CREATING SUCCESS FOR STUDENTS WITH LEARNING DISABILITIES IN POSTSECONDARY FOREIGN LANGUAGE COURSES

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The number of students with learning disabilities (LD) attending postsecondary institutions has increased steadily over the past two decades. Many of these students have language-based learning difficulties that create barriers to success in foreign language (FL) courses. Many institutions have responded by providing these students with exemptions or alternative courses. Although exemptions and alternatives are needed by some students with severe language difficulties, the literature is increasingly indicating that many of these students can successfully complete FL curricula. This is especially true when accommodations and specialized teaching methodologies are implemented in sections of FL courses designed specifically to meet the needs of students with LD. The purpose of this article is to describe FL course accommodations supported by existing literature and field-based experiences. The article also highlights the benefits of successful FL experiences for student with LD.

As the number of students with LD involved in traditional, four-year education continues to grow (Gregg, 2007; Higher Education Statistics Agency, 2003), colleges must confront the challenges created. They must, for example, determine how to provide reasonable accommodations to facilitate success while not substantially altering curricula. Nowhere are these challenges more evident than in the area of foreign language (FL) instruction. FL courses are required in approximately two-thirds of postsecondary institutions in the U.S. (Brod & Huber, 1996). Problems with language-related skills are the most common learning difficulties identified among students with LD at all age levels (Hallahan, Lloyd, Kauffman, Weiss, & Martinez, 2005). Consequently, it should come as no surprise that the FL courses required by high school and college curricula present particular difficulties for students with LD. Vogel (1998) found that approximately 52% of adults with specific language-based learning disabilities experienced significant problems learning a FL.

Many colleges have responded to this challenge by allowing students, with proper documentation, to substitute courses for the FL requirement. In studying one institution, for example, Sparks, Philips, & Javorsky (2002, 2003) found a that FL substations had tripled over a fiver year period. The underlying assumption for providing course substitutions or waivers for students with learning disabilities is, of course, that students who struggle with the acquisition of their native language will necessarily experience difficulties mastering a FL. Anecdotal and case study data from the late 1980s and early 1990s, in fact, supported this hypothesis (Sparks, Philips, & Javorsky, 2002). Recent research at the postsecondary level, however, casts doubt on the validity of this assumption. Several studies conducted by Sparks and his colleagues (e.g.,Sparks, 2006; Sparks, Philips, & Javorsky, 2002; Sparks & Javorsky, 1999; Sparks, Philips, Ganschow, & Javorsky, 1999a,b) indicate minimal differences on multiple variables (IQ, performance on the *Modern Language Aptitude Test* (MLAT), grade point average, etc.) between college students with LD who received FL exemptions and those students with LD who did not. Furthermore, research indicates questionable validity for the MLAT when used as a predictor of success in a FL course (Goodman, Freed, & McManus, 1990; Sparks, Javorsky, & Ganschow, 2005). Finally, several researchers have found evidence that college FL courses that integrate appropriate accommodations made it possible for many students with LD to succeed (Arries, 1999; Demuth & Smith, 1987; DiFino & Lombardino, 2004; Downey & Snyder, 2001; Scott, McGuire, & Foley, 2003).

It is important to note here that, considering the language-based problems associated with most learning disabilities, these students are more likely than their non-disabled peers to struggle when learning a second language. However, given the recent doubt shed on the validity of procedures for identifying postsecondary students with distinct *language learning disabilities* in need of FL substitutions, combined with growing evidence that teaching strategies exist that produce successful FL learners among LD college populations, a strong case can be made for providing these students with FL courses that integrate research-based accommodations in place of course waivers or substitutions. Above and beyond

validity and pedagogical justifications for providing accommodations for students with LD, however, Kleinert, Cloyd, Rego, and Gibson (2007) provide several additional reasons. First, studying a FL can produce a better understanding of a student's native language. Second, FL study provides a sensitivity toward and tolerance of cultural differences. Third, students gain confidence by mastering challenging material – the same material required of their peers without LD. Finally, the rigorous nature of FL courses will increase the probability of success for students with LD as they undertake other challenging courses. It is important to note that students are receptive to FL courses with accommodations. In their descriptive study of college students who were granted course substitutions for their FL requirements, Ganschow, Phillips, and Schneider (2000) found that 89% of their respondents would have enrolled in FL courses adjusted for their specific learning needs if they had been available.

Grounded in existing literature and based on experiences of the authors in developing and implementing college-level FL courses for students with LD, the purpose of this article is to describe accommodations in FL instruction at the postsecondary level that facilitate success for students with LD. Unlike *modifications* and *adaptations*, course accommodations provide instructional adjustments without substantially altering existing curricula or difficulty level (Miller, 2009; Wood, 2002). Although accommodations can involve assessment (extended time on tests) and method of student performance (note-taker), emphasis in the present article is placed on instructional methodology. Affective aspects of the foreign language classroom are also discussed.

Instructional Accommodations in the Postsecondary FL Classroom

Pedagogical accommodations are a major emphasis of FL courses that are designed to meet the needs of students with LD (Downey & Snyder, 2001; Demuth & Smith, 1987; Skinner & Smith, 2007). Specific instructional methodologies described in the literature and implemented successfully in sections of FL courses designed for students with LD at the authors' institution include: (a) reduced class size; (b) explicit and highly structured instruction with an emphasis on the elements of language, especially phonemic; (c) the use of total physical response; (d) integration of multi-sensory instruction; (e) frequent use of learning strategies; (f) frequent review and repetition; (g) use of the same or similar instructors and materials across courses; and (h) a focus on affective aspects of the class. The remainder of this section describes and cites relevant literature supporting these instructional accommodations. These are summarized, along with relevant professional literature, in Table 1.

