Matching Styles to Learners

Rita Dunn, Yvonne Pratt-Johnson and *Andrea Honigsfeld* recommend learning-styles based instructional approaches to integrate English learners in instructional activities while exposing them to necessary academic language and content

Although some English language learners (ELLs) enter our schools close to grade level in English reading, many others are just beginning to read. Some have not learned to read in their native language and, in addition to the challenge of beginning English literacy concepts and skills, they also must adapt to new customs, foods, homes, people, rules, schools, and streets. Some already have literacy skills in the language with which they grew up, but now need to apply that knowledge to reading in a brand new language with a strange sound system, vocabulary, syntax, and cultural innuendo.

Many ELLs receive English instruction and/or bilingual education when they first enter the U.S., but the gap between ELLs and mainstream learners becomes increasingly apparent as middle- and high-school content becomes an additional barrier to their academic success. Traditional teaching relies heavily on teachers talking and asking questions with children listening and responding. When most people try to learn a new language, they recognize and decipher printed words and graphics long before they interpret them by listening.

How children master vocabulary varies substantially by achievement level, age, brain processing inclinations, gender, and interests (Dunn & Griggs, 2007). High and low academic achievers learn differently from each other. Younger and older students may learn differently from how each did several years prior. Extremely analytic and global processors of all ages learn in diametrically opposite environments and with different resources. And boys and girls have different strengths and weaknesses. However, ELLs do not have a well-defined set of learning-style characteristics distinctly unique to them. Just as for their mainstream classmates, a variety of learning-style preferences are present among ELLs regardless of their linguistic or cultural background, level of language proficiency, or age group. However in every family, mother's and father's learning styles, and those of each of their offspring, are dramatically different.

Global Versus Analytic Learners

The majority of K-12 students are global rather than analytic; they respond better to information taught holistically than they do to lessons taught sequentially. Integrated students learn either globally or analytically, but remember new and challenging material only when interested in the topic. However, teachers know that not all children are necessarily interested in the same content or activities.

Global students concentrate on new, difficult information most easily when:

- Introduced through short stories or anecdotes that show how the content relates to their lives;
- Accompanied by cartoons, drama, jokes, or humor;
- Supplemented by charts, figures, games, illustrations, photographs, tables, and/or color;
- Delivered in short segments that permit breaks or breathing time for internalization;
- Introduced through hands-on (tactual/visual) or kinesthetic (visual activities that require mobility) rather than auditory/visual (listening/reading) instruction;

And permissible for them to choose where, when, with whom, with what, and how in the classroom they may learn (Burke, 1998; Dunn & Griggs, 2007; Levine, 2007; Levy, 2007; Orazio, 2099).

Sociologically Diverse Learners

During the 1980s, the effects of learning alone, in a pair, with peers, as part of a team, with adults, and/or with a variety of approaches versus in routines or patterns became one of the foci of several learning-style researchers (DePaula, 2007). Differences then emerged between learning-style and cooperative learning advocates. The former recognized that certain individuals preferred learning alone, and achieved significantly higher standardized test scores independently than they did when learning with peers (Dunn & DeBello, 1999). Cooperative learning advocates compared how well students performed when learning with peers in contrast with when learning directly from their teachers. In two decades of research, we never found more than 28 percent of any K-8 population who preferred learning in groups, and most of that percentage preferred learning in self-selected pairs rather then in teams (Dunn & Griggs, 2007).

Perceptually Diverse Learners

Extensive documentation supports the statistically higher achievement-test gains (with medium-to-large-effect sizes) that resulted after teaching poor achievers with tactual and kinesthetic instructional resources. These results occurred when individuals were introduced to new and difficult information tactually or kinesthetically (if those were their perceptual strengths), reinforced through a different modality; and then required to apply the new information by using it creatively - which statistically increased their retention even more (Kroon, 1985; Levine, 2006; Crossley, 2007; Wheeler, 1980).

