Helping struggling learners of English as an additional language succeed with interactive multisensory structured strategies

Elke Schneider¹, Andrea Kulmhofer²

¹ Winthrop University.

ABSTRACT

Based on cross-linguistic and interdisciplinary research of several decades that bridges learning an additional language with the field of learning differences/disabilities, this article shares research-evidenced practices to effectively address the needs of struggling foreign and second language learners of English in Brazil. These multisensory structured strategies enhance pronunciation, listening, reading and writing skills and strengthen grammar and vocabulary competencies of struggling learners. The selected multisensory structured metacognitive strategies can easily be infused into existing English as a foreign/second language curricula.

Keywords: multisensory structured language learning; struggling learners; learning strategies; study strategies; metalinguistic awareness; cross-linguistic awareness.
1. INTRODUCTION

In the 21st century, the benefits of learning an additional language to become a well-integrated global citizen that can personally and digitally communicate effectively with speakers of different languages are more evident than ever. Schools and universities respond to this need with an increasing number of language requirements (Cenoz & Jessner, 2000; Ganschow, Myer & Roeger, 1989; Ganschow & Schneider, 2012; Price & Gascogne, 2006; Sparks et al., 1991). Learning a foreign language in school is no longer a privilege. It is a global requirement. Consequently, foreign/second language (FSL) teachers face increasing challenges of different learner needs. Several important aspects contribute to a learner’s success in an additional language (AL). Among them are socio-cultural and political contexts of the learner’s first and additional language (Murray & Christison, 2001) and each learner’s strengths and weaknesses in the first and/or AL (Ganschow & Sparks, 2001; Kormos & Kontra, 2008).

The latter include FSL learners’ abilities to effectively move through interlanguage phases (Selinker & Rutherford, 2013) and transfer language skills from one language to another (Cummins, 1979; Yu & Odlin, 2015). Further, between 5-10% of the learner population worldwide has some degree of a language learning/processing disability (Siegel, 2006) that negatively impacts success in learning an additional language. These diagnosed or undiagnosed language processing difficulties can affect auditory or written processing abilities as apparent central auditory processing disorders or dyslexia, or memory and/or attention capabilities as apparent in Attention Deficit Disorders (Friend, 2013). To complicate matters, teacher preparation programs generally do not prepare FSL teachers to address needs arising from such often undiagnosed learning difficulties (Moats, 1994; Moats & Foorman, 2003; Rajagopalan & Rajagopalan, 2005; Schneider, 1999). Therefore, the purpose of this article is to provide FSL teachers in Brazil with practical, research-evidenced solutions to common difficulties of struggling FSL learners. This is of particular importance because traditionally, FSL teacher training programs do not adequately prepare teachers to address common language processing problems effectively (August & Shanahan, 2006; 2008; Moats, 2009; Moats & Foorman, 2003; Schneider, 1999). First, we will highlight relevant interdisciplinary and cross-linguistic research that supports the presented practices. Then we explain and provide a rationale for multisensory structured metacognitive language (MSL) instruction in the FSL classroom. Last, we share concrete MSL strategies to improve students’ speaking, listening, reading and writing skills as well as vocabulary and grammar competencies in English as a FSL.

2. CROSS-LINGUISTIC AND INTERDISCIPLINARY RESEARCH

When students struggle learning an AL, it is helpful to take a cross-linguistic look at each learner’s first language skills (L1) and developmental history (Koda, 2005; 2007; Swan & Smith, 2001) to directly identify individual needs and appropriate remediation approaches. The discipline of cross-linguistics helps identify how and to what degree learners of an AL utilize or ‘transfer’
their L1 skills effectively (Koda, 2005, 2007; Yu & Odlin, 2015). Positive cross-linguistic transfer occurs when the transfer from L1 to the AL leads to correct utterances in the AL. Negative transfer results in communication difficulties and errors. Research has shown that language transfer takes place to different degrees in all language domains and throughout all stages of FSL learning (Alonso, 2016; Chiappe & Siegel, 1999; Durgunoglu, 2002; Frith, 2007; Geva & Siegel, 2002; Gottardo, 2002). In the case of learning English as a foreign language (FL) in Brazil where English is not a necessary component of daily life, FSL teachers routinely encounter students that struggle with specific aspects of English. Challenges include mastering vocabulary and grammar concepts, listening and reading comprehension demands, as well as pronunciation and writing tasks for different social and academic contexts (Moats & Foorman, 2003; Swan & Smith, 2001).

A specific challenge presents the confusing number of spelling and pronunciation choices in English for a given sound or spelling (Henry, 2010; McCradle & Chhabra, 2004). For instance, having to compute that English has eight different spellings for the long A-sound can be an insurmountable hurdle for struggling learners without professional help from the teacher. For Brazilian students who are used to a highly regular letter-sound system with few choices (Swan & Smith, 2001) such a cross-linguistic difference can present significant challenges.