Small Class Size

A precondition to providing many of the accommodations described in the remainder of this article is reduced class size. Classes with limited enrollments (15 students) for sections of FL courses designed to meet the needs of students with LD are typical among successful programs (Downey & Snyder, 2001; Demuth & Smith; 1987; Skinner & Smith, 2007) and are advocated by experts in the field such as Shaw (1999). In addition to allowing instructors to implement effective pedagogy, smaller classes facilitate other benefits, including creation of a more positive learning environment, facilitation of high levels of accountability, more frequent student response opportunities, promotion of individualized instruction and evaluation, and provision of immediate feedback and error correction.

Explicit and Highly Structured Instruction with an Emphasis on the Elements of Language

Specific elements of explicit instruction include frequent opportunities to respond, frequent and descriptive feedback and review, proportional responding (equal response opportunities for all students), and rapid pacing of lessons. A plethora of research-based literature exists supporting the use of explicit instruction, sometimes referred to as *direct instruction* (Engelmann, Becker, Carnine, & Gersten, 1988), with students who exhibit problems learning in elementary, middle, and high schools (Greenwood, Arreaga-Mayer, & Carta, 1994; Hudson, 1996, 1997; Kroesberger, Van Luit, & Maas, 2004; Rinehart & Welker, 1992; and Rivera & Smith, 1987.). Although frequently containing limited data and sometimes based on anecdotal reports, a small but growing literature base exists that supports the use of explicit instruction specifically in the context of accommodation-based FL courses at the postsecondary level (Castro & Downey, 1996; Demuth & Smith, 1987; Hill, Downey, Sheppard, & Williamson, 1995; & Sheppard, 1993).

Table 1
Instructional Accommodations that Facilitate FL Acquisition
Among Postsecondary Students with LD

Accommodation	Potential Benefits	Relevant Literature
Small Class Size (i.e., 12 to 15 students)	*positive learning environment *high level of accountability *frequent opportunities to respond *individualized instruction and evaluation *immediate feedback and error correction	Shaw (1999), Forness et. al (1997), Downey & Snyder (2001), Demuth & Smith (1987), Skinner & Smith (2007)
Explicit & Highly Structured Instruction with an Emphasis on the Structure of Language (e.g. phonics, syntax, grammar)	* increased achievement *increased opportunity to respond *proportional responding *increased attention	Demuth & Smith (1987), Castro & Downey (1996), Hill et. al (1995), Sheppard (1993), Van Luit & Mass (2004)
Total Physical Response (TPR)	*increased achievement *use of visual and auditory *increased attention *increased opportunity to respond	Asher (1969), Conroy (1999), Davidheiser (2002), Klienert (2007), Marlatt (1995), Zink de Diaz (2005)
Multi-sensory Instruction	*increased achievement *use of multiple modalities *increased attention	Bilyeu (1982), Downey et. al (2000), Ganschow & Mayer (1988), Ganschow & Sparks (1995) Sparks et. al (1996)
Learning Strategies	*increased achievement *increased memory *better cognitive organization	Jitendra et. al (2000), Kotsonis & Patterson (1980), Torgesen (1979), Borkowski & Burke (1996), Demuth & Smith (1987), Downey & Snyder (2001), Sheppard (1993), Deshler, et. al (1996), Black & Black (1990), Bromley et. al (1995), Lenz et. al (2007), Forness et. al (1997), Kleinert et. al (2007)
Frequent Review & Repetition	*increased achievement *increased retention	Swanson & Ashbaker (2000), Swanson & Sachse-Lee (2001), Hulme & Snowling (1992), Robertson et. al (2004) Carnine et. al (2004), Sutherland et. al (2003), Downey et. al (1991), Downey & Snyder (2001)
Same Instructor Across Courses	*increased achievement *consistent pedagogy *increased understanding	Stokes & Baer (1977), Alberto & Troutman (2009), Downey & Snyder (2001)
Affective Aspects/Classroom Climate	*increased achievement *increased likelihood of respond-ing *increased feedback *increased confidence *reduced anxiety modalities	Javorsky et. al (1992), Skinner (2007), Demuth & Smith (1987), Downey & Snyder (2001), Javorsky, et. al (1992), Hill et. al (1995), Hill (1996)

All elements that comprise a language can be taught using an explicit instructional approach, including phonology, morphology, syntax, grammar, and semantics. When teaching Spanish possessive adjectives (e.g., *mi*, *tu*, *nuestro(a)*, *vuestro(a)*, etc.), for example, the following sequence might be used:

- Provide an *advance organizer* (e.g., discuss the goal of the lesson, review relevant past learning, make sure you have student's attention, use a *visual organizer* [see Figure 1 – to be discussed later]).
- Provide *multiple models* of possessive adjectives, emphasizing the need for agreement in number and gender with the nouns they describe. Make sure to solicit frequent student responses (e.g., *mis amigos*, *nuestros vecinos*, etc.).
- Provide students with *guided practice*. That is, provide a practice exercise while providing frequent feedback to all student responses. Again, make sure to solicit frequent student responses with your feedback (e.g., *Es mi libro*. *Es su cuaderno*. etc).
- Provide a *check* of student understanding. Students complete a brief assignment by themselves while you monitor and provide feedback (e.g., *¿Es tu cuaderno o es su cuaderno?*, etc.).
- Provide *independent work* for students who responded at an 85% correct rate or higher on the check. Provide additional instruction for students not reaching this criteria and/or provide independent work on a previously taught skill at which the student is functioning above the 85% correct criterion (e.g., past participles as adjectives – e.g., *abierto*, *dicho*, *descubierto*, *escrito*, *frito*, *hecho*, *impreso*, *Mi respuesta está equivocada*, *nuestras ventanas están abiertas*. etc.).
- Provide a *post organizer* (review, preview, and/or assign homework).

