

# SOI & THE CURRICULUM

We are often asked "How is SOI related to the curriculum?"

This is a reasonable question, but not an easy one to answer for a variety of reasons. The overarching difficulty is that, on one hand, the Structure of Intellect is a moderately complex, wide-ranging, multi-faceted theory, and, on the other hand, the "curriculum" may be one of many depending on one's pedagogical and political philosophies. But, despite these complications, we will attempt to relate the two in broad, general terms.

There is not, with few exceptions, a one-to-one relationship between a given curriculum objective and a single SOI learning ability. As might be expected, it requires more than one ability to fully acquire any one curriculum objective. Generally, the simpler the objective, the fewer abilities that are required.

For example, if the objective is knowing the alphabet, then students can acquire that knowledge with a single intellectual ability – Memory for Symbolic units (MSU).

The next step in phonics – knowing the consonant letter sounds – requires only Memory for Figural units (MFU). Sounds are categorized as "Figural" because they are concrete data.

The next step in phonics – knowing the vowel sounds – introduces some learning complexity because the letter-to-sound relationship is not consistent.

The ambiguity of vowel sounds means that the students must learn the multiple sounds that each of the vowels can make (MFU), but must also learn the rules for resolving the ambiguity in the context of word-letter relations. This requires Memory for Symbolic Relations (MSR) for learning the rules

and coNvergence of Symbolic Systems (NSS) for applying the rules to achieve the disambiguation.

This extended example illustrates the complexity of intellectual abilities involved in the elementary steps of learning to read.

And, as the student advances through the intermediate steps of blending (MFR), silent letter use, and exceptional letter combinations (MSR), it becomes more complex, and we are not yet to the point of introducing meaning (semantics) into developing reading competence.

So, if we ask how SOI abilities relate to reading, there is no simple answer. There are many answers depending on the many subtasks that comprise the complexity of the skill.

There is another level of complexity in the simple question: how is SOI related to reading? This is because we have only touched on the multiple abilities involved in teaching reading by the phonics method.

But if we were to do an SOI analysis for teaching by a different method, say, whole word, then the abilities involved in the process would be very different. The phonics method of processing atomic sounds into molecular words would be replaced with a method that relates each new letter combination to a word sound (MSS related to MFU).

The analysis reveals that this is a much simpler teaching method, but, for the student, it has little economy of generality. The one hundredth word is as difficult as the first. The analysis also reveals that the abilities required for achieving a curriculum objective are not only dependent on the objective, but on the teaching method chosen to teach it.

So, the proper approach to the question of how the SOI is related to the curriculum is:

1. establish how a given curriculum objective is going to be taught
2. analyze the component tasks that the students must master in order to complete learning the objective
3. analyze the SOI abilities required to master each of the component tasks

This will provide the best SOI mapping for a given curriculum objective in a given teaching context. This mapping will often provide insight as to why a student is failing in the learning process, and it will often suggest alternative methods of instruction to get the student back on track toward the objective.

It is our position that no teaching method is sacrosanct. If a student is repeatedly failing to achieve an objective by one teaching method, then we consider it the instructor's responsibility to consider alternatives that may be a better match for the student's learning repertoire.

The goal is for the students to achieve the objective. When it is reported that more than 30% of the students in a metropolitan school district are functionally illiterate, it would indicate that the instruction has been ineffective.

One suspects that these students never had a learning method alternative presented to them; one suspects that the instructional regimen did not permit alternatives.

We operate on the hope that the SOI approach to the curriculum would give them the rationale for alternative means of opening the curriculum to failing students.

The following pages will show SOI subtests in gray and how they correspond to the curriculum. Each subtest incorporates a general ability needed to

integrate the program of study.

For example, the CFU subtest is on all the SOI assessments and reveals vital information regarding visual closure. This simple test gives teachers additional information as to why a student is having difficulty reading.

Visual closure is important because it is the ability to see words from the first letter to the last. If not in place, a student will not have a good visual foundation and cognitive improvement will be limited.