaches hinder learning.

Reid's research, which provided baseline data on perceptual mode preferences, has led to an increasing understanding of the similarities and differences in the ways ESL students and NESs process information. Identifying these ESL learning styles, which are the "result of a complex interaction of age, educational experience, and cultural background" (Viola-Hainer et al, 1990, p. 5), has in turn led to an increasing awareness of the need for culturally sensitive instructional methods that may help maximize L2 learning, not only for the millions of immigrants who have come to the United States in the last decade (Yu, 1991), but also for the hundreds of thousands of international students who currently attend American colleges and universities; the international student population in the 1991–1992 school year totaled 419,585 (Zikopoulos, 1991–1992), and this number will most probably continue to increase.

The Perceptual Learning Style Preference (PLSP) questionnaire was specifically designed to identify adult ESL students' perceptual-style preferences; it examined four perceptual (visual, auditory, tactile, and kinesthetic) and two social (group and individual) learning-style preferences and established baseline data for later research. Reid's survey has since been partially replicated or modified in efforts to provide more knowledge about the differences and similarities in learning styles among and between ESL students and NESs. In an effort to further demonstrate, through longitudinal stability, the relationship between cultural background and perceptual learning styles, in 1992 I designed a replication/expansion of Reid's work.

REPLICATION

The PLSP survey was administered to 660 ESL students in eight university-affiliated intensive English programs (see Appendix A for the survey). Additionally, 121 native speakers of English in various graduate and undergraduate major fields of study at the University of Wyoming participated. Two new verbal questions focusing on the use of pictures, charts, and graphs were added to the current survey and were administered to 121 NESs and 35 ESL students to further delineate students' preferences within the visual mode (Stebbins, 1993).

In total, 764 students were surveyed, with respondents representing 63 countries, 43 language backgrounds, and 92 major fields of study. ESL English proficiency levels, determined by TOEFL scores and by the judgment of program administrators, ranged from low intermediate to advanced. Demographic variables included age, gender, native country, native language, class (undergraduate or graduate), and three questions concerning the students' study of English both in their homeland and in the United States.
DISCUSSION

The results of my study paralleled Reid's (1987) results in several areas:

- Kinesthetic and tactile learning styles were strongly preferred by ESL students when compared to NESs.
- Group learning was again chosen as the least preferred mode by most NESs and ESL students; the only sample group in the current study to indicate a preference for the group learning mode were those ESL students with low (300-349) TOEFL scores.
- Spanish speakers repeated their strong preference for the kinesthetic mode.
- Arabic and Korean students showed stability in their choice of multiple learning styles.
- Japanese students again did not strongly identify any style preferences.

The longitudinal stability of results between the current findings and Reid's 1984 findings gives evidence not only of the stability of culturally influenced learning styles, but also of the reliability and validity of Reid's original testing instrument.

These findings, and the work of other learning-style researchers, indicate that ethnicity or language background is a factor that influences the learning-style preferences of college-level international students. Although research results are not always consistent, many experts working with ESL students believe that culture has a major influence on learning-style preferences (More, 1990; Politzer & McGroaty, 1985; Rossi-Le, 1989; Shade, 1984; Swisher & Deyhle, 1989). Enough evidence does exist to guide teachers toward the development of "culture-sensitive pedagogy" (Reid, 1987, p. 100). For example, Arabic students responding to learning-styles surveys consistently show strong preferences for learning in the auditory mode. Farquharson (1988, 1989) suggests that this is a preferred cultural style because "Arab societies are more 'orale' than literate... with an emphasis on spoken language, with poetry and oral eloquence being particularly prized" (1989, p. 204). She notes that until recently knowledge for many professions was passed down orally, without using books.

In another example of how culture might influence learning styles, Spanish students (responding to the 1984 and 1992 administration of Reid's survey) expressed strong preferences for kinesthetic learning, where effective instructional activities often are group and action-oriented. Similarly, Decker (1983) and Hesler (1987) related that Mexican-American and Hispanic students are motivated by the social reinforcement of the classroom, where the focus is on cooperative group activities (see also Violand-Sánchez, this volume). The same researchers also found that Spanish-speaking students favor a global approach (compared to analytical learning), where meaning is situationally determined.

While the aforementioned conclusions do not directly address kinesthetic learning, teachers with classroom experience know on a practical level that effective
instruction for interactive or group-oriented learning often involves the use of multiple activities, which are the basis of kinesthetic learning.

Korean students strongly preferred visual learning in both surveys (given a decade apart) possibly they are selecting the mode most suited for learning their native language. Lee (1976) stated that Asian cultures, including Korean, emphasized the visual mode for learning their largely iconographic language systems. Other ethnographic studies (Rabianski-Carriuolo, 1989, p. 22) have found Korean mothers generally are “highly literate and well educated.” In the home there is an emphasis on academics, with learning materials usually present and with children modeling the academic behavior of their mothers, who typically stay home full-time with their children during their elementary school years. Because learning materials have been consistently found in Korean homes, it seems plausible to conclude that children are exposed to reading from an early age, thereby contributing to the formulation of visual preferences.

Japanese students responding to the survey in both 1984 and 1992 showed no strong preferences for any mode, which perhaps indicates an unwillingness to express personal opinions rather than a lack of preferences. This result supports investigations done in Japan by Rohlen (1983) and Jewell (e-mail communication to TESL list, 1993). Rohlen found Japanese high school students unwilling to express disagreement or to act according to personal conscience or opinion. Jewell, writing of his teaching experiences in Japan at a private university and as an instructor for various companies’ employees, believes that Japanese students are willing to express an opinion, but usually they have none to express, possibly because they have limited experience with personal decision making. Rohlen attributed this unwillingness or inability to express strong opinions to traditional Confucian ideals of regimentation/restraint that shape the underlying message of the modern educational system (including textbooks): everyone must work together to maintain Japan’s post-World War II peace and prosperity; overt and covert dissidence are strongly discouraged. Schieffelin and Och (1986) agreed that responsibility for upholding the interests of the others in one’s group developed strong empathy and conformity, while limiting individuality (see also Nelson, this volume).

Analysis of the responses from my research found that although Japanese students did not indicate any strong style preferences, Japanese males generally expressed slightly stronger positive and negative preferences than did Japanese females who, by comparison, more often chose the “undecided” rating. This finding again suggests strong cultural influences. Although Japan’s official educational policy mandates strict equality between the sexes, social (including parental) attitudes shape markedly different adult roles for men and women: women are still socialized to be much less assertive or opinionated (Rohlen, 1983). An in-depth interview with one female Japanese student suggested that this socially acceptable behavior may still be the norm. In discussing her impressions of her new life in the United States, this student had discreetly disparaging words for a female friend who had “gone American” and now openly expressed her opinions.
Similar conclusions concerning the willingness/unwillingness to express opinions may also apply to Chinese students, who are products of a cultural tradition based on Confucian morality and its stress on control and order for the well-being of all. Chinese students in my research expressed no strong preferences for any modality. Chinese males generally expressed stronger preferences than Chinese females, but answers were usually in the positive range (strongly agree) and less often in the negative (strongly disagree). Research done by Tobin, Wu, and Davidson (1989) might offer an explanation for this finding. They believe that Chinese preschools, where students are first socialized to academic expectations, are the result of 5,000 years of Chinese culture and 35 years of Communist rule; both systems emphasize control and order, with few allowances for “acting out,” especially as students mature. Drawing attention to oneself through negative opinions or actions is discouraged.

Interestingly, neither the Chinese nor the Japanese in my research evidenced preferences for group learning, despite their traditional beliefs in the necessity of group cohesiveness. Tobin, Wu, and Davidson (1989) found individual competition and acknowledgment of differing ability levels in Chinese preschools; they concluded that in modern China the emphasis on groupism versus individualism was more theory than practice. And, as Rohlen (1983, p. 246) noted in his studies, instruction in Japanese secondary schools is structured around preparation for college entrance exams, where success or failure usually determines a person’s status or success in later life. The diligence of working long hours is a highly regarded virtue and is an “individual matter.”

INSTRUCTIONAL APPLICATIONS

The ethnic influences on learning styles described above suggest that employing a variety of teaching styles in the diverse ESL classroom will benefit the students. Although providing extensive individualized instruction for every student in such a class might prove to be impossible or even undesirable, teacher understanding of the general learning profiles of the entire class can guide the organization and presentation of instructional material. For example, a lesson on popular American culture, a topic in which most international students are interested, could easily be structured around modality preferences. Students preferring the auditory mode would benefit most by listening to the teacher’s lecture and relevant audio cassettes or records; class discussions and peer tutoring could also provide effective auditory instruction.

As the lecture was being delivered, visual learning would be promoted if the teacher wrote important information on the chalkboard or used an overhead projector; films, television, videos, plays, pictures, photocopies, and magazines could be used to further reinforce visual learning. Not to be discounted are the use of handouts and encouragement of student note taking. In composition classes where students are striving to master the forms of expository prose, modeling the
various types of paradigms on the board can be beneficial for visual learners. Gayle Nelson notes in her chapter in this volume that Japanese and Chinese students both learn "by watching someone model what is to be learned."

Tactile learners might favorably respond to constructing a collage, using pictures and text cut from magazines or newspapers, to illustrate their impressions of American culture. As suggested by Melton (1990), "hands-on" holiday activities such as decorating a Christmas tree or carving a Halloween pumpkin could provide avenues for effective oral or written skills instruction. Writing, in the form of list making, note taking, or prewriting for essays, should not be overlooked as a tactile activity. For composition classes, the "cut-and-paste" method, where students cut their writing into sentences and paragraphs and reassemble the pieces for more cohesive organization, might be an effective approach for students struggling to master the linear pattern of academic English (Kaplan, 1966).

The kinesthetic learner could benefit by doing all of the aforementioned, plus activities that allow active game or role playing. The senses of taste and smell should not be discounted as avenues for learning in this modality either; both can be used as supplementary strategies to reinforce instruction. Anyone who has suddenly been transported back through the years by just a whiff of a scent (musty autumn leaves, bacon frying over a campfire, sour perspiration in a gymnasium) can readily understand what a powerful mental trigger odors can be. Both written and oral skills learning might benefit from activities structured around the sense of smell and taste. For example, in composition classrooms where writing skills development usually also includes the ongoing development of oral skills, bringing students samples of foods associated with American holidays usually guarantees actively engaged students eager to discuss the new food flavors and textures they've just experienced. After students verbally describe everything they can about their impressions (which asks them, among other things, to be careful observers and to use a rich vocabulary of adjectives), the lesson can turn to writing. The students might write observational essays, where they describe every detail they can about the food they just tried; they could write comparative essays, where they would compare the American food with something from their homeland; or, they could write evaluative essays, where they would have to establish criteria and develop an overall claim about the tastiness (or its lack) of the food sampled. In this manner, the way to their minds would be through their stomachs. Writing can also be promoted for the kinesthetic learner by incorporating activities into composition assignments that require the writer to be actively involved in data collecting. For instance, an assignment that asks the student to evaluate something could require attendance at a performance event, dining at a restaurant, or a fact-finding excursion to an unfamiliar place (Leki, 1991).

In previous research, group learning has consistently been chosen as the least preferred style, but some students do like this mode. Unlike the pressure inherent in recreation or participation before an entire class, small groups may offer an increased "comfort zone" for students who have limited English proficiency or
who are culturally conditioned to not speak out (Sy, 1991; Swisher & Deyhle, 1987). Moreover, teachers can monitor students more closely and offer more feedback in this smaller setting. Also, verbal give-and-take is possible between students, encouraging language acquisition through conversation. Using small groups in the U.S. culture lesson would provide a more comfortable setting for students to discuss aspects of American culture that they found intriguing or unsettling.

In the composition classroom, peer editing of texts before evaluation is often structured around small-group work. Because peer-editing groups typically promote a sense of camaraderie and, once formed, usually stay intact for the duration of a course, student resistance to group work (as originally suggested by Reid, 1987 and discussed by Nelson, this volume) may be lowered because of a sense of belonging to a discourse community, albeit a very small one. For students from countries where the group is prioritized over the individual and personal identity is usually shaped by belonging to a specific group, the security of working in a group may well be a motivating influence.

PEDAGOGICAL IMPLICATIONS

An ongoing debate within academe centers on whether ESL students should be expected to perform academically in the same manner as NESs or within parameters that acknowledge ESL differences. Reich warns that “ethnic differences among newcomers do not warrant different kinds of ESL training” (Yu, 1991, p. 68), as all ESL students have a common need for language and culture training that will help them achieve self-sufficiency in their new host culture. Additionally, many academicians worry that the value of an American education will be reduced if rigorous standards are not maintained equally by and for all. Opponents of this viewpoint claim that this attitude is exclusionary and does not face mid-1990s realities of increasingly larger populations of international and immigrant ESL students in the United States (Cheng, 1990). Furthermore, they believe that the same expectations of academic performance for both NESs and ESL students is an attempt to preserve the status quo of an earlier time when America was, in perception if not always in fact, homogeneous and unicultural. These advocates argue that personal (and academic) success for ESL students often has demanded immediate assimilation into American mainstream culture, with little acknowledgment or acceptance of cultural differences.

Advocates for culturally sensitive curricula believe that knowledge of cultural differences and their influence on how people learn can offer guidance to educators and students caught in the crossfire of conflicting educational ideologies. Culturally sensitive instruction does not necessarily mean a lack of academic standards, however. Instead, this educational approach strives to recognize students’ prior educational background and to use this information as the starting point in promoting ESL students’ achievement within the standards of American academics (see Violand-Sánchez, this volume).
For educators, knowledge of learning styles, including their own, can guide the selection and implementation of effective instructional methods and materials for creating "comfort zones" to ease ESL students' adjustments to U.S. classroom methods and to help these students maximize their initial achievement in L2 and major field studies. Additionally, by acknowledging students' cultural backgrounds and by using this understanding as an instructional strength upon which to build, rather than viewing ESL students' differences as deficiencies, teachers may more effectively build the trust and motivation so necessary with students facing the risk taking inherent in L2 learning.

For students, understanding their learning style preferences may accomplish several goals:

1. Helping students identify learning "tools" that initially build upon their own inclinations and backgrounds and offering them some sense of familiarity may make them less resistant to risk taking and change, factors considered necessary for successful L2 acquisition (Oxford, 1985).

2. Knowledge of their learning styles and the place of learning styles in a culture might help students understand that beliefs and behaviors are not universal and therefore "natural" to all, but instead are learned and may vary among cultures (LeSourd, 1989). In this way, perhaps, students might view the changes asked of them in American classrooms not as a repudiation of their ethnicity (or intellect), but rather as behaviors that they can learn to maximize their own L2 and academic success.

3. If students are from the majority of cultures where education is heavily teacher-directed, knowledge of their individual learning-style preferences could help them to assume responsibility for their own learning by helping them select learning strategies that build on their innate preferences (Oxford, 1985; Rossi-Le, this volume). For students conditioned via a "banking concept of education," as postulated by Freire (1982), to be passive recipients of teacher informational deposits, learning styles and student responsibility could be a revolutionary idea and one to which they might need to be guided.

4. Giving students a sense that they are in control of aspects of their learning process with direct influence on the outcome could build self-confidence, again reinforcing the willingness to be risk takers.

RECOMMENDATIONS

ESL educators who believe that learning styles are an important teaching tool that can be effectively used in meeting ESL students' instructional needs in the U.S. academic environment might consider the following:
1. Teacher identification of student learning style preferences can guide the selection of appropriate instructional methods and materials to maximize student learning. Knowledge of student style profiles can be used to guide instructional organization for individuals or for groups of students with the same style preferences.

2. Teachers' identification of their own style preferences may facilitate student learning by more closely matching student preferences with teacher practices. Because teachers often unknowingly favor the style(s) that matches their own, students with a different modality preference(s) than the teacher can be at a disadvantage both in task orientation and in interaction with the teacher. By being aware of their own preferences, teachers can ensure that they are addressing all relevant student modalities and not favoring their own style inclinations.

Recognition of cultural influences on learning-style modalities can guide teachers in developing "culture-sensitive pedagogy" that views these influences as instructional strengths upon which to build further learning and not just as educational weaknesses to be mediated. Students' identification of their own style preferences can help them understand how they learn most effectively. Building confidence by building on self-perceived strengths will encourage students to participate more fully in learning activities.

A cautionary note must be voiced, however. Any theory or methodology that promises the "Ultimate Answer" is dangerous, for it cannot completely and therefore truthfully integrate all complexities inherent within a situation. Knowledge of learning styles is not a panacea for all educational problems, but only one avenue, albeit a multifaceted one, for understanding the learning process. Additionally, while an understanding of the cultural influences affecting learning styles is a valuable tool, this knowledge should not be used to make value judgments on the merit of one culture or educational system versus another or to stereotype students individually or collectively. Indeed, we must, take extreme care not to stereotype students, for they are continually evolving and developing.

NOTE

1. An excellent textbook for these activities is *Beyond language: Cross-cultural communication* (2nd ed.), by Deena Levine and Mara Adelman (Regents Prentice Hall, 1993).

FOR FURTHER READING


This excellent textbook uses aspects of U.S. culture and cross-cultural communication as a foundation for teaching English as a second language. The
readings and discussion questions provide U.S. and ESL students with increased knowledge of cultural patterns of communication and insights into cross-cultural misunderstanding.


Deriving from 14 months of ethnographic fieldwork done in Japan in 1974, Rohlen's book situates the schools and students he studied in a framework encompassing Japan's cultural, social, and economic contexts. This study, arising in part from the U.S. assessment of basic skills learning, presents a balanced view of the strengths and weaknesses of Japan's educational system in comparison to American practices.


Historically, preschool children were cared for and socialized in the home by family members. Increasingly, however, in rapidly changing societies, preschools provide these services for youngsters. In addition to describing the preschools of three countries, this ethnographic study examines how culture is reflected through the youngest citizens and how the increasing importance of preschools influences larger issues of social and cultural concern.
Chapter 10

Learning Styles and Strategies in Adult Immigrant ESL Students

Laura Rossi-Le

Des Moines Area Community College

Current research efforts in second language (L2) acquisition have focused on exploring the individual differences that exist among L2 learners in order to better understand the factors that shape the language learning process. An overview of the research shows that perceptual learning style is a neglected yet significant factor in L2 learning, particularly in relation to adult students of English. As a result, I studied the perceptual learning styles of 147 adult immigrants in ESL programs in two community colleges, one in the Northeast, and the second in the Midwest. The focus of the study was to investigate the role that preferences in perceptual learning style have in determining language learning behaviors and to examine the relationship(s) between preferred perceptual learning styles and the strategic approaches to language learning that students choose. The relationships between strategy use and perceptual learning style have implications for creating instructional designs that are student-centered and that foster self-directed learning.

THE INVESTIGATION

One aspect of the investigation focused on perceptual learning style, an individual's preferred mode for perceiving, organizing, and retaining information. The second area of study considered the relationship between learning style preference and learning strategies, which O'Malley, Chamot, Stewner-Manzano, Kupper, and Russo (1985, p. 22) define as "any set of operations or steps used by a learner that will facilitate the acquisition, storage, retrieval, or use of information."

The subjects, who ranged in age from 20 to 32, represented the following linguistic backgrounds: Chinese, Laotian, Vietnamese, Spanish, and Other (a sampling of different languages including Cambodian, Japanese, Polish, and Korean). According to the Michigan Test of Language Proficiency, their English proficiency
levels ranged from low intermediate to advanced; generally, the higher level students had completed three or four semesters of ESL. The educational backgrounds of the subjects varied. Some had completed job-training programs, attended college or earned advanced degrees in their native countries; however, the majority (69 percent) had not received schooling beyond the secondary level. Their average period of residence in the United States was 3.5 years.

INSTRUMENTS

One instrument used to gather student data was the Perceptual Learning Style Preference questionnaire (PLSP; Reid, 1987). This self-reporting questionnaire consists of five groups of statements randomly arranged to cover six learning-style preferences: visual, auditory, kinesthetic, tactile, individual, and group learning. Students are asked to consider such statements as "I prefer to learn by doing something in class," "When I read instructions I remember them better," and "I learn more when I study with a group." They respond to each statement by using a five-point scale ranging from "strongly agree" to "strongly disagree." (See Appendix A for this instrument.)

A second instrument administered was the Strategy Inventory for Language Learning (SILL), a self-reporting questionnaire developed by Oxford (1986). The SILL was originally created for use in the Language Skill Change Project of the U.S. Army Research Institute for the Behavioral and Social Sciences. The ESL version of the SILL used in this study consisted of 80 items for respondents to consider, such as "Whenever I can, I look for people I can talk to in English" and "I read as much as possible in English." Students respond to each statement using a five-point scale, ranging from "never or almost never true of me" to "always or almost always true of me." The strategies are categorized in 10 groups (A–J):

A. general learning strategies
B. authentic language use
C. communication of meaning
D. independent learning
E. memorization
F. social strategies
G. affective strategies
H. self-management strategies
I. visualization
J. language model building

FINDINGS: PERCEPTUAL LEARNING STYLES

A global view of the findings related to perceptual learning styles shows that the majority of the adult immigrant students expressed a major learning-style preference for the tactile and kinesthetic modes; these learning styles involve a practical, experiential approach to learning (see Table 10–1). In addition, all language
groups indicated a learning-style preference for group learning, but they indicated only a minor (or negative) learning-style preference for individual learning. The results suggest that adult immigrant L2 learners prefer a style of learning that will involve them in the totality of the language learning experience (tactile and kinesthetic) and in collaborative work. Therefore, they might benefit from realistic contexts and interactive behavior as a basis for their language development.

The relationships between language background and dominant perceptual mode were clear in these results. That is, the learner’s native language background had an effect on his or her perceptual-learning style preference, a result that supports Reid’s (1987) findings. Spanish speakers, for example, expressed a major learning-style preference for auditory learning, perhaps as a result of the strong oral tradition that is part of the Hispanic culture (Bennett, 1979). Chinese and Vietnamese students, on the other hand, demonstrated a very strong learning-style preference for visual learning, possibly due to the pictorial nature of their written language (Lee, 1976). If native language is viewed as one aspect of the broader classification of cultural background, then it is not surprising to find similarities in the way people select their perceptual preferences.

In addition, the data in my study showed relationships between perceptual learning styles and student background. Specifically, the data showed a preference for visual learning by older students and by students with higher language proficiency. These findings corroborate the results of earlier research with both American and foreign students (Cherry, 1981; Galbraith & James, 1984; Keefe, 1987; Reid, 1987). Studies of U.S. students disclose a shift toward the visual mode as individuals mature and learn to read (Keefe, 1987; Price, Dunn, & Sanders, 1981). Similarly, the more proficient ESL learner has probably had more exposure to the written word, and therefore feels comfortable learning visually.

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<tr>
<th>LANGUAGE</th>
<th>LEARNING STYLE</th>
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<tr>
<td></td>
<td>Auditory</td>
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<tr>
<td>Spanish</td>
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<td>Chinese</td>
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<td>Vietnamese</td>
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<td>Lao</td>
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<td>Other</td>
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*Major Learning Styles:  +++ = Very strong preference  ++ = Strong preference  + = Minor learning style  – = Negative learning style*
Finally, a relationship was also found to exist between a kinesthetic-learning-style preference and a subject's background, specifically language proficiency and work history. The more language-proficient students preferred learning through interactive methods and direct experiences with the language. Similarly, those who had worked in the United States for any period of time expressed a preference for a kinesthetic learning style, possibly because they were accustomed to the work environment that provides a more experiential basis for learning than does the classroom.

**FINDINGS: LEARNING STRATEGIES**

In general, the results of the SILL demonstrated that an individual's learning-style preference influences the types of learning strategies that he or she will employ in acquiring a second language. The learning strategy groups most frequently selected as being used were social strategies (Group F), which are characterized by interactions with others; authentic language use (Group B), which involves communication in meaningful contexts; and visualization (Group I), which includes the formation of visual images (see Table 10-2).

As Table 10-2 demonstrates, students who favored group study utilized social and interactive strategies, such as working with peers, requesting clarification, and asking for correction. Students who preferred tactile and kinesthetic perceptual learning styles sought out native English speakers and engaged others in conversation, thereby becoming directly involved with the subject matter being learned. Learners who preferred the visual mode chose visualization as a strategy, and in a more limited number, individual learners chose model building.

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<th>LEARNING-STYLE PREFERENCES</th>
<th>LEARNING STRATEGIES PREFERENCES</th>
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<tr>
<td>Group learning</td>
<td>Affective strategies (Group F)</td>
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<td>social and interactive strategies</td>
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<tr>
<td>Kinesthetic</td>
<td>Authentic language use (Group B)</td>
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<td></td>
<td>seeking out native English speakers</td>
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<td>Tactile</td>
<td>Authentic language use (Group B)</td>
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<td>Visual</td>
<td>Visualization (Group I)</td>
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<td>forming new words in mental images</td>
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<td>Individual work</td>
<td>Models of language structure (Group J)</td>
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<td></td>
<td>self-directed model building</td>
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reflecting the self-directed and individualized nature of that strategy. The strategy groups selected least frequently were Strategy Group C (searching for and communicating meaning) and Group D (independent strategies).

CURRICULAR IMPLICATIONS

The findings of this study have both curricular and instructional implications. First, language learners should be made aware of their perceptual style dominance and their strategic approaches to learning in order for them to participate more actively and effectively in their own language development. One method of accomplishing this goal is to administer the PLSP (available in Appendix A) and the SILL part way through an adult ESL course so that students have an opportunity to reflect on their learning processes. More advanced students can be used as translators whenever needed, particularly in classes of immigrant students who might have had little academic training. The goal should be to help each student respond as fully and thoughtfully as possible to the questions. A discussion of each student’s inventory and self-perceptions should be conducted individually, if possible, so that students can begin to see their strengths and weaknesses as language learners.

Instructors need to become more aware of their own learning style preferences in order to accommodate the diversity in their classrooms. Teaching exclusively in a manner that is compatible with an instructor’s dominant mode of learning while in conflict with a student’s preferred learning style can inhibit learning (Galloway & Labarca, 1991; Harshbarger, Ross, Tafoya, & Via, 1986; Oxford, 1991). By analyzing their approaches to learning new material and by taking the PLSP questionnaire along with their students, teachers can begin to come to terms with their own perceptual learning style preferences. Self-knowledge on the part of the instructor is the first step toward developing flexible, varied approaches to language instruction and toward creating a classroom open to style diversity (Oxford, 1989, 1993, 1994).

The more language groups represented within a class, the more distinct learning styles (and potential learning strategies) an instructor will encounter. To accommodate this diversity, one’s approaches to teaching within any given class period need to be varied. For example, a lesson involving the introduction of a new reading and accompanying vocabulary might begin with the instructor’s oral presentation of the selection to assist the auditory learners. Hands-on experiences such as role-playing portions of the text or introducing realia related to new vocabulary would benefit the more kinesthetic/tactile learners. Finally, having students actually read portions of the text and allowing time for them to record new vocabulary or draw key images would accommodate the visual learners.
LINKING LEARNING STYLES AND LEARNING STRATEGIES IN THE CLASSROOM

Because learning styles and learning strategies seem to be linked, it is important to create ESL courses that incorporate style and strategy training. Often students who become aware of their learning-style preferences do not develop a parallel awareness of the strategies that they use naturally to assist them in learning the new language. Therefore, in addition to administering the PLSP and the SILH, teachers should ask students to reflect on, write about, and discuss the learning strategies that they find themselves employing. For example, do they tend to seek out native English speakers for conversation opportunities, or do they prefer to listen to tapes on their own? The instructor can structure lessons to reinforce the perceptual learning styles and strategies in use and to guide students in finding even more effective strategies that are compatible with their own learning styles. For instance, a student who has been identified as a visual learner might be encouraged to draw visual images or symbols to represent new vocabulary. According to Oxford (1989, p. 236), “strategy training can and should be linked with regular language learning activities, and can be effectively conducted through simulations, games, and other active exercises.”