As stated previously, some authors (Castro & Downey, 1996; Demuth & Smith, 1987; Sheppard, 1993) recommend that explicit instruction be used to teach specific language elements for postsecondary students with LD. In the context of an alternative sequence of language courses for students with LD at Boston University, for example, a large portion of coursework focuses on teaching students *how* to learn a foreign language and is based heavily on the explicit instruction of phonetics, grammar, and syntax (Demuth & Smith, 1987). Data collected on a pre- and post-course basis from students enrolled in this program indicated a significant increase in language aptitude. A comprehensive guide to teaching FL to students with *dyslexia* using an explicit, elements-of-language approach to instruction, along with other techniques, can be found in *Dyslexia and Foreign Language Learning* (Crombie & Schneider, 2004). Although the book is targeted for secondary students, many of the strategies described are readily generalized to a postsecondary language setting.

Phonetic analysis of a language, based on a modified Orton-Gillingham (OG) approach (Gillingham & Stillman, 1965), is used in special sections of the Spanish and French courses at the authors' home institution. Often used successfully with students with specific learning disabilities in reading (Joshi, Dahlgren, & Boulware-Gooden, 2002), the OG approach utilizes highly structured lessons to explicitly teach sound-symbol relationships. Students progress from mastery of individual consonant and vowel sounds (e.g., *o*) to: (a) consonant-vowel combinations (e.g., *no*); (b) identification of syllables in words (e.g., *mono*); (c) practice with irregular and problematic sound-spelling relationships (e.g., *guapo*); and (d) practice with sentences and paragraphs (e.g., *El mono es guapo. Los monos son tontos*.).

Total Physical Response

First developed by James Asher (1969), total physical response (TPR) is based on the premise that humans are biologically programmed to learn language — including a second language. Much of Asher's original procedures were based on the interactions he observed between parents and their young children during the language learning process. According to Asher, infants and small children react physically to parental speech and are reinforced for their efforts.

Much the same process is involved in classroom language learning based on TPR. That is, students are encouraged to respond physically to teacher verbalizations. This can be accomplished through simple gaming formats such as Simon Says, or may involve higher forms of grammar or syntax in activities such as reenacting a story read in the second language.

A Spanish instructor, for example, may request, in the target language, that her students perform tasks such as: (a) *Place the textbook in your desk*. (manipulation), (b) *Place the picture of the market in Madrid next to the picture of the Spanish family*. (use of pictures), or (c) *Shake you head* yes. (use of

body movement). As outlined by Conroy (1999), a typical TPR sequence in a language class includes five steps. These would be applied to the previous commands and include:

1. The teacher gives the command and then models the action while the students listen and watch (e.g., *Toque la cabeza tres veces y levante el brazo*.).
2. The teacher gives the command and models the action; the students copy the action.
3. The teacher gives the command without modeling; the students perform the action.
4. The teacher gives the command without modeling the action; the students repeat the verbal commands and perform the action.
5. One student gives the command; the teacher or other students repeat the verbal commands and perform the action. (p. 315)

To date, the TPR literature focuses primarily on procedures for use with people learning English as a second language (Asher,1969, 1970, 1982; Segal, 1994). More recently, however, the technique has been used to teach traditional foreign language courses (Conroy, 1999; Davidheiser, 2002; Klienert et. al, 2007; Marlatt, 1995; Zink de Diaz, 2005). *Dos Mundos* (Terrell, Andrade, Egasse, & Muñoz, 2002), a textbook frequently used in introductory college courses, incorporates many activities consistent with a TPR-based approach (Pérez, 2003).

Multi-sensory Instruction

Several authors have emphasized the use of multi-sensory approaches to FL instruction (Bilyeu, 1982; Downey, Snyder, & Hill, 2000; Ganschow & Myer, 1988; Ganschow & Sparks, 1995; Sparks, Ganschow, Fluharty, & Little, 1996). Often referred to as VAKT (i.e., visual, auditory, kinesthetic, and tactile), multi-sensory techniques for teaching people with learning difficulties have shown various degrees of success starting in the 1940s (Fernald, 1943; Orton, 1937; Kirk, 1976).

The foundation of multi-sensory approaches is the belief that the more modalities used during instruction, the more likely it is that the learner will master what is being taught. In the TPR procedures discussed in the previous section, for example, students not only hear the command and see the teacher modeling it (e.g., *Put you textbook in your desk.*), but they also perform the action (kinesthetic – body or muscle feeling). As applied to FL learning, students learning the Spanish word *generalmente* (i.e., *generally*) using a multi-sensory approach would adhere to the following steps:

1. The instructor pronounces the new word and provides its English equivalent (***auditory***).
2. The instructor writes the word on the board. Students trace the written word with their fingers (***visual***, ***tactile***).
3. Students repeat the word (***auditory***, ***kinesthetic***).
4. Students write the new word as a whole and then break it into syllables (**visual, *kinesthetic***).

These steps would be repeated until students demonstrated mastery of the word *generalmente*.