Therefore, it is beneficial for both learner and teacher to be aware of similarities and differences between the AL and L1 in all relevant areas of language learning. Teachers can assist learners in anticipating and identifying sources of confusion (Koda, 2005, 2007; Swan & Smith, 2001) while learners can gain insights into becoming independent learners by actively utilizing what they know in one language when learning an additional one (Yu & Odlin, 2015). Cummins’ Linguistic Interdependence Hypothesis (Cummins, 1979) highlights specifically the positive impact of explicit knowledge of L1 and AL structures on the learning of a new language. The stronger the knowledge of one or several languages the better the performance in the new language. Further, research in connection with the Linguistic Coding Differences Hypothesis (LCDH) of the 1990s (Sparks, 1995; Sparks, Ganschow & Pohlman, 1989) demonstrates the benefit of a cross-linguistic approach to language teaching especially with struggling learners who do not seem to be able to utilize what they know in one language effectively in another. Over 15 years of research on the LCDH shows that difficulties in one language may resurface in additional language learning contexts. Specifically phonological processing tasks (pronunciation) and phonological-orthographic processing tasks (reading, writing, spelling) may lead to early signs of struggle and/or failure in the FSL (Ganschow & Sparks, 2000, 2001). Thus, the MSL strategies shared in this article specifically address these areas of challenge.

3. RATIONALE AND PRINCIPLES OF MULTISENSORY STRUCTURED LANGUAGE INSTRUCTION (MSL)

In native English instruction (L1), MSL principles have been used successfully for decades since the 1930s (Bitter & White, 2011; Birsh & Shaywitz, 2011; Henry & Hook, 2006; McIntyre & Pickering, 2003). The consistently positive
impact of MSL instruction is reflected in a recent international teacher education movement that provides MSL-based teacher education standards available for universities to implement in their graduate and undergraduate literacy education programs (IDA, 2010). Additionally, MSL research in FSL teaching has taken place of over the past 15 years and provides evidence of its effectiveness with struggling learners as well. They include German (Schneider, 1999), Spanish and French (Sparks, Ganschow, Artzer, & Patton, 1997; Sparks & Ganschow, 1993; Sparks et al., 1991; Sparks, Ganschow et al., 1992) and English (Kahn-Horowitz et al., 2005, 2006; Nijakowska, 2008). For example, Sparks and colleagues found in one of their studies that after two years of MSL instruction in the FL, struggling learners achieved proficiency in the FL equal to those of non-struggling learners (Sparks et al., 1998). Studies also report struggling FL students’ own voices of appreciation for and effectiveness of MSL instruction (Kormos, Csizer, Sarkadi, 2009; Schneider, 1999).

Effective MSL instruction is based on seven principles that the FSL teacher integrates into instruction (Birsh & Shaywitz, 2011; Henry, 1996). Each is described next and examples for speaking, listening comprehension, reading, writing and spelling follow in separate sections thereafter: (1) Principle 1 postulates teaching language in a multisensory way with simultaneous integration of visual, auditory, tactile (touch) and kinaesthetic (movement) learning to intensify the learning experience and compensate for potential weak learning channels such as poor auditory or visual processing or memory or attention issues. In FSL teaching, Asher’s Total Physical Response teaching integrates this principle (Asher, 2009; Seeley & Ray, 1997). (2) Principle 2 refers to metalinguistic learning and teaching. The FSL teacher creates a learning environment in which learners actively engage in self-correction and monitoring skills by learning explicitly how and why it is necessary to implement certain procedures for pronunciation, reading, spelling or writing (Yaden & Templeton, 1986; Zipke, 2007). The FSL teaching field promotes this principle as one that effectively allows the learner to consciously or automatically reflect upon, analyze, and/or control oral or written performance appropriately within the cultural learning context (Bialystok & Barac, 2012; Schoonen et al., 2003). Research with FSL learners at all levels of proficiency provide evidence for the effectiveness of explicit metacognitive strategy instruction (Alamprese et al., 2011; Alhaqbani et al., 2012; Calderón et al., 2011; Gaskins et al., 1988; Iwai, 2011; Schneider, 1999). (3) The third principle refers to explicit instruction. To assist the learner who cannot identify language regularities or exceptions without explicit support from the teacher, the FSL teacher makes pronunciation, reading, spelling or writing patterns as well as exceptions explicit and allows the learner to practice internalizing those. While the communicative approach to FSL teaching (Krashen & Terrell, 1996) since the 1980s has steered away from such teaching, recent research has made a case for a relevant place of formative explicit language teaching in effective FSL instruction (Akakura, 2012; Ellis et al., 2009; Sanz & Leow, 2011). (4) The fourth principle promotes repetitive (over) practice of language concepts in learner-appropriate and engaging ways to ensure automaticity in recall and use. (5) The fifth principle promotes carefully structured and sequenced teaching of content with gradual increase
of challenge to ensure mastery of learning. (6) The sixth principle is called cumulative and promotes the careful connection of new content with prior knowledge and recently learned content. (7) The seventh principle proposes that FSL teachers continuously function as dynamic assessors of learner progress (Schneider Lidz, 1987) with potential cross-linguistic challenges in mind and adapt instruction accordingly. Positive effects of this approach have been documented in FSL literature (Anton, 2009; Kormos & Kontra, 2008; Schneider & Ganschow, 2000).

4. APPLYING MSL PRINCIPLES IN TEACHING FSLS

This section presents teaching strategies based on the described seven MSL principles to improve competencies in pronunciation, listening comprehension, reading, spelling, and writing as well as vocabulary and grammar use. To ensure struggling learners’ successful command of language skills each component contains four phases with gradual release of responsibility (Little, 2007): (1) explicit demonstration of a specific language concept, (2) guided student practice, (3) free contextualized student practice and, (4) student summary of learned content. These phases can be infused flexibly in existing language curricula for individual, small and large group practices.