Gender Diversity

Generally speaking, males tend to learn best kinesthetically and tactually; are often in need of mobility and informal seating while concentrating; and, if they have a third modality strength, it tends to be visual. As a group, males are relatively weak auditory learners, more non-conforming and more peer-motivated than females — who tend to be comparatively conforming and very self-, parent-, and/or teacher-motivated. In the 29 nations where demographic learning-style data were collected (see Note 1), adolescent females were significantly more academically-motivated, persistent, and able to remember 75 percent of what they heard during a 40-50-minute lecture compared to their male counterparts. Females also tended to need significantly more quiet while concentrating whereas many males blocked

out sound and were often unaware of it (Dunn & Griggs, 2007; Honigsfeld & Dunn, 2003; Marcus, 1977).

Age Diversity

Often ELLs from multiple grade levels are grouped together, particularly when schools have relatively small numbers of ELLs, so K-2 and grades 3-5 students are in the same ESL program. Similarly, in middle schools, 6th, 7th and 8th graders might be placed into the same class, especially if grouping is based on language proficiency rather than grade level. High school ESL classes might also be multi-age and multi-grade to better respond to the academic and linguistic needs of students.

How people learn often changes between the primary and elementary grades, between middle and high school, and again during mid- or later life. Despite these general patterns, some individuals hardly change their learning styles at all, whereas others experience rapid and multiple changes.

It is crucial to teach all learners, particularly ELLs, using the methods most likely to produce results. Learning should be fun; not a chore. That is why we urge teachers to experiment with new approaches before ELLs experience failure, lose confidence, or "turn off" to schooling.

Given that most students tend to be global, have short attention spans, need lots of mobility, and prefer a variety of different groupings to master information, try the following strategies with content for ELLs.

Responding to Sociological Differences

Despite the fact that children are so different from each other, the easiest thing to do is to respond to their individual sociological preferences. For example, when giving an assignment, you can say something like:

"You may do this assignment alone, or work with one classmate or two, or bring your chair close to me in this section of the room (designate where) and I will help you. If you get at least 9/10 of the answers correct, you may choose how or with whom you will work next time. If not, you will need to sit near me so that I can guide you.

We all need to speak quietly so that we do not distract each other.

Try to whisper because if someone not working with you hears the exact words you are saying, you are too loud. Do your best!"

For your beginner and low intermediate students, you may have to simplify your directions, as long as so they understand that they have choices!

Responding to Global/Analytic Differences

Many individuals are integrated, meaning that they can process new and challenging information in whichever processing style is delivered. However, most K-12 students are global so if they are not interested in what they are learning, they can - and often do -disconnect. Therefore, to catch and hold onto the attention of most ELLs, begin every lesson with a less-than-a-minute dramatic anecdote, story, video clip with stimulating input, or activity that shows how it relates to your students' lives.

Responding to Perceptual Differences

Most students, even beginning learners of English, can master grade-level curriculum when it is taught in ways that respond to their perceptual strengths, and when the linguistic complexity of the task matches their language proficiency levels. Some students cannot remember three-quarters of what they hear during a lecture or discussion, but do learn enjoyably through tactile or kinesthetic game-like resources, particularly when those strategies capitalize on colored pictures, illustrations, and easy-to-see print.

Although most boys have either primary- or secondary-tactual strengths, conventional teaching requires that they learn by listening or reading. Many ELLs could learn to teach themselves and/or their classmates required grade-level curriculum with easy-to-make tactual Task Cards, Pic- A- Holes, Learning Circles, or Magic Windows (Crossley, 2007). Teachers either can create these resources on a computer for quick duplication and distribution, or assign students to make them for homework. When high-school learners developed their own instructional resources, they learned better—and liked learning from them more—than they did from teacher-made resources (O'Connell, Dunn, & Denig, 2003). In addition, teachers can offer extra credit to advanced ELL or mainstream students to help them generate tactual resources based on appropriate content for new comers and other beginners who may have difficulty following directions and creating their own resources initially.

