Key Learning Acceleration Principles- What does the Research Say?

Research on the Role of Syntax in Comprehension

- Syntactic awareness in the Chiappe and Siegel (2006) study of first grade EL students was an important predictor of the same students' second-grade reading achievement.

- Mokhtari and Thompson (2006) analyzed fifth grade students' levels of syntactic awareness in relation to their reading fluency and reading comprehension. They found that the students' levels of syntactic awareness were significantly related to their reading fluency (r=.625) and reading comprehension performance (r=.816), indicating that lower levels of syntactic awareness corresponded to poor reading fluency and poor comprehension among this group of students.

- Catts, et al., 1999 and Siegel, 1993 demonstrated the importance of syntax knowledge in the acquisition of reading by English learners. Their research showed that the ability to understand the grammatical aspects of the language was a critical factor for the fluent and efficient comprehension of text, largely due to the fact that fluent reading and efficient text reading requires predicting words that come next in a sequence.

- Syntax deficits have been reported for poor readers learning to read in English (e.g., Gottardo, Stanovich, & Siegel, 1996; Siegel & Ryan, 1988; Tunmer & Hoover, 1992).

Research on the Role of Language Objectives in ELD Teaching

- A recent review of U.S. research on English learners conducted by Genesee, Lindholm-Leary, Saunders, & Christian (2004) found fewer than 50 studies that focused on English oral language outcomes and used sound methodology.

- Most elementary teachers readily admit considerable confusion and uncertainly about the focus and content of language development instruction (Gersten & Baker, 2000)

- In classrooms with no use of discrete grammar skill objectives, 94% of oral language activities were comprised of listening comprehension or discussion. (Saunders, Foorman & Carlson, 2006)

- In classrooms with no fixed ELD block -- and no language objectives -- instruction that focused on target vocabulary or language structure comprised approximately 6% of the oral language activities (Saunders, Foorman & Carlson, 2006)

- Taraban (2004) found in an empirical study that learning of certain grammatical conventions was greatly facilitated either by providing explicit instruction or by drawing learners' attention to the concept through the use of specific instructional approaches. Saunders, Foorman & Carlson (2006) conducted research on the use of certain instructional elements in a reading program for ELs, including an enhanced role for discrete language skills teaching. Students participating in the experimental group achieved significantly higher than ELL students in the control group (ES = 1.08).
- Fotos and Ellis (1991) conducted experiments that asked students to solve grammar problems in the target language. They concluded that learners who are made aware of certain target structures in language are more likely to notice them than students who were not made aware of the target structures.

- A volume of studies have been conducted showing that student achievements improves when students are informed clearly about what they are going to learn (Althoff, et al., 2007; Marzano, Pickering, & Pollock, 2001; Rosenshine & Stevens, 1986).

- "Learning can be increased through more efficient and more carefully targeted teaching. At the same time, this concept has not been well documented or extensively discussed in the English learner literature."
(Saunders, Foorman & Carlson, 2006)

Research on the Role of Grammar Error Correction

- One of the earliest researchers to explore scientifically the instructional role of errors was Corder (1967). From his studies he concluded that students' grammatical errors were of great significance in designing instruction and instructional approaches.

- Hendrickson (1978) summarized the research at the time on error correction in foreign language teaching and listed the predominant questions:

Should learners' errors be corrected?
When should learners' errors be corrected?
Which errors should be corrected?
How should errors be corrected?
Who should do the correcting?

- The proliferation of dual language immersion programs led to a flurry of studies that tried to determine why students did not gain grammatical accuracy in the second language. Several researchers have noted that the lack of systematic approaches for attending to student errors contributed to less than optimal levels of proficiency in immersion students (e.g., Chaudron, 1986; Harley, 1989; Kowal and Swain, 1997; Lyster, 1987, 1994; Lyster and Ranta, 1997; Salomone, 1992; Swain and Lapkin, 1986).

- Instructed learners—those who receive instruction and feedback deliberately designed to achieve control of a specific language structure—tend to make fewer errors than do non-instructed learners. (Pica, 1983; 1994). Additionally, there are significant differences in the types of errors made by instructed and non-instructed learners. Non-instructed learners make many errors of "omission", while instructed learners tend to make more errors of "commission". Long (1988) emphasized that errors of omission are more likely to persist in a learner's interlanguage.

- Lyster and Ranta (1997),conducted research in actual classrooms that focused on the student impact of various forms of error correction. They asserted that the goal of effective error correction should be to create students who could then independently produce the correct form. They termed student response to error correction "uptake". Of all the feedback utterances produced by the teachers in response to learner errors, 55%, or slightly over half, were found to lead to uptake of some type on the part of the learner. However, only 27% of the feedback utterances led to student repair.

When Lyster and Ranta (1997) looked at the total number of errors produced by students and the total number of repairs they produced, they found that just 17% of the total errors made by students were repaired in some way by students. They showed a cycle for effective error correction.

Much of the academic work in this area is theoretical in nature. Here are a few of the major theories:

- Vygotsky (1989:61) asserts that "social interaction actually produces new, elaborated, advanced psychological processes that are unavailable" to people when working in isolation. Through social interaction, more knowledgeable participants create supportive conditions where lesser proficient participants are encouraged to work at a level higher than their current level. Donato (1994) coined the much-overused term scaffolding to refer to this process. In linguistics, scaffolding is known sometimes as prolepsis.