Strategic Approaches to Learning

Educators have known for quite some time that many students with LD struggle with assignments that require organizational skills (Jitendra, Hoppes, & Xin, 2000; Kotsonis & Patterson, 1980; Torgesen, 1979). Tasks such as organizing materials to study for a test, rehearsal strategies used to remember vocabulary words, procedures for reading and comprehending written material, and organizing materials for note-taking often prove to be major obstacles to learning. Cognitive psychologists refer to this ability to organize thinking as metacognition. Borkowski & Burke (1996) divide metacognitive skills into two components: (1) an awareness of specific strategies, skills, or resources needed to succeed in a task; and (2) the ability to monitor one's performance and make adjustments as needed.

Obviously, students who struggle to organize learning tasks will experience difficulty in all academic learning, including FL learning. Authors who focus on teaching FL to students with LD emphasize the need to teach students how to organize themselves for successful FL learning (Demuth & Smith 1987; Downey & Snyder, 2001; Sheppard, 1993). They emphasize the *how* of learning as essential to the ultimate goal of content mastery. Further, although instructors may provide guidance on how to implement strategic approaches to learning, the ultimate goal is for students to create and use these strategies independently.

Educators and psychologists have developed a wide range of learning strategies to assist students with metacognitive skills. The most comprehensive learning strategies model to date, the Learning Strategies Curriculum (LSC), was developed by Deshler, Schumaker, and their colleagues during the late 70s at the University of Kansas (Deshler, Ellis, & Lenz, 1996). (Special training is required to obtain and use these

strategies. The reader should contact the University of Kansas Center for Research on Learning (www.ku-crl.org, (785) 864-4780) for additional information.)

Although not an exhaustive list, examples of specific learning strategies that can be used effectively in FL courses include *visual organizers, mnemonic devices for memorizing information, strategies that facilitate the acquisition of new information* and *color coding*. **Visual organizers** come in many forms, such as Venn diagrams, compare/contrast charts, flowcharts, graphs, concept maps, and branching diagrams. These graphics are also referred to as *content enhancements*. Figure 1 illustrates a simple branching diagram designed to help students remember Spanish demonstrative pronouns. Although instructors can design these and distribute them to students, it is typically more efficacious for students to construct the diagrams themselves. Instructors can also make empty diagrams for use during instruction. Students are required to fill in the empty diagrams as material is presented. Textbooks that make frequent use of visual organizers should be a priority when selecting books for FL courses. Black & Black (1990) and Bromley, Irwin-DeVitis, and Modlo (1995) provide excellent and extensive collections of visual organizers that can easily be adapted to the FL classroom.

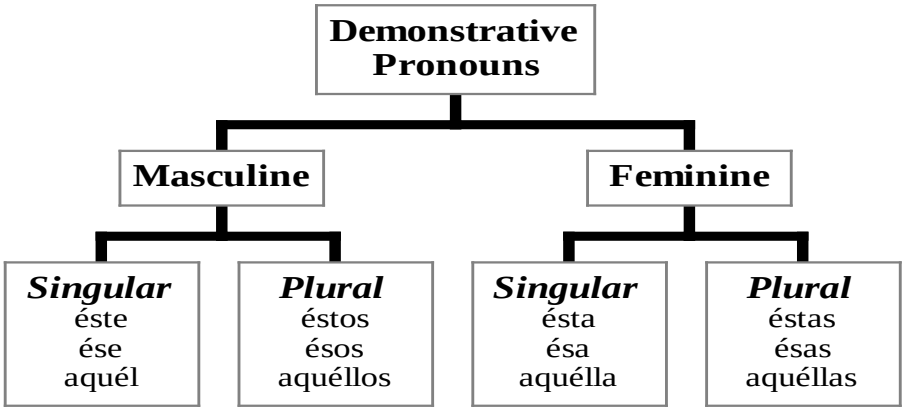


Figure 1: Example of a Visual Organizer (Branching Diagram) Designed to Help Students Remember Demonstrative Pronouns

Mnemonic devices assist students when memorization is needed. Many students, for example, learned the notes of the musical staff using the acronym **E**very **G**ood **B**oy **D**oes **F**ine – or, **E**, **G**, **B**. **D**. **F**. They remembered the great lakes using the acronym **HOMES** – or, **H**uron, **O**ntario, **M**ichigan, **E**rie, and **S**uperior.

A *first letter mnemonic strategy*, combined with a visual prompt, for remembering countries of Central America where Spanish is spoken is illustrated in Figure 2.

First letter mnemonics, keywords, reconstructive elaborations and other mnemonics devices, such as *pegwords*, have proven to successfully facilitate retention when implemented with students with LD. Comprehensive discussions of mnemonic procedures can be found in Hallahna et. al (2005) and Mastropieri & Scruggs (1991). Studies using meta-analytic techniques to evaluate the relative effectiveness of interventions with students with learning problems highlight mnemonic strategies as *highly effective* procedures (Forness, Kavale, Blum, & Lloyd, 1997).

In addition to using mnemonic devices to assist with retention of information, students with LD also need to learn **strategies that facilitate the acquisition of new information** and that can be used across a variety of situations.