Creating Task Cards

Task Cards are easy-to-design, self-corrective, resources that help K-12 students remember information more easily than through discussing, listening or reading. They are effective when both introducing new material and
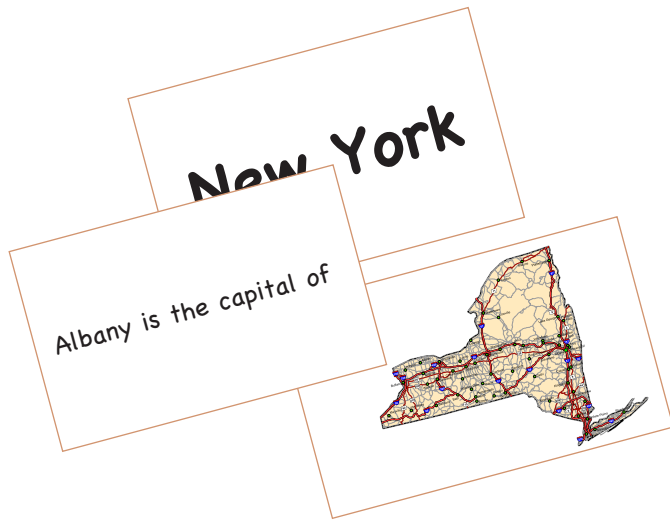
reinforcing previously taught information or skills. They can be used at a desk, on a table or floor, or anywhere in the classroom, school, or home. After being shown how to use them, Task Cards can be effective for either individuals or pairs, in a small group, and without much supervision once students (even kindergarteners) become familiar with them. In addition, ELLs, who see pictures of animals or items they recognize, quickly conquer vocabulary naming those objects on Task Cards through word-picture associations. For example, seeing a picture of an elephant on an elephant-shaped, cut-into-fit-together pieces like a crossword puzzle so that the two or three parts (one of which has the word elephant printed on it, suggests that the picture and word are a match and should be put together. If the ELLs read in their native language, placing the word for elephant in that language on a third section of the three-part Task Card so that the child sees elephant in the picture, in English, and in his primary language.

Task Cards also present information about a specific topic, concept, or skill with questions and sample answers (some True, some False). Students can create a Task Card set, for example, by: (a) printing the name of each of the United States on the left side of an index card; (b) printing the name of that state's capital in the middle; and (c) inserting a picture of the outline of that state (or a product produced there) on the right side of the card. Then the cards can even be cut into irregularly shaped thirds so that only the correct answers fit together. A series of Task Cards on the states and their capitals would help many tactual students master that information (see Figure 1).

Creating a set of Task Cards in a shape representative of the topic being studied permits tactual students (for whom they are designed) to associate the feeling of the shape with what needs to be learned and better permits them to internalize the information. For example, if fish or marine life were being studied, making the Task Cards in the shape of one or more fish would assist the children in remembering much of the information about that topic. It is important that at least one part of each Task Card should have a colored image on it to enhance the awareness of global students.

Creating Pic-A-Holes

Pic-A-Holes can be created from a standard folder to become a holder for a series of cards, each with one question, and usually three possible answers printed near the bottom. Students need to insert a golf tee (or pencil point or toothpick) into the hole directly below the answer they believe to be correct. Because only the single correct answer is cut through to the bottom, it alone can be lifted out of the folder after the golf tee has been inserted into it. If the question card lifts from the holder with the tee in the hole, the answer is correct (see Figure 2).