Substantial research supports the following explicit letter-sound awareness practices to foster FL reading & writing skills. These include decoding and encoding practices. Decoding refers to the process of sounding out letter patterns of troublesome words one by one aloud or silently. Subsequent encoding refers to blending these individual sounds together into full words. Because reading and writing skills development is intertwined, such MSL practices help develop fluent reading, spelling and writing skills among struggling FSL learners. In contrast to successful FSL learners, struggling FSLs depend on such explicit practices initially to overcome their language processing difficulties and experience success (August & Shanahan, 2006; 2008; Ganschow & Sparks, 2001; Kormos & Kontra, 2008; Nijakowska, 2008; Schneider, 2009).

4.1. Pronunciation and Listening Comprehension:
Mastering the new sound system expressively and receptively

Being able to pronounce words, phrases and sentences properly and with appropriate intonation is beneficial to effective expressive communication (speaking) and receptive comprehension (listening) in both L1 and the FSL (Derwing & Munro, 2005; Hansen Edwards & Zampini, 2008; Jenkins, 2004). Research in L1 language instruction of English indicates that those students who learn the highly complex sound-print relationships of English explicitly become better readers and spellers (McCardle & Chhabra, 2004; Moats, 2000). Explicit multisensory structured pronunciation practice about how sounds are formed in combination with awareness practice for corresponding print patterns (i.e., the letter pattern {oo} can make two sounds as in boot and as in book) has also led to significant pronunciation improvements (Birsh & Shaywitz, 2011; Koda, 2005; Moats, 2000; Shaywitz, 2005). Some research also
indicates that good oral competencies are tied to good reading and spelling competencies because the visual-spatial foundation helps develop stronger oral skills (Ehri et al., 2001).

### 4.1.1. Phase 1: Introduction of basic pronunciation and listening strategies

MSL pronunciation practice in FSL includes the explicit practice of alphabet letter names and their corresponding alphabet sounds to assist the novice learner in explicitly realizing similarities and differences between L1 and the new language. Small hand mirrors are effective tools to teach pronunciation. For such practice, the teacher first demonstrates how to use the vocal apparatus which includes lips, tongue, teeth, nose and vocal cords to produce unfamiliar FSL sounds or how to differentiate between similar ones compared to L1. For instance, for students in Brazil, learning to pronounce the English {th} as in *think* or *there* is a new sound challenge. Without explicit demonstration and practice of how to put the tongue between the teeth and strongly blow air through this obstruction, students replace it with */d/* or */t/*, */s/* or */z/*.

This in turn leads to comprehension issues later in words like *sink* or *zink* versus *think*. After explicit modeling from the teacher, students practice and observe themselves in the hand mirrors while making different vowel and consonant sounds. In order to identify which sounds are voiced and which ones are unvoiced, students learn to touch their throats or noses and check for vibration evidence. This, for instance, makes it clear to students that */b/* and */p/* are produced in the same way as “lip poppers” with vibrating vocal cords for */b/* but not for */p/*. The teacher also uses hand gestures to indicate how to keep consonant sounds clear. For instance, a gesture of cutting scissors indicates that an unnecessary muffled sound needs to be “clipped.” Additionally, for every new pronunciation and print representation, the teacher takes time to discuss similarities and differences compared to L1.

Once the learner is comfortable producing the specific sound, the teacher gradually builds listening comprehension skills for larger auditory tasks by asking the student to repeat words or phrases that contain the newly learned sound and associate them with matching pictures that represent the meaning of these words to support vocabulary expansion. For example for the long oo-sound, the teacher says words and phrases such as *moon, boots, broom, in a cool room*. Students repeat after the teacher, and then also practice listening comprehension by matching a corresponding picture of a key word with the previously pronounced word or phrase. Bowen (1999) provides word lists for such practices.

To demonstrate the direct link between letter patterns and sounds in the FSL, the teacher models how to say and simultaneously trace a letter/sound pattern in rice, sand or shaving cream, on one’s arm, on the desktop, or on the classroom wall. Such practice helps the learner with auditory and visual processing challenges as well as memory and concentration issues to clearly enunciate what s/he sees as a print pattern in engaging motion practice (Birsh & Shaywitz, 2011).

Interactive letter-sound awareness practice continues with special letter-sound cards. The teacher shows students common letter patterns of
the FSL on large index cards or electronically on the Promethean Board. The front of such cards show either a single letter such as \(a\), or \(v\) or a common letter pattern such as digraphs \(sh\) or \(gl\) or trigraphs such as \(tch\) or \(igh\). The back of the card shows pronunciation options and rules for the pattern and information about where in the word the pattern can occur. Examples and exceptions to rules as well as other print patterns that can represent the same pronunciation are shown. Advanced level cards show prefixes, roots or suffix patterns on the front and explanations of their meanings with examples in different parts of speech on the back. This information allows teacher and student to discover any possible reasons for a particular pronunciation or spelling occurrences. For instance, it will explain that the long a-sound at the end of syllable will be represented by \(ay\) whereas that same sound in the middle can be represented as \(ai\). Commercial cards for the English language are available in different forms as cards or as electronic apps (Rome & Osman, 2000; Mayerson Academy, 2015).

