Why is there a Migrant Education Program on Professor Garfield?

Recognizing the education of a migrant child poses unique challenges, Professor Garfield, working under the direction of the State of Indiana Department of Education, has built a Migrant Education Program (MEP) on its website. The purpose of the site is to aid the Spanish-speaking student in developing both social and academic language in order to progress from kindergarten through graduation.

The site design is based on the understanding that social language develops faster and more broadly than academic language. This uneven progression of language acquisition often causes frustration for educators who hear English spoken by the second-language student, but who sense a gap in understanding in the core classes. The site addresses development of both social and academic language acquisition.

Acknowledging the limitations of a computer-driven educational model which includes lack of hands-on experience and social interaction, the MEP design capitalizes on the strength of a computer-based delivery system, emphasizing clear explanation of concepts supported by high quality photo and video, simple illustrations, and a variety of practice modes that deliver a quality educational program. Additionally, a computer-based program makes core curriculum and language tutorials available to all students regardless of geographical location. For students who cannot be in school with consistency, and therefore cannot take advantage of high quality hands-on delivery systems in the social context of a typical classroom, this MEP site allows the student to access English as it is used socially and in the core classrooms.

You can click on the index links below to skip to the specific topic you are interested in.

**Building Social Language**
- Dialogue Modules
- Visual Dictionary

**Building Academic Language**
- Science Modules
- Math Games

**Language Arts**
- Garfield's Library
- Orson's Farm and Fat Cat Books
- Reading Ring
Building Social Language

Dialogue Modules:
The site presents social language through modules designed to help English learners build vocabulary and develop a sense of English language structure. Each module presents new vocabulary within a context (foods, clothing, days of the week, etc.) matching vocabulary to photo. Students are able to read and hear all modules in both Spanish and English. Videos of English speakers are presented. The modules present English vocabulary in three levels:

- Level 1: (designed for students with little or no English competency)
- Level 2: (designed for students with minimal-some English competency)
- Level 3: (designed for students who speak fair English but need to broaden vocabulary and refine structure)

Each Level presents the new words, provides several types of practice, and gives a quiz at the end. Though the presentation of new words and all practices can be seen in either English or Spanish, the quiz at the end is given only in English. Students can repeat the module presentation as many times as they like.

Visual Dictionary:
A unique addition to the site is the visual dictionary. Students may access a word in English or Spanish, hear it spoken in either language, and note its use in example sentences, which are supported by photo and/or video. Special care is taken to include common usages of words as well as technical definitions from core subjects.

Students can work independently when away from the classroom, or with partners/small groups as a tutorial, remediation, or extra practice when in the classroom.

Building Academic Language

Science Modules:
The site focuses on K-8 core curriculum, beginning with science and math for K-2. Whereas Indiana Science and Math Standards serve as the impetus behind the lesson objections, Professor Garfield, in working with migrant student summer tutorials, is aware of students' concerns regarding their performances in other states where they ultimately spend time and take tests. Therefore, attention has been paid to Texas Standards, the National Common Core documents, and standards from other states where the migrant student of Indiana is likely to travel.

The science modules present a lesson objective in the form of a question. A video montage shows clips that provide mental images needed by the student to relate concepts taught in the lesson. The student is prepared for the reading by locating title and subheadings, creating a graphic organizer from the title and subheadings, and turning the title and subheadings into questions that will be answered in the reading. The reading is supported by quality photo and
video that help cement understanding. Students are given a number of ways to explore the presented concepts: multiple choice, collage making, matching, feature analysis grids, completing the graphic organizer by sorting details according to main ideas, and identifying a concept that does not categorically match three others. All this may be done in English or Spanish, with the final quiz being given in English only.

The intent of the design is for the student to use the modules independently or, when enrolling in a new school, to use the modules as schema builders in preparing for upcoming lessons. They are designed for independent work, partner/small group work, or even whole class lesson presentations. Teachers may feel free to use all or parts of the lesson for tutorials, accommodation, remediation, and/or differentiation, depending on need of individual student or groups of students.