To design each Pic-A-Hole card, punch three equally spaced holes below the rectangle at the bottom on which is printed three possible answers to the single question printed at the top of the 5 x 8 index card. Place a round opening beneath each possible answer. Be certain that the cut-out-openings are below the rectangular section so that they do not reveal the correct answer. Place each index card into the inside bottom

What is the capital of New York?
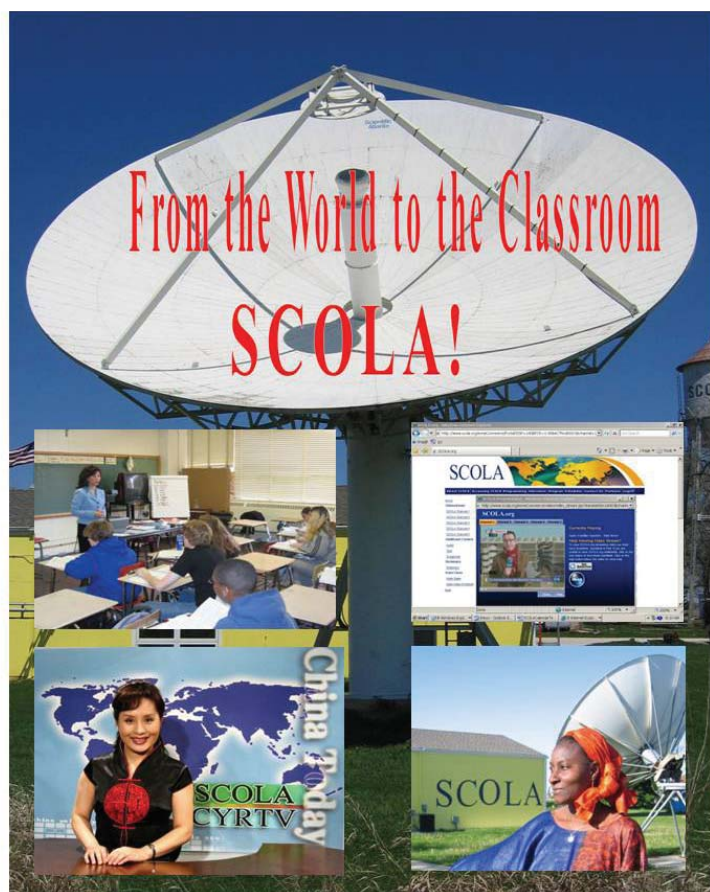
Long Island   Rochester   Albany

Figure 2 Sample Pic-A-Hole

pocket of a regular folder. Trace the openings onto the card. Remove the same area from the index card. This will serve as a guide for the placement of questions and answers that can be printed on each 5 x 8 index card. Write questions at the top of each card in the appropriate place. Write answers in the rectangular space indicated at the bottom. Punch a hole below each answer. Cut a slit at the bottom of the hole for the correct answer.

Creating a Learning Circle

Cut a circle with a diameter of 8 inches from a piece of tag board. Draw a circle with a diameter of 6 inches in the center. Divide the border into eight sections. Write a question in each section of the border. Punch a hole in the

center of the circle. On another sheet of tag board, draw and cut out a second circle with a diameter of 6 inches. Place an arrow near the edge of the circle. To make an answer flap, mark a fold line 45 degrees from the arrow. Cut a flap in the circle. Punch a hole in the center. Using a paper fastener, attach the two circles. Turn the arrow to each question around the border, open the flap, and write the answer on the large circle.
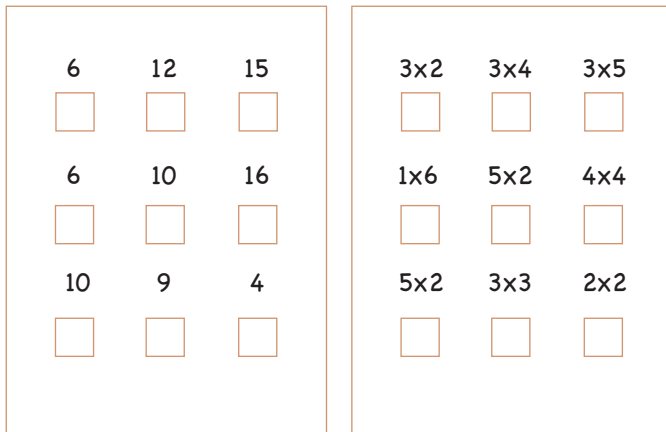
6	12	15
☐	☐	☐
6	10	16
☐	☐	☐
10	9	4
☐	☐	☐