In tandem with increasing student and teacher awareness of learning-style preferences comes a need to employ strategies that spring from the students’ dominant perceptual modes so as to enhance the learning process. This study shows that most adult immigrant classrooms are populated by students who prefer to learn kinesthetically. Consequently, teaching methods that emphasize a pen-and-pencil approach to learning will not be as effective with these students who need to develop their language skills in a more authentic manner. Therefore, teaching approaches that encourage a more hands-on, communicative approach should be employed. Suggested activities that encourage strategy use and exploit kinesthetic styles and strategies include:

- **Meaningful Communication**: Students might be encouraged to interact meaningfully with each other by asking questions to fill “information gaps” as part of structured exercises and/or games. A more open-ended approach is to introduce role-playing situations that simulate realistic contexts, from grocery shopping to job hunting.

- **Contact with Native English Speakers**: Lessons might be geared toward helping students develop strategies for interacting effectively with native English speakers. They might interview a healthcare worker to learn more about clinic services, or they might practice and then actually run errands, such as taking clothes to the cleaners or mailing a package (Jerald & Clark, 1983).

- **On-the-Job Training**: Depending on their personal and academic goals, kinesthetic learners might be advised to participate in ESL classes on the job. For example, students desiring to become printers would receive the benefits of a hands-on training program that
taught them job skills along with the technical and conversational 
English needed to communicate in an actual work setting.

**TEACHING STRATEGIES AND LEARNING STYLES**

Using teaching strategies that are compatible with student learning styles should not be the sole approach to classroom instruction. Students need to build on the learning styles and strategies that they currently use and to experiment with new methods. They need to learn how to compensate for their style and strategy weaknesses in order to broaden the scope of their approaches to learning (see Kroonenberg, this volume). Suggested methods for accomplishing this goal include:

- **Auditory/individual learners** who prefer to work on their own by listening to tapes can be persuaded to expand their strategies by role-playing familiar situations in order to develop their conversational and social skills.

- **Visual learners** who need to see new vocabulary written on the blackboard should be encouraged to pronounce and use the words before seeing them.

- **Kinesthetic/tactile learners** can be encouraged to close their eyes, sit quietly, and visually imagine words or situations.

Thematic units provide an excellent means for broadening students' experiences with perceptual learning styles and strategies outside their preferred modes. For instance, a unit on childcare might involve the visual/tactile learner in an activity compatible with his or her style, such as drawing a map that identifies childcare facilities in the immediate neighborhood. However, as part of the assignment, he or she might also be required to interview a childcare worker, thereby engaging in authentic language use, a strategy more compatible with the auditory/kinesthetic learning style preferences. Overall, varying the nature of classroom assignments and activities forces students to become more flexible in their approaches to learning.

As levels of student language proficiency improve, changes in learning style preferences might be evidenced and should be accompanied by changes in strategy training. For instance, as students become more proficient in using the written word, visual strategies might be introduced more frequently. As kinesthetic students develop more visual skills, increased training in visual strategies may expand their learning repertoire. These changes might be detected by administering the PLSP and the SILL for a second time late in the course, and by noting shifts in student perceptual learning styles and/or strategies. Meanwhile, throughout the course, periodic discussions about what strategies students find themselves using to study new material might help them (and the instructor) observe changes in the learning processes. Once these changes are noted, teaching methods can be
adjusted. In this way, the style-strategy relationship becomes a dynamic one and should be treated as such in the classroom.

CONCLUSION

As the findings in my investigation demonstrate, ESL students from different language backgrounds and, by extension, from different cultural backgrounds, vary in their strategic approaches to language learning, in part due to the diversity in their perceptual learning style preferences. A complex system of variables, unique to specific cultural groups and individuals within those groups, is constantly at work, influencing the learning strategies they choose as well as their success or failure as language learners. The different ways in which stimuli are perceived and processed as individuals are exposed to a new language system help determine the strategies that will become the basis for the language learning process. Perceptual style, once neglected as a factor in language learning, emerged in this study as an important element to consider when developing curricula and approaches to teaching.

FOR FURTHER READING


The text presents techniques to help students develop and act out scenarios based on real-life situations.


The author provides teachers with necessary information about identifying and analyzing learning strategies in the classroom, strategy training, and links with learning styles in easily accessible prose. She also provides survey instruments and strategy training exercises.


This article considers the principles of the communicative approach to L2 instruction in relation to the use of learning strategies. Classroom implications discussed include the use of active learning modes and the need for strategy training.


The authors discuss the need to promote language learning within realistic contexts and provide practical models to implement in the classroom.
Section 3
Learning-Styles
Research and
Classroom Implications
Chapter 11
Learning Styles and Elementary School ESL
Sabrina Peck
California State University, Northridge

At the last meeting of a course on ESL methods for the elementary school, I always ask the students to react to my teaching. Their comments fall into a pattern. Many say that they liked role-playing a Total Physical Response lesson. Many like group work; they found it valuable to observe elementary school ESL classes and to see their classmates' demonstration lessons. A number of students want me to lecture more and lead fewer discussions. A number suggest that I use more visuals in the class. I conclude from their comments that I'm most comfortable when students learn by experience, through group work, and in class discussions. It may be that auditory learners and visual learners in the class are not being taught to their comfort, but those with kinesthetic styles or mixed styles are having their needs addressed.

These student comments have piqued my interest in learning styles, several of which seem particularly relevant to elementary school children. This chapter defines those learning styles, then concentrates on discussion of planning for the perceptual learning styles of ESL students in the elementary school classroom.

LEARNING STYLES IN THE ELEMENTARY SCHOOL

The physical elements of learning style all need to be considered when one teaches children (Dunn, Dunn, & Price, 1979). Young children might prefer auditory, visual, tactile, kinesthetic, or combination learning. They may also need what researchers refer to as "intake" (food or drink) while they learn, and the time of day when they optimally perform also needs to be considered. Mobility, or children's need to move around, is another physical element of learning style. Even competition-cooperation are important style differences in elementary school classrooms (Shrum & Glisan, 1994, p. 200). For example, children from some cultures are accustomed to learning cooperatively (Kagan, 1986).

An important distinction in cognitive learning styles is the difference between sequential (field-independent, analytic) learners and global (field-
dependent, intuitive) learners (Scarcella, 1990; Scarcella & Oxford, 1992). It is possible that most elementary school children are global/intuitive/field-dependent learners and therefore learn successfully through holistic approaches such as thematic units and whole language. Gianelli (1991) describes the value of thematic units in facilitating children's learning; in so doing, she describes a global/intuitive/field-dependent learning style. She argues that thematic units facilitate children's learning because the brain searches for meaning and finds patterns in the thematically related information. Thus, to borrow terms from Schmeck (1988, p. 328), the child is learning by scanning, by forming global impressions, by making many associations. The child may learn intuitively, not logically, through the thematic unit. While some young children are sequential/analytic/field-independent learners, they appear to be a minority in the elementary school classroom.

TEACHING APPROACHES TO CHILDREN'S LEARNING

The assumptions and practices of elementary education differ from those of secondary and tertiary education. In North American elementary schools, children are often allowed to learn by doing. Dewey (1943, p. 15) pointed out that as they learn by doing, children acquire a social motive for their learning: “The mere absorbing of facts and truths is an exclusively individual affair that it tends very naturally to pass into selfishness. There is no obvious social motive for the acquirement of mere learning, there is no clear social gain in success thereat.”

Keeping Dewey's educational theories in mind, elementary school teachers plan concrete activities (as opposed to lecturing about facts). For instance, young children learn arithmetic by arranging plastic bears (Baratta-Lorton, 1976) and science by observing mealworms. Teachers recognize children's short attention spans and plan brief lessons with opportunities for the children to get up and move around. Thus (to use the learning-style terminology) kinesthetic or multisensory learners are accommodated, and mobility is encouraged.

Another reason elementary teachers allow for a variety of sensory styles is that children are thought to pass through a developmental progression in learning-style preference. According to Keefe (1979, p. 9), “Preference seems to evolve from kinesthetic in childhood to visual and eventually verbal in later years. There are, of course, many exceptions to this. In adults, all three modes function cooperatively with a usually discernible preference for one or the other.” In light of this hypothesized progression, it makes sense that elementary school teachers do provide a number of kinesthetic experiences.

If we consider current methodology texts on teaching ESL in elementary school, we see variation in learning styles incorporated into proposed activities. For example in Krashen and Terrell's Natural Approach (1983), teachers are told to relate language to movement, visuals, or both. Games and game-like activities such as Total Physical Response and problem-solving tasks are recommended.
along with "any sort of activity in which children can focus on something other than language forms" (Terrell, 1984, p. 40).

Enright (1986) exhorts less-experienced ESL teachers to use all sorts of resources with elementary students, "everybody you have." Some of the resources he suggests are gestures, pantomime, facial expressions, realia (including food), charts, pictures, and recordings. Enright shows how an ESL teacher can use concrete experiences to great advantage: arts and crafts, walks, science experiences, sports and games, flannel-board stories, finger plays, and acting out songs and poems. Many other authors suggest that teachers incorporate songs, rhymes, chants, gestures, dance, and games in their ESL lessons for children.

When we consider thematic units for ESL children, it is clear that such activities appeal to a variety of learning styles (Gianelli, 1991; Brechtel, 1992). Tactual and kinesthetic learners are accommodated as are global/intuitive/field-dependent learners. In addition, the language experience approach bases oral composition, reading, and writing activities around a vivid experience such as a walk or field trip (Dixon & Nessel, 1983; Heald-Taylor, 1986). This approach, too, addresses children with a variety of learning styles.

What about commercial ESL materials? Do they in fact provide activities that benefit children who have different learning styles? For this discussion, I perused two ESL curricula that are approved by the state of California: Addison-Wesley ESL (Walker, 1992), and Santillana's (1992, California edition) Bridge to Communication. Both curricula provide an introduction in the teacher's manual, outlining the philosophy and approaches of the materials, and both appear to accommodate children with different learning styles.

The Addison-Wesley materials, which are thematically presented for the first three levels, are described as holistic and eclectic. The materials are planned around different sorts of interaction: pair work, small-group work, and cooperative learning. Teaching strategies are varied: Total Physical Response, the language experience approach and whole language, the natural approach, a notional-function strand, some attention to language structure, and content-area instruction combined with instruction about learning strategies. These learning strategies include multimodal materials (i.e., visual, auditory, tactual, and kinesthetic), preparation for taking standardized tests, cooperative learning, and CALLA (Anna Uhli Chamot's and J. Michael O'Malley's Cognitive Academic Language Learning Approach, which embeds training in learning strategies within activities that develop both language skills and content-area skills for upper elementary and secondary ESL students).

The Santillana materials also appear to accommodate a variety of learning styles. The natural approach is used throughout. Students are actively involved, at times in hands-on, kinesthetic activities. The approach is not analytic; grammar is not stressed. The materials are thematically arranged, and age-appropriate content is integrated.

Let's look at a few representative lessons from each set of materials. In the Addison-Wesley ESL series, I examined lessons from Unit 6 in Levels A, B, and D.
The Level A lesson came about halfway through the unit; the B and D lessons came near the end. In the Level A lesson, the teacher reads aloud "Goldilocks and the Three Bears." Besides listening to the reading, students take part in several kinesthetic activities. For instance, they pass out bowls and spoons and are given some hot porridge. They dramatize the story. They make masks and perform the story for another group. The Level B lesson deals with asking for and giving information in the past. It includes mostly auditory and visual activities, and is built around the student book and a tape. Students listen to a model, speak, repeat, do oral pair work, and hear a tape. The follow-up activity is based on ditto masters. The Level D lesson has shopping as a context. Along with visual and auditory activities, students engage in pair work using real articles of clothing, and they use dolls and puppets for another activity. Follow-up suggestions include students going shopping and writing stories about it, and playing "shopping spree" in the classroom, using real objects. So, in general, of the three lessons, two (A and D) had a balance of activities for children of different perceptual learning styles.

The lessons I examined from Santillana's Bridge to Communication had fewer kinesthetic activities than do the Addison-Wesley lessons. I looked at Unit 6, Lesson 4, for Primary Levels A, B, and C. In all three levels, Unit 6 was the midpoint of the level. At Level A, Unit 6 dealt with a unit on maps. The lesson, children learn to identify some continents and to justify the type of dwellings found on them. There is some pantomime; in addition, children draw world maps in groups and paste pictures of dwellings from magazines such as National Geographic. Otherwise, activities are visual/auditory: discussion, doing worksheets, and drawing. In Level B, the lesson deals with antiquated and modern means of transportation. In one interesting activity, pairs have to decide which modern means of transportation would become outdated first, and justify their answers. Discussion, completion of worksheets, and reading predominate; no activities were clearly kinesthetic. The lesson from Level C deals with the life of George Washington Carver. The teacher reads aloud a booklet on the life of Carver, pairs of students retell the booklet to each other, and students complete worksheets. There is one kinesthetic activity: students are given a peanut and told to study it carefully. Later, they have to choose their peanut from a group of about 30 peanuts, and justify their choices. In general, I think that the "Expansion" activities in Bridge to Communication had mostly nonvisual/nonauditory activities.

Both the Addison-Wesley and Santillana materials could use more kinesthetic/multisensory suggested ideas for these lessons. Furthermore, the teacher's guides might do well to include a section on classroom management in which the authors might discuss in more detail the advantages of cooperative activities. The authors might also discuss opportunities for children to have, in Dunn's (1991) terms, mobility and intake. Finally, both sets of materials are biased toward a whole-language approach, one that might favor global over analytic learners. While this bias may be effective for many of the elementary students, teachers should understand that some analytic, field-independent, sequential learners may need additional consideration and support.
CONCLUSION

All in all, elementary school ESL seems to be on the right track in addressing children's differing perceptual learning styles. Perhaps ESL teachers at this level are more attuned to learning styles because of the nature of elementary education and its emphasis on learning by doing. Perhaps it is because of applied linguists and educators such as Terrell (1984), Enright (1986), Urzúa (1986), and many others, who have emphasized the differing needs of children and the varying modalities through which they learn. Or perhaps ESL teachers in elementary schools are on the right track because they recognize that many children go through a developmental progression from kinesthetic to visual to auditory styles. All in all, ESL curriculum materials for children seem to be written with varying learning styles in mind.

At the same time, it seems likely that many elementary ESL teachers have not fully examined their own preferred learning and teaching styles. Some may need to concentrate more on carrying out activities that favor a certain perceptual style. Some may benefit by examining and justifying their preference for a style—global over analytic methods of language teaching, for instance. Two pieces of teaching advice, expressed by several writers on learning styles, come to mind:

- Be sensitive to your own preferred learning and teaching styles because some of your students will have other styles.
- Strive for a variety of activities that can accommodate a variety of styles.

In this way, we can accommodate all students some of the time, and we can encourage our students to develop styles that are new to them.

NOTE

1. While researchers in one area of learning styles distinguish between sequential, field-independent, and analytic learners (or between global, field-dependent, and intuitive learners), my hope is that readers of this chapter will agree that the similarities between the items in each of the two categories will be evident.

FOR FURTHER READING


This text is a concise and practical guide to whole-language approaches, with a focus on reading and writing. Heald-Taylor contrasts strategies to use with NEPBs and with ESL students.

This resource book for teachers focuses on whole-language and content-based language teaching. Part 2 of the anthology, "Cultural Considerations," is particularly helpful for individualized learning practices. Authors such as Anna Chamot and Michael O'Malley, and Shirley Bruce Heath "argue for the greatest possible range of oral and written language uses" (p. 103).


This book includes useful chapters such as "Providing Comprehensible Lessons," "Interaction in the Multicultural Classroom," "Appealing to a Variety of Learning Styles," and "Testing in Culturally Responsive Ways."
Chapter 12
Learning Styles and ITA Training

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The ideal international teaching assistant (ITA) is a highly motivated, self-directed graduate student who purposely interacts with native English speakers (NESs) in order to practice English interactions and language. However, depending on the stage of acculturation, the language proficiency, and the self-confidence of the ITAs, their life-style may well include only minimal exposure to NESs, with the balance of their days spent alone, or with spouses or friends, speaking in their native languages. Many Chinese ITAs are typical in this respect; they tend to live and work together, speaking Chinese almost exclusively. This life-style is understandable; it increases the comfort level and sense of community, and it helps the students maintain their language and cultural norms.

However, it presents potential problems for the ITA. As Chinese (and other) ITAs in U.S. academic culture teach and interact with NES undergraduates, they may discover that their educational attitudes and teaching practices differ dramatically from NES graduate teaching assistants. These ITAs may not be aware that the learning styles and strategies of their NES students are quite different from the learning and teaching styles they have experienced in their native countries. Unfortunately, while ITA instructional programs may stress educational differences and encourage the ITAs to become familiar with differences in attitudes that NES undergraduates will demonstrate, often ITAs leave these instructional classes with little or no information about the ways their learning and teaching styles differ from their students' needs and expectations. Importantly, these differences may result in misperceptions and misunderstanding by the ITAs and by their NES students. This chapter will (1) explain some of the basic differences in the Chinese and U.S. perceptions of "good teachers" and "good learners"; (2) discuss the differences between Chinese and NES graduate students in terms of two learning-styles instruments; and (3) provide advice and activities to assist ITAs in adapting their teaching styles to the needs of their NES learners.
DIFFERENCES IN EDUCATION ATTITUDES AND TEACHING PRACTICES

In China (and in many Asian countries) the "good teacher" is an authoritative truth-giver who lectures to the students, controlling the information students receive and expecting that information to be given back on tests. One student called this "duck-feeding": like the Peking duck, students are force-fed to make them more knowledgeable. He went on to say, "In an exam, the students are expected to throw back all the professor's [words]. . . in our long tradition, the professors are always held up as somebody, almost like a saint." The "good learner" is the student who listens well, who respects authority, who does not question the teacher; the student observes the teacher as a model in the teacher-centered classroom. The Chinese philosophy is to conform to the group by maintaining certain standards or criteria. Chinese textbooks are considered very nearly sacred; students carefully study every sentence, in the order in which they appear (there is no "skipping around").

In contrast to the Chinese educational system, the Chinese ITAs' eventual audience is the undergraduate U.S. student. As each ITA struggles to demonstrate emotional control, inhibition of self-expression, and careful structuring of the class, she or he appears too reserved or inhibited, too inflexible in the U.S. classroom. While these ITAs may be intelligent problem-solvers in their own domain, their perceptions of learning and teaching can create difficulties for their students. In a U.S. classroom, their attitudes will not win support from U.S. undergraduates.

Imagine the consternation of a Chinese ITA facing his or her first class, naturally trying to emulate skills that were highly esteemed in his or her own country. In front of this ITA sits a class full of U.S. students who have been taught to interact, to question the teacher and the text as well as each other; these students expect to be contributors to and participants in the class. They have learned to be independent learners, to be responsible for their own learning, to analyze and synthesize information. In such a student-centered classroom, students may sometimes ignore the teacher, read the newspaper, eat or drink during class, talk with one another, or confront the teacher with adversarial questions—all examples of insulting behavior for the ITA.

For the instructor of ITAs, lecturing about such differences seems a logical beginning: informing Chinese ITAs of the need to interact with their NES students, advising them to become more outgoing and helpful, and asking them to be flexible in structuring their lessons. However, the processes needed to implement the changes in attitudes and teaching practices are complex and difficult. One way I have found to demonstrate differences between ITAs and NES undergraduates is to survey the ITAs, using the Keirsey Temperament Sorter (KTS; Keirsey, 1984) and the Kolb Learning Style Instrument (LSI; Kolb, 1976). Then we compare the results with research on the general population of the United
States. The results of these surveys demonstrate not only the clear differences between Chinese and U.S. styles, but also the necessity of the ITAs to assume a new teaching persona—to learn to play a different role in the U.S. classroom. We then work with useful activities to motivate the changes.

DESCRIPTION OF INSTRUMENTS

The Keirsey Temperament Sorter, from David Keirsey and Marilyn Bates’ book *Please Understand Me: Character and Temperament Types* (1984), is based on the Jungian personality types used by the Myers-Briggs Temperament Inventory (MBTI, Myers & Briggs, 1962). The KTS reports its results in the same 16 personality types as the MBTI (see Carrell, this volume). Table 12–1 offers a brief characterization of the eight pairs of concepts that are used in the KTS, with the percentage of the general U.S. population next to each category; identifying letters for each pair follow. For more complete descriptions, consult Keirsey and Bates’ *Please Understand Me* (1984).

<table>
<thead>
<tr>
<th>Table 12–1 KTS Personality Types</th>
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<tr>
<td><strong>EXTROVERT (75% OF POPULATION) (E)</strong></td>
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<td>Sociability</td>
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<td>Interaction</td>
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<td>External</td>
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<td>Breadth</td>
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<td>Extensive</td>
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<td>Multiplicity of relationships</td>
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<td>Expenditure of energies</td>
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<td>Interest in external events</td>
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<td><strong>SENSATION (75% OF POPULATION) (S)</strong></td>
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<td>Realistic</td>
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<td>Perspiration</td>
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<td>Down-to-earth</td>
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<td>Utility</td>
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<td>THINKING (50% OF POPULATION) (T)</td>
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<td>Analysis</td>
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<td>Allocation</td>
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<td><strong>JUDGING (50% OF POPULATION) (J)</strong></td>
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<td>Fixed</td>
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<td>Plan ahead</td>
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<td>Run one's life</td>
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<tr>
<td>Closure</td>
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<td>Decision-Making</td>
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<td>Planned</td>
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<td>Completed</td>
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<tr>
<td>Decisive</td>
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<tr>
<td>Wrap it up</td>
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<tr>
<td>Urgency</td>
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<tr>
<td>Deadline!</td>
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<tr>
<td>Get the show on the road</td>
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</table>

The KTS is shorter than the MBTI, and more colloquial; it consists of 70 questions. A sample:

At a party, do you
(a) interact with many, including strangers
(b) interact with a few, known to you
Is it worse to
(a) have your "head in the clouds"
(b) be "in a rut"

The KTS has not been normed on nonnative speakers of English, and some of
the phrases are culturally bound: "head in the clouds," "in a rut," "lunch."
However, with the teacher's explanation of the idioms, ITAs are able to com-
plete the survey with ease—and they expand their vocabulary of informal En-
lish at the same time.

The Kolb LSI is an inventory of 12 rank-order questions that takes ITAs
about 5 minutes to complete. A sample question:

7. I learn best from: _____ personal relationships         _____ observation
                       _____ rational theories         _____ a chance to try
                                      _____ out and practice

The LSI measures how much the learner relies on what Kolb (1986) calls four
different learning modes that are part of the cycle of learning (Kolb, 1976).
According to Kolb, learners enter the learning cycle at different stages, and indi-
viduals differ in their preferences for one or another learning mode. Most learn-
ers find that they prefer a combination of the stages of learning. Generally, the
learner comprehends information in concrete experience and then reflects on it;
the abstract information is integrated with other ideas and finally is acted upon.
Kolb describes how the "orientation" of learners encompasses one or more of
the stages as follows:

- **Concrete Experience**: an orientation that emphasizes personal
  involvement with people in everyday situations; the learner tends to
  rely more on feelings than on a systematic approach to problems and
  situations;

- **Reflective Observation**: in this stage, learners understand ideas and
  situations from different points of view; the learner relies on
  patience, objectivity, and careful judgment;

- **Abstract Conceptualization**: an orientation that involves logic, ideas,
  and systematic planning rather than feelings to understand situations
  and solve problems;

- **Active Experimentation**: learning in this stage takes an active form:
  experimenting with influencing or changing situations with a practi-
  cial approach.

The second set of Kolb's categories focuses on actual learning styles, combining
stages of the learning cycle:
Convergers: (combines abstract conceptualization and active experimentation). The greatest strength of these learners is their practical application of ideas—in problem solving and decision making. They are relatively unemotional and prefer to deal with things rather than with interpersonal and social issues.

Divergers: (combines concrete experience and reflective observation). Their greatest strengths are imaginative ability, recognizing problems, and understanding people. They view situations from several perspectives, and they usually observe rather than act.

Assimilators: (combines abstract conceptualization and reflective observation). Their greatest strengths are the ability to analyze and synthesize information, to plan solutions and define problems, and to put the information into a concise, logical form. They have no strong interest in people and no desire to apply theory.

Accommodators: (combines concrete experience and active experimentation). Their greatest strength is doing; they enjoy carrying out plans and experiments, and learn primarily from hands-on experience. They are risk-takers and rely heavily on other people for information.

CHINESE ITAs AND SURVEY RESULTS

During the first week of the ITA training class, I introduce the concept of learning styles and the learning-style surveys to the ITAs; then I administer the KTS and the LSI to each student. Each ITA completes the self-report surveys; they then conference with me individually in a tutorial setting, and we discuss the results together. The purpose of this tutorial is to build trust; by showing that I understand that the ITA is going through the complexities of adjustment to a new culture, I hope to assist in his or her development as a successful ITA. I have found that the ITAs appreciate knowing their strengths and weaknesses as compared with Americans; they indicate that their results show a relatively accurate profile of who they are as learners and persons. And they respond favorably to the extra attention of the tutorials as well as to the in-class sharing we do.

Over the last several years, I have collected survey results from 62 Chinese ITAs and compared them with the categories for the general American population (which is representative of the NES undergraduates they will be teaching). Table 12-2 gives the percentages for each of the “temperaments” that showed significant differences between the ITAs and the general U.S. population.

Notice that the 62 Chinese ITAs were significantly less extroverted and more introverted than the general U.S. population. While three-quarters of the U.S. population (and probably the undergraduates faced by the ITAs) characterized themselves as extroverts, more than half the ITAs self-reported that they were introverts. Extroverts are characterized by Keirsey and Bates (1984, p. 14) as those who “appear to be energized, or ‘tuned up,’ by people. Talking to people, playing with people, and working with people is what charges their batteries.” In
the classroom, they prefer hands-on activities, group work, and talking. In contrast, introverts desire space: “private places in the mind and private environmental places . . . Pursuing solitary activities, working quietly alone, reading, and meditating” energizes them. In a class, they prefer “individual, conceptual activities, and thought questions” (p. 15).

Moreover, most of the general U.S. population has been categorized as Extrovert/Sensing (ES) while less than 20 percent of ITAs report those characteristics. The ES personality type is described by Keirsey and Bates as action-oriented, energetic, and caring; the opposite (Introvert/Intuitive or IN) is described as rational, objective, abstract, and methodical in approach. Next, while only one-quarter of the U.S. population reports a Thinking/Judging (TJ) orientation, over 40 percent of ITAs describe themselves in that way; the TJ personality type is described as impersonal, stable, analytic, and planned. In contrast, nearly 40 percent of the U.S. population describes itself as Sensing/Perceiving (SP), while only 4 percent of the ITAs classified themselves in this way. The SP personality is described as free-flowing, impulsive, and action-oriented.

These results from the KTS indicate that a great majority of the U.S. undergraduates would prefer to learn by interacting with others, doing hands-on activities, and being stimulated to learn. However, most of the Chinese ITAs perceive the teaching process as completely planned, impersonal, didactic, and analytic; they view the learning process as solitary, conceptual work. The mismatch between these two perceptions will almost inevitably cause misunderstanding.

The results of the Kolb LSI for the Chinese ITAs were also revealing, principally because they paralleled the KTS so closely. Table 12-3 shows those results.