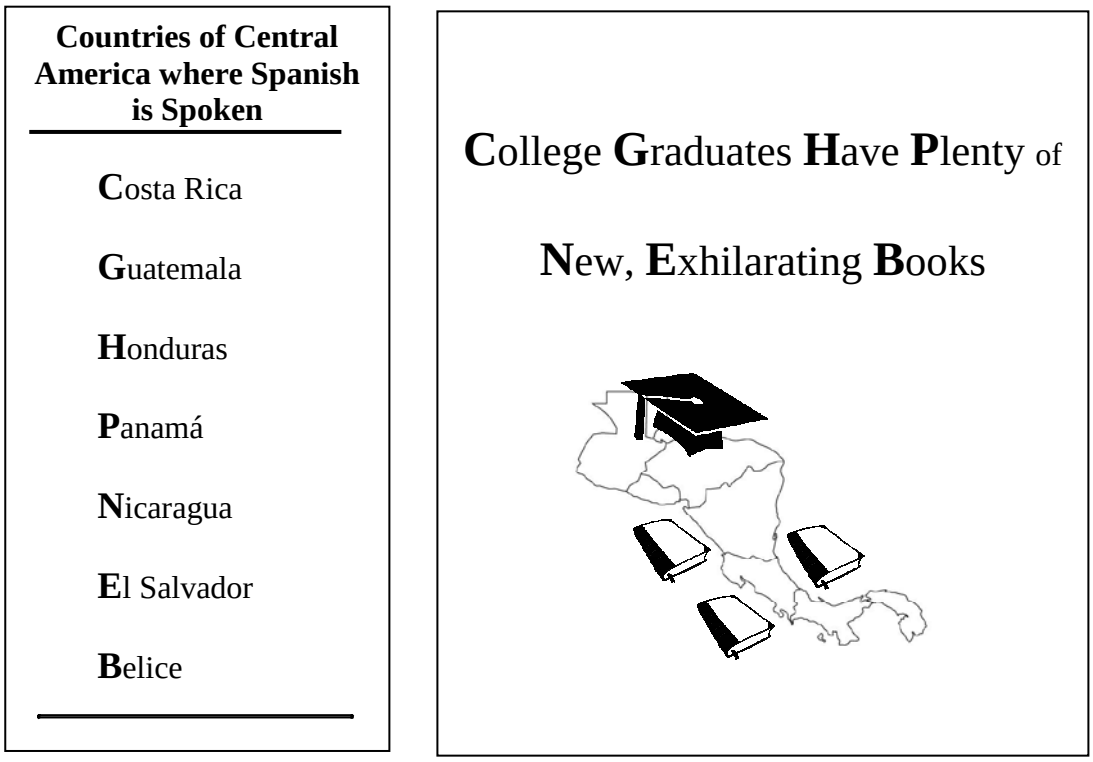


Figure 2: Example of a First Letter Mnemonic Strategy, Combined with a Visual Prompt, to Help Students Remember Countries of Central America where Spanish is Spoken

For example, the DISSECT word identification strategy, developed by Lenz, Schumaker, Deshler, & Beals (2007), and included in the aforementioned LSC, assists students with decoding unknown multi-syllabic words. Although this strategy was developed for decoding words in English, the procedure works with many FL words. This strategy, as applied to a Spanish word, is illustrated in Table 2. Note that the DISSECT strategy makes use of first-letter mnemonics to facilitate student memory of strategy steps. As mentioned above, training through the University of Kansas Center for Research on Learning (contact information provided previously) is required to use the LSC strategies. While strategies such as DISSECT provide ready-made, research-based approaches to strategic instruction, Marks, Laeys, Bender, and Scott (1996) developed procedures that guide teachers in the creation of strategies to fit specific student needs that may not be available in commercially produced materials.

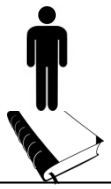
Consistent with the explicit instruction of the phonetic elements of a foreign language, Kleinert et. al (2007) suggests teaching FL vocabulary using a **color coding** system for highlighting aspects of words that may prove confusing to students with LD. Practice cards can be constructed that include color-coding for specific language components such as vowels, prefixes, suffixes, and morphemes that determine gender. This procedure is even more effective when the cards are constructed by students (Arries, 1999).

Frequent Review and Repetition

Problems with short-term memory among students with LD are well documented in the literature (Swanson & Ashbaker, 2000; Swanson & Sachse-Lee, 2001). Auditory memory – a skill essential to the successful learning of a language – is especially problematic for many students (e.g., Hulme & Snowling, 1992).

It comes as no surprise, therefore, that many students with LD need frequent repetition and review of material in order to reach mastery. Information that may take a typical student five repetitions to remember may require thirty to forty repetitions, and the use of learning strategies such as mnemonics procedures, for a student with LD. The challenge, of course, is to provide needed review and repetition while maintaining student attention and interest.

Table 2:
DISSECT Word Identification Strategy (Lenz, Schumaker, Deshler, & Beals, 2007) for Decoding Unknown Multisyllabic Words **

Strategy Step	Student Task(s)	Example
Discover the Sounds & Context el Context	* look at the letters in the word – try to sound out	En enero se realiza Primer Congreso
(If Unsuccessful) ⬇	* skip word – read rest of sentence - determine a word that makes sense in context	Hondureño de Inventores Jóvenes*
Isolate the Beginning	* look at first few letters – recognizable	**In** | **ventores**
(If Unsuccessful) ⬇	prefix?	
Separate the Ending (If Unsuccessful) ⬇	* look at the last few letters – recognizable recognizable suffix?	**In** | **ventor** | **es**
Say the Stem (If Unsuccessful) ⬇	* look at letters left after deleting prefix and prefix and suffix – if recognizable, add suffix and prefix and pronounce	**In** | **ventor** | **es** ⇧
Examine the Stem (If Unsuccesful) ⬇	* use rules to read the stem: (1) if the stem (or, any part of the stem) begins with a vowel, separate the first two letters (2) if the stem (or, any part of the stem) begins with a consonant, separate the first three letters (3) if two vowels appear together, try saying each vowel	**In** | **ven tor es** ⇧ ⇧ **(Rule 2 Applies)**
Check with Someone (If Unsuccessful) ⬇	* ask someone how to pronounce the word	
Try the Dictionary	* if nobody is available, look in the dictionary	

*Excerpt taken from *¡Avancemos! – 3.* Evanston, IL: McDougal Littell, Page186.
**Special training is required to obtain and use these strategies. The reader should contact the University of Kansas Center for Research on Learning (www.ku-crl.org, (785) 864-4780) for additional information.)