**Math Games**
Developed by educational researchers at the Freudenthal Institute in the Netherlands, the arithmetic rack with two ten-frames presents a visual, manipulative model to strengthen and develop mental intuitive mathematical skills, moving children from the initial efforts to tally count (one-to-one correspondence) to subitizing numbers as wholes (seeing six things as six without tally-counting, or, in other words, instantly seeing how many) to intuitively seeing relationships and patterns in mathematical patterns (seeing numbers as doubles plus one, minus one, relationships between fact families), and helping children build numbers in groups of twos, fives, and tens, halves, doubles, etc. Educational research supports the use of the arithmetic rack in developing mental math skills and underscores the increased attention given to building mental math skill in general as foundational for future math success. Tournaki, Bae, and Kerekes (Learning Disabilities; A Contemporary Journal, v6 n2 p41-59 2008) report students using the arithmetic rack in math instruction scored significantly higher on addition and subtraction tests with numbers 0-20 than those not receiving such instruction. The Kentucky Center for Mathematics reports a continual rise of classroom achievement on the MAP since 2008 since the introduction of arithmetic rack into the classroom.

The three math games designed for MEP take the concept of the arithmetic rack, blend it with the persona of Garfield, and apply it to a computer-delivered series of activities, providing opportunities for students to practice subitizing, manipulating, and seeing relationships in fact families. The site has simple animations, sounds, graphics, all designed to motivate practice. All math games can be played in Spanish and English.

**Language Arts:**

**Garfield's Library**
It has been said the best literacy intervention is a good book. If that’s true, the poorest demographic has limited access to the best interventions, for one of the definitions of poverty is lack of access to societal goods and services. Warrick Elley’s seminal research on children’s literacy has led to the notion that to flood a child, a home, a school, a community with books is essential to a literate populace. The Center for the Improvement of Early Reading Achievement (CIERA), Florida Literacy and Reading Excellence Center, International Reading Association, National Center for Family Literacy, to name a few, are all literacy-based organizations that
recognize that access to books is key to literacy development. Given the definition of the word migrant, (itinerant worker that travels from one region to another, regularly, in order to find work) there is an inferred understanding that migrant children have: 1) limited space in the family’s mode of transportation, 2) lack of funds to purchase and own books, and 3) residences in agricultural areas not prone to having libraries. The likely source for contact with book is a school if and when the child enrolls, and for only as long as the child stays.

The United States Department of Labor indicates today’s migrant worker numbers range from three to five million, not counting their dependents who do not work in the fields, with seventy-eight percent of them Hispanic, speaking English as their second language. Sixty-six percent of migrant workers have their children with them where they work. For Hispanics in America, the educational experience is one of accumulated disadvantage. One such disadvantage Hispanic students deal with is the lack of literacy in their own language, especially important to being able to develop literacy skills in a second language.

In order to combat the compounded disadvantages facing the migrant Hispanic child, the MEP site has and will continue to build an on-line library with text and voice-over in Spanish and English.

**THINK ALOUD BOOKS**
- Johns Bad Day
- Garfield’s Week
- What’s it Like
- Where is Everyone Going
- I’m Not Afraid

**EASY READER BOOKS**
- Garfield on the Farm
- Garfield and the Tiger
- Garfield in the Park
- Garfield at the Gym

**SCIENCE BOOKS**
- Animal Tails: High 2nd grade-low 4th grade
- Garfield Discovers America: 3rd/4th
- How Do Airplanes Fly: 2nd
- Round and Round the Money Goes: High 2nd-low 3rd
- Telephone, Televisions, and Toilets: 2nd-low 3rd
- Looking at Maps: 1st-2nd

**Orson's Farm and Fat Cat Books:**
Because phonic instruction involves student interaction with sounds of individual letters, consonant digraphs, (the ph in phone), consonant blends (the br in break), vowel teams, and
puts great emphasis on recognition of sight words, The Florida Center for Reading Research uses the decodable Bob Books in their program "Sound Partners" to give students practice with these skills and help them develop reading fluency. "Sound Partners" is a phonics-based tutoring program that focuses on phonemic awareness, fluency, decoding, and comprehension and has been supported by various and separate studies (Vadasy, Sanders, Peyton & Jenkins, 2002; Jenkins, Peyton, Sanders, & Vadasy, 2004; Vadasy, Sanders, Peyton, 2005; Vadasy, Sanders, & Abbott, in press).