Pronunciation practice progresses to the syllable/word level in brief 3-5 minute specific blending activities in which the teacher asks the students to blend three to four letter-sound cards together into syllables/words. Since those patterns are often syllables that later show up in bigger words such as \(lt\) + \(ea\) + \(ch\) in \(pre-teach\), it provides students with confidence-building pronunciation and reading practice. At an advanced level, common prefixes, roots or suffixes are blended together into words such as \(con + struc + tion\) into \(construction\). Since each of such syllables contains meaning, students are asked to explain the meaning of the affix-root word based on the meaning of its individual syllables (for details, see vocabulary section in this article). In case of multiple pronunciation options for a print pattern such as in \(oo\), the most common pronunciation is taught first and after several other different concepts, the second pronunciation pattern is introduced. Keeping similar sounding and looking patterns several lessons apart ensures that struggling learners with poor visual and/or auditory processing skills or even attention issues do not easily get confused.

### 4.1.2. Phase 2: Guided MSL pronunciation and listening comprehension practice

During guided pronunciation practices learners use their own self-made letter-sound cards with color differentiations for vowels versus consonants. They engage in the same brief 3-5 minute blending activities as previously demonstrated by the teacher. To strengthen self-correction skills, students prompt each other to state rules and reasons for pronunciations where appropriate. Students’ decks grow gradually as they increase their knowledge guided by the teacher who selects pronunciation and related print patterns based on common words in FSL learning units. In small groups, student can practice dictating, repeating and writing down spelling patterns. When they rotate “speaker” and “listener” roles, students strengthen their pronunciation, listening and spelling skills at this essential core level. Vocabulary expansion goes hand in hand with this practice when students match pictures with pronounced words that carry new key sounds.
4.1.3. Phase 3: Free MSL pronunciation and listening comprehension practice

Engaging in contextualized pronunciation and listening practices can include students learning and reciting funny tongue twisters that contain several words with the key pronunciation to practice. They can also use word, phrase or picture cards to read, match or use in short oral stories that focus on the key sounds to practice. Students can also take 3-5 of those and write their own little free style poem, sentences or brief goofy story passage. When students read these mini texts to each other, they practice both pronunciation and comprehension skills. Students can also play pronunciation charades by acting out words that they used in their previous pronunciation practices. For instance, the task could be to guess the two acted-out words for the long oo-sound as in \textit{noodle} and \textit{loosing}.

4.1.4. Phase 4: Summary of pronunciation and listening comprehension strategies

In the final phase, with assistance from their teacher, students summarize what to remember about a particular letter-sound pattern. A summary form contains space to (1) illustrate a personally meaningful key word for the letter-sound pattern in the FSL that students have in their active vocabulary (2) document any cross-linguistic realizations about the pronunciation or listening comprehension challenge related to that pronunciation pattern to activate cross-linguistic transfer of knowledge, (3) draw or keep written notes on how to produce the particular sound (mouth movement, vocal apparatus), (4) collect commonly needed words with that pronunciation pattern.

4.2. Reading, Writing and Spelling: Mastering the new print system receptively and expressively

In contrast to Portuguese or Spanish which are languages with simple letter-sound correspondences of one or two choices for spelling or pronouncing a given sound or letter pattern (Swan & Smith, 2001), English is complex and non-transparent with up to eight different spellings for one sound (for details, see Moats, 2000). In addition, there are many words that do not follow any of the teachable reading or spelling rules. Therefore, learning to read by simultaneously learning to spell is an effective approach to helping struggling FSL learners make sense of the confusing print and pronunciation options of English. (Henry, 2010; Moats, 2000). Also, the ability to sound (decode) words of different lengths and blend them together fluently increases reading comprehension (Shaywitz, 2010). Strong decoding skills also strengthen students’ spelling skills (Moats, 2000). Further, explicit instruction in identifying context clues combined with highlighting techniques, use of sticky notes, graphing and icon or symbol cues also enhances reading comprehension skills (Geva, 1983). Therefore, in this section MSL reading skills development includes decoding and comprehension skills. Spelling skills are addressed as an essential text composition/writing skill.
4.2.1. Phase 1: Introduction of basic reading, spelling or writing strategies

According to over 15 years of research in evidenced-based practices of remediating poor reading, writing and spelling skills of FSL learners of English (Kormos & Kontra, 2008; Schneider, 1999), these learners depend on being shown explicitly any rules and mnemonic devices to read fluently (silently or out loud) and to spell words correctly in non-transparent languages like English because they struggle with generating them on their own (Birsh & Shaywitz, 2011; McCrindle & Chhabra, 2004). To assist such learners in improving their reading fluency, comprehension and writing skills, the teacher explicitly demonstrates any available reading, spelling or writing rules. This starts at the smallest units of language with decoding strategies for individual letters and common letter patterns. For instance, students are shown when letter \(c\) makes the /k/ or the /s/ sound (Answer: when followed by e, i, or y) and that \(igh\) appears at the end of words/syllables making the long i-sound, letter \(t\) being the only possible letter after it. They also learn how to break an unfamiliar mono-syllabic word such as \(light\) down into its sound parts \(l + igh + t\) and how to blend those together into the whole word. Likewise, they learn how to break unfamiliar multisyllabic words such as \(bas.ket\) into its syllables and blend the whole word together. Once students know these “tricks”, they can apply them to many new words in the FL without having to engage in guessing work.