- Krashen (1981) posits that explicit language instruction of any kind has very little impact on the natural process of learning language. He makes a theoretical claim that there is no interaction between conscious, explicit learning, and implicit learning, or acquisition (the non-interface position, in academic speak). Thus, attempts to "push" students to do more difficult language tasks is seen as counterproductive. In a related theory, his affective filter hypothesis states that new language structures can only be taken in by learners when they are relaxed, and when stress is absent, or at least minimized. Pushing students to produce language structures on cue, or on demand, is seen as creating stress, which raises the affective filter and hinders natural language acquisition. Together with his comprehensible input hypothesis (i +1), which holds that students listen their way to language acquisition, his unified theory of language acquisition is almost complete: students unconsciously acquire language skills as they listen to understandable messages in low-stress environments; at some point they self-determine when to begin producing language.

- Spada and Lightbown (1993) have argued the opposite, saying that incomprehensible input is what actually stimulates the necessary grammar building, and not comprehensible input. Similarly, Swain (1985) counters that students learn more language when they are required to produce new output that is different from what they would do if left to their own language choices. This assists them with noticing the gap between what they want to say and what they are able to say.

- Higgs and Clifford (1982) warned that unmonitored practice of familiar—yet incorrect—language forms can lead to language fossilization. This is the theoretical framework for understanding terminal intermediate, or a state of stalled language development.

- Pica (1994) gathered classroom data to support his hypothesis that Krashen-inspired approaches led to a decline in classrooms of language practice as part of language teaching.

- Some research studies are showing that comprehension of a language does not equate with or guarantee production (DeKeyser and Sokalski, 2001; White, 1991). Swain (1985) asserts that comprehensible output by students is what advances students' language competence.

Additional Reading:

The Case for Structured English Immersion: Three states and many school districts are finding that emphasizing English Language instruction offers ELL's an accelerated path to success. (Clark 2009, http://www.ascd.org/publications/educational-leadership/apr09/vol66/num07/The-Case-for-Structured-English-Immersion.aspx)

Structuring Language Instruction to advance Stalled English Language learners: Sonoma County Office of Education.
(SCOE 2009, http://www.inet-migrant.org/instructional/2013/ah-clark-09092.pdf)

Once non-native speakers learn English, they score higher on state proficiency tests in reading and math than their non-ELL peers.These findings are based on data from the 2009-2010 Wisconsin Knowledge and Concepts Examination Criterion-Referenced Tests (WKCE-CRT) in reading and math, which are designed by the Department of Public Instruction (DPI) and Wisconsin educators in conjunction with CTB/McGraw-Hill.
http://www.milwaukeenns.org/figures-latino-english-language-learners-outperform-non-ell-peers/

Evidence-based teaching strategies for working with at-risk English language learners are essential for today's educators. At-risk ELLs are defined as nonnative speakers of English who are at risk for failing curricular and standardized school requirements because of their limited English proficiency. Focus on this population is essential because 10% of U.S. public school students are ELLs; they are growing at a rate of 9% a year.
(Whelan Ariza,
2006http://www.kendallhunt.com/uploadedFiles/Kendall_Hunt/Content/Higher_Education/Uploads/Ariza_TESOL_FM_4e.pdf

Research has consistently shown a direct correlation between knowledge of syntax and reading comprehension. Most recently, additional analysis from the City of New York University have shown that it is not knowledge of syntax in general that is a good predictor of reading proficiency, but particularly knowledge of complex sentence structures.
(Martohardjono 2005, http://www.lingref.com/isb/4/119ISB4.PDF)

Recently, research has documented that given specific and targeted opportunities, linguistically diverse students beginning to develop proficiency in English can and will effectively participate in and learn from text-based conversations. However, if specific, targeted, supports are not provided, ELD students' academic potentials could be gravely underestimated.
(Iddings, Risko, Rampulla
2009,http://onlinelibrary.wiley.com/doi/10.1598/RT.63.1.5/abstract;jsessionid=50A00A75084B212A632619345B2C4AFC.f02t03)

In 2011, Joanne Carlisle from the University of Michigan, conducted an integrative review of seven research studies on morphological awareness. She found that overwhelmingly, students who had explicit morphological instruction, especially those asked to apply morphological principles to new vocabulary, made far greater gains than students who did not receive explicit instruction.
(Carlisle
2011, http://www.jstor.org/discover/10.2307/20779541?uid=3739552&uid=2129&uid=2&uid=70&uid=4&uid=3739256&sid=21100894793111)

Most content area texts (i.e. Science & Social Studies Textbooks) are full of nominalizations and causal relationships. They are most often written with a passive voice that increases the precision and objectivity of the text but can be very difficult for early readers and ELL's because they are often dense and abstract. By explicitly teaching students to navigate the syntactical structure and patters

found in most content area texts they will comprehend more easily and form a greater depth of knowledge.
(Ciechanowski
2009, http://www.jstor.org/discover/10.2307/20464466?uid=3739552&uid=2129&uid=2&uid=70&uid=4&uid=3739256&sid=21100894793111)