<table>
<thead>
<tr>
<th></th>
<th>EXTROVERT</th>
<th>INTROVERT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>U.S. population</strong></td>
<td>72%</td>
<td>28%</td>
</tr>
<tr>
<td>ITAs</td>
<td>42%</td>
<td>58%</td>
</tr>
<tr>
<td><strong>SENSING/PERCEPTION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. population</td>
<td>60%</td>
<td>38%</td>
</tr>
<tr>
<td>ITAs</td>
<td>18%</td>
<td>4%</td>
</tr>
<tr>
<td><strong>THINKING/JUDGING</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. population</td>
<td>25%</td>
<td>12%</td>
</tr>
<tr>
<td>ITAs</td>
<td>41%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Keirsey Temperament Sorter (KTS) reprinted courtesy of David Keirsey, Prometheus Nemesis Book Company.
Table 12-3 Kolb LSI Results for ITAs

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ITA PERCENTAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract conceptualization</td>
<td>70%</td>
</tr>
<tr>
<td>Concrete experience</td>
<td>5%</td>
</tr>
<tr>
<td>Assimilators</td>
<td>50%</td>
</tr>
<tr>
<td>Convergers</td>
<td>34%</td>
</tr>
<tr>
<td>Accommodators</td>
<td>12%</td>
</tr>
<tr>
<td>Diversers</td>
<td>5%</td>
</tr>
</tbody>
</table>

The high percentage of ITAs who were abstract conceptualizers indicates that a great majority of these graduate students are, according to Kolb, more oriented toward ideas and symbols, and less toward other people (the "introvert" of the KTS). The high percentage of Assimilators and Convergers (84 percent) indicates that the ITAs were relatively unemotional, preferring to deal with things rather than with people, and/or less interested in people and more concerned with abstract concepts (the Thinking/Judging of the KTS). Only 3 of the 62 ITAs who took the LSI were Diversers (interested in people, imaginative, and emotional). In short, both the KTS and the LSI results demonstrate that Chinese ITAs differ significantly in temperament from the U.S. population as a whole and most specifically from their American undergraduate students. Preparation of ITAs for U.S. classrooms must consider those differences.

According to Toupin (1991), the cultural norms for Asians are characterized by absence of verbal aggression and direct expression of one's feelings, and the avoidance of confrontation. Even eye-to-eye contact is considered shameful between strangers. As Margaret van Naerssen (1984) observed in her description of classes in mainland China:

There was very little eye contact between the professor and students in Chinese classes, except when the professor was at the blackboard, pointing to information at the board, and talking to and facing the class. One professor talked at length to the blackboard. During one lecture the professor talked/read the lecture to the upper right rear corner of the room and the students had their heads down over their notebooks taking notes/dictation. There were almost no facial expressions indicating comprehension or incomprehension, agreement or disagreement, nor were nods used as positive feedback. The most common changes of facial expressions were occasional yawns. (p. 7)

When I taught for 2 years in China, I found van Naerssen's description accurate. I tried to ask interactive questions, but the students' heads would all turn down. No one would dare hazard a guess, and all eyes were glued to their
EXERCISES TO PROMOTE CHANGE

When the students in the ITA instructional program and I first begin to discuss the overall class results to the KTS and the LSI, we separate the problem of language from the problem of teaching style. Pronunciation, grammar, and intonation are often common areas of weakness for new ITAs, and language limitations or errors can interfere with the self-confidence of the ITA and with actual classroom communication; however, L2 errors can be identified and remediated without solving the cultural problem of teaching style. In my class, we do spend considerable time on aspects of ITA preparation that focus on language, but the new ITAs must realize that coping strategies in changing their role as classroom teacher are also vital for classroom success.

Establishing a sense of trust and community in the ITA training classroom is essential for effective change. Without solidarity, the ITAs cannot take risks, and the types of self-disclosure we use would be all but impossible without a strong sense of unity. We therefore spend time analyzing the survey results, a style of learning that they find comfortable and comforting. I also encourage the ITAs to discuss in detail their perceptions of teaching and learning; then I describe the differences they will encounter in the perceptions of their U.S. students. I try to make the case for the teacher-as-actor; that is, we talk about the different roles available to the teacher and how each of us can use a variety of roles to effectively teach our students. At first, I use a simple analogy: I tell the ITAs to take on the “role” of teacher as they would put on a lab coat for a chemistry laboratory. When the class is finished, they can hang the lab coat (their role as teacher) in the closet and go home as their own person. While this analogy is simplistic, the ITAs understand immediately the difference between changing their attitudes and changing their behavior.

I then introduce the concept of role playing, and we discuss the behavioral characteristics that we might expect from different roles: the teacher as motivator, as interactor, as facilitator, and so on. If the ITA students can accept the
function of different roles in the classroom, rather than having to change their cultural perceptions, they are more willing to “perform” in class and, we hope, eventually in the classroom. As we talk, we also list the strategies and tasks that the ITAs should learn in order to function more successfully in their classroom “roles.” Among those tasks are: “acting” more outgoing, interactive, and animated in the classroom through such tactics as:

- some self-disclosure and even humor;
- the willingness to respond to interruptions and questions from the NES undergraduates;
- using appropriate nonverbal skills, such as eye contact and gestures; and
- employing specific examples and details to support abstract concepts.

We then decide on our collective goals: to work together toward developing creative teaching techniques, to establish a climate of creativity, and to practice various teaching roles that can be effective with U.S. undergraduates.

One way we accomplish our goals is through impromptu speaking situations in which the ITAs practice spontaneous responses—they learn how to “think on their feet,” a task that will enable them to think quickly, speak confidently, use detail, and respond to questions in the real-life classroom situation. We begin our teacher-as-actor exercises with 1-minute impromptu talks during the last few minutes of each class that take the form of answering questions. I use lists of questions that comprise three levels of difficulty. We begin with “Self-Description” and “Tell About” because I have found that ITAs with lower levels of English language proficiency are still able to discuss in some depth their opinions and feelings about certain issues even with limited language. And to help allay the students’ feelings of vulnerability, I tell them that after they have each answered three or four questions, they can ask me any question they want.

Most Chinese ITAs are surprisingly quick to respond to this “acting” game. For example, when I asked one of the ITAs “What was your most embarrassing moment?,” he responded that it happened in Taiwan when, as a physical education instructor, he was demonstrating an exercise. He went into a squat in front of about 40 students, most of them female, and his pants split. As he told us about the experience, he reenacted the whole scene to the accompaniment of the guffaws of his ITA classmates. He used the rest of his 1-minute time limit to tell how he solved the problem of his split pants. Our classroom resounded with sympathetic laughter.

Some stories do not have the same spirit of levity. One student from the People’s Republic of China answered that his most dangerous experience was his experience at Tiananmen Square the night of the massacre, June 4, 1989. Even though 2 years had passed, he blinked back tears, reliving the memory as if it had happened just the day before. He had lost some of his Beijing classmates to death or prison.
The “What If . . .” exercise is a bit more difficult, not only because it forces the students to use the subjunctive but also because it requires them to answer the question “Why?” For higher level ITAs, The Book of Questions (Stock, 1985) and other speech communication books are sources from which to adapt questions. For the most advanced ITAs, philosophical issues, opinions, and current events can be used. Table 12–4 lists questions for each level of difficulty.

<table>
<thead>
<tr>
<th>Table 12–4 Thinking-on-Your-Feet Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SELF-DESCRIPTION</strong></td>
</tr>
<tr>
<td>1. What is your favorite pastime?</td>
</tr>
<tr>
<td>2. Who is someone you respect and admire?</td>
</tr>
<tr>
<td>3. What is your most valuable possession?</td>
</tr>
<tr>
<td>4. What are the things you think about the most?</td>
</tr>
<tr>
<td>5. What is your personal weakness?</td>
</tr>
<tr>
<td>6. What is your greatest problem?</td>
</tr>
<tr>
<td>7. What are your pet peeves?</td>
</tr>
<tr>
<td>8. What are your character strengths?</td>
</tr>
<tr>
<td>9. What do you think people like about you most?</td>
</tr>
<tr>
<td>10. Who is a person you love?</td>
</tr>
<tr>
<td>11. Who is your favorite relative?</td>
</tr>
<tr>
<td>12. Who is your favorite movie star?</td>
</tr>
<tr>
<td>13. Talk about your family.</td>
</tr>
<tr>
<td>14. What kinds of movies do you like?</td>
</tr>
<tr>
<td>15. Where is your favorite hideaway, and what is it like?</td>
</tr>
<tr>
<td>16. What are the things that make you happy?</td>
</tr>
<tr>
<td>17. What is a tradition in your country that is important to you?</td>
</tr>
<tr>
<td>18. What is something in your country that you really miss?</td>
</tr>
<tr>
<td>19. What is your favorite pet? Why?</td>
</tr>
<tr>
<td>20. How is religion important in your life?</td>
</tr>
<tr>
<td><strong>TELL ABOUT . . .</strong></td>
</tr>
<tr>
<td>1. a funny childhood experience</td>
</tr>
<tr>
<td>2. an important decision you had to/have to make</td>
</tr>
<tr>
<td>3. a dangerous experience you had</td>
</tr>
<tr>
<td>4. the last time you had an argument/fight</td>
</tr>
<tr>
<td>5. your first boyfriend/girlfriend</td>
</tr>
<tr>
<td>6. a time when you learned an important lesson</td>
</tr>
<tr>
<td>7. someone or something that changed your life or your outlook on life</td>
</tr>
<tr>
<td>8. a game played by older people in your country</td>
</tr>
</tbody>
</table>
Table 12-4 Thinking-on-Your-Feet Questions (cont.)

9. an important tradition in your family
10. the greatest gift you have ever received
11. a time you were lost
12. an encounter you had with the police
13. a frightening dream you had
14. a time you were embarrassed by someone or something
15. your most frustrating experience

WHAT IF . . .

1. you could be anyone in the world, who would you be?
2. you could be doing anything right now, what would you want to do?
3. you had been tall/short, how would your life have been different?
4. you had been a fat/thin child, how would your life have been different?
5. you were rich, how would your life be different?
6. you could be any age, what age would you be?
7. you could live anywhere in the world, where would you choose to live?
8. you could have anything you wanted, what would you ask for?
9. you could change one thing about yourself, what would that be?
10. you could do one thing to change the world, what would you do?
11. you had been born a man/woman, how would your life have been different?
12. you could bring one person back to life, who would that be?
13. you could live forever, would you choose to do so?
14. you could change one thing about someone else, who would you change and what would you change about that person?
15. you could meet a famous person, who would you like to meet?
16. you could live in any time period (past, present, future), when would you want to live?
17. you could learn one skill, what would that be?
18. you could create the perfect world, what kind of world would it be?
19. you could create the perfect mate, what kind of person would that be?
20. you had three wishes, what would you ask for?
that awkward silence ("Umm. That’s a good question.") “Are you asking [repeat question]?“ “Sorry, I didn’t understand. Can you repeat the question?”). Moreover, some of the older ITAs believe that their role is to be detached and authoritative: they must learn to respond to any kind of question from U.S. undergraduates and do so in a timely manner. At first, the “Thinking on Your Feet” exercises are seen as an assignment to be fulfilled, but as the sense of community develops, and the ITAs’ verbal and nonverbal skills increase, they view it as a game, a nice way to end an intensive 2-hour class. In fact, occasionally an ITA gets carried away with his or her reply to a question, and speaks for several minutes.

These “Thinking on Your Feet” exercises build group unity, stretch the imagination of the participants, and allow students to practice their “acting” roles. In addition to learning to appreciate their own pedagogical progress, the ITAs admit that they look forward to the opportunity to learn from others’ experiences at the end of each class. They say they are reminded of their past by listening to others tell their stories, and they often become animated as they share the details of their own lives during these exercises.

CONCLUSION

If, as this study in personality types indicates, Chinese ITAs differ so substantially from their U.S. undergraduate students in their personalities and initial cultural perceptions about learning and teaching, one of the ITA instructor’s most important tasks is to make those differences obvious. He or she needs to present the differences in ways to help the ITAs to fully appreciate their significance and then offer them opportunities for change. It has been my experience in working with ITAs that motivation is a given; the incentive is high to pass out of the ITA instructional program and to teach U.S. undergraduates successfully. However, we cannot ask these ITAs to simply do the opposite of everything they have respected in their past as good teaching. Instead, the idea of analyzing the situations, identifying the possible roles for the teacher-as-actor, and then offering the ITAs multiple opportunities to practice these roles appeals to their learning styles and provides ways for them to modify their teaching approaches without compromising their identity with their own culture.

In addition, as teachers of ITAs, we must work to affirm their feelings of competence; as a result of the modification of their teaching styles, they need to build self-confidence in their interactions with NESs. They must learn to trust their new approaches in the classroom, and to analyze the results of their experimenting with a new role so that they can continue to improve their classroom teaching. Finally, they must understand that the changes they make in their teaching styles involve only a change of their role; that is, when they return to their countries, they will no doubt also return to their previous style of teaching.
FOR FURTHER READING


This textbook/workbook focuses on the preparation of ITAs for U.S. academic classroom culture. It provides teachers and ITAs with contrastive cultural exercises, a variety of spoken activities to improve spoken delivery and presentation skills, and opportunities for ITAs structured observation of effective U.S. teachers.


Keisney and Bates' book is accessible, interesting, and available at any bookstore. Based on the Myers-Briggs Type Indicator, but shorter and more easily completed, the Keisney Temperament Sorter instrument is included in the book. In addition, Keisney and Bates discuss the possible results of their survey, analyzing through personality examples the different temperament represented.


This ITA resource provides field-specific materials, including visuals, lists of terms, reading topics, and problems. In addition, it covers teaching skills, language skills, and cross-cultural skills.


This small book is filled with big potential; it asks funny questions as well as serious ones. As a teacher, you can pick and choose those questions that are most appropriate for your level of students.


Toupin addresses the validity of the stereotype of Asian-Americans as a "model minority" by analyzing the academic achievement of 94 Asian-American college students. Only the stereotype that Asian-Americans were more likely to major in science was supported.
Chapter 13
ESL Composition and Learning Styles

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Georgia State University

Laura B. Monroe
University of Akron

It is now broadly acknowledged that individual differences within learners themselves influence the effectiveness of different instructional methods (Lawrence, 1984a, 1984b). In studies of Native English Speaker (NES) writing classes, composition researchers Jensen and DiTiberio (1984, 1989) have used the Myers-Briggs Type Indicator (MBTI; Myers & Briggs, 1962) with writers at various levels of proficiency, concluding that individual students' personality types influence their approach to writing tasks and responses to freshman English instruction. The purpose of this chapter is to explain research that investigated the link between ESL composition students and a modified form of the MBTI.

BACKGROUND

The MBTI is a self-report inventory that has been used in a wide variety of settings for educational, career, and family counseling. The instrument is based on Jung's theory of psychological types and his views on perception and judgment, as expanded by the work of Isabel Briggs Myers (1962, 1987; Myers & Myers, 1980). Perception involves "all the ways of becoming aware of things, people, happenings, or ideas," and judgment involves "all the ways of coming to conclusions about what has been perceived" (Myers & McCaulley, 1983, p. 1). From the self-report, the MBTI attempts to identify an individual's basic preferences in terms of his or her habitual use of perception and judgment. Each of the four scales of the MBTI represents polar opposites, and the theory assumes that each pole is valuable and at times indispensable. Every person is presumed to use both poles of each of the four scales at some times, but to respond first or most often in a preferred style.
In a study of the relationships between personality preferences and foreign language learning with NESs, Moody (1988) identified specific learning preferences associated with dimensions of MBTI type, which are described in Table 13-1.

**THE MBTI AND COMPOSITION**

Often composition instruction for NESs is based on a particular pedagogical theory, but the approach suggested may not always be appropriate for all students found within a particular writing class. Freewriting activities, such as those suggested by Peter Elbow (1973), and the often-used practice approach of multiple drafts and peer editing, may not be successful for all students. Jensen and DiTiberio (1989) suggest that different students engage in different writing processes, not one uniform writing process. For example, some may need to incubate ideas a long time before writing, whereas others may benefit greatly from freewriting activities. Some students may think a draft through thoroughly in their heads before writing, while others may engage in “discovery,” finding what they wish to say through a lengthy drafting process.

Jensen and DiTiberio (1989, p. 35) contend that the use of an instrument, such as the MBTI, to explore the differences among students will do much toward resolving the conflicts among writing theorists and toward providing teachers with useful information in designing relevant pedagogy. The focus of their research has been on NESs: our interest was to expand their work by examining traditional freshman composition students and non-native ESL freshman composition students to see what relationships could be found among the learning styles of the groups. That is, what are the psychological types represented in the populations of the two groups, and how does the distribution of these types compare to the distribution in other relevant groups? Further, how do the two groups perform on various measures of freshman writing tasks, and what relationships are there between psychological type and writing measures?

<table>
<thead>
<tr>
<th>Extroversion</th>
<th>Introversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific facts</td>
<td>Ideas, relationships</td>
</tr>
<tr>
<td>Spontaneous action</td>
<td>Thinking, depth of concentration</td>
</tr>
<tr>
<td>Examples first</td>
<td>Rule first</td>
</tr>
<tr>
<td>Talking, discussion with a group</td>
<td>Reading/verbal reasoning</td>
</tr>
<tr>
<td>Social interaction</td>
<td>Work alone</td>
</tr>
<tr>
<td>Oral tests</td>
<td>Written tests</td>
</tr>
<tr>
<td>Psychomotor activity</td>
<td>Concepts</td>
</tr>
<tr>
<td>SENSING</td>
<td>INTUITION</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Real, concrete, tangible</td>
<td>Meanings, words, symbols, abstractions</td>
</tr>
<tr>
<td>Uncomplicated</td>
<td>Complex</td>
</tr>
<tr>
<td>Tasks that call for carefulness, thoroughness, and soundness of</td>
<td>Tasks that call for quickness of insight and seeing relationships</td>
</tr>
<tr>
<td>understanding</td>
<td>Finding own way in new material, discovery</td>
</tr>
<tr>
<td>Going step-by-step</td>
<td>Flash of insight</td>
</tr>
<tr>
<td>Observing specifics</td>
<td>Enough examples to get the principle</td>
</tr>
<tr>
<td>Rule-example, with many variations</td>
<td>Grasping general concepts</td>
</tr>
<tr>
<td>Memory of facts, details</td>
<td>Imagination, possibilities</td>
</tr>
<tr>
<td>Practical interests</td>
<td>Intellectual interests (independent of aptitude—intelligence)</td>
</tr>
<tr>
<td>Performance, motor spatial intelligence</td>
<td>Reading</td>
</tr>
<tr>
<td>Objective choice tests</td>
<td>Timed, essay tests, theory</td>
</tr>
<tr>
<td>THINKING</td>
<td></td>
</tr>
<tr>
<td>Objective</td>
<td></td>
</tr>
<tr>
<td>Logical, systematic organization</td>
<td></td>
</tr>
<tr>
<td>Skeptical, critical</td>
<td></td>
</tr>
<tr>
<td>Math, science, technical skill</td>
<td></td>
</tr>
<tr>
<td>JUDGING</td>
<td></td>
</tr>
<tr>
<td>Decisive</td>
<td></td>
</tr>
<tr>
<td>Work in steady, orderly way</td>
<td></td>
</tr>
<tr>
<td>Formalized instruction, structure</td>
<td></td>
</tr>
<tr>
<td>Prescribed tasks</td>
<td></td>
</tr>
<tr>
<td>Drive toward closure</td>
<td></td>
</tr>
<tr>
<td>Duty, application</td>
<td></td>
</tr>
<tr>
<td>On time</td>
<td></td>
</tr>
</tbody>
</table>

METHOD

Students from first-year writing classes from the University of Akron volunteered to participate in the study. These sections included three course sections each of Composition 1 (41 students) and ESL Composition 1 (25 students). The students from the ESL composition classes came from diverse language and cultural backgrounds and included the following nationalities: Republic of China (5 students); Japan, Venezuela, and Vietnam (2 students each); and Rumania, Palestine, Germany, Bangladesh, Morocco, Turkey, United Arab Emirates, the Philippines, and Laos (1 student each). The nationalities of 5 ESL students were unreported.

All participating students agreed to take the MBTI in a format that had been adapted for use with nonnative speakers of English. The modifications to the MBTI consisted of extensive glossing of complex, colloquial, or culture-specific English expressions to make them accessible for nonnative speakers.

To measure writing skills for these students, three writing samples were collected from each participant throughout the semester (an early, mid term, and final paper from each student). These samples were taken directly from the regular assignments done for the students' writing classes to permit access to writing done under normal course conditions. The Composition 1 students were taught by the process approach, and all three writing samples used for this study were done out of class. The ESL Composition 1 students were taught by a traditional language- and grammar-based approach, making extensive use of sentence-combining, and all of the writing samples used for this study were done in class.

The compositions were rated holistically, as well as scored on a number of formal, linguistic variables, by two highly experienced, independent raters using a five-point holistic rating scale: (5 = excellent; 4 = above average; 3 = average; 2 = basically unacceptable but with a few redeeming features; 1 = completely unacceptable). The scale was based on four criteria: (1) presence of controlling idea; (2) main idea supported or explained by details and examples; (3) writing organized in a clear and unified way; and (4) correct grammar, sentence structure, punctuation, and spelling used. In addition, each composition was scored for the following formal linguistic features: (1) number of words, or length in words; (2) number of sentences, or length in sentences; (3) number of subordinate clauses (a measure of syntactic complexity); (4) number of words per sentence (another measure of syntactic complexity); (5) ratio of subordinate clauses to number of words (a third measure of syntactic complexity); and (6) number of different words per word (a measure of lexical diversity).

RESULTS

The first sets of results were the various MBTI personality types collected from the sample groups. In addition, we compared the NES and ESL groups with the distributions of personality type that have been reported for traditional college age
Table 13–2 Distribution of the MBTI Personality Types Among NES and ESL Groups and Traditional U.S. College Students

<table>
<thead>
<tr>
<th>GROUP</th>
<th>E</th>
<th>I</th>
<th>S</th>
<th>N</th>
<th>T</th>
<th>F</th>
<th>J</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>F</td>
<td>60%</td>
<td>40%</td>
<td>61%</td>
<td>39%</td>
<td>32%</td>
<td>68%</td>
<td>58%</td>
</tr>
<tr>
<td>College Age</td>
<td>M</td>
<td>51%</td>
<td>49%</td>
<td>58%</td>
<td>42%</td>
<td>63%</td>
<td>37%</td>
<td>53%</td>
</tr>
<tr>
<td>Composition 1</td>
<td>F</td>
<td>65%</td>
<td>35%</td>
<td>65%</td>
<td>35%</td>
<td>22%</td>
<td>78%</td>
<td>43%</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>39%</td>
<td>61%</td>
<td>61%</td>
<td>39%</td>
<td>83%</td>
<td>17%</td>
<td>28%</td>
</tr>
<tr>
<td>ESL 1</td>
<td>F</td>
<td>50%</td>
<td>50%</td>
<td>70%</td>
<td>30%</td>
<td>80%</td>
<td>20%</td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>47%</td>
<td>53%</td>
<td>80%</td>
<td>20%</td>
<td>73%</td>
<td>27%</td>
<td>73%</td>
</tr>
</tbody>
</table>

students in the United States (Macdaiid, McCaulley, & Kantz, 1986). Table 13–2 shows the differences in personality types between female and male (F and M) in (1) traditionally aged college students across the U.S., (2) Composition 1 students in our study, and (3) ESL students in our study.

Table 13–2 indicates that the Composition 1 students were more like traditional college students in the distribution of types, with the exception that higher percentages of both the females and males in that group were Perceiving rather than Judging, and higher percentages of the males were Intuitive and Thinking. In contrast, the ESL students were unlike the traditional college age students in the United States. Both males and females showed higher percentages of Introversion, Sensing, Thinking, and Judging than the traditional college-age males and females, respectively. Furthermore, no gender-related differences existed within the ESL group for the Thinking-Feeling scales as they do for the traditional college age group.

Next, consider Table 13–3, which lists the personality types of students by group. Combining the preferences on each of the four bipolar scales yields a total of 16 different personality “types.” The type formula is reported in a fixed order: the first letter indicates the preference for E or I; the second letter indicates preference for the perceptive function S or N; the third letter indicates preference for the judgment function T or F; and the fourth letter, J or P, indicates the visible extraverted function, judging or perceiving. That is, the fourth letter tells which of the second and third letters is extraverted and which is introverted. J points to the third letter as the extraverted function; P points to the second letter as the extraverted function; the other is introverted.

Notice that several MBTI types were not represented among the students. In particular, the ESL sample was extremely homogeneous, with 8 of the 16 potential MBTI personality types not represented at all (INFJ, INTJ, ISTP, INFP, ESTP, ESFP, ENFJ, and ENTIJ). Furthermore, over half of the ESL subjects were either ISTJ or ESTJ. Both of these types are described as practical and logical (see Table 13–1). Does this perhaps reflect the types of students interested in pursuing an education in the United States? Or possible cultural differences? It
Table 13–3 MBTI Personality Types by Group

<table>
<thead>
<tr>
<th>PERSONALITY TYPE</th>
<th>COMPOSITION 1</th>
<th>ESL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISTJ</td>
<td>5%</td>
<td>28%</td>
</tr>
<tr>
<td>ISFJ</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td>INFP</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>INTJ</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>ISTP</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>ISFP</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>INFP</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>INTP</td>
<td>2%</td>
<td>8%</td>
</tr>
<tr>
<td>ESTJ</td>
<td>7%</td>
<td>28%</td>
</tr>
<tr>
<td>ESFJ</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>ENFP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENTJ</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>ESTP</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>ESFP</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>ENTP</td>
<td>15%</td>
<td>4%</td>
</tr>
<tr>
<td>ENTP</td>
<td>5%</td>
<td>12%</td>
</tr>
</tbody>
</table>

does suggest that the approach to instruction for these students should be sensitive to these students’ interest in logic and order.

The results on composition scores showed, fairly consistently, that the ESL students scored lower than the NES college students. On the holistic measure, a measure of the “quality” of the writing on the previously mentioned four criteria, the ESL students scored lower than the NES students. The ESL students also wrote shorter compositions than the NES students as measured by length in both words and sentences. And the ESL students also wrote compositions with less syntactic complexity than the NES students. The most obvious explanation is that the ESL students were writing in their second or foreign language. However, since the ESL students were doing all of their writing in class, compared with the out-of-class writing of the NES students, we cannot rule this out as yet another possible contributing factor. A more controlled study to specifically investigate the influence of in-class versus out-of-class writing is needed.

Interestingly, the ESL students scored higher than the NES students on the measure of lexical diversity. In their shorter, less syntactically complex compositions, the ESL students nevertheless varied their lexical choices to a greater extent than did the NES students.

Correlation studies permitted the exploration of the positive or negative relationships between writing factors (holistic scores, composition length, syntactic complexity, and lexical diversity) and the MBTI scales. The results for the statistically significant relationships for the Composition 1 students are given in Table 13–4.
Table 13-4 Positive and Negative Relationships between NES Writing Factors and the MBTI Scales

<table>
<thead>
<tr>
<th>HOLISTIC SCORE</th>
<th>LEXICAL DIVERSITY</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Judging</td>
<td>+ iNtuition</td>
<td>+ iNtuition</td>
</tr>
<tr>
<td>- Perceiving</td>
<td></td>
<td>- Sensing</td>
</tr>
</tbody>
</table>

As Table 13-4 shows, the NES students who showed a preference for Judging generally received higher holistic scores, while students who showed a preference for Perceiving generally received lower holistic scores. NES writers whose scores indicated they preferred iNtuition wrote longer and more lexically diverse essays, while Sensing writers wrote shorter essays. According to Jensen and DiTiberio (1989), iNtuitive writers grasp materials intuitively, and make leaps and create new categories and ideas without requiring spatial structure; their ideas suggest that there is a nice fit between these students' type preferences and the freshman composition program for NES which stresses the composing process, with emphasis on drafting and revision, and on the use of writing for reflection and to discover one's voice.