To develop this skill, the teacher first demonstrates how to find the vowels in a multisyllabic word and to underline them. In the word \(basket\), these would be \(a\) and \(e\). Students are shown that syllables must have a vowel sound. Next, the teacher counts the letters between the two vowels. Since there are two consonants, the teacher models how to break that word into its two syllables right between the two consonants. Then s/he reads one syllable at a time before the entire word is blended together into one coherent word. These decoding skills help student be better comprehenders and spellers because they can transfer this strategy to many unfamiliar words (Henry, 2010; Moats, 2000). Further, the teacher demonstrates how to identify and practice reading and spelling words that do not follow any shown reading or spelling rules. These “rule breakers” such as \(talk\) or \(floor\) contain silent letters that must be spelled or unusual pronunciations. Therefore the teacher shows how to establish both automatic correct spelling as well as reading of such words through frequent multisensory spelling and saying of these words by themselves and in commonly appearing phrases.

To foster reading comprehension beyond word reading/decoding in students who struggle to draw information from non-fiction or narrative text genres (Bruce & Salzman, 2002; Connor et al., 2014), the teacher demonstrates explicitly how different text genre such as letters, newspaper articles, short stories or novels display information for different purposes with specific language structures.

For instance, students practice teacher-modeled uses of color- and shape coded laminated manipulatives to extract topic sentence information, supporting details and/or conclusion information from paragraphs in non-fiction texts. Additionally, because specific transition words such as
{first}, {next}, {however}, {moreover}, or {additionally} create cohesion between sections, students learn to identify those through highlighting techniques to comprehend such text information efficiently. For narrative texts, students learn to document information on setting, time, problem, conflict, and conflict resolution using manipulative paper strips or graphic organizers. Students can also be shown explicitly how to use symbols on sticky notes such as clocks for time information to place alongside the relevant text section. Other key symbols on such stickers can help identify main facts, arguments or other details in non-fiction texts. (For details see Greene & Enfield, 2012a, 2012b).

Explicit modeling and guided practice on highlighting essential information, graphic organizers and notes using L1 also enhances comprehension (Geva, 1983). Students can also make symbol or color notes directly on a page (with sheet protector over it as needed) before transferring information on a graphic organizer.

Inspite of commonly available electronic spell checkers, it is essential to foster English spelling skills for competent writing because such devices are only beneficial if the misspelling is close enough to the needed word. Poorly performing FSL learners will not be able to discern reliably whether a spell checker provides the appropriate correction of a misspelled word. Further, in test taking situations, students are commonly not allowed to use spell checkers. Therefore, the teacher demonstrates certain spelling rules through gestures, movement, images and/or stories (for rules, see Birsh & Shaywitz, 2011; Henry, 2010; Moats, 2000). For example, the final silent {e} in English words such as {lake} or {debat} is taught as "nurse E" who reaches out over one consonant with her injection needle and gives all her power to the single vowel so it can say its long alphabet name even though it is blocked in by a consonant. Further, non-phonetic, high frequency rule breaker words are practiced by first tracing each letter and saying its alphabet name and then saying the whole word as it is typically pronounced such as castle with a silent {t}. Letting students trace/spell those rule breakers in rice, shaving cream, or on the desk with larger motor movement enhances the correct recall of both pronunciation and spelling because the information goes straight through the fingertips towards the brain (Bitter, 2011).

To strengthen writing/text composition skills in the FSL, the teacher models how to use the symbols shown to students for effective reading comprehension to help them structure their own writing in a concrete multisensory way. They use the same colored and shaped laminated paper strips to organize and draft their ideas. For instance, they draft topic sentences in green on laminated paper strips. Then for the main part of their writing, they write every argument or detail on yellow strips and support it with examples or evidence of any sort by writing that on red strips. Then the teacher models how to transfer this constructed color-coded draft onto paper in color. Through think-alouds the teacher models how to revise and edit, and demonstrates how to take the color-coding out of the final version. Teachers create individualized writing checklists for students to follow and double check with peer support (For details on this approach, see Auman, 2014). Research shows significant improvement of academic writing skills for native and non-native speakers of English and for students with and without learning disabilities alike (Voyager Sopris Learning, 2004).
4.2.2. **Phase 2: Guided MSL reading, spelling or writing practice**

To increase students’ confidence with new reading and spelling patterns in the FSL, the teacher guides students to read and spell words, phrases and sentences that contain the new pattern (letter patterns such as \{oa\} or affixes and roots). Bowen (1999) provides lists of words sorted according to spelling patterns. The teacher models how to verbalize any known or taught rules that help strengthen struggling students’ confidence in self-correcting read or spelled words. Students can also utilize a “finger-tapping” process to self-check the correctness of a read or spelled word. First, students break a troublesome word into its syllables. Then, they “tap out” each syllable by tapping a finger of the non-writing hand for each sound in the syllable and compare the chosen spelling for it. For instance, the words \{went\} \{would\} each require four finger taps while the word \{goat\} would require only three because \{oa\} is represented by one tap for its long o-sound.

For guided writing/spelling practice, students practice structured writing with the previously demonstrated color and shape coding techniques on topics that relate to the FSL curriculum. As needed, the teacher provides students with sentence frames to ensure that struggling learners practice appropriate grammatical structures. Such support is gradually released to foster increasing independence in writing. In this phase, students can work in pairs for an entire assignment or contribute sections to a group or class writing project. Students are encouraged to verbalize why they are using which structures and spelling rules to strengthen self-correction skills and for the teacher to know how to best support ongoing learning. Individualized “spell checker lists” created by student and teacher together can assist learners in analyzing their own or peers’ spelling and writing.