Explicit instructional procedures, discussed previously, were developed to provide frequent opportunities for repetition and review. These procedures are seen in the ***opening*** of the instructional period, ***during*** instruction, and as an integral part of the ***closing*** the lesson. Assuming that mastery of the imperfect form of the irregular Spanish verbs *ser*, *ir*, and *ver* is the lesson objective, instructors should provide two kinds of review during the *opening* of the instructional period: (1) review of material taught during the most recent previous class (e.g., regular verbs in the imperfect tense such as *hablar*, *comer*, and *vivir*); and (2) review of prerequisite skills and knowledge that will be needed for mastery of new content (e.g., How do irregular and regular verbs differ? What does the imperfect tense mean and how is it used?). In addition to providing students with much needed repetition and review, both of these procedures allow the instructor to determine if students are ready to proceed to new material or if continued review is needed.

During instruction the instructor provides repetition of material by programming for frequent opportunities to respond (OTR). OTRs are simply the number of times that students are provided with requests that require active responding. A wealth of research supports the positive effects that multiple OTRs have on student achievement and attention (Robertson, Woolsey, Seabrooks, & Williams, 2004;

Sutherland, Wehby, & Yoder, 2002). A variety of methods can be used to provide frequent OTRs, including questioning requiring individual and group responses, response cards, visual signals (e.g., thumbs up for correct), and the use of individual slates on which students write responses – holding them up on cue. For example, referring back to the *irregular/regular* verb lesson, students could hold up *irregular* or *regular* cards in response to teacher prompts. As a further development of the use of the imperfect compared to the preterite, students could hold up *imperfect* or *preterite* cards in response to teacher prompts. The key is to provide frequent OTRs for *all* students at an appropriate level of correct responding (85% to 90% success rate). Although frequent choral and individual responding is commonplace in most FL instruction, it is important to check periodically that all students are participating proportionally at a high level of success. Research also supports the use of a *rapid pace* when providing OTRs in order to maintain student attention (Carnine, Silbert, Kame'enui, & Tarver, 2004).

The *close* of an instructional session using explicit instruction typically includes three opportunities to provide review and repetition. These include: (a) review material introduced during the present lesson; (b) assign independent work; and (c) preview material to be covered during the next class. As mentioned earlier, *independent* work includes only material to which the student is responding at an 85% to 90% or above correct rate (Sutherland, Alder, & Gunter, 2003). It is quite possible that, although *irregular* verbs were introduced in the imperfect during the present lesson, independent work might focus on *regular* verbs in the imperfect – material that students are close to mastering but need additional repetitions for retention and fluency. In addition to paper-pencil independent work assignments, instructors may also consider using computer-based programs to increase variety and interest. Most FL texts used at the postsecondary level now provide CDs and internet-based programs with frequent OTRs for student independent practice.

In addition to the pedagogical reasons summarized above, review and repetition can also have positive attitudinal effects on students struggling with FL courses. As reported by Downey, Hill, and Bever (1991), students with LD stated that, although they began FL courses feeling like they were doing well, they quickly became confused and felt overwhelmed. Reviewing information that had already been mastered resulted in increased confidence and readiness to proceed to new material (Downey & Snyder, 2001).

Same Instructor and Similar Course Materials Across Courses

It is quite common for FL students to demonstrate mastery of information in one course (e.g. changes in the spellings of vocabulary words based on gender), and struggle with the very same knowledge in a follow-up course. These are problems with *generalization* and *maintenance*. While common among learners at all ages, generalization and maintenance of knowledge are particularly problematic among adult learners with LD – especially among postsecondary populations. In the context of education, generalization refers to a student's ability to demonstrate knowledge mastery across settings and time (Spanish 101 *and* Spanish 102, classroom *and* discussion in the streets of Madrid, Instructor A *and* Instructor B, etc.). Maintenance, a prerequisite for generalization, occurs when students remember information after formal instruction is discontinued. A student's ability to respond to material correctly on an examination means little if they are not able to produce that same skill or knowledge in the next unit, during oral conversations, or with next semester's instructor in a higher level course.