The relationships between the MBTI scales and the writing factors of the ESL students were different from the Composition 1 student essays. Table 13-5 shows those statistically significant relationships.

For ESL writers, the significant relationships on the linguistic measures centered on the Thinking and Feeling scales of the MBTI. The Thinking scale yielded positive relationships with the holistic ratings as well as with the formal, linguistic variables measuring composition length and syntactic complexity. ESL writers scoring high on the Thinking scale tended to score higher on the holistic rating, to write more, and to write with greater syntactic complexity than those lower on the scale, and vice versa for the Feeling scale. In contrast, ESL writers

Table 13-5 Positive and Negative Correlations between ESL Writing Factors and the MBTI Scales

<table>
<thead>
<tr>
<th>HOLISTIC SCORE</th>
<th>SYNTACTIC COMPLEXITY</th>
<th>LEXICAL DIVERSITY</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Thinking</td>
<td>+ Thinking</td>
<td>- Thinking</td>
<td>+ Thinking</td>
</tr>
<tr>
<td>- Feeling</td>
<td>+ Feeling</td>
<td>- Feeling</td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ iNtuition</td>
<td>- Sensing</td>
<td></td>
</tr>
<tr>
<td>+ Judging</td>
<td>- Judging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Perceiving</td>
<td>+ Perceiving</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
who were intuitive, feeling, and perceiving (as opposed to sensing, thinking, and judging) tended to use greater lexical diversity in their writing. In these results, we may be seeing aspects of lexical acquisition among these less concrete, more flexible, creative, aesthetic, insightful, and imaginative styles (Moody, 1988), possibly a willingness on the part of learners with less concrete styles to take risks in trying new vocabulary in their second language.

PEDAGOGICAL IMPLICATIONS

According to Jensen and DiTiberio (1989, pp. 58–59), thinkers prefer a writing process driven toward structure. Furthermore, they feel uncomfortable writing personal narratives and instead prefer analytical forms of discourse. They have a spatial orientation and create either an outline or mental blueprint to generate ideas and organize a paper. The ESL students in this study were enrolled in very traditional composition classes, structured to encourage outlining to generate ideas and presenting specific types of analytic writing tasks. Given that, what we may be seeing in the positive relationships with the thinking scale are positive relationships and their success with the traditional instruction they were given. Thinking types rely on organization, structure, and logic. They may tend to thrive in traditional, highly structured composition classes that emphasize such things as the five-paragraph theme.

In contrast, the negative relationships with the feeling scale may reflect a basic incompatibility of feeling students' styles with the traditional composition instruction they were receiving. Feeling students may need different approaches to writing instruction in order to benefit from instruction and to have that instruction reflected in greater complexity and length in their writing. Feeling writers are those who, according to Jensen and DiTiberio (1989) tend to benefit from activities designed to permit them to discover their ideas from the process of writing. At the very least, feeling students may need an approach that explicitly recognizes and builds on the strengths they already possess, to stretch them into developing skills in their less preferred activities. The persuasive writing of feeling types does not rely on logical appeals, like that of the thinking types; rather it tends to express values and emotions. Feeling types may benefit from approaches to writing instruction that stress the composing process, with emphasis on drafting and revision, and the use of writing for reflection and to discover one's own voice.

CONCLUSION

The results of this research suggest that the positive relationships between writing factors and MBTI scales may be the effects of basic compatibilities between the processing styles of students high on these scales with the methods of writing instruction to which they have been exposed. The negative relationships may be
the effects of basic incompatibilities between the processing styles of students high on these scales with the methods of writing instruction under which they have been required to work.

In this new area of investigation, much more investigation is needed. It would be especially illuminating to investigate the relationships of writers to topic assignments, in-class versus out-of-class writing, and the interaction of teachers' styles with the styles of ESL learners. Such research and further studies investigating the relationships among learning styles, writing measures, and writing instruction should yield additional interesting results that can inform not only further writing research but also ESL pedagogy.

NOTES

1. Consulting Psychologists Press, Inc. publishes the MBTI and declined our request to include a form of the instrument in this book. For more information, write 3803 E. Bayshore Road, Palo Alto, CA 94303.

2. For a detailed description of the research results, see the article from which this chapter is excerpted: Patricia L. Carrell and Laura B. Monroe, 1993, "Learning Styles and Composition," Modern Language Journal, 77, 148-162.

3. The MBTI has been extensively analyzed for its reliability and validity, including its use with different linguistic and cultural groups (cf. Myers & McCaulley, 1985): Japanese (Obawa, 1981) and French (Huteau, 1989) versions of the MBTI have been validated for use with native speakers of those languages. The pilot testing reported by Carrell and Monroe (1991) showed that the modified MBTI instrument was accessible to ESL students at TOEFL levels at or above 450.

FOR FURTHER READING


A collaboration between a counseling center psychologist (DiTiberio) interested in Jung's theories of personality differences and how these influence students' preferred learning styles, and a coordinator of academic support services (Jensen) with responsibility for a developmental writing program. They explore ways in which Jung's theory of psychological type sheds light on how NES students approach writing.


Reports a study of the personality types, using the MBTI, of almost 500 first- and second-year students of French, German, and Spanish at a major U.S. uni-
versity, and compares those students with other students (of science, engineering, and business). It makes this comparison in an attempt to identify what kinds of teaching problems may arise when the university requires foreign language study of all its students, a more diverse group than current foreign language students. The article makes the point that a curriculum implicitly designed for certain personality types may not serve other personality types well.


A comprehensive, and to 1985, up-to-date, compilation of the research that has been done with the MBTI. In addition, the manual attempts to clarify points which have often been misunderstood about the MBTI, as well as its administration, scoring, reliability, validity, interpretation, and uses.
Chapter 14
Field-Dependence/Field-Independence in the L2 Classroom

Carol A. Chapelle
Iowa State University

We have all met the student who, despite her adequate listening ability, does not seem to hear a word we say. "Indi," I will call her, has her own agenda for language learning, and even though she happens to be in our class, she chooses to do what she feels will help her regardless of our well-meaning intentions. "Why does Indi bother coming to class?" we think with frustration, and indeed she does not always come! She finds some of our pedagogically sound group activities a waste of time and our carefully sequenced syllabus to be in the wrong order. Indi wants to improve her language ability, but somehow our class just does not seem right for her. Although it is at the right level, it is just not right. In the same class we are likely to also meet her counterpart, "Dep," the student who hangs on our every word, never misses a class, listens intently, cooperates in the activities we invent, and always tries to understand exactly what we want her to do. Nevertheless, both students are making good progress. They simply have different styles for progressing.

There are a number of ways to explain the differences we observe between the two example learners, but one way that I find useful is to think of them as differing along the continuum of field-independence (FI) and field-dependence (FD). The field-independent learner, Indi, has her own agenda. She works on her own; she rejects attempts by others to guide her or to structure her experiences. She relies on her own judgment to use her time most effectively. In contrast, Dep, the field-dependent learner, counts on others to guide and teach her—especially the teacher with her position of authority. In the examples above, both of our learners were successful. But this would not always be the case. Imagine, for example, that another field-independent learner, Rong Wai, has the following agenda: "I'll memorize as many words from the dictionary as I can and learn the grammar rules from a reference book I found at the bookstore." Most of us would agree that Rong Wai's agenda is destined to failure. Imagine also a field-dependent learner, No Gao, who during the course of the
semester becomes so dependent upon your guidance that she is unable to take advantage of the language acquisition potential of environments outside your carefully structured classroom. In both of these cases, our learners’ success will be limited, in part because of their styles.

Despite the fact that the FI/FD styles do not relate predictably to L2 success, as illustrated above, for me it is a useful means of organizing my understanding of learner differences that are important in a classroom setting, where we attempt to create positive learning experiences for a variety of learners. The purpose of this chapter is to explain why I believe FI/FD is useful for understanding L2 learners. I will begin by defining field-independence/field-dependence as a cognitive style and explaining how L2 researchers have worked with FI/FD in the past. I will then explain how FI/FD is relevant to current perspectives in L2 learning in the classroom. Finally, I will suggest criteria for assessment of FI/FD in L2 settings.

FIELD-INDEPENDENCE/FIELD-DEPENDENCE AS A COGNITIVE STYLE

The hypothetical students I described above, Indi and Dep, looked to different sources to help them with their language learning. Indi relied on her own judgment to decide what she wanted to learn and how she wanted to learn it, whereas Dep looked to an authority figure, her language teacher, for guidance. These two extreme examples help to define the fundamental difference between the field-independent and the field-dependent learner. When we talk about the cognitive style FI/FD, we are referring to the extent to which a learner relies on his or her own self. When I added the examples of Rong Wai and No Gao, who also differed in their FI/FD styles, we saw that neither field-independence nor field-dependence guaranteed success in L2 acquisition. In other words, the fundamental definition of FI/FD as a cognitive style provides us with a means of talking about how students approach learning, but not how well they learn. But isn’t “how” likely to affect “how well”? Let’s consider more carefully the style definition of FI/FD and its ability consequences as well as L2 researchers’ hypotheses about FI/FD.

FI/FD, defined as a cognitive style, refers to whether people tend to rely on internal or external referents as they perceive and process information and as they interact with their environment. This concept of a cognitive style cuts across cognitive, personality, and social domains (Messick, 1984), and should therefore be relevant to second language acquisition (SLA), which is recognized as a cognitive, affective, and sociological phenomenon (cf., Gardner, 1985). The idea of a cognitive style is attractive to language teachers because of its bipolarity, which means that it can be good to be either FI or FD. Some situations are better suited for learners who tend to be relatively FI, while others are better suited for relatively FD learners. The value of each end of the pole (i.e., each type of learner),
coupled with the variety of existing language learning situations and potential classroom activities, suggests that all learners can be successful given the appropriate circumstances.

Despite the attractiveness of FI/FD as a cognitive style, by 1981 the definition of FI/FD had evolved to include three major parts: not only reliance on internal versus external referents (as we saw in the original style definition), but also cognitive restructuring skills and interpersonal competencies (Witkin & Goodenough, 1981, p. 54). Associated with the FI style is the ability to disembed or restructure visual stimuli, termed “cognitive restructuring”; SLA researchers have often referred to this as analytic ability. In contrast, FD is associated with skill in interpersonal relations. Researchers hypothesized that individuals who tend toward autonomous, self-reliant modes of processing (the FI style) are those who develop cognitive restructuring abilities, while those accustomed to counting on others for information and approval (the FD style) are likely to develop abilities in interaction with people. Still, the foundation of the FI/FD definition remains the value-neutral cognitive style denoting that individuals differ in their reliance on internal versus external referents rather than in their ability (Witkin & Goodenough, 1981).

Some L2 researchers have hypothesized concerning the role of FI/FD style for L2 acquisition, but the majority of the research has investigated the relationship between the FI ability (restructuring or analytic ability) and specific aspects of L2 acquisition. With reference to the FI/FD style, the FI's personality tendency to rely on internal frames of reference prompted Seliger (1977) and Day (1984) to suggest that the FI learner, because he or she does not need the approval of others, might be the more confident language learner, actively speaking out in class and taking risks, thereby receiving more of the instructors’ attention. Outside of class, Hansen and Stansfield (1981), Chapelle and Roberts (1986), and Brown (1987), noted the compatibility of the FD’s preference for social interaction with language acquisition through contextualized practice with native speakers. Other researchers have hypothesized that cognitive restructuring abilities (FI) would increase one’s ability to monitor grammatical correctness (Abraham, 1983), learn linguistic rules (Day, 1984), perform on classroom-oriented language tests (Chapelle, 1988; Chapelle & Roberts, 1986; Hansen & Stansfield, 1981; Brown, 1987, p. 86; Bachman, 1990, p. 273), and do particularly well on the cloze test (Stansfield & Hansen, 1983; Hansen, 1984).

Another aspect of the FI/FD definition is relevant to L2 learning. Witkin and Goodenough (1981) suggested that individuals may differ in their cognitive style flexibility. That is, some individuals are more fixed in their FI/FD orientation, while others are more mobile, showing characteristics of both cognitive styles, depending on the learning situation. Accordingly, we might find "mobile" individuals who are strong in both their analytic and interpersonal abilities, and "fixed" individuals who are strong in one but not the other ability. Noting the different language contexts in which FI and FD learners are expected to develop competencies, Brown (1987, pp. 87–88) suggested that the key to L2 success is
mobility that allows learners to "exercise a sufficient degree of the appropriate style" in a given context.

Research has been conducted to test some of the hypotheses about FI/FD in L2 classroom-learning (e.g., Violand-Sánchez, this volume). Results tend to show an advantage for the learners who have abilities associated with the FI style; however, the research has been limited by the nature of the hypotheses investigated and the measurement of the essential elements of the research, as I will explain below. Neither the theory nor the research of the past decade provides clear guidance to teachers who wish to use FI/FD to help them understand their learners and create optimal classroom situations. Despite the limited scope of research on FI/FD over the past 20 years, we have gained remarkably in our understanding of the nature of language ability and the roles of learners and teachers in developing language ability. In view of current approaches to FI/FD, language ability, and language learning, we can hypothesize how the FI/FD style relates to L2 learning and teaching.

FIELD-INDEPENDENCE/FIELD-DEPENDENCE IN LANGUAGE LEARNING AND TEACHING

Central to current views of language learning and teaching are our perspectives concerning strategic competence as one aspect of communicative language ability and our understanding of L2 learning strategies. "Strategic competence" denotes the strategies required for using language in context (Canale & Swain, 1980; Bachman, 1990). "Learner strategies" refer to the procedures learners use to help them increase their communicative language ability. Research on L2 learning strategies has shown that learners' active, appropriate strategy use is such an essential part of successful language acquisition and use that teachers should make learners aware of the need for strategic, autonomous learning and should train them in effective use of strategies. How one might best teach performance and acquisition strategies has therefore become a crucial question—a question that requires consideration of learners' natural strategic tendencies. As teachers and researchers explore how strategies might best be taught, it will be useful to consider how learners' stylistic differences influence their strategy use.

FIELD-INDEPENDENCE/FIELD-DEPENDENCE AND STRATEGIC COMPETENCE

Strategic competence, the competence required for putting language knowledge to use, is defined as the strategies required for using language in context. It consists of the following types of strategies: (1) assessing a situation, (2) setting communicative goals, (3) composing plans for achieving those goals, and (4) executing those plans (Faerch & Kasper, 1983; Bachman, 1990). It is important
to note that these strategies are not viewed as discrete, one-at-a-time processes; nor are they solely compensatory (i.e., to be used only in the absence of sufficient language knowledge). Instead, they are seen as a way of talking about the normal mechanisms that work together to put linguistic knowledge to use. In other words, any linguistic performance is the result of learners’ successful use of strategic competence. This description of strategic competence as comprised of four types of strategies provides a general framework from which we can hypothesize differences among learners on the basis of their FI/FD.

As language users communicate, they continually assess the communicative situation, which includes the other people involved in the communication, relevant elements in the physical surroundings, the message that has been communicated so far, and the degree of success of the communication. All communication requires some kind of assessment of the context, but individuals differ in how they assess the same context. For example, two native speakers of English may sit in the same lecture in an American classroom, but each walks away with a different set of notes—the result of differing assessments of the important elements of the message that was communicated. Language users’ assessments of a communicative context are shaped by how they perceive, which is one dimension of cognitive style.

The FI student, relying on internal referents, is likely to make goal-oriented assessments of the context. We all know people who, regardless of the confusion around them, tend to find what they want to know. These FI people seem to block out everything they see as irrelevant to focus on their agenda. Assessing a communicative situation, then, becomes a challenge of assessing only those elements essential for getting meaning across or comprehending what the language user wants to learn. The FD student, in contrast, would assess by taking in the whole situation, thereby perceiving more of what is going on, but perhaps failing to see what she needs to find. Her class notes would contain a wide variety of points that interested her, as well as those the instructor indicated were crucial.

Setting communicative goals, whether they be for relaying a message, comprehending another person’s meaning, or maintaining social relationships, is central to strategic competence. All language performance occurs because of the communicative goals of language users, but individuals differ in the way in which they establish and update their goals. We would expect the FI student to establish goals on the basis of her or his own communicative desires and to modify those goals during communication on the basis of his or her assessment of how well his or her goals are being accomplished. FD students, in contrast, might set and modify goals on the basis of suggestions from or negotiation with others, and might modify their goals on the basis of feedback from others.

In the L2 classroom, we often construct simulated situations—social contexts—in which we ask learners to adopt communicative goals such as “buy an airplane ticket to Tokyo,” “complain to a landlord who has failed to fix your kitchen sink,” or “apply for a part-time job in the computer lab on campus.” FI learners, accustomed to establishing their own communicative goals, may not be
naturally interested in adopting our goals unless we can convince them that our communicative goals support their longer term goals of language learning or of doing well in the course. The FD learner, in contrast, would be expected to welcome suggestions of goals set by others, and to trust you as the teacher to know the best language learning activities.

Planning refers to the learners deciding on a communicative course of action. Planning requires an understanding of the communicative goal as well as knowledge of the linguistic resources available to achieve the goal. For example, L2 learners with their minimal vocabularies often make plans for circumlocution, paraphrase, and/or language switch (Blum-Kula & Levinson, 1983, p. 126) to achieve communicative goals. Advanced learners, with their sophisticated knowledge of rhetoric and register, can plan effective written documents for different audiences. As we hypothesized for goal setting, the FI student would be predicted to approach planning through introspection, devising plans on the basis of her own ideas. On the other hand, the FD student would be more inclined to seek the advice of others in planning.

Imagine a group of three students working together to write a letter thanking a visitor for speaking to their class. Two students are FI; the third is FD. They all basically agree on the communicative goal and think it is a good idea. The two FI students each have a clear plan for accomplishing the goal: how the letter should be written, what it should say. Each student’s plan is different, but each has a plan. The FD student, on the other hand, does not have a plan. Left on her own, she would sit at the computer and write a few ideas, then ask the instructor what she thought, and then ask other students what they thought. In the group of three, however, there is no shortage of plans. The problem is that the two FI planners may have a difficult time cooperating, despite the mediating efforts of the FD student.

Notice that the above discussion focuses on the differences in strategy use that can be understood by FI/FD (summarized in Table 14-1). That is not to imply that these differences should be considered categorically good or bad. As the original definition of cognitive style indicates, both styles may have value relative to a particular context. The contexts considered above included the classroom settings and objectives the teachers created in addition to the knowledge and other characteristics of the learners involved. These contextual factors will also be important as we speculate how FI/FD may influence learning strategies.

**FIELD-INDEPENDENCE/FIELD-DEPENDENCE AND L2 LEARNING STRATEGIES**

Oxford (1990) defines learning strategies by dividing them into two primary groups: direct and indirect. Direct strategies are used to work with the target language, for example, by retrieving vocabulary words or producing a particular construction that is needed to ask a question. Indirect strategies manage learning;
they are used to arrange, plan, evaluate, encourage, and cooperate with others in the learning environment. There is some overlap between learning strategies and strategic competence because strategic competence is comprised in part of metacognitive strategies, but the difference is in what the strategies are controlling: performance versus learning (as shown in Table 14–1).

Oxford (1990, p. 13) suggests that "general learning style, such as field dependence-independence, analytic-global orientation, or the judging-perceiving mode [the MBTI], has a strong influence on the strategies that language learners use." The abilities associated with FI and FD might influence indirect metacognitive strategies and the social strategies. (See Appendix A for Oxford’s complete list of learning strategies.)

| Table 14–1 Hypothesized FI and FD Approaches to Performance and Acquisition Strategies |
|-----------------------------------------------|-----------------------------------------------|
| STRATEGIES                                   | APPROACHES                                    |
|                                               | FIELD-INDEPENDENT                              | FIELD-DEPENDENT                              |
| PERFORMANCE STRATEGIES                       |                                               |                                               |
| Assessment                                   | Focused on goals                              | Open to multiple features of context          |
| Goal setting                                 | Based on own assessment and intentions         | Based on advice and suggestions from others   |
| Planning                                     | Based on own knowledge and experience          | Based on plans suggested by others            |
| LEARNING STRATEGIES                          |                                               |                                               |
| Metacognitive Strategies                     |                                               |                                               |
| 1. Centering learning                        | Depends on own needs assessment                | Can do if advised to                          |
| 2. Arranging and planning learning           | Natural learning strategies                    | Not natural                                  |
| 3. Evaluating learning                       | Natural learning strategies                    | Not natural                                  |
| Social Strategies                            |                                               |                                               |
| 1. Asking questions                          | Asks questions relevant to her own learning    | Enjoys asking questions                       |
| 2. Cooperating with others                   | Not natural learning strategy                  | Natural learning strategy                     |
| 3. Empathizing with others                   | Not natural learning strategy                  | Natural learning strategy                     |

Source: Oxford, 1990, pp. 320, 322
Metacognitive strategies, by definition, refer to taking control of one's own learning—something that FI learners, by definition, would tend to do and FD learners would not do. However, in keeping with the style definition for FI/FD, let's not assume that FD learners would be incapable of metacognitive control. Instead, we would hypothesize that they would not be naturally inclined to develop and use metacognitive strategies on their own. For example, the strategies Oxford (1990, p. 138) considers as strategies for “centering one’s learning... [by] overviewing and linking with already known material, paying attention, and delaying speech production to focus on listening” are all strategies that the FD learner could be encouraged to adopt. Notice also, that these strategies may not necessarily be adopted by the FI learner. The FI learner, with her own goals and plans, is likely to decide for herself whether or not to use the strategies Oxford defines as “centering one’s learning.”

Most of the strategies within the sets of metacognitive strategies such as “arranging and planning one’s own learning” and “evaluating one’s own learning” would be natural for the FI learner, who would do the following on her own: organize, set goals and objectives for learning, identify her purpose for language tasks, plan for it, self-monitor, and self-evaluate. She would also find out about language learning and seek practice opportunities to the extent she thought it necessary to do so. In contrast, we would not expect the FD learner to naturally engage in these self-controlling processes.

In contrast, we would expect that “social strategies” such as asking questions, cooperating with others, and empathizing with others would probably be natural for the FD learner. The FD's style of calling on others for advice and considering their opinions would be likely to transfer to the L2 setting and to facilitate the use of social strategies. The FI student, while not naturally inclined toward social strategies, would undoubtedly be comfortable as a questioner, asking for information necessary to achieve her own objectives. Moreover, if the FI learner could be convinced that other social strategies were important for achieving her language learning objectives, she may become very cooperative and empathetic.

Current ideals for language teaching reflect our concern with strategies for L2 acquisition: “New teaching capacities also include identifying students’ learning strategies, conducting training on learning strategies, and helping learners become more independent” (Oxford, 1990, p. 10). Indeed, learner independence, or autonomy, has become a focal ideal in L2 pedagogy. Oxford (1990, p. 10) suggests that “learner self-direction... is often a gradually increasing phenomenon, growing as learners become more comfortable with the idea of their own responsibility. Self-directed students gradually gain greater confidence, involvement, and proficiency.” But according to our conception of the FI/FD style, it appears that some FI learners need not go through a process of gradual acceptance of their own responsibility. They may already be responsible for their own learning, and/or they may reject any direction from the beginning! For other learners, the process may be a painful one of acting in a way that is contrary to their natural style—while at the same time facing the difficult task of language
learning. Given our speculation of how FI/FD may impact some of the learning strategies necessary for autonomous learning (see Table 14-1), we may want to rethink assumptions about the need for all learners to progress from dependence to independence.

Learners will approach our classes with varying degrees of field-independence. From the above examples, we saw that FI learners have their own agendas, which our classroom activities may or may not fit into. They may need to be convinced of the value of the activities we believe will help them, or they may simply need to be appreciated for their self-guidedness. In contrast, FD learners depend on the teacher to be the knowing authority. They depend on receiving advice from others and following others’ plans. These are the students who need to be guided from dependence to some degree of independence.

**HOW CAN WE ASSESS FIELD INDEPENDENCE/FIELD-DEPENDENCE?**

According to Oxford and Ehrman (1993, p. 201), teachers need to “spot style conflicts and help learners stretch beyond their ‘stylistic comfort zone’ to develop new language learning strategies.” But how can we “spot” an FI or an FD style? Researchers have used a test that claimed to measure FI/FD, but I do not recommend that teachers use that test for classroom assessment of cognitive style. The test that L2 (and many other) researchers have used is called the Group Embedded Figures Test (GEFT; Olzman, Raskin, & Wiktins, 1971); it requires test takers to find simple geometric shapes embedded (i.e., hidden) in more complex geometric designs. The score the test taker receives is the number of simple shapes successfully found, which is intended to estimate the test taker’s degree of FI. Accordingly, most test users have interpreted a low score as indicating FD. These interpretations and uses of the GEFT followed its developers’ instructions, but in the early 1980s other psychologists (e.g., Widiger, Knudson, & Rorer, 1980; McKenna, 1984) began to question how this type of test could be used to measure a cognitive style and why a low score should be interpreted to indicate FD.

These important questions led L2 researchers to examine more carefully the interpretations they were making of the GEFT results (Brown, 1987; Chapelle, 1988; Chapelle & Green, 1992). Based on this reexamination, we should consider the GEFT as a test only of the cognitive restructuring ability associated with the FI style. It may seem at first that such a measure of the ability associated with the style is “close enough,” but for classroom assessment of FI/FD style, there are three important measurement criteria on which the GEFT fails. I will explain these in hopes that interested teachers and researchers might work toward creating a useful measure of FI/FD style for the ESL language classroom.
A measure of style should be comprised of items or tasks that assess how individuals work, not how well they work. A problem with the GEFT is that it asks test takers to find geometric shapes and then evaluates how well they did it (i.e., how many they found) rather than what processes they used to attempt to find them. In fact, the task of finding embedded shapes is probably not the best one for assessing differences in process because it is so narrowly defined by the test's instructions which allow for little individual variation. Larger tasks such as writing an essay or a computer program might offer more insights into individual processes if they were assessed on the basis of how—not how well—the learner accomplished them. In other words, to assess cognitive style, we need to develop a test for which there are no correct or incorrect responses, but only different responses.

A measure of FI/FD style for L2 acquisition should also contain items or tasks that are interpretable with reference to the language classroom. Measurement specialists are increasingly concerned with defining styles and abilities in relevant contexts. We have seen this trend in language assessment: language tests are comprised of tasks that resemble the tasks of the language use context. For example, communicative language ability might be defined as the abilities required to write brief technical reports, and would be tested by asking the test taker to write a brief technical report. The rationale for context-specific definitions and tests is that abilities differ across contexts. The same rationale applies to style. A person may be more or less FI or FD in relation to a particular context. For instance, our FD learner, Dep, introduced above, may have an FI style in many contexts where she is knowledgeable and confident, but in the language class where she is a fish out of water, she may adopt her FD style.

One more reason to avoid administering the GEFT to L2 students is that a measure of FI/FD style for L2 acquisition should be a positive, consciousness-raising experience for learners to take and interpret. This ideal has been stated for tests of ability across disciplines, including L2 assessment (Canale, 1987). However, when L2 students take the GEFT, most of them feel confused and frustrated. They feel confused because it does not make sense to them to take a test like this in a language class. They feel frustrated that they are unable to complete correctly all of the 18 items; most of them can tell whether they have accurately found the simple figure in the more complex one. Our ideal FI/FD test would clarify for them elements of their own styles that are relevant to the language learning classroom without making the FD learners feel like failures.