4.2.3. **Phase 3: Free contextualized MSL reading, spelling or writing practice**

Free contextualized reading practice with reinforcing focus on decoding skills exposes struggling readers to reading increasingly longer unfiltered reading passages in which they “hunt” for reading and spelling patterns and underline and collect them in lists. They may also cut them out of old magazine passages and collect different print variations of common patterns such as \{ing\} or \{y\} in words. For contextualized reading comprehension practice, students read and then identify writing structures by using previously established symbols or underline parts in green, red or yellow using sheet protectors placed over text pages as needed.

Such awareness practice enhances students’ confidence in producing their own contextualized writing and spelling in different text types with self-correction skills. Realistic pictures taken from old magazines or the internet can serve as effective writing prompts. Students can also create their own stories, short freestyle poems or riddles using a number of words that follow the newly learned rules or patterns.
4.2.4. Phase 4: MSL Summary of reading, spelling or writing strategies

Students summarize each newly learned reading, spelling or writing strategy on a summary form. These forms can be filed in a designated section of their personal language resource binder. Students consult these whenever difficulties arise. Each form provides space for (1) the name of the spelling, reading or writing strategy, (2) graphic representations of a strategy/rule and other mnemonic strategies to recall a strategy, (3) cross-linguistic notes to enhance positive cross-linguistic transfer, and (4) notes on types of texts in which such spelling, reading or writing structures occur frequently.

4.3. Vocabulary Expansion: Mastering oral and written comprehension

Research shows that readers/listeners must know about 98 percent of the words and phrases to be able to comprehend information effectively (Carver, 1994; 2000) and that effective vocabulary learning strategies are necessary to help students build successful receptive and expressive comprehension skills (Kame’enui & Bauman, 2012; Koda, 2005). MSL vocabulary instruction helps address these aspects. Its metacognitive component fosters student-initiated self-correction skills.

4.3.1. Phase 1: Introduction of vocabulary learning strategies

For basic MSL vocabulary development, the FSL teacher models how to use still and moving images, gestures and actions that help illustrate meaning or words and phrases and that allow the learner to tap into L1 knowledge to build vocabulary knowledge in the FSL. Asher’s (2009) Total Physical Response practices work well in this context because FSL learners repeat physical actions and motions language structures after the teacher’s model. Classroom routines and key classroom-specific language accompany any illustration to expose the learner to both print and image. Students also create their own 3-D MSL vocabulary cards or electronic vocabulary resource files using PowerPoint. However, the concrete kinesthetic – tactile engagement in making vocabulary cards and then using them to study add a unique MSL practice component especially helpful for struggling learners. On large index cards, students write the vocabulary word on the front and collect contextualizing information on the back including a) the translation of the meaning into L1, 2) sample sentences and common phrases and idioms that contain the new word such as {a cold or warm ocean breeze} or {That homework was a breeze} for the key word {breeze}, 3) an illustration of the original and/or figurative meaning as needed, and 4) comparative and contrastive vocabulary such as {stagnant air}, and words/expressions that share the base meaning of the key vocabulary word but form different parts of speech such as {breezeway}, {breezy}, {breezing through an assignment}. Students are encouraged to link these connections with words and expressions in their first language in order to activate positive language transfer from L1 (Cummings, 1979; Yu & Odlin, 2015).
For advanced MSL vocabulary development, the teacher models how to use color-coded word cards to build compound words or prefix-root-suffix words and how to derive the meaning for the whole word from knowing it parts. For instance, the s/he shows how the meaning of a compound word is created or changed by putting a known base word such as \textit{book} on a colored card after a familiar specifier such as \textit{cook} on a differently colored card showing the word \textit{cookbook}. Then the teacher models how that meaning changes again when a different specifier such as \textit{school} replaces the initial specifier creating the word \textit{schoolbook}. When students realize how the meaning changes based on the specifier, they not only understand the two compound words but they can also generalize this realization to generate meanings of other compound words. Thus they expand their vocabulary not through rote memorization but by means of logical inferencing.

In addition, explicit affix-root practice is particularly important when learning English because over 80 percent of the English vocabulary is of Greek and Latin origin (Henry, 2010) and in the case of Latin-based Brazilian Portuguese, many prefixes, roots and suffixes also exist in the students’ native language and invite positive language transfer. MSL expansion of vocabulary with affixes and roots starts with the teacher modeling how to pronounce each morphological pattern, how to spell it, what gesture and/or image to associate with each one to best retrieve its meaning, and how to keep a record of all learned items by creating an affix-root vocabulary card set or electronic dictionary. The teacher encourages students to come up with their own meaningful gestures and images to record on their dictionary card. Each card would display the morphological pattern on the front. The back would hold: (1) the meaning, (2) an image and gesture description to recall the meaning, (3) one or several meaningful sample sentences and common idioms that contain a word with the key morphological pattern, (4) word families such as construct- construction- constructor- constructive to expand vocabulary based on logical analogy and (5) cross-linguistic connections to L1 (for a collection of English affix and root meanings, see Ehrlich, 2010).