From an instructional point of view, we often make the assumption that, once taught, knowledge and skills will naturally generalize and maintain. While in some cases this *unplanned* generalization occurs, it frequently does not. A better tack, especially when teaching students with LD, is to structure courses to facilitate generalization and maintenance. Fortunately, educational psychologists have developed specific procedures that research shows increases the likelihood that generalization and maintenance will occur (Alberto & Troutman, 2009). Although it is beyond the scope of the present article to discuss all procedures, one of the most potentially effective for FL courses for students with LD relates to the principle of *programming common stimuli* (PCS) (Alberto & Troutman, 2009; Stokes & Baer, 1977). When designing FL courses with PCS in mind, instructors design instructional conditions in an initial setting to be as similar as possible to instructional conditions in the setting to which they wish knowledge to generalize in the future. Most factors involved in designing PCS-based instruction (format of textbooks, procedures for testing, instructional techniques, etc.) are related to the *style* of specific instructors. Students who experience similar instructional styles across college FL courses are more likely to generalize and maintain knowledge. The ultimate in PCS, of course, is to provide the same instructor using the same textbook series across a sequence of FL courses. Although unfeasible at many

institutions, the extensive model of accommodation-based FL courses at the University of Colorado at Boulder for students with LD provides the same instructor to students across three courses (Downey & Snyder, 2001). Special sections of courses are offered in Spanish, Italian, and Latin in this program.

Affective Aspects/Classroom Climate

Even with the best-planned FL courses with accommodations for students with LD, students' probability of succeeding is lessened considerably if attention is not given to designing a positive classroom environment. Research indicates that students with LD enter FL college courses perceiving themselves as less capable, more anxious, and as possessing fewer skills to master oral and written requirements as compared to their non-LD peers (Javorsky, Sparks, & Ganschow, 1992). Furthermore, most students with LD enter into FL instruction with the baggage of a history of failure and frustration.

FL courses with accommodations, however, provide instructors with the opportunity to create positive learning experiences for students with LD. Such experiences can transpose students who view language study as a negative endeavor into students who are legitimately interested in and motivated to learn a FL. Methods for creating a positive classroom *climate* for students with a history of language-learning problems include: (a) designing and implementing well-planned, research-based instruction; (b) providing and supporting the legitimacy of accommodations; (c) establishing a strong sense of the classroom as a *community*; (d) implementing procedures that lessen anxiety.

Perhaps the most efficacious strategy for creating a positive view of and motivation for FL learning among students with LD is to implement the research-supported pedagogical procedures outlined in this article. Instructors who use explicit instruction linked to specific elements of language, active instruction based on TPR, learning strategies, and frequent review and repetition – and who use these procedures consistently across FL courses – will provide success experiences that most of their students heretofore have not experienced. Their achievement will, in turn, increase their motivation to learn a FL and positively impact their confidence.

Second, instructors should make sure that students use accommodations for which they qualify. For example, students who qualify for extra time to take exams and take full advantage of this accommodation are more likely to experience success (Skinner, 2000), potentially altering their negative view of FL learning in the process. It is also imperative that instructors communicate a sense of acceptance and understanding when providing accommodations to students. A qualitative study of college graduates with LD who utilized various accommodations conducted by Skinner (2007) indicated that, although most instructors appeared to be accepting of accommodations, some made students feel as if they were getting special privileges for which there was no justification.

Third, create a classroom *learning community* wherein students support each other as they work to meet goals. Creating such an environment, of course, is more easily accomplished in reduced-sized classrooms. As mentioned previously, the specialized FL courses at the authors' institution are capped at 15 students. Other modified FL classes described in the literature also reported the use of downsized classes of between 12 and 15 students (Downey & Snyder, 2001). The smaller group of students allows instructors to implement pedagogical approaches that support peer assistance and collaboration in the learning process, such as peer tutoring. Providing the same instructor to a group of students across a FL course sequence, as discussed earlier, also serves to reinforce the classroom as a community of learners.

Finally, and inextricably linked to the first three aspects conducive to the creation of a positive learning environment, classroom procedures should be implemented that lessen anxiety. One of the most common themes in the literature relating to students with LD involved in FL courses is their struggle with anxiety and a lack of confidence (Demuth & Smith, 1987; Downey & Snyder, 2001; Javorsky, et. al, 1992). Demuth and Smith (1987), for example, asked students with LD to record their feelings about a FL course as they were taking it. Analysis of the journals indicated that many of the students ... *experienced great frustration and a feeling of hopelessness* (p. 73). In their sample of 200 students, Downey and Snyder (2001) found themes relating to the stressors created by FL courses such as *fear of being called on, too much too fast*, and a *perception that everyone is* getting it (p. 58). They also found evidence that, despite perceived success early in the semester, feelings of failure were prominent as the term progressed, even though students demonstrated good attendance and effort. Procedures described earlier in this discussion (i.e., implementation of research-based pedagogy, insuring that students are making proper use of accommodations, and the creation of classrooms as supportive learning communities) all serve to increase confidence and lessen anxiety. Student feedback from ten years of

specialized FL courses at the authors' institution substantiates these procedures as effective. Additional suggestions to increase confidence and reduce anxiety provided by Downey & Snyder (2001) include: (a) elicit voluntary responses during the first semester of a FL sequence (versus mandatory and random); (b) use frequent repetition and review to allow students to gain confidence and lower stress by responding to material they mastered previously (see also Hill et. al, 1995): (c) pay close attention to student verbal and nonverbal behavior for signs of stress and take steps to deal with it as needed; (d) progress at a slower pace if warranted – this may result in less material covered, however, the benefits of taking the course outweigh the small amount of missed information; (e) provide study guides; (f) use pretests; and (g) teach specific test-taking strategies (see also Hill, 1996).

Discussion

With the continuing increase in the number of students with LD pursuing postsecondary education comes the concomitant challenge of meeting the needs of these students while keeping programs of study intact. As applied to foreign language requirements, the most common means for accomplishing this task to date has been to allow students to take alternative courses or to waive the FL requirement entirely. Although an efficient means of allowing these students to progress through programs and obtain degrees, alternative courses deny students with LD the opportunity to gain the many benefits that accrue to students who successfully complete these courses. In keeping with the true spirit of curricular inclusion, students with LD should be encouraged to take language courses that incorporate accommodations to account for their learning differences.