CONCLUSION

We can keep these ideals of FI/FD assessment in mind to guide future research, but for now we might simply remember that we expect learners to differ in their natural self-directedness and that these differences are likely to influence the
performance and acquisition strategies we see working in class. I observe these differences in my students simply by how they behave in class: the types of questions they ask me, how they interact in groups, their level of cooperation, and so on. And I use my understanding of these differences to mediate my interaction with individuals, letting some be successfully independent and helping others become gradually independent.

NOTES

1. I am grateful to Peter Skehan for many of the ideas in this section which relate FL/FD to strategies.

FOR FURTHER READING


This book offers a clear introduction to second language acquisition with particular focus on individual differences. After explaining some general principles of first and second language acquisition, Brown focuses on explanations for individual differences, such as personality factors, sociocultural variables, and cognitive style. Pages 83–88 summarize research and hypotheses concerning FL/FD in second language acquisition. The book as a whole contextualizes concerns about individuals into the broader issues of second language acquisition.


This paper presents the most complete summary and analysis of FL/FD in the field. It interprets research results from second language acquisition studies by reexamining the definition of FL/FD and the way that it has been measured in second language studies. It explains the differences between two types of second language research: language testing and “good language learner” research. Based on this reanalysis, it draws conclusions about the limitations of previous research and suggests directions for future research.


This seminal book explains the language learner’s dilemma in attempting to communicate in a non-native language and the processes that she or he engages in during the process of communication. It is important because it can help us to understand communication as a goal-oriented, problem-solving process. It explains how the communicator’s assessment of a situation impacts the goals she or he sets and the communicative plans that are developed as a result. Faerch and Kasper also explain the fundamental processes of communication, which we can then examine to help explain differences in communication styles, such as those hypothesized for field-independent and field-dependent learners.
Section 4
Overview of Learning Styles in the ESL/EFL Classroom
Chapter 15
Understanding and Empowering Diverse Learners in ESL Classrooms

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Although there is probably some truth to the maxim that teachers teach the way they were taught, there is probably a lot more truth in saying that teachers teach the way they learned best in school. Many teachers, either consciously or unconsciously, emulate teachers who inspired and enabled them as students and select methods that reflect their own preferred ways of approaching academic tasks. As an illustration, teachers who enjoy group work regularly incorporate it into their curriculum, while teachers who prefer more independent learning rarely integrate opportunities for students to work collaboratively. Teachers who are visual learners remember to write key terms on the board and provide graphic illustrations to help students grasp new concepts, but they may not consider tape lectures or organizing study groups to help auditory learners rehearse course material through listening and discussion.

A teacher may indeed be highly knowledgeable, creative, charismatic, and caring, yet still be unsuccessful in educating students whose learning strengths are not acknowledged because of the teacher's fairly inflexible instructional approach. Without a fundamental awareness of our own preferences, it is easy to believe that the way we study and learn is the most efficient way and consequently to bias our teaching in favor of students who approach learning in much the same way we do. The result from students whose learning preferences and needs differ from our own can be mediocre performance and a sense of incompetence in a particular subject area, which is made manifest in comments such as “I'm not a good writer” or “I'll never learn English grammar.” It is therefore crucial for all educators to understand, respect, and respond to the wide range of characteristics that make students unique as learners and to have a critical awareness of our own learning preferences. Every teacher who wants to can take steps that will open the channels of success for more learners, including learners who have not formerly been accommodated and encouraged within the educational system.
While there is much good to be found in a traditional educational setting for some learners, alternatives are crucial for others. Unfortunately, the current situation in most classrooms is that diverse learner preferences are rarely, if ever, considered in a systematic fashion. Knowledge about learning styles can help educators concerned with issues of access and equity for students who have not yet been well served by our nation's schools to move beyond the mere rhetoric of a “student-centered classroom.” The goals of this chapter are to examine some fundamental components of an individual learning style, then make practical suggestions for broadening one's teaching style to accommodate a wider range of learner characteristics while helping students develop a more flexible, empowered approach to diverse learning contexts and tasks.

**LEARNING STYLE: A WORKING DEFINITION**

A *learning style* refers to an individual's natural, habitual, and preferred ways of absorbing, processing, and retaining new information and skills which persist regardless of teaching methods or content area. Everyone has a learning style, but each person's is as unique as a signature. Each signature appears to be influenced by both nature and nurture; it is a biological and developmental set of characteristics.

In reading through the extensive body of literature on learning styles, one is instantly struck with the wide range of definitions that have been used to describe this construct. Because a learning style involves perception, cognition, conceptualization, affect, and behavior, it is understandable that various learning-style models and definitions exist. The definitions run the gamut from concerns about preferred sensory modalities to cognitive-information-processing patterns. And the models typically focus on only one aspect among many that may influence an individual learner's perceptions and processing of new material. The Dunn, Dunn, and Price (1975, 1979, 1989) model is a particularly useful and informative model for educators because it represents more comprehensively the complexity of variables that potentially influence a student's distinct approach to learning. As the adaptation of the Learning Style Inventory model in Figure 15-1 illustrates, this approach to viewing a learning style is multidimensional and encompasses five stimulus categories: (1) *environmental*; (2) *physical*; (3) *emotional*; (4) *socio-logical*; and (5) *psychological*.

Many of the multiple elements that comprise an individual learning style are bipolar, representing a continuum from one extreme to another. However, no value judgment is made about where a learner falls on the continuum. Since each style has similar intelligence ranges, a student cannot (or at least should not) be labeled or stigmatized for having any set of learning strengths. The concept of learning styles thus offers a value-neutral approach for understanding individual differences among linguistically and culturally diverse students. Further, these elements are not mutually exclusive: they represent different ways of viewing complex phenomena.
Among the most significant elements for adolescent and adult learners are: (1) perceptual strengths; (2) brain hemisphericity; (3) analytical versus relational learning; and (4) independent versus collaborative work orientation.

**PERCEPTUAL STRENGTHS**

Educators usually refer to the sensory channels through which perception occurs as modalities: auditory (hearing), visual (seeing), tactile (hands-on), and kinesthetic (whole-body movement). Some confusion in the learning-style literature exists with regard to modalities. First, the words tactile and kinesthetic are often used interchangeably. However, tactile suggests learning with one's hands through manipulation of resources, such as writing, drawing, building a model, or conducting a lab experiment. Kinesthetic implies total physical involvement with a learning environment such as taking a field trip, dramatizing, pantomiming, or interviewing. The auditory and visual modalities are also frequently referred to in an oversimplified manner, for there are important distinctions within each sensory category. Some students with a strong auditory orientation process information most efficiently through listening to instruction via lectures, tapes, or films; others may additionally require opportunities to process information aloud themselves through small-group activities, class discussions, and individualized conferences or tutorial sessions. There are equally important distinctions within visual learners. Some visual learners absorb information most effectively by silent reading; others may be overwhelmed by extensive printed
material and require a less verbal/visual presentation of information through media such as pictures, graphs, charts, and diagrams.

The sensory channels through which each individual best absorbs and retains new information and skills have become known as "modality strengths." Students vary considerably with respect to their modality strengths; a modality strength may occur in a single channel, for example, visual, or be mixed, involving two or more channels, for example, kinesthetic, tactile, and auditory. Most students beyond early elementary age can learn through several sensory channels; learning merely is easier through one channel than through another. As students grow older, in terms of academic achievement, those with mixed modality strengths have a decidedly better chance of success than do those with a single modality strength because they can process information in whatever way it was presented.

PERCEPTUAL LEARNING STYLES IN THE CLASSROOM

Unfortunately, less flexible learners are rarely accommodated in traditional classroom arenas. Students, for example, with a decided auditory orientation often respond poorly to extensive written comments, questions, and corrections on a composition draft, no matter how accurate or well intended, since feedback of this nature is more suited to mixed modality or visual/verbal students. Strong auditory learners do better with the spoken rather than with the printed word, so they would probably benefit far more in revising their writing, for example, from a brief, focused end note along with an individual conference.  

Modalities strengths evolve and generally become more integrated with age. Children are essentially more tactual and kinesthetic in the primary grades, but with time their preferences evolve from psychomotor (learning through touching and experiencing) to visual at approximately second grade, and finally to auditory at the end of elementary school. Apparently, the ability to remember three-quarters of what they hear in a 50-minute period does not develop among many young learners before the 6th grade, and among underachievers not until high school and sometimes not at all (Price, 1980).

These modality shifts reflect the changing learning environments of our educational system and the need for children to adjust and become more flexible in their learning or face the prospect of continued mediocre performance or failure. In early elementary grades, teachers generally integrate activities into every lesson which provide access to difficult information and skills through multiple modalities. By upper elementary school, however, students already spend the greater part of the day listening and reading; they engage in far fewer tactual and kinesthetic activities. Unfortunately, many adolescent and adult students who are more academically challenged within traditional classrooms learn more easily through tactual/kinesthetic and visual/nonverbal approaches than through auditory or visual/verbal approaches. Hodges's (1982) research in U.S.
secondary schools confirms that approximately 90 percent of traditional classroom instruction for adolescents caters to the competent auditory learner. If 90 percent of classroom instruction is indeed conducted through either lecture or discussion, then followed by homework reading assignments, it is no wonder that many students do not achieve as highly as we believe they should.

**PERCEPTUAL LEARNING STYLES AND ESL STUDENTS**

If we consider the enormous listening and reading comprehension demands for a student in a secondary- or college-content area class who has not yet achieved full English language proficiency and who is also not a strong auditory or visual/verbal learner, we can begin to understand one compelling reason why so many immigrant students in the United States have such disappointing high school and college performance rates. A 1988 study of secondary students in California classified as limited in English proficiency documented the astoundingly high dropout rates for recent immigrants, in particular for those in large high schools. The highest average attrition rate was for schools with large concentrations of Southeast Asians (48 percent), followed by schools with predominantly Spanish-speaking students, averaging a 46 percent attrition rate (Olsen, 1988). Another study on immigrant students found that the secondary school dropout rate among Filipino students exceeded 40 percent and among Samoans, 60 percent (National Coalition of Advocates for Students, 1989).

**PERCEPTUAL LEARNING STYLES AND CLASSROOM TEACHING**

Many of us who have selected language teaching as a profession tend to be comparatively flexible learners who have flourished within the educational system. As students with visual/verbal and auditory learning strengths, we thrive when presented with substantive verbal information whether in a lecture or while reading, and appreciate opportunities to reinforce new material by processing our own reactions and insights through discussion and writing. Our penchant toward verbal/analytical learning can't help but influence our teaching, and most commonly manifests itself in the form of extensive "teacher talk," teacher-led class discussions, and challenging reading and writing assignments that require considerable independent analysis, persistence, and initiative. Yet if our students have so little opportunity to participate actively, and if they appear to be retaining little of what we formally teach largely through verbal instruction, then it is clear that traditional language arts classroom instruction is in need of modification.

We can enhance educational outcomes for more students by giving them the opportunity to describe the senses through which they seem best able to retain information, and by delivering instruction that is consistent with their
assessments. Farr’s (1971) research utilizing a self-reporting questionnaire demonstrates that students are generally quite willing and able to identify how they learn best. If given the chance to identify their modality strengths through a questionnaire such as that of Barbe and Malone (1980), Reid (1987; Appendix A) or Kinsella (see Appendix C), and instructed on how to capitalize on those strengths and compensate for weaknesses with appropriate study approaches, students will be equipped with both the self-knowledge and the tools to learn within a wider range of educational contexts. In terms of learner self-esteem and motivation, students who have gone through classes feeling inadequate and frustrated, often to the point of developing a “learned helplessness” (Cummings, 1989), can begin to adopt a more responsible, optimistic approach to coping with challenging learning contexts. Armed with a new repertoire of strategies that includes ways to appropriately request teachers and tutors to accommodate their needs, and ways to study utilizing methods that compensate for a relatively incompatible instructional style, students emerge more empowered, confident learners.

Learning-style research supports what experienced classroom practitioners know intuitively: that students absorb new material and skills through their senses and prefer some senses over others in specific situations (O’Brien, 1989; Oxford & Ehrman, 1993; Kroonenberg, this volume). When lessons are presented visually as well as verbally, and reinforced through writing, drawing, or speaking activities, students are not only able to learn in the way best suited to their style, but also to develop a full and varied repertoire of modality strengths. The best instructional approach, then, regardless of subject matter or grade level, is a deliberate multisensory approach.

HEMISPHERITY: LEFT-BRAIN VERSUS RIGHT-BRAIN FUNCTIONS

Breakthrough research on left- and right-brain functions was completed during the 1960s by a team of surgeons led by Roger Sperry at the California Institute of Technology. In an effort to relieve patients suffering from epileptic seizures that were spreading from one brain hemisphere to the other, the surgeons severed the corpus callosum, the intricate nerve cable composed of approximately 200 million nerve fibers that cross-connect the two cerebral hemispheres. Sperry and his associates performed the first “split-brain” operation, which greatly reduced the patient’s subsequent epileptic attacks while causing no outward disabilities, despite the severance of such delicate nerve pathways. Through a series of ensuing experiments, the researchers explored the functioning of the two halves of the brain and discovered profound differences. These differences are pictured in Figure 15–2 in terms of the types of information processing in which each hemisphere appears to excel.
<table>
<thead>
<tr>
<th>LEFT HEMISPHERE</th>
<th>RIGHT HEMISPHERE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interested in component parts; detects discrete features</td>
<td>Interested in wholes; integrates component parts and organizes them into a whole</td>
</tr>
<tr>
<td>Analytical: figures things out step by step and part by part</td>
<td>Relational: constructional and pattern seeking</td>
</tr>
<tr>
<td>Linear, sequential processing of input</td>
<td>Global, simultaneous integration of input</td>
</tr>
<tr>
<td>Abstract: takes out a small bit of information and uses it to represent the whole thing</td>
<td>Concrete: relates to things as they are at the present moment</td>
</tr>
<tr>
<td>Logical: drawing conclusions based on reasons and facts</td>
<td>Intuitive: making leaps of insight, often based on hunches, feelings, or visual images</td>
</tr>
<tr>
<td>Temporal: sequencing one thing after another</td>
<td>Spatial: seeing where things are in relation to other things, and how parts go together to form a whole</td>
</tr>
<tr>
<td>Verbal: encoding and decoding speech, using words to name, describe, and define</td>
<td>Nonverbal: visual-spatial, minimal connection with words</td>
</tr>
</tbody>
</table>
Williams (1983) offers educators useful insights into the two-sided mind's specialized functions. The left hemisphere is often referred to as analytical because it specializes in distinguishing the parts that comprise a whole. This type of information processing relies on the ability to discriminate the relevant features in a whole to reduce the whole to its meaningful parts—in essence, to analyze. The left hemisphere is also linear and sequential in its mode of processing information; it moves from one point to another in a step-by-step manner. For this reason, the left hemisphere is most efficient for processing mathematics, musical notation, and language. Encoding and decoding speech depend on an awareness of the sequence in which sounds occur and of the order in which words occur. The left hemisphere can retrieve and string together words logically and syntactically; it also makes possible one's ability to think rationally and objectively.

While the left hemisphere is separating out the parts that constitute a whole, the right hemisphere specializes in combining these parts to create a whole. It does not process stimuli in a one-at-a-time basis, but instead seeks relationships and gestalts. Because of its image-making power, the right hemisphere operates most efficiently for the majority of spatial and visual tasks; in terms of language learning, it is capable of processing and interpreting linguistic ambiguity, irony, and metaphor. The right hemisphere also perceives qualitative relationships that escape the logic and linearity of the left hemisphere, enabling one to think intuitively and to respond sensitively to emotional cues.

Figure 15-2 illustrates the power in conveying and processing information both visually and verbally. It captures in a single image the contrast between parts and an entity, analytical and relational, linear and global, verbal and visual, logical and emotive. And it demonstrates that in unison, language and images communicate far more effectively than either does alone.

**RIGHT-LEFT HEMISPHERES AND CLASSROOM TEACHING**

Nevertheless, our educational system often operates as if students had only the left-brain hemisphere. Williams (1983) contends that in traditional high school
and college classes, students are largely expected to master new material through listening to lectures and discussions, reading textbooks, and completing writing assignments. They work in class and study outside of class with words, abstractions, and numbers. Students who favor right-brain modes of processing (refer to Figure 15-3) are generally asked to study and learn in ways that are at odds with their learning style. To illustrate, certain students will experience considerable difficulty when forced to master course content through lectures and readings which, though logical, well-organized, and at the appropriate level of language proficiency, contain few illustrations, examples, and analogies. They must adapt, seek learning assistance if available, or face the prospect of academic failure. And classmates who have stronger verbal/analytical faculties may have easier access to the curriculum, but they are not necessarily developing the right-brain strengths that are crucial for problem solving and creativity.

Both modes of thinking are available to all students, although with different degrees of effectiveness. Williams (1983) and McCarthy (1987) maintain that a fundamental goal in instruction should be to help our students develop the flexible use of their two-sided brain. A holistic, relational view is necessary to complement—not to replace—logical, analytical thinking. To accomplish this goal, educators across the disciplines and grade levels must teach to the whole brain: intellectual and intuitive, verbal and visual, linear and relational. We must also create and integrate methodologies and materials that effectively teach to both hemispheres. Figure 15-4 contains a list of teaching techniques that are associated with the processing style of the right brain, not because right brain techniques are necessarily more important or effective, but because they are generally less well known and less widely used in traditional secondary and college classrooms.

<table>
<thead>
<tr>
<th><strong>LEFT-BRAIN DOMINANCE</strong></th>
<th><strong>RIGHT-BRAIN DOMINANCE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rational</td>
<td>Intuitive</td>
</tr>
<tr>
<td>Planned and structured</td>
<td>Fluid and spontaneous</td>
</tr>
<tr>
<td>Theoretical</td>
<td>Experimental</td>
</tr>
<tr>
<td>Analyzes</td>
<td>Synthesizes</td>
</tr>
<tr>
<td>Prefers established, certain information</td>
<td>Prefers elusive, uncertain information</td>
</tr>
<tr>
<td>Favors logical problem solving</td>
<td>Favors intuitive problem solving</td>
</tr>
<tr>
<td>Makes objective judgments, conclusions</td>
<td>Makes subjective judgments, conclusions</td>
</tr>
<tr>
<td>Focuses on differences</td>
<td>Focuses on similarities</td>
</tr>
<tr>
<td>Sees cause and effect</td>
<td>Sees correspondences</td>
</tr>
<tr>
<td>Observes details</td>
<td>Observes overall design form</td>
</tr>
<tr>
<td>Relies on language in thinking and remembering</td>
<td>Relies on images in thinking and remembering</td>
</tr>
<tr>
<td>Remembers names and labels</td>
<td>Remembers faces and images</td>
</tr>
</tbody>
</table>
Figure 15-3 Characteristics of Left-Brain and Right-Brain Dominance (cont.)

<table>
<thead>
<tr>
<th>LEFT-BRAIN DOMINANCE</th>
<th>RIGHT-BRAIN DOMINANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rarely uses metaphors and analogies</td>
<td>Frequently uses metaphors and analogies</td>
</tr>
<tr>
<td>Responds to verbal instructions</td>
<td>Responds to demonstrated or illustrated instructions</td>
</tr>
<tr>
<td>Learns by trial and error and from rules</td>
<td>Learns by modeling, rich exposure, and practice, not from rules and error correction</td>
</tr>
<tr>
<td>Prefers talking, writing, and reading</td>
<td>Prefers drawing and manipulating</td>
</tr>
<tr>
<td>Prefers objective test formats: true/false, multiple choice, fill-in-the-blank, matching</td>
<td>Prefers more open-ended test formats: short answer, essay, illustrations, diagrams</td>
</tr>
<tr>
<td>Controls feelings</td>
<td>More free with feelings</td>
</tr>
<tr>
<td>Not skilled at interpreting body language</td>
<td>Skilled at interpreting body language</td>
</tr>
<tr>
<td>Responsive to structure</td>
<td>Responsive to environment, ambiance</td>
</tr>
</tbody>
</table>

Figure 15-4 Teaching Techniques for the Right Hemisphere

- Visual aids: illustrations, photographs, maps, diagrams, videos, films
- Visualization: generating and manipulating mental imagery
- Guided fantasy: imagining phenomena one cannot experience first-hand
- Concrete examples reinforced by student-generated examples
- All forms of poetry
- The use of metaphor, analogy, and paradox
- Evocative versus objective language: language that makes a topic “come alive”
- Patterning, connections of all kinds
- Associations with the students' lives and interests
- Concept mapping, word mapping
- Graphic organizers: time lines, flow charts, Venn diagrams
- Spatial relationships of all kinds
- All synthesizing activities
- Activities in which intuition is honored
- Multisensory learning: auditory, visual, kinesthetic, and tactile
- All Fine Arts: painting, drawing, sculpture, photography
- Creative writing
- Music
- Dance
- Creative dramatics: simulation and role-playing
- Interactive video
ANALYTICAL (FIELD-INDEPENDENT) AND RELATIONAL (FIELD-SENSITIVE) LEARNING

The left-brain and right-brain construct is paralleled by and to an extent subsumed by another widely researched cognitive style construct, that of analytical versus relational thinking. Research by Herman Witkin and his colleagues (1976, 1977) demonstrated the usefulness for educators in placing learners on a continuum with regard to the extent of their tendencies to perceive the environment in an analytical (field-independent) way or a relational (field-dependent) way.

As the name implies, the field-independent learner tends to perceive elements independently of a context or field. These elements are not restricted to the visual field; they can include other contexts such as distinguishing a tune embedded within a complex melody. The field-dependent learner is more apt to perceive the whole visual field or situation rather than its discrete parts. Ramírez and Castaneda (1974) raised concern over Witkin’s use of the term field-dependent because of the possible negative connotations associated with the word “dependent.” They substituted the word “sensitive,” contending that it more positively and appropriately labeled this learner’s heightened sensitivity to the social and physical environment while completing many tasks. The most commonly used instrument to assess people’s tendency toward field-independence or field-sensitivity is an Embedded Figures Test, in which the respondent is asked to identify a simple geometrical figure from within a complex geometrical figure. Some people can spot the simple figure immediately and are categorized as field-independent, while others who are more distracted by the surroundings may take considerable time to locate the figure and are categorized as field-sensitive (see Chapelle, this volume).

Witkin found that the cognitive style of field-independent/field-sensitive preferences are a powerful influence in academic choices and achievement, vocational preferences, and how students learn and interact with different teachers.
<table>
<thead>
<tr>
<th><strong>ANALYTICAL LEARNING</strong></th>
<th><strong>RELATIONAL LEARNING</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Information Processing</strong></td>
<td><strong>Right-brain strengths: relational, holistic, pattern seeking, intuitive, subjective, concrete, emotional, visual, musical</strong></td>
</tr>
<tr>
<td>Left-brain strengths: analytical, linear, sequential, rational, objective, abstract, verbal, mathematical</td>
<td>Experiences a distinct item as fused with its context, as part of an overall impression</td>
</tr>
<tr>
<td>Finds it easy to detach a perceived item from its given background</td>
<td>Impulsive in thinking tasks, trusts hunches</td>
</tr>
<tr>
<td>Reflective and cautious in thinking tasks</td>
<td>Responds to rich, varied input</td>
</tr>
<tr>
<td>Dislikes excessive input; responds to selective, low-intensity stimulus</td>
<td></td>
</tr>
<tr>
<td><strong>Learning Strengths</strong></td>
<td><strong>Learning Strengths</strong></td>
</tr>
<tr>
<td>Relies on analytical faculties</td>
<td>Relies on intuition</td>
</tr>
<tr>
<td>Better at analytical problem solving</td>
<td>Better at collaborative problem solving</td>
</tr>
<tr>
<td>Preference for predictable routines and familiar activities</td>
<td>Preference for variation and creativity in activities</td>
</tr>
<tr>
<td>Favors material that is more abstract, factual, impersonal, and practical</td>
<td>Favors material that has a personal, social content or that includes humor, fantasy, art, and music</td>
</tr>
<tr>
<td>Affinity for instructional strategies that are focused and systematic</td>
<td>Affinity for instructional strategies in which various features are managed simultaneously and realistically in significant context</td>
</tr>
<tr>
<td>Likes to set own learning goals and direct own learning</td>
<td>Prefers more explicit structure, modeling, and feedback for task completion</td>
</tr>
<tr>
<td><strong>Interpersonal Relations</strong></td>
<td><strong>Interpersonal Relations</strong></td>
</tr>
<tr>
<td>Likes to work independently or with a partner who has a compatible learning style</td>
<td>Likes to work with others to achieve a common goal</td>
</tr>
<tr>
<td>Personal identity and social role to a large extent self-defined</td>
<td>Greater tendency to defer to social group for identity and role definition</td>
</tr>
<tr>
<td>Tendency to be occupied with own thoughts</td>
<td>Perceptive of thoughts and feelings of others</td>
</tr>
<tr>
<td>Self-esteem less dependent upon the opinion of peers</td>
<td>Learning performance improved if group or authority figure give praise and support</td>
</tr>
<tr>
<td>Task-oriented; relatively inattentive to subtle emotional cues in interpersonal interactions</td>
<td>Socially-oriented; sensitive to verbal and nonverbal cues in interpersonal interactions</td>
</tr>
</tbody>
</table>
This is not surprising since the analytical versus relational construct encompasses a wide range of intellectual, curricular, social-interactional, and affective variables that may strongly influence an individual learner. Characteristics that differentiate more analytical from relational learners have been described in numerous research studies, including Cohen (1969), Ramirez and Castranova (1974), and Witkin, Moore, Goodenough, and Cox (1977). The most pervasively documented characteristics of learners at far ends of the analytical-relational continuum are summarized in Figure 15-5.

Notice that learners described as analytical favor left-hemisphere approaches to processing information, view the world objectively, excel at analytical tasks, and master material more easily that is abstract, factual, and impersonal. They prefer fairly predictable classroom routines and instructional strategies that are focused and systematic. These students are most comfortable working independently, and they tend to be more task-oriented and competitive. They seem to have a sense of separate identity that permits them to function in class with relatively little sensitivity to the social dynamics and interpersonal interactions within the classroom.

Conversely, students described as relational are especially effective in situations where collaboration and social relationships contribute to achievement (Witkin et al., 1977). They like to work with classmates to achieve a common goal, and they enjoy assisting others. These students are generally quite sensitive to the opinions and feelings of others and look to their instructor for recognition, guidance, and modeling. Relational learners clearly favor right-hemisphere approaches to instruction. They are therefore less likely to succeed without assistance when they are required to independently analyze the components or steps in a task, attack assignments with a “trial-and-error” or “discovery” approach, or concentrate on a task for an extended period of time. Students who have relational learning strengths also respond with greater enthusiasm to course content and activities that are clearly structured, modeled when appropriate by the teacher or classmates, and related to their personal experiences and interests (See Vieland-Sánchez, this volume).

It is not accurate to label students as strictly analytical or strictly relational; most students fall along the continuum between the two. All students are capable of utilizing both styles; students simply prefer one style to another in specific learning contexts and with specific tasks. Some individuals are nonetheless more adaptable than others and can more easily utilize a strategy from their learning repertoire that is better suited for a particular task. Others tend to limit themselves to a smaller range of strategies or one familiar strategy, regardless of the task type. Learners who strongly favor either analytical or relational learning, and are either reticent or unable to adjust in classes with an incompatible teaching style, predictably flounder in schools with teachers who display less flexibility in their teaching styles. Their learner reticence or inflexibility often stems from a lack of exposure to alternative teaching methods in prior educational experiences or a lack of guided assistance by instructors in developing a fuller range of analytical or relational learner characteristics.
ANALYTICAL/RELATIONAL LEARNING STYLES
AND ESL STUDENTS

A comparison of the salient characteristics of each cognitive style makes it quite obvious which learner is most valued and nurtured in mainstream schooling. Cohen (1968, 1969) and Ramírez and Castaneda (1974) contend that highly analytical learning environments are frequently the only options offered in mainstream American schools where instruction is organized to promote individual, autonomous achievement and where verbal, mathematical, and analytical skills are the primary gauges of intelligence. Traditional language arts, science, social studies, and math curricula are all overtly biased toward the left-brain, analytical cognitive style. Furthermore, while highly relational learners may be superior in their interpersonal, collaborative, creative, intuitive, and synthetic abilities, they are rarely praised and rewarded for these strengths. Instead, these relational learners are often required to adapt to exclusively analytical learning environments as early as elementary classes; otherwise, they can anticipate poor academic achievement and the risk of being categorized as disruptive, unmotivated, and lacking in the academic skills valued in the school community.