Further, figurative language features such as idioms, simile and metaphors and phrasal verbs can become an explicit focus. Expressions such as \textit{I have butterflies in my stomach} or \textit{He was as white as a sheet} and phrasal verbs such as \textit{I am not up to reading this} must be taught explicitly because the parts of these expressions rarely present their actual meaning. An MSL learning approach would include explicitly discussing their meanings and engaging students in illustrating them, including them in Charades and Pictionary game practices, and identifying them in short reading passages (for resources on English idioms by themes, see Conger, 2006).

4.3.2. Phase 2: Guided MSL vocabulary expansion practice

At the basic vocabulary building level, students use their self-made word cards and play memory games with them by matching images cards with their word cards or cards that contain the keyword within a phrase or common sentence. They can use their cards in connection with board games that ask participants to either use a keyword on a card orally in a sentence or write one.
To foster an understanding of the different connotations of words, teachers can engage FSL learners in the research-evidenced strategy of semantic word analysis (Billmeyer, 2003; Bos & Anders, 1990). Together with the students, the teacher fills in grids that indicate in what contexts words can be used. Afterwards students implement this newly gained awareness in oral and/or written practice. For instance, they practice the use of different words for \textit{nice} by making sentences about males being \textit{handsome} but women, animals or things being \textit{pretty}, not ever \textit{handsome}. Students keep their completed semantic grids in the vocabulary section of their language binder.

For guided affix-root vocabulary practice, students design their own vocabulary resource bank by either making a tangible card deck or designing an electronic dictionary. Next, the teacher engages students in a variety of structured activities. Students may match pictures, gestures, and written morphological patterns as part of a competitive board game. Or they may play Charades or Pictionary with prefix-root-suffix patterned words acting out or drawing the meaning of each morphological part. Students may also engage in board games that require them to correctly read, pronounce, write or orally create words, phrases or sentences with affix-root patterns. The teacher may also use authentic children’s literature that explain prefix, root and suffix meanings with pictures as a model for students to make their own illustrated resource books (see, Aboff, 2008; Cleary, 2015).

For the practice of figurative vocabulary features, students paraphrase figurative speech parts found in short reading passages, playing small group games in which students score for correct paraphrasing or acting out or drawing of expressions such as \textit{This information blew my mind} or \textit{combing hair} or \textit{waiting impatiently}. For resources see Conger (2006) or illustrated figurative speech resource by Marvin Turbin (2008).

### 4.3.3. Phase 3: Free contextualized MSL vocabulary expansion practice

By writing cartoon clips using figurative expressions or other new vocabulary, students can engage in free contextualized practice. Brief role plays of provided or self-designed short scripts that include the new vocabulary is another way to engage students in oral and written vocabulary practice. Writing short free-style poetry, cartoon clips, riddles or short passages that include the new vocabulary without overwhelming the learner with too complex a set of writing conventions are ways to help struggling learners expand their written use of vocabulary gradually moving towards more complex tasks.

### 4.3.4. Phase 4: MSL summary of vocabulary strategies

The teacher helps the struggling learner to record new vocabulary patterns such as compounds, or affix-root-patterned words, idioms or phrasal verbs on a reference sheet that provides space for (1) the specific vocabulary pattern or strategy, (2) illustrations and notes on gestures to retrieve vocabulary meaning, (3) L1 - related comments to enhance positive L1 - language transfer (4) information about text types or contexts in which such specific patterns...
commonly occur such as science or social studies related texts or newspapers or story narratives. To further enhance language transfer and generalization skills within the FSL, students also use graphic organizers to summarize and collect word family information. For instance, for words with the root \{tract/trac\} in the middle, with prefixes to its left and suffixes to its right, students record words such as \{ex.tract.ing\}, \{dis.trac.tion\}, or \{attractive\}. For word families with ending in \{im\}, students would collect words such as \{trim\}, \{dim\}, \{slim\}, or \{Tim\}. Illustrations and bilingual comments help recalling these vocabulary patterns. Completed semantic word analysis grids are a third way to summarize vocabulary information in a structured logical way.

4.4. MSL Grammar: Mastering sentence structures in the new language

Research of the past decade proves that explicit MSL grammar instruction improves command of grammatically correct speaking and writing (Akakura, 2012; Hinkel & Fotos, 2002; Muranoi, 2000; Schneider, 1999; Zyzik & Marqués Pascual, 2012). With carefully structured learning sequences that have the student practice think-alouds for selecting correct grammatical patterns individually or in small groups, the FSL teacher can document learning progress through dynamic assessment procedures (for details, see Schneider, 1999; Schneider & Crombie, 2003; Schneider & Ganschow, 2000; Benati & Lee, 2008).