3x2	3x4	3x5
☐	☐	☐
1x6	5x2	4x4
☐	☐	☐
5x2	3x3	2x2
☐	☐	☐

Figure 3 Sample Magic Window

Creating a Magic Window

To create a Magic Window tactual game, develop a pattern of boxes or shapes on a piece of tag board. Completely cut out each box to create a window. Write a question or problem above each window. Place a piece of paper under the windows and write the correct answers in the boxes on the paper. Flip the tag board over and write the correct answers above each window. Have students place the tag board over a sheet of blank paper, write the answer in each window, and then flip the tag board over to read the correct answers. (See Figure 3).

Bear in mind the following:

1. ELLs need meaningful exposure to social and academic language. They need many varied opportunities to master the language and content necessary to succeed in school. Listening to the teacher needs to be supplemented with a range of learning-styles based instructional activities.
2. ELLs do best when learning is systematically differentiated based on their language proficiency levels, prior knowledge about the topic, and learning styles. ⧓

Notes Answers to Quiz: All False.

References

Burke, K. (1998). Responding to participants' learning styles: Hear, see touch, and move them. In R. Dunn & K. Dunn (Eds.), Practical approaches

to individualizing staff development for adults (pp. 49-55). Westport, CT: Praeger. Crossley, H. (2007). Effects of traditional teaching versus a multi-sensory instructional package on the science achievement and attitudes of English-language learners versus other middle-school minority students Doctoral dissertation, St. John's University.

De Paula, R. M. (2007) Learning styles of Brazilian adolescents. In R. Dunn & S. A. Griggs (Eds.). Synthesis of the Dunn and Dunn learning-style model research: Who, what, when, where, and so what? (pp. 131-135). Jamaica, NY: St. John's University's Center for the Study of Learning and Teaching Styles.

Dunn, R., & DeBello, T. C. (Eds.) (1999). Improved test scores, attitudes, and behaviors in America's schools: Supervisors' success stories. Westport, CT: Bergin & Garvey.

Dunn, R. & Dunn, K. (1992). Teaching elementary students through their individual learning styles. Boston: Allyn & Bacon.

Dunn, R. & Dunn, K. (1993). Teaching secondary students through their individual learning styles: Practical approach for grades 7-12. Boston: Allyn and Bacon.

Dunn, R., & Griggs, S. A. (2007). Synthesis of the Dunn and Dunn learning-style model research: Who, what, when, where, and so what? Jamaica, NY: St. John's University's Center for the Study of Learning and Teaching Styles.

Dunn, R., Dunn, K., & Perrin, J. (1994). Teaching young children through their individual learning styles (K-2). Boston: Allyn and Bacon.

 Honigsfeld, A., & Dunn, R. (2003). High school male and female learning-style similarities and differences in diverse nations. Journal of Educational Research, 96, 195-206.

Kindler, A. L. (2002). Survey of states' limited English proficient students and available educational programs and services 1999-2000 summary report. Washington, DC: National Clearinghouse for English Acquisition and Language Instruction Educational Programs.

 Kroon, D. (1985). An experimental investigation of the effects on academic achievement and the resultant administrative implications of instruction congruent and incongruent with secondary, industrial arts students' learning style perceptual preference (Doctoral dissertation, St. John's University, 1986). Dissertation Abstracts International, 46(11), 3272A.

Levine, J. (2007). Comparative effects of alternative reading instructional approaches on the short- and long-term word recognition and attitude test scores of first-grade students. (Doctoral dissertation, St. John's University, 2007).