ANALYTICAL/RELATIONAL
CLASSROOM TEACHING

The analytical versus relational cognitive style construct can offer concerned educators valuable food for thought in terms of curriculum design and methodology. First, we can safely assume that in every class we will find students at varied points on the continuum. As most traditional instruction is already tailored for the highly verbal and analytical learner, we needn't be overly preoccupied with enhancing our instruction with opportunities to compete, problem solve through trial and error, listen to formal presentation of information, read, write, or independently structure and complete assignments. We can, however, critically examine our lesson and assignment design to see if we have included opportunities for relational learning strengths to be accommodated and enhanced. Educators who want to complement relational learners and foster the "whole learner" growth of students who are rigidly analytical can make a concerted effort to employ the following enabling strategies:

- Display expressions of warmth and approval as well as confidence in every student's ability to succeed.
- Be attuned to the challenges your students may be experiencing with your course demands, and alert them to any agencies on campus that offer tutorial services.
- Make yourself reasonably available for individualized or study group assistance (after openly discussing the protocol and language strategies necessary for seeking individualized assistance from instructors after class or during office hours).
In addition to traditional grade rewards, provide social rewards that strengthen your rapport with students as well as relationships within the class.

Emphasize global aspects of concepts, and supply multiple examples so that highly relational learners can more easily formulate generalizations. Clarify the performance objectives of all lessons and tasks, and relate them to prior lessons.

Include adequate explanation of the steps involved in any learning process, whether it be reading a textbook chapter, responding to a classmate’s draft, or writing a timed essay.

Provide relational learners with models that can serve as gauges for successful completion of task demands. For example, distribute exemplary student responses to exam questions or well-taken class notes, then discuss what makes them particularly effective. These student-generated examples should elicit more positive future results from a relational learner than a written list of guidelines for taking essay exams or a lengthy oral explanation with no tangible illustration.

Integrate regular classroom activities that require collaboration with a partner or a small group.

Incorporate consistent opportunities for students to apply what they are learning to their daily lives and interests.

CLASSROOM WORK STYLE

For those ESL students who display and self-report a noticeably independent, left-brain, analytical orientation to completing classwork, the incorporation of regular small-group activities may not come as a welcome addition to the curriculum. For that matter, many highly relational ESL students surprisingly report considerable trepidation about collaborating with classmates on assignments. Their reluctance often stems from a lack of experience and/or success in working with peers in a formal learning context and a perception that the educational expert is not in the appropriate position of authority. For ESL students, reluctance to participate in small-group activities can also be attributable to insecurity about perceived English language proficiency and a general lack of familiarity with small-group work processes, procedures, roles, outcomes, and assessment. When we ask students from diverse linguistic, cultural, and educational heritages to readily embrace a potentially progressive instructional approach like cooperative classroom learning, we are, in fact, asking them to adopt an open attitude to a work style that may not be their preferred or most familiar mode of processing and retaining new material.

Second language educators are well aware of the benefits of regular inclusion of task-based cooperative activities in terms of language and content acquisition (Christison, 1990; Long & Porter, 1985; Scardella & Oxford, 1992), as well as the development of prosocial skills and positive race relations (Kagan, 1986). ESL students with years of formative education abroad, however, those with analytical and relational orientations alike, may require special consideration before they
can confidently and competently work and learn together. Many who have been educated overseas in a comparatively traditional, hierarchical system will regard the teacher as an unquestioned authority on subject matter; these students are likely to expect this revered scholar to deliver formal unchallenged lectures, while they assume a receptive role taking verbatim notes. Students coming from an authority-centered educational system may also have been trained to accept anything from a professor as truth, and to never entertain opinions different from those of the expert. They may consequently expect considerable direction from the teacher and perceive little academic value in class discussions or activities in which classmates share and construct knowledge.

To encourage students with diverse educational backgrounds and classroom work styles to perceive collaborative learning as a viable instructional approach, teachers can begin the school year by allowing them to provide input about their prior experiences working with peers and the particular variables that contribute to making peer collaboration either a positive or negative learning experience. The Classroom Work Style Survey in Appendix C has been designed to provide teachers of linguistically and culturally diverse classes an instrument for eliciting and responding to their students’ varied work-style preferences. In one class, for example, you may find that the majority of your students have never had a positive prior experience working with peers in class; initial activities will understandably require considerable justification, high structure, modeling, facilitation, and validation of both academic and social achievement. In another class, you may discover that the students are unanimously enthusiastic about working collaboratively, but want the teacher to form the small groups and structure the activities very explicitly with initial modeling, rather than leave the process up to each individual group’s initiative through trial and error. Drawing from research in learning styles and second language acquisition and their own classroom experience, Kinsella and Sherak (1993) offer a number of suggestions for implementing small group learning in heterogeneous classes; see Figure 15-6. These instructional practices enable students with a wide range of learning styles and educational experiences to find cooperative activities more academically and personally rewarding (a personal evaluation sheet for group work is included in Appendix C).

**Figure 15-6 Implementing Small-Group Learning**

1. Balance classroom opportunities for unified-class, independent, pair, and small-group learning.
2. Establish consistent routines and procedures for group work: roles, physical arrangement, grouping formations, reporting, processing, and evaluation.
3. Select or design activities that lend themselves to group process, those that clearly necessitate task-based, active collaboration and invite multiple contributions.
Figure 15–6 Implementing Small-Group Learning (cont.)

4. Make explicit the purpose, procedures, and expected outcome of the assignment.

5. Include, when possible, group-work assignments that help to personalize the curriculum by relating it to the students' cultures, communities, daily lives, and interests.

6. Build in considerable context before presenting the assignment, using techniques that accommodate a variety of sensory modalities and brain-hemisphere strengths.

7. Relate the assignment to previous lessons and previous group activities.

8. Break a more complicated and challenging task into manageable, clearly delineated steps.

9. Give clear oral instructions for the assignment accompanied by a visual aid; write the goals, time frame, and procedures on a handout, the chalkboard, or an overhead transparency.

10. Model the task or a part of the task, and check to see if all students understand the instructions before placing them in groups.

11. Establish a clear and adequate time frame for students to successfully complete each part of the group assignment.

12. Encourage cooperation, mutual support, and development of group feelings and accomplishment.

13. Take a noticeably active, facilitative role while groups are in progress by providing feedback and guidance, and when necessary by getting students back on track.

14. Save adequate time to process the small-group activity as a unified class, clarifying what was learned and validating what was accomplished.

15. Incorporate listening and responding tasks for students to complete during small-group reports, to facilitate task processing and ensure active learning and accountability (e.g., note-taking, journal writing, oral summarizing, question formation).

16. Make sure that students clearly see the connection between what was generated, practiced, or accomplished during the small-group activity and any follow-up individual assignments.

17. Reinforce learning accomplished primarily through listening and talking during a small-group discussion, with a follow-up composing, note-taking, graphic organizing, and/or reading task.

18. Provide feedback to individuals and groups on their prosocial skills and academic accomplishments using a manageable, consistent evaluation process and form.

19. Allow students to evaluate their individual and small-group performance, and to inform you in a safe, non-threatening manner of any difficulties they may be experiencing by way of a quickwrite, journal entry, or feedback form.

20. Balance opportunities for student learning to be assessed and rewarded in varied grouping formations, including working with a partner or small group as well as independently.
DEVELOPING SELF-AWARE, ADAPTABLE, AND EMPOWERED LEARNERS

While it is essential that teachers have a practical understanding of learning styles, it is equally important for students to understand their individual learning styles and to become aware of the modalities and strategies they avoid or seldom use. A knowledge of one's own learning style is fundamental in "learning to learn." Students can't be expected to acquire successful language acquisition strategies, study methods, or collaborative learning skills incidentally, yet many come to ESL and other classes without a full realization of what is expected of them. They consequently continue to use inappropriate approaches, with no awareness of the limitations of their habitual style of learning or more productive options for completing academic tasks. When teachers help students discover their own learning preferences, then provide constructive feedback about the characteristic advantages and drawbacks of various modality strengths, cognitive styles, and work styles, it is possible to help students develop a more versatile approach to learning, not just in the ESL classroom but also in every subject across the curriculum and in many situations beyond school.

If the concept of learning style accommodation and development is going to have practical value for the average classroom practitioner, teachers must have means of helping students identify learning preferences that are easily administered and that produce reliable data. Yet the majority of the instruments commercially available to educators are of little use to teachers of English because the linguistic demands are typically beyond the proficiency level of even students exiting from preuniversity intensive English programs. Many are also lengthy and complicated for students and teachers alike to interpret and then apply the findings to teaching and learning contexts. It is generally more informative and useful for ESL instructors to devise their own informal assessment tools appropriate to the grade level and English proficiency level of their class, or to utilize instruments and activities specifically designed for L2 learners such as the "activity worksheets" in Willing's (1989) Teaching How to Learn. Inventories such as Kinsella's Perceptual Learning Strengths Survey and Classroom Work Style Survey (Appendix C) or informal assessments through speaking and writing tasks (Appendix B) can additionally aid ESL students in identifying their learning strengths and sources of academic frustration.

Assessing learning styles with these or other instruments should not stigmatize or trap students in pigeonholes but instead provide avenues to foster intellectual growth and self-esteem. They should serve as a concrete mechanism for introducing the topic of learner differences and lead students to a more heightened understanding and appreciation of their individual learner characteristics. By no means should they be used for placement purposes; they can best be employed as a vehicle for establishing a community of scholars who engage in productive, enlightening dialogue about learning and individual growth.
There is certainly no point in having students complete a questionnaire or describe the ways they learn best in class unless the teacher intends to actually utilize the student input to help them gain more control over their lives and educational futures. If, for example, students are asked for feedback on their classroom work-style preferences by means of a survey, and a majority of the class indicates that they would rather work alone or with a partner most of the time, then the teacher must acknowledge those preferences to a reasonable extent, even if she or he knows the multiple benefits for students acquiring a second language to work collaboratively in groups. By addressing the students’ preferences and agreeing to balance opportunities to work individually and with a partner with manageable doses of small-group activities, the teacher validates both the usage of the survey and the students’ voices in the classroom community of learners.

ADMINISTERING LEARNING-STYLE ASSESSMENTS

Before taking part in any type of assessment, students need to be reassured that they are capable of mastering any subject matter across the curriculum, and told that how they master it is greatly determined by their individual styles. The teacher must preface a learning-style assessment and follow-up unit with an introduction to the concept of individual differences in learning, carefully emphasizing the reasons why it will be valuable to both the teacher and the students to explore this topic. To prevent students from worrying about being labeled or having the “wrong” learning style, the teacher must stress the fact that no style is better than another, and that honesty in responding will produce more accurate and practical information about each learner’s special characteristics. To collect more reliable data, the instructor should spend adequate time going over the guidelines for the assessment instrument, then have the students complete each item or question one at a time as a unified class, clarifying any confusing items.

Tabulating the results of a learning-style questionnaire needn’t be a laborious exercise for the teacher. One of the advantages of using an inventory designed for English learners like the Perceptual Learning Preferences Survey (see Appendix C) is that students can easily tabulate their own results and enjoy the immediate gratification. A class can then compare similarities and differences in general findings or on specific items. Another option is to elicit the results and write them on the board so that students can visualize the diversity within the group. For example, after having administered the Perceptual Learning Preferences Survey, the teacher can write the four modality preference categories on the board, then simply ask how many students found each modality to be their first, second, third, and last preference. Seeing the overall class results demonstrates the great variety of learning styles within one class, while at the same time fostering learner solidarity as individuals see that some classmates actually share similar instructional likes and dislikes as well as learning strengths and difficulties.
When discussing the results of an assessment tool, instructors must be careful never to present a learning style in terms of "good or bad," but rather in terms of its effectiveness in a particular context. In many cases, the obstacles that ESL students face in classes across the curriculum have less to do with English language proficiency than they do with incompatible instruction. Nevertheless, underachieving students are more apt to attribute their academic frustrations to a lack of knowledge, innate abilities, and bad luck than an educational system's failure in preparing teachers to effectively respond to diverse learner characteristics. Indeed, Cummins (1989) maintains that the learning difficulties of language minority students are all too often pedagogically induced in that students designated "at risk"—as many predominantly relational, tactual/kinesthetic, and visual/nonverbal learners are—frequently receive instruction that confines them to a passive role, inducing a lack of confidence in their ability to learn and a firm belief that their educational fate is outside of their hands. Conversely, instruction that empowers students begins by addressing issues of educational privilege, which includes a graphic illustration of how traditional education has largely enabled and rewarded very few learning styles. Students who seem turned off in class may become more involved when we emphasize the attributes of all learning styles, and offer choices in how information or skills can be acquired along with safe opportunities to experiment with new academic approaches. They may also feel more connected to the classroom community and less solitary in their academic struggles when they see that fellow classmates share challenges and frustrations in school.

IMPLEMENTING LEARNING STYLE PREFERENCES IN THE CLASSROOM

After assisting a class in identifying some of their individual learning strengths, an important role for the teacher will be to provide an environment that facilitates the identification by students of the learning and study strategies that work best for them. Once familiarized with instructional practices that complement their learning styles, learners are then more capable of articulating their needs clearly to their teachers. As an example, after helping students identify their modality strengths and weaknesses with the Perceptual Learning Preferences Survey, the instructor can greatly assist students by sharing with them specific strategies for studying material through their primary modality strength and reinforcing it through secondary and tertiary modalities. Visual/nonverbal learners, for instance, may not always be fortunate enough to have teachers who are sensitive to their needs, but if they know how to ask for information to be presented in a way that they can learn it, they can educate their teachers to better meet their needs. And if these students have been taught how to map, diagram, or illustrate concepts to aid comprehension and retention of new terms, they can use those skills in other classes too. They will have acquired not only more English language proficiency but also the tools for learning other subjects.
Another key role of the teacher would be to suggest alternative strategies for approaching challenging academic tasks and to encourage students to experiment and reconsider which strategies work best for them. Students can be familiarized with some of the useful characteristics of styles other than their own, thus enhancing their natural styles. However, at times individuals fixate upon a particular learning approach simply because it is the most familiar. Even after being introduced to a particularly effective method, they may resort to comfortable (though proven inefficient) methods. As an illustration, many highly left-brain-dominant students with prior schooling in a traditional educational system display immediate reluctance to experiment with concept mapping or freewriting as ways to generate ideas and get started writing a paper. They may fall back upon listing or formal outlining and will need considerable modeling and encouragement to persist before they demonstrate even minimal acceptance of these spontaneous, unstructured, nonlinear invention techniques.

The ESL instructor is in an ideal position to help students become more comfortable with learning approaches they have not previously experienced. Language minority students are generally more relaxed and willing to take risks when they know they are in the hands of a caring instructor. Students need to know, however, that their individual needs will not be accommodated at all times, and that even sensitive instructors must make informed decisions about which instructional approach will most efficiently transmit the material to be covered, an approach that may not be the individual’s preferred mode of accessing new information. In fact, a key to applying learning-style research is to teach difficult new information through a student’s style but also help that student stretch by learning through alternative styles. We can periodically expose our students to contextual demands that do not precisely match their styles; of course, this must be done cautiously in order to avoid instilling in any student a feeling of incompetence or reluctance to trust this new learning process. However, if we consciously introduce material through a number of modalities with strategies that reflect both relational and analytical processing, we can prompt the development of flexibility. Thus, a student who learns well independently and looks to the instructor for “expert” delivery of information through a linear, formal lecture would at times be asked to work with peers in a cooperative group to generate knowledge or do a hands-on project such as conduct an interview. Similarly, a student who participates actively in small-group activities and interactive class discussions but immediately tunes out when the instructor begins to lecture could be shown a manageable note-taking system to remain more physically and intellectually engaged.

Finally, students will need help in analyzing why they are having difficulty with an assignment, or why they can succeed in certain classes and not in others. Leading students to a more critical awareness of their individual learning strengths and challenges results in empowering them to more fully realize their potential in academic settings and to assume more learner responsibility. ESL teachers may use a variety of activities to provide structured opportunities for
students to explore their individual learning styles and to collaborate with classmates in finding “active learner” solutions to problematic situations. *Active learner strategies* are strategies employed by students who are aware of their learning strengths and limitations to effectively cope with incompatible learning situations. A number of such activities are described in Appendix C. Students who have been trained in active learner strategies are better able to take care of themselves and control their own learning once outside the nurturing confines of their ESL class. One successful way to provide practice in developing personal *action plans* for coping with incompatible teaching styles is to ask students to describe in writing a particularly challenging class they have taken or that they are presently enrolled in. They must analyze the sources of their learning difficulty and provide illustrative examples and clear explanations. In small groups, students can then share their conflicts and assist each other in deciding upon appropriate courses of action. To help prepare students to successfully verbalize their learning difficulties in small groups and identify as a team feasible steps

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**Figure 15-7 Learning-Style Vs. Teaching-Style Conflict Resolution**

**Directions:** Read the following conflict situations, then suggest what “active learner” steps each student could realistically take to do better in the class taught by an instructor with an incompatible teaching style.

1. Ramon has a strong visual/nonverbal and auditory learning style. He is having trouble in his U.S. history class. The instructor, Mr. King, is more of a visual/verbal learner. He assigns a 20-page textbook chapter every class and sometimes extra outside readings. He gives regular quizzes on the assigned readings, and so far Ramon has received failing or low grades. One main reason for Ramon’s poor performance is that his instructor doesn’t discuss the outside readings in class and when he lectures on the chapter, he never seems to cover all the main points. Mr. King also mentioned in the course syllabus that a term paper is due at the end of the semester which requires that students do library research. He handed out the syllabus and term paper requirements in the first class session, but he didn’t go over the specific requirements orally. Ramon is behind several chapters in the textbook, and a midterm exam is coming up in one week. He is also very confused and nervous about the term paper.

2. An Le is having a hard time in her ESL class. She wants to improve her academic English skills so she can feel more confident in her classes with native speakers. An Le wants to work mostly by herself in class on what she considers “serious” activities like grammar and vocabulary exercises. However, her teacher Mrs. Long seems to spend most of the class having the students discuss the assigned stories in small groups or do individual “rewriting” about the stories. An Le doesn’t like sharing her ideas in the small-group discussions or getting feedback on her writing from her classmates. She also feels disappointed about all the “rewriting” and journal writing in this class because her teacher never corrects her grammar errors. An Le doesn’t feel like this is a serious English class.
toward conflict resolution, teachers can model the process by going over problem-
atic learning situations with the unified class like those described in Figure 15-7.

In order to truly benefit from knowledge about their learning styles, students
need to recognize that they have a right within the educational system to have
their instructional needs met, and to know how to utilize appropriate strategies
for approaching teachers. Students who are accustomed to a formal, hierarchical
teacher-and-student relationship may be quite reluctant to articulate instructional
needs both during and outside of class because they have probably never
approached an educational authority figure before with a concern or a request.
ESL instructors can foster the confidence to voice learning needs by familiarizing
their students with culturally and linguistically appropriate strategies like those
listed in Figure 15-8 and setting up scenarios for students to practice using these
language devices in role plays.

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**Figure 15-8 Active Learner Language Strategies**

**Interrupting**
- Excuse me, but . . .
- Sorry for interrupting, but . . .
- May I interrupt for a moment?

**Asking For Clarification**
- I have a question about that.
- In other words, are you saying that . . . ?
- Could you explain what _____ means, please?
- Would you mind repeating that definition?
- Could you repeat that, please?
- Could you please say more about that?
- Could you please give me an example of that?
- I'm not sure I understood that term/concept. Could you please provide
  another example?
- Would you mind explaining the instructions for us again?

**Requesting Instructional Assistance**
- Could you please write that term on the board?
- Could you please spell that term?
- Could you please go over the assignment requirements again?
- Would you possibly have time today to answer a few questions about the
group project?
- I was wondering if you had a moment to go over the comments you made
  on my essay.
- Can you recommend a good method for taking lecture notes?
- Could I possibly have a little extra time to complete my draft?
DIRECTIONS FOR EDUCATORS

The dramatic impact of perception, cognition, and work orientation on academic and social achievement in school points to the urgency for every educator concerned with issues of access and equity to listen carefully to the recommendations from the learning-style literature for truly honoring and enabling diverse styles in our classes. If we endorse the notion of a “student-centered” classroom, then there is no question about the necessity of considering individual learner differences. We cannot afford to assume that our students will all learn through induction, collaboration, process-orientation, or any other instructional approaches we fervently ascribe to, no matter how potentially progressive. As educators of such linguistically, culturally, and socio-economically diverse students, we must seek a broader definition of “student-centeredness.” A “student-centered” classroom means more than allowing students to work in teams, to select their own reading and writing topics, or to participate regularly in lively class discussions. It also entails more than a “student-centered curriculum” with units reflecting the histories and literary contributions of different cultural groups. A teacher who creates a truly “student-centered” classroom understands and respects the diversity of learning strengths within any group, and offers choices in how information and skills will be acquired. A genuinely “student-centered” classroom is a democratic educational environment that enables students to equitably develop their individual learning styles to meet the diverse demands of school and life with increased confidence and competence.

We can indeed work toward promoting and sustaining greater diversity in our educational system by first assessing the extent to which we truly honor individual differences within our own classes, then by setting incremental personal goals for modifying our instruction to respond to a wider range of learner characteristics. (The Instructor Self-Assessment Forms in Appendix C were designed to assist educators with this process). We must go further, though, than instructional modification in our efforts to create democratic learning environments; we must actively seek and share practices with colleagues that will help our students identify the obstacles that restrict their possibilities in school and in society, and equip all of the unique learners who fill our classes with the knowledge and strategies to take action toward transforming that which limits them.

NOTE

1. Appendix C includes learning styles surveys for ESL/EFL students; they are followed by some descriptive characteristics of students with decided modality preferences as well as suggestions for instructional and study approaches that will enable these students to process and retain information more easily.
FOR FURTHER READING


Provides a comprehensive overview of 18 stimulus categories that can influence an individual learning style, and suggestions for responding to different learner strengths in curriculum design and instruction, particularly in K-12 classrooms.


The interesting and provocative premise of this book about students' needs, styles of learning, and desires will lead to more successful learning. Through interviews with minority students, sustained classroom observation, and studies of existing literature about cultural differences, the authors in this anthology offer suggestions for teachers on how to rethink "customized expectations and practices" (xii) in order to expand their teaching methodologies to make course content more accessible to minority students.


Explores the biases in traditional education toward left-brain dominant, analytical learning, and makes detailed suggestions for complementing analytical with relational classroom practices.


Provides practical activities and materials, appropriate for use within adolescent and adult classes, to help English learners identify their own learning strategy preferences and in so doing more effectively manage their own learning.
Appendices
Appendix A: Normed Learning Styles Surveys

The Learning Channel Preference Checklist

Lynn O'Brien (1990)

Read each sentence carefully and think about how it applies to you. On each line, write the number that best describes your reaction to each sentence.

5—Almost Always  4—Often  3—Sometimes  2—Rarely  1—Almost Never

1. I can remember something better if I write it down.
2. When reading, I listen to the words in my head or I read aloud.
3. I need to discuss things to understand them better.
4. I don't like to read or listen to directions; I'd rather just start doing.
5. I am able to visualize pictures in my head.
6. I can study better when music is playing.
7. I need frequent breaks while studying.
8. I think better when I have the freedom to move around; studying at a desk is not for me.
9. I take lots of notes on what I read and hear.
10. It helps me to LOOK at a person speaking. It keeps me focused.
11. It's hard for me to understand what a person is saying when there is background noise.
12. I prefer having someone tell me how to do something rather than having to read the directions myself.
13. I prefer hearing a lecture or tape rather than reading a textbook.
14. When I can't think of a specific word, I use my hands a lot and call something a "what-cha-ma-call-it" or a "thing-a-ma-jig."
15. I can easily follow a speaker even though my head is down or I'm staring out the window.
16. It's easier for me to get work done in a quiet place.
17. It's easy for me to understand maps, charts, and graphs.
18. When beginning an article or book, I prefer to take a peek at the ending.

*If you wish to use this survey, please contact Specific Diagnostic Studies for permission. Write 11600 Nebel Street, Suite 130, Rockville, MD 20852.
19. I remember what people say better than what they look like.
20. I remember things better if I study aloud with someone.
21. I take notes, but never go back and read them.
22. When I am concentrating on reading or writing, the radio bothers me.
23. It's hard for me to picture things in my head.
24. I find it helpful to talk myself through my homework assignments.
25. My notebook and desk may look messy, but I know where things are.
26. When taking a test, I can "see" the textbook page and the correct answer on it.
27. I cannot remember a joke long enough to tell it later.
28. When learning something new, I prefer to listen to information on it, then read about it, then do it.
29. I like to complete one task before starting another.
30. I use my fingers to count and I move my lips when I read.
31. I dislike proofreading my work.
32. When I am trying to remember something new, for example, a telephone number, it helps me to form a picture of it in my head.
33. For extra credit, I prefer to do a report on tape rather than write it.
34. I daydream in class.
35. For extra credit, I'd rather create a project than write a report.
36. When I get a great idea, I must write it down right away or I'll forget it.

SCORING THE LCPC

CAREFULLY transfer your score onto each line:


Visual Total: ___  Auditory Total: ___  Haptic Total: ___
Visual Total: ______
Auditory Total: ______
Haptic Total: ______
Total of All 3 Categories: ______

Convert each category to a percent:

Visual = \( \frac{\text{visual score}}{\text{total score}} \) = ______% 

Auditory = \( \frac{\text{auditory score}}{\text{total score}} \) = ______% 

Haptic = \( \frac{\text{haptic score}}{\text{total score}} \) = ______%
Suggestions for Visual, Auditory, and Haptic Learners*

Lynn O'Brien (1990)

**SUGGESTIONS FOR VISUAL LEARNERS**

You will learn better when you read or see the information. Learning from a lecture may not be as easy. Try some of these suggestions and create some more that will work for you.

- Write things down because you remember them better that way (quotes, lists, dates, etc.).
- Look at the person while they are talking. It will help you stay focused.
- It's usually better to work in a quiet place. However, many visual learners do math with music playing in the background.
- Ask a teacher to explain something again when you don't understand a point being made. Simply say, "Would you please repeat that?"
- Most visual learners study better by themselves.
- Take lots of notes. Leave extra space if some details were missed. Borrow a dependable student's or teacher's notes.
- Copy over your notes. Re-writing helps recall.
- Use color to highlight main ideas in your notes, textbooks, handouts, etc.
- Before reading an assignment set a specific study goal and write it down. Post it in front of you. Example, "From 7:00 to 7:30 I will read the first chapter.”
- Preview a chapter before reading by first looking at all the pictures, section headings, etc.
- Select a seat furthest from the door and window and toward the front of the class, if possible.
- Write vocabulary words in color on index cards with short definitions on the back. Look through them frequently, write out the definitions again, and check yourself.