This article described a host of evidence-based accommodations that have proven successful in the context of FL courses in a variety of postsecondary settings, including the home institution of the authors. Accommodations specific to specialized sections of courses included (a) reduced class size; (b) explicit instruction that targets specific elements of a FL, with an emphasis on phonological components; (c) total physical response; (d) multi-sensory instruction; (e) strategic approaches to learning; (f) frequent review and repetition; (g) use of the same instructor across courses; and (h) creating positive learning environments through attention to affective aspects of the classroom. When integrating accommodations for students with LD into courses, it is essential that FL instructors adopt an eclectic frame of reference. That is, the success of a program will be determined largely by the use of multiple accommodations as opposed to the implementation of one approach to the exclusion of others. As important as explicit instruction of specific elements of language may be, for example, a successful course will capitalize on a variety of accommodations such as learning strategies and the use of TPR.

Although limited, data collected from language programs designed specifically for students with LD using all or some of these instructional methodologies indicate positive outcomes. Downey and Snyder's (2001) evaluation of the model program at the University of Colorado, for example, indicated that: (a) the program had administrative and faculty support; (b) the need for course substitutions and exemptions decreased significantly; (c) students were receptive to the courses; (d) most students successfully completed the three-course requirement; and (e) there was no significant difference between end-of-semester grades and scores on a proficiency test between students enrolled in the *regular* classes and students taking the modified courses. Similarly, Demuth and Smith (1987), reporting on a program at Boston University, found that of the 24 students completing the first in a sequence courses, 20 posted significant increases on the MLAT. Increases for these students ranged from 5 to a very impressive 45 percentile ranks. Qualitative data collected from students' journals indicated a clear increase in confidence in relation to their perceptions of their ability to study a FL. It is clear from these results that, with programs in place that include accommodations to compensate for their learning weaknesses, students with LD can successfully complete modified FL courses at the postsecondary level.

As positive as the results from these two model programs may be, however, significant issues exist that need attention before specialized FL courses for students with LD become commonplace in postsecondary settings. First, and perhaps foremost, additional supporting research is needed. Many published descriptions of model programs (Demuth & Smith, 1987; Downey & Snyder, 2001; Arries, 1994; Block, 1996, etc.) present either limited data, provide data that is anecdotal, and/or are antiquated. Also, some of the pedagogy suggested for use in special courses, such as explicit instruction focused on the phonological aspects of FL, is based largely on research completed with elementary, middle, and secondary school students. Given the life-span nature of LD, it is very likely that methodologies that work with younger students will also prove to be successful with adults. However, experimental studies with postsecondary students with LD need to be conducted before we can confidently generalize the

findings from younger students. Given the time, resources, and money involved in offering specialized FL courses, additional empirical support is imperative.

Second, regardless of the number of research-based accommodations implemented in special sections of FL courses, some students will not experience success (Downey & Hill, 1994; Hughes & Smith, 1990: Shaw, 1999). It is important, therefore, that the option of FL course waivers and alternative curricula for students with significant language-related disabilities be retained. Section 504 does not *require* colleges to provide alternatives or waivers if they consider specific courses to be *essential* to the integrity of a program. University Northwest (Milani, 1996) and Boston University (Lewin, 1998) prevailed in court cases dealing with this issue. The courts in these cases affirmed the right of colleges to require all students to take a sequence of FL courses, regardless of disability status. The law and these cases notwithstanding, however, most colleges provide FL course waivers and/or alternative course options for students providing documentation of a relevant disability. Although special courses are more consistent with the principle of inclusive education, at least from a curricular perspective, course waivers and alternative course options should be retained for use by students with significant language related difficulties.

Third, the accommodations discussed above require a considerable investment of time and resources for colleges. Reduced class size, for example, mandates additional sections to be added to already strained faculty workloads. Implementation of instructional procedures such as TPR, multi-sensory instruction, and learning strategies require training and feedback during initial implementation. The strategies developed by Lenz et. al (2001), referenced previously and illustrated in Table 2, for example, require formal training before materials can be purchased and used. Consequently, administrative support is essential to the development and implementation of modified sections of FL courses.

Finally, collaboration between special educators and language instructors is vital for the development of efficacious specialized FL courses. DiFino and Lombardino (2004) lament the lack of training among many language instructors, especially graduate teaching assistants, in dealing with students with LD. Many may not even be aware of the signs of a specific learning disability and procedures for referring these students to offices of disability services. Conversely, special educators typically understand pedagogical approaches that are likely to be successful with struggling FL learners, while lacking the FL content knowledge needed to adapt these procedures to the classroom. The perfect situation is, of course, an instructor who has expertise in both working with students with LD *and* teaching a FL. In lieu of this scarce combination, special educators and FL instructors can work together to create specialized courses. Both areas of expertise are typically present at most postsecondary institutions.

Conclusion

Although considerable research remains to be conducted, the existing literature and instructor experiences provide an initial foundation for integrating efficacious pedagogical accommodations into FL courses that facilitate success for students with LD at the postsecondary level. As opposed to shutting students out of FL experiences through the use of waivers and alternatives, providing opportunities for students to successfully participate in FL courses allows students with LD to experience the benefits that come with learning a second language. Perhaps just as important, it sends the message that many students with learning disabilities can participate successfully in the mainstream of the postsecondary curriculum.

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