4.4.1. Phase 1: Introduction of MSL grammar learning and writing strategies

With color-coded manipulatives such as laminated cards, Lego blocks or Cuisenaire rods the FSL teachers demonstrates where and why specific parts of speech or suffixes have to be placed in certain positions to form statements, questions or exclamations, coordinate or subordinate sentences in English. These manipulatives are also used to indicate tenses or singular or plural functions of suffixes. For example, when students are to learn the sentence structure of ‘subject-predicate-object-adverbial’ as in the sentence \{The dog ate his dinner fast\}, the teacher first says the sentence and simultaneously places manipulatives for each component on the table or displays them on the Promethean Board. For the subject \{The dog\}, the teacher places a green card, for the predicate \{ate\} a red card, for the object \{his dinner\} a blue card and for the adverbial \{fast\} a pink card. The teacher repeats this procedure with several other sentences following the same structure and has the students repeat the procedure with their own set of laminated colored cards at their desks. Then the teacher adds the written component by writing the sentence parts on each colored card while saying the sentence parts again. Next, the teacher elicits the discovered sentence pattern from the students through questions such as “Where do you find the subject/the predicate?” To demonstrate differences or similarities to L1 and cross-linguistic metacognitive awareness, the teacher has the students write the same sentence on the colored sentence strips in L1 and elicits from the students what they might need to be careful about when producing such a sentence type in the FSL.
Icon cards for necessary punctuation such as periods, commas, apostrophes, question marks or quotation marks are also used to clarify the function of punctuation. Where reasons cannot be given, the teacher works on developing meaningful mnemonic devices with the students. During any such practice, students engage in think aloud processes through choral response so that the FSL teacher can assess which aspects require further explanation and practice.

4.4.2. Phase 2: Guided MSL grammar practice

In a variety of 5-10 minute MSL practices struggling learners strengthen their self-correction skills with a new grammatical pattern. Initially, students work in small teams to make sentences following the teacher-modeled practices with color-coded manipulatives (for commercially available ones, see Carraker, 2004; Menken, 2006). Students write their sentences initially with the color-coding from the manipulatives, and then once they are more secure, without it. Students strengthen their self-correction skills by verbalizing out loud why they place each part in a certain section of a sentence and why they use certain punctuation feature symbols. While such talk may first go on in L1, it can later switch to the FSL when students feel more secure in the language and when the teacher has modeled those phrases and sentences in the FSL. The use of the manipulatives with the verbalization allows the teacher to check on students’ level of mastery and to provide support as needed. Teachers can also use authentic children’s literature that explains certain roles of parts of speech with funny illustrations (see Cleary, 2001) Students can use these to design their own illustrated grammar resource book.

4.4.3. Phase 3: Free, contextualized MSL grammar practice

Contextualized oral grammar practice can engage students in dialog using new sentence patterns. Where appropriate, songs that include such patterns can be used (for jazzy tunes, see Graham, 1988; 1993, 2003). Written practice of newly learned grammatical patterns can include writing acronym poems, structured or free style poems either individually or as teams to contribute to a class poem. This helps take away initial writing barriers and minimizes the fear of making mistakes. Realistic pictures of places, things and people in action can help stimulate such writing. More complex MSL grammar practice in paragraph format for fiction and non-fiction writing are described in section 4.2.1 (Auman, 2014).

4.4.4. Phase 4: MSL summary of grammar learning strategies

Under the guidance of the FSL teacher, students summarize the grammar concepts learned on a provided form that is added to others in the respective “grammar tricks” section of language binder. Such a summary form provides space to (1) record the rule/conditions or working steps to produce a correct grammar pattern in student-friendly ways such as When I …, I have to first …,
then ..., and then ...) or {If ..., then I need to add ... to .../place ... in position ...}. If needed, these steps are written down in L1; (2) illustrate the rule with colors or images, (3) collect any mnemonic devices that would help the student remember and recall the rule; For instance, the English progressive “-ing form” that indicates an action in progress could be illustrated with binocular glasses that allow the speaker/listener to look in zoom-detail at an action in the present, past or future. The student can record a meaningful sample sentence like I will be working at the food store in two hours and record that suffix {-ing} is added to the main verb when a detailed look at an action is taken as if in slow motion and in progress. (4) include cross-linguistic information to assist efficient recall and correct application of a grammatical rule or pattern and how it is similar or different from L1; (5) write down several sample sentences with personally meaningful content.

5. CONCLUSION

A direct result of L1 research that documents better reading and spelling skills of students who were taught the structure of the language explicitly than those who do not receive these explicit insights (Brish & Shaywitz, 2011; McCardle & Chhabra, 2004; Moats, 2000) is the international push through the 2010 International Dyslexia Association Knowledge and Practice Standards for Teachers of Reading to train future teachers in explicit MSL research-evidenced ways (IDA 2010). Likewise, FSL research of the past decade shows the positive impact of infusing explicit MSL practices into predominantly implicit natural approach oriented FSL instruction (August & Shanahan, 2008; Hinkel & Fortos, 2002; Kormos & Kontra, 2008; Muranoi, 2000; Zyzik & Marqués Pascual, 2012). Positive impacts of FSL MSL electronic media learning is starting to emerge as well (Gallardo et al., 2015).

In alignment with this research, this article contributes to a balanced approach to FSL instruction in Brazil with an effective research-evidenced integration of MSL strategies so that particularly struggling learners have a realistic chance to succeed in a foreign/second language such as English. The presented strategies help integrate these learners more quickly and successfully into socio-culturally engaging communicative FSL practices (Krashen & Terrell, 1996) highlighted in Brazil’s recent curriculum guidelines (Becker Lopes Perna et al., 2015). They easily can be integrated into existing curricula in Brazil because they can be infused in small, differentiated increments.

The presented research on the effectiveness of MSL instruction and the shared strategies for the FSL classroom invites more research to be conducted in different languages and in a variety of different FSL learning contexts such as rural or inner city, public or private schools, language immersion programs or home schooling for children growing up in affluent or poverty-stricken, environments and/or those environments that welcome FSL learning to differing degrees. More research is necessary also to explore the impact of multimedia MSL learning of foreign or second languages for different age groups and learning conditions.
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