Levy, R. (2007). What if we taught children to read with strategies responsive to their learning-style strengths? In R. Dunn & S. A. Griggs (Eds.), What if? Promising Practices for Improving Education. MD: Rowman & Littlefield.

Lovelace, M. K. (2005). A meta-analysis of experimental research based on the Dunn and Dunn learning-style model, 1980-2000. Journal of Educational Research, 98(3), 176-183.

Marcus, L. (1977). How teachers view student learning styles. NASSP Bulletin,   61(408), 112-114.

National Centre for Education Statistics. (2002). Public schools, students, staff, and graduate counts by state: School year 2000-2001 (NCES Publication. 2003-348). Washington, D.C.: Author.

O'Connell, D. M., Dunn, R., & Denig, S. (2003). Effects of traditional instruction versus instruction with teacher-constructed and self-teaching resources on the short-term achievement and attitudes of tenth-grade science students. The American Biology Teacher, 65(2), 93-102.

Orazio, P. (1999). Effect of matching and mismatching learning style global and traditional analytic instructional resources on the achievement and attitudes of seventh-grade mathematics students (Doctoral dissertation, St. John's University, 1999). Dissertation Abstracts International, 59(12), 4386A. Wheeler, R. (1983). An investigation of the degree of academic achievement evidenced when second grade, learning disabled students' perceptual preferences are matched and mismatched with complementary sensory approaches to beginning reading instruction (Doctoral dissertation, St. John's University, 1984). Dissertation Abstracts International, 44(07),2039A.

Rita Dunn (rdunn241@msn.com) is professor, Department of Administrative and Instructional Leadership, coordinator of the Instructional Leadership Doctoral Program for more than a quarter of a century, and Director, Center for the Study of Learning and Teaching Styles, St. John's University, New York. Dr Dunn earned the Ed. D at New York University, where she received the NYU Research Scholarship Award. She is author/co-author of 30 textbooks and more than 450 published articles, chapters, and research studies and the recipient of 31 professional research awards. Researchers at more than 130 institutions of higher education have participated in research on the Dunn and Dunn Model, and have published more than 830 studies available on www.learningstyles.net. As of May 2007, Dr. Dunn personally mentored 152 doctoral students who earned 32 national or international awards for the quality of their dissertations.

Yvonne Pratt-Johnson (yypi5@aol.com) is professor of TESOL at St. John's University in Queens, New York. She holds the Ed.D., M.A., and M.Ed. from Teachers College, Columbia University in Spanish Education and Teaching English to Speakers of Other Languages and the M.S. from Georgetown University in Spanish Linguistics. She has many years of undergraduate and graduate teaching experience at the City University of New York and teacher training. Dr. Pratt-Johnson has been a recipient of several research grants that have enabled her to examine Jamaican Creole and the teaching of Standard English to dialect-different students. Through her research, through publications, and professional development workshops, she has raised awareness of the special needs of the Caribbean Creole-speaking populations in U.S. schools.

Andrea Honigsfeld (ahonigsfeld@molloy.edu) is associate professor and coordinator of the Master of Science in Education: TESOL program at Molloy College, Rockville Centre, NY. She teaches graduate education courses related to cultural and linguistic diversity, linguistics, ESL methodology and action research. Before entering the field of teacher education, she was an EFL teacher in Hungary, an ESL teacher in New York City, and taught Hungarian at New York University. She was the recipient of the Doctoral Fellowship at St. John's University, where she conducted research on individualized instruction and learning styles. She co-authored several books, monographs, book chapters, and articles related to her research and/or working with English Language Learners. She recently received a Fulbright Award to lecture in Iceland. In the past four years, she has been extensively involved in staff development projects at local school districts on Long Island, NY, primarily focusing on effective ESL strategies for mainstream teachers. In 2007, she was awarded Outstanding ESOL Educator of the Year by NYS TESOL.