*Permission to reprint for classroom use. Copyright Lynn O'Brien Specific Diagnostic Studies, Inc., Rockville, MD, 1990
SUGGESTIONS FOR AUDITORY LEARNERS

You will learn better when information comes through your ears. You need to hear it. Lecture situations will probably work well for you. You may not learn as well just reading from a book. Try some of these suggestions and create some more that will work for you.

- Try studying with a buddy so you can talk out loud and hear the information.
- Recite out loud the thing you want to remember (quotes, lists, dates, etc.).
- Ask your teachers if you can turn in a tape or give an oral report instead of written work.
- Make tape cassettes of classroom lectures, or read class notes onto a tape. Summarizing is especially good. Try to listen to the tape three times in preparing for a test.
- Before reading a chapter, look at all the pictures, headings, and talk out loud and tell what you think this chapter will be about.
- Write vocabulary words in color on index cards with short definitions on the back. Review them frequently by reading the words aloud and saying the definition. Check the back to see if you were right.
- Before beginning an assignment, set a specific study goal and say it out loud. Example, “First, I will read my history chapter.”
- Read aloud whenever possible. In a quiet library, try “hearing the words in your head” as you read. Your brain needs to hear the words as your eyes read them.
- When doing complicated math problems, use graph paper (or use regular lined paper sideways) to help with alignment. Use color and graphic symbols to highlight main ideas in your notes, textbooks, handouts, etc.

SUGGESTIONS FOR HAPTIC LEARNERS

You will learn best by doing, moving, or hands-on experiences. Getting information from a textbook (visually) or a lecture (auditorily) is just not easy. Try some of these suggestions and create some more that will work for you.

- To memorize, pace or walk around while reciting to yourself or looking at a list or index card.
- When reading a textbook chapter, first look at the pictures, then read the summary or end-of-chapter questions, then look over the section headings and bold-faced words. Get a “feel” for the whole chapter by reading the end selections first, and then work your way to the front of the chapter. This is working whole-to-part.
- If you need to fidget when in class, cross your legs and bounce or jiggle.
the foot that is off the floor. Experiment with other ways of moving; just be sure you're not making noise or disturbing others. Try squeezing a tennis or nerf ball.

☐ You may not study best at a desk, so when you're at home, try studying while lying on your stomach or back. Also try studying with music in the background.

☐ If you have a stationary bicycle, try reading while pedaling. Some bicycle shops sell reading racks that will attach to the handle bars and hold your book.

☐ Use a bright piece of construction paper in your favorite color as a desk blotter. This is called color grounding. It will help to focus your attention. Also, try reading through a colored transparency. Experiment with different colors and different ways of using color.

☐ When studying, take breaks as frequently as you need. Just be sure to get right back to the task. A reasonable schedule is 20–30 minutes of study and 5 minutes of break. (TV watching and telephone talking should not be done during break time!)

☐ When trying to memorize information, try closing your eyes and writing the information in the air or on a desk or carpet with your finger. Picture the words in your head as you do this. If possible, hear them too. Later, when trying to recall this information, close your eyes and see it with your "mind's eye" and "hear" it in your head.
Perceptual Learning Style Preference Questionnaire*

Joy Reid (1984)

**DIRECTIONS:**

People learn in many different ways. For example, some people learn primarily with their eyes (visual learners) or with their ears (auditory learners); some people prefer to learn by experience and/or by "hands on" tasks (kinesthetic or tactile learners); some people learn better when they work alone while others prefer to learn in groups.

This questionnaire has been designed to help you identify the way(s) you learn best—the way(s) you *prefer* to learn.

Read each statement on the following pages. Please respond to the statements as they apply to your study of English.

Decide whether you agree or disagree with each statement. For example, if you *strongly agree*, mark:

<table>
<thead>
<tr>
<th>STRONGLY AGREE</th>
<th>AGREE</th>
<th>UNDECIDED</th>
<th>DISAGREE</th>
<th>STRONGLY DISAGREE</th>
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<tbody>
<tr>
<td>X</td>
<td></td>
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</table>

Please respond to each statement quickly, without too much thought. Try not to change your responses after you choose them. Please answer all the questions. Please use a pen to mark your choices.

*Copyright 1984, by Joy Reid. If you wish to use this questionnaire, contact Joy Reid, Department of English, University of Wyoming, Laramie, WY 82070.
## Perceptual Learning Style Preference Questionnaire

<table>
<thead>
<tr>
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<th>SA</th>
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<th>U</th>
<th>D</th>
<th>SD</th>
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<tbody>
<tr>
<td>1.</td>
<td>When the teacher tells me the instructions I understand better.</td>
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<tr>
<td>2.</td>
<td>I prefer to learn by doing something in class.</td>
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<tr>
<td>3.</td>
<td>I get more work done when I work with others.</td>
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<tr>
<td>4.</td>
<td>I learn more when I study with a group.</td>
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<td>5.</td>
<td>In class, I learn best when I work with others.</td>
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<tr>
<td>6.</td>
<td>I learn better by reading what the teacher writes on the chalkboard.</td>
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<tr>
<td>7.</td>
<td>When someone tells me how to do something in class, I learn it better.</td>
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<tr>
<td>8.</td>
<td>When I do things in class, I learn better.</td>
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<tr>
<td>9.</td>
<td>I remember things I have heard in class better than things I have read.</td>
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<tr>
<td>10.</td>
<td>When I read instructions, I remember them better.</td>
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<td>11.</td>
<td>I learn more when I can make a model of something.</td>
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<tr>
<td>12.</td>
<td>I understand better when I read instructions.</td>
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<tr>
<td>13.</td>
<td>When I study alone, I remember things better.</td>
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<tr>
<td>14.</td>
<td>I learn more when I make something for a class project.</td>
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<td>15.</td>
<td>I enjoy learning in class by doing experiments.</td>
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<td>16.</td>
<td>I learn better when I make drawings as I study.</td>
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<td>17.</td>
<td>I learn better in class when the teacher gives a lecture.</td>
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<td>18.</td>
<td>When I work alone, I learn better.</td>
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<tr>
<td>19.</td>
<td>I understand things better in class when I participate in role-playing.</td>
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<tr>
<td>20.</td>
<td>I learn better in class when I listen to someone.</td>
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<tr>
<td>21.</td>
<td>I enjoy working on an assignment with two or three classmates.</td>
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<td>22. When I build something, I remember what I have learned better.</td>
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<td>23. I prefer to study with others.</td>
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<td>24. I learn better by reading than by listening to someone.</td>
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<td>25. I enjoy making something for a class project.</td>
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<td>26. I learn best in class when I can participate in related activities.</td>
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<td>27. In class, I work better when I work alone.</td>
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<td>28. I prefer working on projects by myself.</td>
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<td>29. I learn more by reading textbooks than by listening to lectures.</td>
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<td>30. I prefer to work by myself.</td>
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SELF-SCORING SHEET

**INSTRUCTIONS**

There are 5 questions for each learning category in this questionnaire. The questions are grouped below according to each learning style. Each question you answer has a numerical value:

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<td>SA</td>
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<td>5</td>
<td>4</td>
<td>3</td>
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</table>

Fill in the blanks below with the numerical value of each answer. For example, if answered Strongly Agree (SA) for question 6 (a visual question), write a number 5 (SA) on the blank next to question 6 below.

**Visual**

6 – 5

When you have completed all the numerical values for Visual, add the numbers. Multiply the answer by 2, and put the total in the appropriate blank.

Follow this process for each of the learning style categories. When you are finished, look at the scale at the bottom of the page; it will help you determine your major learning style preference(s), your minor learning style preference(s), and those learning style(s) that are negligible.
If you need help, please ask your teacher.

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<tr>
<th>VISUAL</th>
<th>TACTILE</th>
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<td>Total</td>
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<tr>
<th>AUDITORY</th>
<th>GROUP</th>
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<td>7</td>
<td>4</td>
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<td>9</td>
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<td>21</td>
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<td>Total</td>
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<tr>
<th>KINESTHETIC</th>
<th>INDIVIDUAL</th>
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<td>2</td>
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<td>26</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>× 2 =</td>
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</table>

Major Learning Style Preference: 38–50  
Minor Learning Style Preference: 25–37  
Negligible: 0–24

**EXPLANATION OF LEARNING STYLE PREFERENCES**

Students learn in many different ways. The questionnaire you completed and scored showed which ways you prefer to learn English. In many cases, students’ learning style preferences show how well students learn material in different situations.

The explanations of major learning style preferences below describe the characteristics of those learners. The descriptions will give you some information about ways in which you learn best.

**VISUAL MAJOR LEARNING STYLE PREFERENCE**

You learn well from seeing words in books, on the chalkboard, and in workbooks. You remember and understand information and instructions better if
you read them. You don’t need as much oral explanation as an auditory learner, and you can often learn alone, with a book. You should take notes of lectures and oral directions if you want to remember the information.

**AUDITORY MAJOR LEARNING STYLE PREFERENCE**

You learn from hearing words spoken and from oral explanations. You may remember information by reading aloud or moving your lips as you read, especially when you are learning new material. You benefit from hearing audio tapes, lectures, and class discussion. You benefit from making tapes to listen to, by teaching other students, and by conversing with your teacher.

**KINESTHETIC MAJOR LEARNING STYLE PREFERENCE**

You learn best by experience, by being involved physically in classroom experiences. You remember information well when you actively participate in activities, field trips, and role-playing in the classroom. A combination of stimuli—for example, an audio tape combined with an activity—will help you understand new material.

**TACTILE MAJOR LEARNING STYLE PREFERENCE**

You learn best when you have the opportunity to do “hands-on” experiences with materials. That is, working on experiments in a laboratory, handling and building models, and touching and working with materials provide you with the most successful learning situation. Writing notes or instructions can help you remember information, and physical involvement in class related activities may help you understand new information.

**GROUP MAJOR LEARNING STYLE PREFERENCE**

You learn more easily when you study with at least one other student, and you will be more successful completing work well when you work with others. You value group interaction and class work with other students, and you remember information better when you work with two or three classmates. The stimulation you receive from group work helps you learn and understand new information.

**INDIVIDUAL MAJOR LEARNING STYLE PREFERENCE**

You learn best when you work alone. You think better when you study alone, and you remember information you learn by yourself. You understand new
material best when you learn it alone, and you make better progress in learning when you work by yourself.

- **MINOR LEARNING STYLES**

In most cases, minor learning styles indicate areas where you can function well as a learner. Usually a very successful learner can learn in several different ways.

- **NEGLIGIBLE LEARNING STYLES**

Often, a negligible score indicates that you may have difficulty learning in that way. One solution may be to direct your learning to your stronger styles. Another solution might be to try to work on some of the skills to strengthen your learning style in the negligible area.

**Adapted from the C.I.T.E. Learning Styles Instrument, Murdoch Teacher Center, Wichita, Kansas 67208. Used with permission.**
Style Analysis Survey (SAS): Assessing Your Own Learning And Working Styles*

Rebecca L. Oxford (1993)

**PURPOSE:**

The SAS is designed to assess your general approach to learning and working. It does not predict your behavior in every instance, but it is a clear indication of your overall style preferences.

**INSTRUCTIONS:**

For each item circle the response that represents your approach. Complete all items. There are five major activities representing five different aspects of your learning and working style. At the end you will find a self-scoring key and an interpretation of the results.

**TIMING:**

It generally takes about 30 minutes to complete the SAS. Do not spend too much time on any item. Indicate your immediate response and move on to the next item.

---

*Copyright 1993, by Rebecca L. Oxford. If you wish to use this survey, please contact Professor Oxford, Dept. of Curriculum, University of Alabama, Tuscaloosa, AL 35487.*
For each item, circle your immediate response:
0 = Never, 1 = Sometimes, 2 = Very Often, 3 = Always

**ACTIVITY 1: HOW I USE MY PHYSICAL SENSES TO STUDY OR WORK**

1. I remember something better if I write it down. 0 1 2 3
2. I take lots of notes. 0 1 2 3
3. I can visualize pictures, numbers, or words in my head. 0 1 2 3
4. I prefer to learn with video or TV more than with other media. 0 1 2 3
5. I underline or highlight the important parts I read. 0 1 2 3
6. I use color-coding to help me as I learn or work. 0 1 2 3
7. I need written directions for tasks. 0 1 2 3
8. I get distracted by background noises. 0 1 2 3
9. I have to look at people to understand what they say. 0 1 2 3
10. I am more comfortable when the walls where I study or work have posters and pictures. 0 1 2 3

11. I remember things better if I discuss them out loud. 0 1 2 3
12. I prefer to learn by listening to a lecture or a tape, rather than by reading. 0 1 2 3
13. I need oral directions for tasks. 0 1 2 3
14. Background sounds help me think. 0 1 2 3
15. I like to listen to music when I study or work. 0 1 2 3
16. I can easily understand what people say even if I can’t see them. 0 1 2 3
17. I remember better what people say than what they look like. 0 1 2 3
18. I easily remember jokes I hear. 0 1 2 3
19. I can identify people by their voices. 0 1 2 3
20. When I turn on the TV, I listen to the sound more than watching the screen. 0 1 2 3

21. I'd rather just start doing things rather than pay attention to directions. 0 1 2 3
22. I need frequent breaks when I work or study. 0 1 2 3
23. I move my lips when I read silently. 0 1 2 3
24. I avoid sitting at a desk when I don't have to. 0 1 2 3
25. I get nervous when I sit still too long. 0 1 2 3
26. I think better when I can move around. 0 1 2 3
27. Manipulating objects helps me to remember. 0 1 2 3
28. I enjoy building or making things. 0 1 2 3
29. I like a lot of physical activities. 0 1 2 3
30. I enjoy collecting cards, stamps, coins, or other things. 0 1 2 3
For each item, circle your immediate response: 
0 = Never, 1 = Sometimes, 2 = Very Often, 3 = Always

ACTIVITY 2: HOW I DEAL WITH OTHER PEOPLE

1. I prefer to work or study with others. 0 1 2 3
2. I make new friends easily. 0 1 2 3
3. I like to be in groups of people. 0 1 2 3
4. It is easy for me to talk to strangers. 0 1 2 3
5. I keep up with personal news about other people. 0 1 2 3
6. I like to stay late at parties. 0 1 2 3
7. Interactions with new people give me energy. 0 1 2 3
8. I remember people's names easily. 0 1 2 3
9. I have many friends and acquaintances. 0 1 2 3
10. Wherever I go, I develop personal contacts. 0 1 2 3
11. I prefer to work or study alone. 0 1 2 3
12. I am rather shy. 0 1 2 3
13. I prefer individual hobbies and sports. 0 1 2 3
14. It is hard for most people to get to know me. 0 1 2 3
15. People view me as more detached than sociable. 0 1 2 3
16. In a large group, I tend to keep silent. 0 1 2 3
17. Gatherings with lots of people tend to stress me. 0 1 2 3
18. I get nervous when dealing with new people. 0 1 2 3
19. I avoid parties if I can. 0 1 2 3
20. Remembering names is difficult for me. 0 1 2 3

ACTIVITY 3: HOW I HANDLE POSSIBILITIES

1. I have a vivid imagination. 0 1 2 3
2. I like to think of lots of new ideas. 0 1 2 3
3. I can think of many different solutions to a problem. 0 1 2 3
4. I like multiple possibilities and options. 0 1 2 3
5. I enjoy considering the future events. 0 1 2 3
6. Following a step-by-step procedure bores me. 0 1 2 3
7. I like to discover things rather than have everything explained. 0 1 2 3
8. I consider myself original. 0 1 2 3
9. I am an ingenious person. 0 1 2 3
10. It feels fine if the teacher or boss changes the plan. 0 1 2 3
11. I am proud of being practical. 0 1 2 3
12. I behave in a down-to-earth way. 0 1 2 3
### Activity 3 (cont.)

13. I am attracted to sensible people. 0 1 2 3
14. I prefer realism instead of new, untested ideas. 0 1 2 3
15. I prefer things presented in a step-by-step way. 0 1 2 3
16. I want a class or work session to follow a clear plan. 0 1 2 3
17. I like concrete facts, not speculation. 0 1 2 3
18. Finding hidden meanings is frustrating or irrelevant to me. 0 1 2 3
19. I prefer to avoid too many options. 0 1 2 3
20. I feel it is useless for me to think about the future. 0 1 2 3

### Activity 4: How I Approach Tasks

1. I reach decisions quickly. 0 1 2 3
2. I am an organized person. 0 1 2 3
3. I make lists of things I need to do. 0 1 2 3
4. I consult my lists in order to get things done. 0 1 2 3
5. Messy, unorganized environments make me nervous. 0 1 2 3
6. I start tasks on time or early. 0 1 2 3
7. I get places on time. 0 1 2 3
8. Deadlines help me organize work. 0 1 2 3
9. I enjoy a sense of structure. 0 1 2 3
10. I follow through with what I have planned. 0 1 2 3
11. I am a spontaneous person. 0 1 2 3
12. I like to just let things happen, not plan them. 0 1 2 3
13. I feel uncomfortable with a lot of structure. 0 1 2 3
14. I put off decisions as long as I can. 0 1 2 3
15. I have a messy desk or room. 0 1 2 3
16. I believe deadlines are artificial or useless. 0 1 2 3
17. I keep an open mind about things. 0 1 2 3
18. I believe that enjoying myself is the most important thing. 0 1 2 3
19. Lists of tasks make me feel tired or upset. 0 1 2 3
20. I feel fine about changing my mind. 0 1 2 3

### Activity 5: How I Deal with Ideas

1. I prefer simple answers rather than a lot of explanations. 0 1 2 3
2. Too many details tend to confuse me. 0 1 2 3
3. I ignore details that do not seem relevant. 0 1 2 3
4. It is easy for me to see the overall plan or big picture. 0 1 2 3
5. I can summarize information rather easily. 0 1 2 3
6. It is easy for me to paraphrase what other people say. 0 1 2 3
<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td>I see the main point very quickly.</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>8.</td>
<td>I am satisfied with knowing the major ideas without the details.</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>9.</td>
<td>I can pull together (synthesize) things easily.</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>10.</td>
<td>When I make an outline, I write down only the key points.</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>11.</td>
<td>I prefer detailed answers instead of short answers.</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>12.</td>
<td>It is difficult for me to summarize detailed information.</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>13.</td>
<td>I focus on specific facts or information.</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>14.</td>
<td>I enjoy breaking general ideas down into smaller pieces.</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>15.</td>
<td>I prefer looking for differences rather than similarities.</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>16.</td>
<td>I use logical analysis to solve problems.</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>17.</td>
<td>My written outlines contain many details.</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>18.</td>
<td>I become nervous when only the main ideas are presented.</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>19.</td>
<td>I focus on the details rather than the big picture.</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>20.</td>
<td>When I tell a story or explain something, it takes a long time.</td>
<td>0 1 2 3</td>
</tr>
</tbody>
</table>

**SCORING SHEET**

Now that you have finished Activities 1 through 5, find your score below.

□ **ACTIVITY 1: HOW I USE MY PHYSICAL SENSES TO STUDY OR WORK**

Add your score for items 1–10; write it here: ____ (visual)
Add your score for items 11–20; write it here: ____ (auditory)
Add your score for items 21–30; write it here: ____ (hands-on)
Circle the score that is the largest. If two scores are within 2 points of each other, circle them both. If all three scores are within 2 points of each other, circle all three. The circle represents your preferred sense(s) for learning and working.

□ **ACTIVITY 2: HOW I DEAL WITH OTHER PEOPLE**

Add your score for items 1–10; write it here: ____ (extroverted)
Add your score for items 11–20; write it here: ____ (introverted)
Circle the larger score. If the two scores are within 2 points of each other, circle them both. The circle represents your preferred way of dealing with other people.

□ **ACTIVITY 3: HOW I HANDLE POSSIBILITIES**

Add your score for items 1–10; write it here: ____ (intuitive)
Add your score for items 11–20; write it here: ____ (concrete-sequential)
Circle the larger score. If the two scores are within 2 points of each other, circle them both. The circle represents your preferred way of handling possibilities.

**ACTIVITY 4: HOW I APPROACH TASKS**

Add your score for items 1-10; write it here: ____ (closure-oriented)
Add your score for items 11-20; write it here: ____ (open)
Circle the larger score. If the two scores are within 2 points of each other, circle them both. The circle represents your preferred approach to tasks and decisions.

**ACTIVITY 5: HOW I DEAL WITH IDEAS**

Add your score for items 1-10; write it here: ____ (global)
Add your score for items 11-20; write it here: ____ (analytic)
Circle the larger score. If the two scores are within 2 points of each other, circle them both. The circle represents your preferred way to deal with ideas.

**HOW TO UNDERSTAND AND USE THE RESULTS**

**ACTIVITY 1: HOW I USE MY PHYSICAL SENSES TO STUDY OR WORK**

*In class:* If you are a visual person, you rely on the sense of sight, and you learn best through visual means (books, video). If you are an auditory person, you prefer listening and speaking activities (discussions, debates, audio tapes, role-plays, lectures). If you are a hands-on person, you benefit from doing projects, working with objects, and moving around the room (games, building models, conducting experiments).

*On the job:* If you are a visual person, you rely most on your sense of sight to gain knowledge or understanding (manuals, graphics). If you are an auditory person, you prefer to listen to information (meetings, dictation tapes) rather than read it. If you are a hands-on person, you benefit most from getting involved in the information-gathering process (computers, research) or from doing projects, building things, and working with objects.

*Anywhere:* If two or all three of these senses are strong, you are flexible enough to enjoy a wide variety of activities.

**ACTIVITY 2: HOW I DEAL WITH OTHER PEOPLE**

*In class:* If you are extroverted, you enjoy a wide range of social, interactive learning tasks (games, conversations, discussions, debates, role-plays, simulations). If
you are introverted, you like to do more independent work (studying or reading by yourself or learning with the computer) or enjoy working with one other person you know well.

On the job: If you are extroverted, you enjoy a wide range of social and interactive tasks (meetings, discussions, teamwork). If you are introverted, you like to do work independently (computers, individual projects) or enjoy working with one other person you know well.

Anywhere: If your scores are close, then you are balanced in the sense that you work easily with others and by yourself.

□ ACTIVITY 3: HOW I HANDLE POSSIBILITIES

In class: If you are intuitive, you are future-oriented, able to seek out the major principles of the topic, like to speculate about possibilities, enjoy abstract thinking, and avoid step-by-step instruction. If your preference is concrete-sequential, you are present-oriented and prefer one-step-at-a-time activities, and want to know where you are going in your learning at every moment.

On the job: If you are intuitive, you like to plan ahead for creative, new directions (designing, overall planning) in a non-linear, flexible way. If you prefer a concrete-sequential approach, you want people to be able to depend on your abilities, are highly organized, prefer step-by-step work procedures, and like control.

Anywhere: If the two scores are close, then you can switch modes rather easily from intuitive to concrete-sequential.

□ ACTIVITY 4: HOW I APPROACH TASKS

In class: If your score is higher for closure, you focus carefully on all learning tasks, meet deadlines, plan ahead for assignments, and want explicit directions. If openness has a higher score, you enjoy discovery learning (in which you pick up information in an unstructured way) and prefer to relax and enjoy your learning without concern for deadlines or rules.

On the job: If your higher score is closure, this means your work habits are very structured and serious, and you are oriented toward getting the job done on time or early. If your score is higher for openness, you are more relaxed and unstructured in your approach to work, and you don’t care much about deadlines or regulations.

Anywhere: If the two scores are close, you have a balance between closure and openness; you enjoy the freedom of limited structure and can still get the task done before the deadline without stress.
ACTIVITY 5: HOW I DEAL WITH IDEAS

In class: If you are global, you enjoy getting the main idea, guessing meanings, and communicating even if you don’t know all the words or concepts. If you are analytic, you focus more on details, logical analysis, and contrasts.

On the job: If you are global, you focus at work on the key points and are not as concerned about details. If you are analytic, you are a “detail person” who is known for being logical, and you are not as skilled with seeing the big picture right away.

Anywhere: If the two scores are close, you easily move from global thinking to analytic thinking and back again.

TIPS

Each style preference (within a given activity above) offers significant strengths in learning and working. Recognize your strengths and apply them often. Also, enhance your learning and working power by being aware of the style areas that you do not use and by developing them. Tasks that do not seem quite as suited to your style preferences will help you stretch beyond your ordinary “comfort zone” and expand your learning and working potential.

For example, if you are a highly global person, you might need to learn to use analysis and logic in order to work or learn more effectively. If you are an extremely analytic person, you might be missing out on some useful global characteristics, like getting the main idea quickly, and you can develop such qualities in yourself through practice. You won’t lose your basic strengths by trying something new; you will simply develop another side of yourself that is likely to be very helpful.

If you aren’t sure how to attempt new behaviors that go beyond your favored style, then ask your colleagues, friends, or teachers to give you a hand. Talk with someone who has a different style from yours, and see how that person does it.

Improve your learning or working situation by stretching your style!
## Preliminary Notes to Teachers:

1. The items below are usually interspersed in a larger questionnaire including items related to motivation and language learning attitude. This longer format is designed in part to make the construct of tolerance of ambiguity less transparent to the students.

2. The responses are in Likert-scale format with a set of four responses: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). In addition to the responses listed below, one can include "Slightly Agree" and "Slightly Disagree" (also such responses as "Agree A Lot/Somewhat/A Little" are possible). The issue of whether to have a mid-point response is debatable among researchers.

3. For permission to use this survey, please communicate directly with the designer:

   Christopher Ely  
   Department of English  
   College of Sciences and Humanities  
   Ball State University  
   Muncie, Indiana 47306-0460  
   (317) 285-8580

<table>
<thead>
<tr>
<th>Item</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When I'm reading something in English, I feel impatient when I don't totally understand the meaning.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. It bothers me that I don't understand everything the teacher says in English.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. When I write English compositions, I don't like it when I can't express my ideas exactly.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4. It is frustrating that sometimes I don't understand completely some English grammar.</td>
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<td></td>
<td></td>
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<tr>
<td>5. I don't like the feeling that my English pronunciation is not quite correct.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6. I don't enjoy reading something in English that takes a while to figure out completely.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. It bothers me that even though I study English grammar, some of it is hard to use in speaking and writing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SA</td>
<td>A</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>---</td>
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<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>8. When I'm writing in English, I don't like the fact that I can't say exactly what I want.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. It bothers me when the teacher uses an English word I don't know.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. When I'm speaking in English, I feel uncomfortable if I can't communicate my idea clearly.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I don't like the fact that sometimes I can't find English words that mean the same as some words in my own language.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. One thing I don't like about reading in English is having to guess what the meaning is.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SCORING**

1. Count each of your scores in this way:  *SA = 4  A = 3  D = 2  SD = 1*
2. Total your score for all statements and compare with the following scale.

**MORE TOLERANT OF AMBIGUITY**

Score: 12 points

**LESS TOLERANT OF AMBIGUITY**

Score: 48 points
Appendix B: Informal Surveys/Materials

Environmental Writing Inventory

Joy Reid

*Directions:* As you prepare to write an assignment, which of the following environmental aspects do you prefer? Which are important for you? Answer the survey below. Circle “not important” if you so consider that aspect. Then discuss your preferences with your classmates.