Bob Books base their instruction on the systematic introduction of sight words and family words. Word families known as phonograms, are letter patterns that are highly consistent. Words that share the same rime with changing onsets (bit, fit, hit, lit, kit, pit, sit, wit) make up these families and are not only easy to decode (sound out), but once the pattern is recognized, it is easy for the student to predict /decode a new word that follows the same pattern. The 37 most common word families in English arc: ack, ain, ake, ale, all, ame, an, ank, ap, ash, at, ate, aw ay, cat, ell, est, ice, ick, ide, ight, ill, in, ine, ing, ink, ip, it, ock, oke, op, ore, ot, uck ,ug, ump, unk (Wylie and Durrell, 1970) and are generally the basic component words of early readers..

Words known as sight words, high-frequency words, often referred to as Dolch words, or most recently, words taken from Elfrieda Hiebert’s high frequency list, are words often encountered in text but not necessarily members of a family. Words like "a", "the", "one", and "they" pose problems for early readers and are often introduced and taught by memorization and sight. Several commercial programs base their curricula on blending these two early-reading needs with letter recognition and letter-sound correspondence. Computer-based programs like "Starfall" and early readers like "Dr. Seuss's Beginner Book Collection", "The Bob Books", "Tug Duck and Buzz Bug" (from the Miami Linguistic Readers) and "Reading A to Z" have all introduced early readers to both word families and sight words.

Currently the USDOE has identified on their site Doing What Works: Systematic Teaching, specific needs for children at risk (needing further instruction and practice in Tier 2 and 3 interventions). For kindergarten children, phonemic awareness and segmentation is key; for first grade, phonics and comprehension, and for second grade, digraphs, diphthongs (two vowels creating new vowel sound i.e. coin, loud), fluency, and connected text are focuses. Additionally, the USDOE reports that students in tiers 2 and 3 interventions need ten to thirty times more practice than their counter-parts. The USDOE identifies computer aids and one-on-one instruction as key to maximizing practice. Thus, books on computer that follow the patterns outlined above would be congruent with USDOE suggested strategies.

Additionally, humor in books supports developing word recognition and reading fluency, especially in children who are reluctant readers (Klesius, J., Laframboise, K. L., & Gaier, M. (1998). Children have described attributes of humor that keep them engaged in reading as "cliffhangers" (looking forward to the next humorous event), unexpected uses of language for humorous effect, the emotional appeal of humor as a coping mechanism, imagining humorous voices for characters, appeal for the unexpected, and expressions of vocalizations for characters (Zbaracki, M., 2003).

The Garfield-based version of the early readers, the Fat Cat Books, focuses on high-frequency words and word families and is consistent with current and historic research-sound educational practices. Using Garfield as the vehicle addresses the magnetic pull humor has on
all children, but especially on reluctant readers. Having these books on-line provides educators with an immediate resource for an intervention, accommodation, and/or differentiation that provides needed practice motivated through humor.

This part of the site is also in Spanish and English.

**Reading Ring:**

From the work of Kispal, 2008 (Effective Teaching of Inference Skills for Reading. Literature Review. Research Report DCSF-RR031) we find “the ability to draw inferences predetermines reading skills: that is, poor inferencing causes poor comprehension and not vice versa.”

The design of Reading Ring is intended to give students practice in inferencing, a skill needed to increase reading comprehension. The task of Reading Ring is to sequence three comic cels in their proper order. Reading Ring presents three comic cels to students who must not only look at the comic characters in action and conversation, read what they say, but also make inferences about cause and effect. They then drag and drop the cels into their proper order in to a typical comic strip. Following the ordering of the comic cels, students are then asked three comprehension questions that emphasize vocabulary understanding, as well as comprehension and inference understanding of events.

Because each challenge is only three cels long, classroom students may be engaged in the activity as a short 1 minute whole/class warm-up exercise or single students may immerse themselves in an afternoon of Garfield’s wry humor.