<table>
<thead>
<tr>
<th>Place:</th>
<th>Formal (desk, straight-backed chair, library)</th>
<th>Informal (bed, floor, soft chair)</th>
<th>not important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surroundings:</td>
<td>clean</td>
<td>messy</td>
<td>not important</td>
</tr>
<tr>
<td>Time:</td>
<td>early morning, late morning, early afternoon, late afternoon, evening, late evening</td>
<td>not important</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tools:</td>
<td>pencil</td>
<td>computer</td>
<td>spiral notebook</td>
</tr>
<tr>
<td></td>
<td>pen</td>
<td>highlighter</td>
<td>yellow pad</td>
</tr>
<tr>
<td></td>
<td>Special:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing:</td>
<td>formal</td>
<td>informal</td>
<td>not important</td>
</tr>
<tr>
<td></td>
<td>Special:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light:</td>
<td>bright</td>
<td>soft</td>
<td>dark</td>
</tr>
<tr>
<td></td>
<td>Special:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature:</td>
<td>warm</td>
<td>cool</td>
<td>not important</td>
</tr>
<tr>
<td></td>
<td>Special:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sound:</td>
<td>quiet</td>
<td>noisy</td>
<td>music</td>
</tr>
<tr>
<td></td>
<td>radio</td>
<td>television</td>
<td>Special:</td>
</tr>
</tbody>
</table>
Sustenance:  
food  Specify ____________________________

drink  Specify ____________________________

not important

Rewards:  
Do you promise yourself rewards for getting started? If so, what?
Do you promise yourself rewards for finishing? If so, what?

Other:  
What other “rituals” do you have that make your writing more comfortable and/or effective?

Learning Strategy Definitions*
Rebecca L. Oxford

<table>
<thead>
<tr>
<th>Learning Strategy</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metacognitive Strategies</strong></td>
<td></td>
</tr>
<tr>
<td>1. Advance organization</td>
<td>Previewing the main ideas and concepts of the material to be learned.</td>
</tr>
<tr>
<td>2. Organizational planning</td>
<td>Planning the parts, sequence, main ideas, or language functions to be expressed.</td>
</tr>
<tr>
<td>3. Selective attention</td>
<td>Deciding in advance to attend to specific aspects of input.</td>
</tr>
<tr>
<td>4. Self-monitoring</td>
<td>Checking one’s comprehension during listening or reading or checking the accuracy or oral or written production while it is taking place.</td>
</tr>
<tr>
<td>5. Self-evaluation</td>
<td>Judging how well one has accomplished a learning activity.</td>
</tr>
<tr>
<td><strong>Cognitive Strategies</strong></td>
<td></td>
</tr>
<tr>
<td>1. Resourcing</td>
<td>Using target language reference materials such as dictionaries, textbooks, etc.</td>
</tr>
<tr>
<td>2. Grouping</td>
<td>Classifying words, terminology, or concepts according to their attributes.</td>
</tr>
<tr>
<td>3. Note taking</td>
<td>Writing down key words and concepts in abbreviated verbal, graphic, or numerical form.</td>
</tr>
</tbody>
</table>
4. Summarizing  Making mental, oral, or written summary of information gained through listening or reading.

5. Deduction/induction  Applying rules to understand or produce the language or making up rules based on language analysis.

6. Imagery  Using visual images to understand and remember new information.

7. Auditory representation  Playing back in one's mind the sound of a word, phrase, or longer language sequence.

8. Elaboration  Relating new information to prior knowledge, relating different parts of new information to each other, making meaningful personal associations with the new information.

9. Transfer  Using previous linguistic knowledge or prior skills to assist comprehension or production.

10. Inferencing  Using information in an oral or written text to guess meanings, predict outcomes, or complete missing parts.

**Socio-Affective Strategies**

1. Questioning for clarification  Eliciting from a teacher or peer additional explanation, rephrasals, examples, or verification.

2. Cooperation  Working together with peers to solve a problem, pool information, check a learning task, model a language activity, or get feedback on oral or written performance.

3. Self-talk  Reducing anxiety by using mental techniques that make one feel competent to do the learning task.

Appendix C: Kinsella's Materials

Perceptual Learning Preferences Survey*

Kate Kinsella (1993)

DIRECTIONS: This survey has been designed to help you and your teachers better understand the ways you prefer to learn. Think about your most recent school experiences while you read each of the following statements. Then place a check mark (✓) on the response line that most accurately describes how you learn.

1. I can remember most of the information I have heard in a lecture or class discussion without taking notes.  
   USUALLY  SOMETIMES  RARELY

2. I learn more by reading about a topic than by listening to a lecture or a class discussion.  
   USUALLY  SOMETIMES  RARELY

3. I learn more about a subject when I can use my hands to make or draw something.  
   USUALLY  SOMETIMES  RARELY

4. When I study new material, I learn more easily by looking over visual aids in a chapter, such as charts and illustrations, than by reading the assigned pages.  
   USUALLY  SOMETIMES  RARELY

5. Talking about a subject with someone else helps me better understand my own ideas.  
   USUALLY  SOMETIMES  RARELY

6. I take notes during class lectures and discussions and read them carefully several times before a test.  
   USUALLY  SOMETIMES  RARELY

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<table>
<thead>
<tr>
<th></th>
<th>USUALLY</th>
<th>SOMETIMES</th>
<th>RARELY</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td>When I read a textbook, newspaper, or novel, I picture the ideas or story in my mind.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>I am skilled with my hands and can easily repair things or put things together.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>I remember information that I have discussed in class with a partner or a small group better than information that I have read or written about.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>I get confused when I try to figure out graphs and charts that do not come with a written explanation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>When I read, I underline or highlight ideas to make the main ideas stand out and to not get distracted.</td>
<td></td>
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</tr>
<tr>
<td>12.</td>
<td>I remember information well by listening to tapes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>I am physically coordinated and do well at sports.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>To remember a new word, I must hear it and say it.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>I would rather see a film on a subject than listen to a lecture or read a book or magazine article.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>I prefer reading a newspaper or magazine as a source of news rather than listening to the radio or watching the television.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>I make drawings in my study notes or on study cards to remember new vocabulary and important material.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>I read assigned material and notes aloud to myself to concentrate and understand better.</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>USUALLY</td>
<td>SOMETIMES</td>
<td>RARELY</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>19. When I listen to an explanation or lecture, I form mental images or pictures to understand better.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. When I am not sure how to spell a word, I write it different ways to see what looks most correct.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. I best understand homework or test instructions by reading them on the board or on a handout rather than by just listening to them.</td>
<td></td>
<td></td>
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<tr>
<td>22. It is easier for me to remember illustrations and charts in textbooks if they are done in bright colors.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. I prefer to watch the television or listen to the radio for news rather than to read a newspaper or a magazine.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. I understand and remember more about a subject from a field trip than from a lecture or a textbook.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. To remember a new word, I must see it several times.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. Before making or drawing something, I first picture in my mind what my completed project will look like.</td>
<td></td>
<td></td>
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<td>27. I find it difficult to figure out what to do on homework assignments when the teacher just gives us a handout without discussing it in class.</td>
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<td>28. I write or draw while listening to a lecture or a class discussion in order to concentrate and not get restless.</td>
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<tr>
<td>29. I have difficulty understanding a new term if I have only a definition with no examples or illustrations.</td>
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</table>
30. I regularly read newspapers, magazines, or books for pleasure and information.
   _____  _____  _____

31. When I am learning about a new subject, I get more interested and remember much more if I can have "hands-on" experience such as drawing, building a model, or doing a lab experiment.
   _____  _____  _____

32. When I have homework reading assignments, I take notes or summarize the main ideas in writing.
   _____  _____  _____

PERCEPTUAL LEARNING PREFERENCES SURVEY:
SCORING GUIDE

**DIRECTIONS**: Each of the checks you entered on the survey has a point value:
- **USUALLY** = 3 points; **SOMETIMES** = 2 points; **RARELY** = 1 point.
For each column, find the item number on the survey and enter the point value on the line to the right. Then add the total number of points in each column.

<table>
<thead>
<tr>
<th>VISUAL/VERBAL</th>
<th>VISUAL/NONVERBAL</th>
<th>AUDITORY</th>
<th>VISUAL/TACTILE</th>
<th>KINESTHETIC</th>
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<tr>
<td>Number</td>
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In the space below, list your perceptual learning preferences, from your highest score to your lowest score. Your highest total indicates your perceptual learning...
preference(s). Your next highest total indicates another strong preference, especially if the two numbers are close.

PERCEPTUAL LEARNING PREFERENCES

1. ______________________
2. ______________________
3. ______________________
4. ______________________

PERCEPTUAL LEARNING STRENGTHS

Kate Kinsella

People learn through their different senses. The senses through which each person takes in and retains new and difficult information are called perceptual learning channels:

1. Visual Learning: viewing, examining, reading
2. Auditory Learning: listening, discussing
3. Tactile Learning: handling, touching

Most people rely more heavily on one or two of these perceptual learning channels for information, but that does not mean they cannot learn effectively using other senses. They simply indicate a learner’s perceptual preferences, and generally a learner’s strengths.

Educational research has shown that when teachers introduce knowledge or skills to students through their strongest perceptual preferences and then reinforce it through secondary preferences, students learn more easily and retain far more. To learn as effectively and efficiently as possible, students should therefore identify their perceptual learning preferences, then select study strategies that will help them master new information using their preferences and strengths. After having identified their perceptual learning strengths and instructional needs, students will then be better equipped to inform their teachers of any reasonable accommodations they can make in their instruction to help all students have easier and more equal access to the curriculum.
VISUAL / VERBAL LEARNERS

CHARACTERISTICS:

Relate to such words as: see, look, observe, read
Like to read books and magazines for both information and pleasure
Enjoy watching television documentaries and films in which both visual and verbal information are presented simultaneously
Read a newspaper or magazine regularly as a source of news
Prefer to read what an expert has written on a subject than to listen to a lecture or discussion
Prefer to look over written directions and diagrams to assemble or use something rather than to hear someone explain how to do it
Feel frustrated when teachers simply give oral instructions for assignments and tests instead of also writing the instructions on the board or on a handout
Take extensive notes during class lectures and discussions to review later
Make lists regularly of daily goals and activities

TEACHING STRATEGIES TO HELP YOU LEARN:

Written instructions for all assignments and tests
Visual/verbal aids: handouts, outlines or summary notes of lectures, written definitions of new terms, written and oral explanations for charts, graphs, and diagrams
Follow-up reading for any class lectures and discussions

STUDY STRATEGIES TO HELP YOU REMEMBER:

Take careful notes to concentrate during class lectures and discussions, then study them several times for a visual review before a test
Write summaries or notes in your own words of material you have read or discussed in class
Ask your teacher or tutor for written explanations of new words, concepts, and assignments
Write down any oral instructions for assignments to have a visual aid to refer to later
Read your textbooks and other assigned material silently instead of aloud to gain maximum meaning
Highlight important ideas in your assigned reading with colored markers and make summary comments in the margins in your own words.
Write down any oral explanations your teacher provides for charts, diagrams, and graphs.
Make flashcards with definitions, dictionary examples, and your own example sentences of new vocabulary.
Make lists and other written reminders of anything you need to remember to do.

**VISUAL / NONVERBAL LEARNERS**

**CHARACTERISTICS:**

- Relate to such words as see, look, picture, observe, show, imagine.
- Understand and retain information well by looking at pictures, diagrams, charts, maps, films.
- Like to browse through books and magazines focusing primarily on the pictures.
- Learn how to do things through observation and modelling rather than verbal explanations.
- Prefer demonstrated tasks and visual models to oral and written instructions.
- Would rather see a film on a subject rather than listen to a lecture or panel discussion.
- Prefer the television as a source of news rather than a newspaper or radio.
- Have a strong visual memory: remember faces, locations, directions, where they put things.
- Often doodle or draw while taking notes during a class lecture or discussion.

**TEACHING STRATEGIES TO HELP YOU LEARN:**

- Demonstrations and modelling of assigned tasks.
- Models of successfully completed assignments that they can emulate.
- Visual aids: lists, diagrams, charts, pictures, films, concept maps, real objects.
- Opportunities to draw pictures, diagrams, or other graphic representations of problems, ideas, or concepts.
- Guided visualization exercises that help you imagine a situation.
- To have new concepts and vocabulary introduced first through examples you can relate to, imagery, metaphor, and fantasy.
STUDY STRATEGIES TO HELP YOU REMEMBER:

- Draw pictures, diagrams, charts, graphs, or concept maps of vocabulary, concepts, or problems.
- Use a variety of bright colors to highlight important information in your lecture notes and assigned readings.
- Try to get a mental picture of what you are reading or listening about in a lecture to keep mentally alert and to better retain this verbal information.
- Summarize the main points of what you have read in the form of a chart or concept map.
- Ask your teacher or tutor to provide examples and anecdotes to help you imagine and understand difficult new terms.
- Ask your teacher or tutor to provide models of successfully completed problems, exam responses, and written work to better understand procedures and grading expectations.
- Translate written explanations and concepts into symbols (e.g., in math, "cost per square foot" becomes $ \div \varnothing$).

AUDITORY LEARNERS

CHARACTERISTICS:

- Relate to such words as: hear, listen, sound, ring, tune.
- Master new information by listening, then repeating or discussing with others.
- Like to socialize, talk, discuss, share ideas.
- Enjoy working collaboratively with a partner or a small group.
- Prefer to have someone explain how to assemble or use something rather than look over written instructions or diagrams.
- Feel frustrated when teachers write assignment and test instructions on the board or on a handout but do not go over them orally.
- Volunteer answers in class, relate relevant anecdotes and examples, and process what they are learning orally.
- Would rather listen to an expert lecture on a subject than read an article or textbook.
- May not read assigned chapters, articles, or stories thoroughly, in hopes of having the main ideas clarified by a class lecture or discussion.
- Remember names and lyrics to popular songs after hearing them once or only a few times.
TEACHING STRATEGIES TO HELP YOU LEARN:

Information presented through lectures, class discussions, small-group activities, films, tapes
Oral instructions for all classroom tasks, tests, and homework assignments
Oral explanations for all charts, graphs, diagrams, time lines, pictures
Brainstorming ideas aloud with classmates before beginning a reading or writing assignment
Small-group discussions and problem-solving activities
Opportunities to ask questions and share ideas during class lectures
Oral summaries by the teacher of the main points in lectures or assigned readings
Opportunities to give oral reports on subjects and to listen to oral reports by classmates

STUDY STRATEGIES TO HELP YOU REMEMBER:

Make tape recordings of any information you want to learn. Play them in your car, while doing household chores, and before going to sleep.
Teach someone else what you have learned.
Summarize the content you want to master aloud or to someone else.
Make your own “flashcards” to study new vocabulary, including definitions, dictionary examples, and your own original sentences; quiz yourself out loud or ask someone else.
Try a solution to a problem verbally before doing it on paper.
Ask your teachers or tutors to give you verbal explanations for diagrams, charts, graphs.
Ask your teachers to go over any written assignment or test instructions orally.
Find a “study buddy” with whom you can discuss class material and prepare for tests.

TACTILE - KINESTHETIC LEARNERS

CHARACTERISTICS:

Relate to such words as: feel, touch, grasp, do, move
Enjoy working with their hands; want to feel and touch everything
Tend to be skilled at repairing and assembling things, even without instructions
Tend to be coordinated at sports
Like to explore their environment
Focus well during “hands on” projects and activities
Are frequently in motion: may fidget, get up regularly, doodle or tap pencil
May get restless and distracted during lengthy class lectures, reports, or discussions
Like variety in classroom activities
Enjoy opportunities to work collaboratively with a partner or a small group on a task

TEACHING STRATEGIES TO HELP YOU LEARN:

Activities that encourage learning by doing and interacting with others
Participating in role plays and simulations
Manipulating and assembling objects, materials, models
Taking notes during class lectures and discussions as the act of writing aids concentration
Drawing, underlining, and highlighting in class notes as well as in assigned readings
Going on field trips
Completing classroom assignments with a partner or a small group

STUDY STRATEGIES TO HELP YOU LEARN:

Do your “thinking” on paper: make lists, outlines, graphs, concept maps.
Take good notes during lengthy class lectures and discussions, even if you think you understand the material, as the act of writing and highlighting important points aids a great deal in learning.
Make your own graphs, charts, time lines, diagrams, and concept maps to better understand new concepts and important material.
Highlight ideas in your assigned chapters and other reading selections after you have already done an initial reading, then copy the most important information in your own words in a notebook in whatever form seems helpful to you: a chart, graph, diagram, summary.
Make and use your own “flash cards” to quiz yourself on new vocabulary and material.
Write your brainstorming for papers and projects or problem-solving for math first on a large piece of paper, then copy this onto a smaller piece of paper.

Schedule your study sessions so that you can take breaks to stretch and move around.

Break up your homework into manageable time blocks; vary the activities you work on to concentrate better rather than spend a large amount of time on one activity.

Try not to register for classes that meet only once or twice a week which will require you to sit and listen to a lecture/discussion for a long period of time.

LEARNING STYLE ACTIVITIES

Kate Kinsella

Describe your ideal teacher. Use many “showing” examples and clear explanations to help your readers clearly see the ways in which this teacher helps you be an active learner. When describing this teacher, mention what she or he does to make you feel comfortable and recognized in class, and what she or he does to help you understand lessons, get interested, and participate actively.

Analyze your individual learning style. Taking into consideration all of the different information you have learned about learning styles in this unit, describe with illustrative examples the various elements of your individual learning style, including your learning strengths, preferences, and weaknesses. Be sure to refer to your handouts and completed surveys while covering the following elements in your analysis of your individual learning style: (1) independent versus cooperative work style; (2) perceptual learning preferences; (3) right-brain versus left-brain learning; and (4) analytical versus relational learning.

Describe a learning style versus teaching style conflict you are now experiencing in one of your classes. Without naming the specific teacher, provide the readers in your small group with examples and clear explanations so they will be able to clearly picture how this teacher conducts his or her class. As a team, you will come up with feasible “active learner” solutions to help you cope with this incompatible teaching style. Therefore, the more information you include about how this teacher presents information in class and the kinds of activities you must complete, the easier it will be for your team members to help you come up with some positive actions.
Summarize the “active learner” steps you have taken so far this semester to successfully cope with teaching situations you are now in that seem incompatible with your individual learning style. Mention at least five aspects of a class or classes you are now taking that do not complement your preferred ways of learning, and describe in detail the specific actions you have taken to learn the subject matter more effectively and feel more confident and motivated in class.

Evaluate today's class session in terms of your individual learning strengths. Using specific examples and clear explanations, explain the aspects of the day’s activities and instruction that helped you feel motivated and better understand the new subject matter as well as the aspects of the activities and instruction that somewhat frustrated or confused you. Then make specific instructional suggestions that you believe would help you to feel more confident and motivated as a learner in this class.

BECOMING A MORE EMPOWERED AND FLEXIBLE LEARNER

Kate Kinsella

PROBLEM SOLVING ACTIVITIES

Directions: Discuss the following conflict situations with the members of your group. Then suggest what “active learner” steps you could realistically take to do better in the class taught by an instructor with an incompatible teaching style.

1. You are an external learner, and you are used to classes where the instructor told you information and expected you to memorize it. Now you are in a U.S. History class where the instructor encourages you to search for information and count a percentage of the final grade on class discussion. He never seems to give you a direct answer; instead, he asks, “What do you think?” Also, the instructor expects you to work on class time working in small groups to discuss assigned reading material, solve problems, work on projects, and get feedback on your papers before you turn them in for a grade.

2. You learn well in a subject-centered class, but your Health Education instructor is always making jokes, relating personal anecdotes, and in general, revealing more about his personal life than you are interested and comfortable knowing. You never know exactly what will be on the test or even what is important.

3. You enjoy a student-centered class where you can express your opinions in class discussions and small groups, and also share examples
and stories from your personal experiences to help you better understand the class lectures, films, and readings. Your Economics instructor usually lectures non-stop and assigns a lot of textbook reading each week. He rarely asks students if they have understood the homework reading material or lecture, and generally waits until the very end of class to see if anyone has a question.

INSTRUCTOR SELF-ASSESSMENT FORM:
LEARNING STYLE ACCOMMODATION

Kate Kinsella

Instructor __________________ Class _______________ Date _______

Directions: Rate yourself for each instructional behavior using the following scale:
3—Excellent 2—Good 1—Needs Improvement 0—Not Applicable

1. I have identified my own learning style preferences, and make an effort not to bias my teaching in favor of students with similar learning styles.

2. I help my students identify their learning style strengths, and suggest specific strategies they can use to cope with incompatible teaching styles and learning environments.

3. I encourage my students to inform me of any reasonable modifications I can make in my instructional practices that will help them become more comfortable and confident learners in my class.

4. I make a conscious effort to diversify my instructional strategies to enhance learning for students with different perceptual strengths: visual/verbal, visual/nonverbal, auditory, tactile, and kinesthetic.

5. My voice can be heard everywhere in the classroom.

6. I enunciate clearly and exaggerate intonation to emphasize key words and phrases.

7. I pause adequately between phrases and statements to allow time for reflective thought-processing.

8. I emphasize and clarify ideas through gesture, facial expression, and dramatization.

9. I complement information relayed orally with visual aids (e.g., illustrations, charts, graphs, concept maps, outlines, graphic organizers).

10. I complement information conveyed through visual aids and assigned reading with oral explanations and elaborations.

11. I use concrete examples and anecdotes so that students can visualize new concepts within a familiar context.
12. I give a variety of explanations or examples, understanding that one may not be sufficient for all students.

13. I also elicit relevant examples and explanations from my students to help individuals process new ideas and material.

14. I provide ample opportunities for students to verbally explore and reinforce information that has been presented first in a lecture or reading through well-orchestrated, equitable class discussions and small-group activities.

15. I activate students' background knowledge and build in considerable context before presenting new concepts, terminology, and assignments.

16. I present new information both inductively and deductively so that students with different information-processing strengths can have easier access to new concepts.

17. I allow students to use new skills or concepts long enough so that they are retained, thus enabling future application.

18. I make explicit the rationale, goals, structure, and process for all activities and assignments.

19. I break more complicated and challenging assignments down into manageable, clearly-delineated steps and model procedures.

20. I distribute models of completed assignments that students can emulate (e.g., writing tasks, lecture notes, exam responses).

21. I familiarize my students with effective learning and study strategies for my subject area (e.g., lecture note-taking, textbook reading, test preparation, test-taking).

22. I encourage my students to be flexible, persistent learners and to experiment with different approaches to learning and studying until they find strategies that best complement their learning and work styles.

23. I attempt to personalize the curriculum by relating it when possible to my students' cultures, communities, daily lives, and interests.

24. I engage students in active learning and direct experience whenever possible.

25. I consciously vary the activities during a class session and generally do not require students to spend the entire period on a single teacher-fronted activity (e.g., listening to a lengthy lecture or whole-class discussion) which is not interrupted by a writing or small-group speaking task.

26. I check for comprehension at strategic points throughout the lesson, and end the class session with some form of review of the major concepts presented that day.

27. I balance opportunities for students to work collaboratively with a partner or a small group as well as independently.

28. I provide individualized assistance when appropriate during and/or outside of class, and I encourage students who demonstrate a greater need for mentoring and one-on-one learning to avail themselves of my assistance and any campus tutoring.

29. I include a variety of exam formats in a class so that students with diverse learning and work style strengths will have more equitable
opportunities to excel (e.g., in-class and take-home exams, subjective and objective exams, independent projects and small group projects, written tasks/reports and oral tasks/reports).

30. I familiarize my students with my exam formats and grading criteria, and give them a chance to take a practice exam each time I introduce a new exam format.

31. I give my students many opportunities to succeed by testing them regularly on manageable doses of subject matter and by providing immediate constructive feedback.

32. I allow my students to propose viable alternatives in demonstrating their learning or in accomplishing a task (e.g., giving an oral report instead of a written report; submitting a concept map instead of a formal outline for a project).

CLASSROOM WORK STYLE SURVEY*

Kate Kinsella and Kathy Sherak

Last name __________________________ First name __________________________
Native country __________________________ Native Language __________________________

In your native country, did you ever have opportunities during class to work with a partner or in a small group? Yes _____ No _____

In the United States, have you ever had opportunities during class to work with a partner or in a small group? Yes _____ No _____

In the United States, how would you describe your past experiences working in small groups?

 Mostly Positive ______ Just OK ______ Mostly Negative ______

Directions: This survey has been designed to help you and your teacher better understand the way you usually prefer to complete assignments in class.

Please read each statement; then, based on your previous educational experiences, decide whether you mostly agree or disagree with each statement.

AGREE    DISAGREE

1. When I work by myself in class (rather than with a partner or small group), I usually do a better job on assignments. _____  _____

*Copyright 1993 by Kate Kinsella and Kathy Sherak. If you wish to use this survey, please contact the authors for permission.
<table>
<thead>
<tr>
<th></th>
<th>AGREE</th>
<th>DISAGREE</th>
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<tr>
<td>2. When I work by myself on assignments in class, I usually concentrate better and learn more.</td>
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<td>3. When I work by myself in class, I often feel frustrated or bored.</td>
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<td>4. I prefer working with a single partner than with a group.</td>
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<td>5. Most of the time, I prefer to work by myself in class rather than with a partner or a small group.</td>
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<td>6. When I work with a partner or a small group in class instead of by myself, I often feel frustrated or like I am wasting time.</td>
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<td>7. When I work with a partner or a small group in class, I usually learn more and do a better job on the assignment.</td>
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<td>8. Most of the time, I would prefer to work in class with a single partner rather than by myself.</td>
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<td>9. Most of the time, I would prefer to work with a group rather than with a single partner or by myself.</td>
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<tr>
<td>10. I enjoy working in groups with other ESL students, but not with native speakers of English.</td>
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<td>11. I get more work done when I am not working with students who speak my own language.</td>
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<td>12. I feel uncomfortable working in groups with students who are native speakers of English or ESL students who speak English more fluently than I do.</td>
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<tr>
<td>13. I am more comfortable working in groups with other students who speak my own language.</td>
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<td>14. Usually, I prefer my teacher to select the small groups.</td>
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<td>15. Usually, I prefer my teacher to let us form our own groups.</td>
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16. I prefer working in groups when there is a mixture of students from different backgrounds. 

17. I prefer working in groups when my teacher assigns a role to each group member. 

18. I prefer working in groups when the teacher lets us figure out for ourselves which roles we want. 

19. Usually, I find working in a group to be a waste of time. 

20. Usually, I find working in a group to be more interesting and productive than working alone. 

21. I hope we won’t do too much group work in this class. 

22. I hope we will have regular opportunities in this class to work with a partner. 

23. I mainly want my teacher to give us classroom assignments that we can work on by ourselves. 

24. I hope we will have regular opportunities in this class to work with a small group. 

Directions: Give yourself 1 point if you AGREE with the following questionnaire items and 0 points if you DISAGREE. Next, add the points under each heading.

The greatest total indicates the way you usually prefer to work in class.

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<thead>
<tr>
<th>INDEPENDENT WORK STYLE</th>
<th>COLLABORATIVE WORK STYLE</th>
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PERSONAL EVALUATION SHEET: WORKING IN GROUPS

Kate Kinsella

Name

Directions: Read each statement below. Then circle the number that best represents what you did in your group.

(+/-) plus
Yes, a lot. (-) minus
No, not at all.

1. I used my classmates’ names in my group. 5 4 3 2 1 0
2. I was an active participant in my group. 5 4 3 2 1 0
3. I listened to everyone in my group. 5 4 3 2 1 0
4. I encouraged and praised others in my group. 5 4 3 2 1 0
5. I explained to someone who didn’t understand. 5 4 3 2 1 0
6. I asked for an explanation or help when I didn’t understand. 5 4 3 2 1 0
7. I felt encouraged by people in my group. 5 4 3 2 1 0
8. Today my role was ___________. I felt comfortable with this role. 5 4 3 2 1 0
9. I learned some new things by participating in this group activity. 5 4 3 2 1 0
10. I am enjoying working with my classmates in small groups. 5 4 3 2 1 0

Goal setting: Which group work skills will you try to work on the next time you meet in your group?

1. 
2. 
3. 

Personal note to my teacher:

Courtesy of Kate Kinsella
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