



**Applied Scholastics'
Study Technology**

**A Tutoring Model
for Literacy and
Comprehension**



Introduction

In the United States today large numbers of students are failing to meet academic standards. One third of public high school students do not graduate. Illiteracy and functional illiteracy are rampant and increasing throughout the population. Drug abuse and crime, which follow on the heels of failed education, are also on the increase. Concerned citizens, educators and politicians have proposed solutions ranging from vouchers to school reform to teacher re-training. Meanwhile students are leaving school in droves without the skills necessary to succeed in life. Clearly a major intervention is needed to stop the decline.

Applied Scholastics is committed to reversing the decay of education by training educators in the technology of learning how to learn, but also to salvaging the lives and futures of the students who have been damaged during the educational decline. These are the underachieving students—many still struggling, others in apathy—a large percentage of whom are found in “academically deficient” public schools. For the great majority of these students the problem began with lack of vocabulary and reading skill. Virtually none have been taught how to learn—i.e. how to comprehend and apply what is taught.

Applied Scholastics tutoring begins with an assessment of the student’s skills. From that assessment a customized plan is developed that meets the student’s needs.

Either one of these deficiencies would result in the squandering of an entire academic education.

There are hundreds of thousands of such students across the country. Their teachers cannot be trained fast enough to close the achievement gap. These youth need intensive remedial instruction immediately to salvage their education. To this end Applied Scholastics created a tutoring model based on the technology of learning how to learn that incorporates the best that educational research has to offer in practices and methods for boosting vocabulary, reading comprehension, learning skills and the ability to master academic subjects.

The Applied Scholastics Model For Tutoring

The foundation of all Applied Scholastics interventions is the pedagogy developed by humanitarian and educator L. Ron Hubbard, who researched and wrote on a wide range of educational issues. Taken together the body of work is known as Study Technology. At the very heart of Study Technology

is Mr. Hubbard’s discovery of the three main barriers that prevent a learner from comprehending and applying subject matter. These barriers are accompanied by identifiable physical and mental reactions in the learner. Study

Technology training induces the learner to employ metacognition, defined as awareness of one’s thinking and the strategies one is using (Rivers 2001; Schraw and Dennison 1994), to become aware of barriers when encountered and to then use precise tools to overcome them and achieve full comprehension. Key among these tools is explicit vocabulary development.

Learning about the three barriers and their manifestations and using metacognition and “fix-up” strategies is called learning-how-to-learn and is the hallmark of Applied Scholastics tutoring, as well as all Applied Scholastics educational interventions. Students who use these learning skills become better readers and are able to comprehend text and apply it, their vocabularies increase exponentially and they become independent learners who can master academic subjects and succeed in any learning task.

While learning how to learn and then applying these study skills in troubled academic areas is the basic strategy of Applied Scholastics remedial instruction

there are many students for whom deficient basic reading skills such as decoding and fluency represent an additional barrier. Poor reading achievement has a cyclical effect since students who do not read well do not engage in independent reading and therefore do not improve their vocabularies or their comprehension skills. The vast majority of struggling students are not able to read at the required level and are therefore unable to read to learn. Applied Scholastics identifies such students with diagnostic testing and incorporates systematic remediation of basic reading skills into their programs.

Since the National Reading Panel Report in 2000 it is widely accepted that there are five essential areas of reading instruction—phonemic awareness, phonics, fluency, vocabulary and text comprehension. Two of these areas—vocabulary development and text comprehension—are part and parcel of learning-how-to-learn. In fact, they are the major emphasis of the Applied Scholastics approach to remediation of learning. For example, the student learns that when he is unable to comprehend a passage of text he should look for a word or words that he does not understand. (He learns specific proce-

dures for finding the word.) When a misunderstood word is located, he follows an exact procedure for studying the word and gaining a full conceptual understanding. The tactic is used so frequently in an Applied Scholastics intervention that each student must have his own dictionary.

For students who need help with more basic reading skills, Applied Scholastics tutoring also includes systematic instruction in the five essential areas of reading. The skills are taught by a combination of drilling of sounds, letters, words (decoding, writing, defining) and phonics rules and reading aloud at the correct gradient in high volume. When a student progresses to the point where he is able to read at the necessary level, he then begins to apply the tools and

strategies of learning how to learn to remediate learning deficits in content areas.

Components of the Model

Tutor Training. Applied Scholastics tutors receive training in the basics of learning how to learn—identifying and handling barriers to learning. As the single most powerful barrier is that of misunderstood words, tutor training also includes the use of specialized tools for helping students locate misunderstood words that are not readily identified. Thirdly, tutors are trained to deliver systematic decoding instruction and to foster reading fluency through supervision of reading aloud. Finally, tutors learn how to plan structured and properly sequenced lessons.

Student Training. Students receive training in learning-how-to-learn in one of two ways. At times the training is received in the regular classroom before or during the tutoring program, in which case the tutoring itself concentrates on guiding the students in applying the skills in deficient content areas. At other times the learning-how-to-learn training is directed by the tutor,



The student's ability is monitored closely to assure adequate progress.

using the *Learning How To Learn* workbook, prior to addressing specific content deficiencies.

Student Interview and Goal Setting. As the very first action of tutoring, the student is interviewed to establish his purpose for the instruction (e.g., what help is needed and how will the help enable him to achieve goals) and get agreement on his level of participation in the process. The interview is repeated from time to time throughout the program. As students begin to understand that they can learn by using the learning-how-to-learn tools and strategies, and they see progress, they begin to set more challenging goals.

Assessment. Systematic instruction requires both initial assessment of deficiencies and ongoing monitoring of progress. Diagnostic tests are administered to students coming into the tutoring program to establish reading level, identify gaps in reading skills and pinpoint weaknesses in other academic areas as appropriate. As well as assessment tools developed by Applied Scholastics, the following nationally standardized instruments are administered as appropriate: Gates McGinitie Reading Test, Wide Range Achievement Test, Scholastic Reading Inventory, California Achievement Test, California Test of Basic Skills.



Following a precise instructional plan, this tutor is developing phonemic awareness by instructing students to produce sounds identified with spoken words.

Students selected for systematic reading instruction are reassessed with curriculum-embedded tests at the end of each instructional level and must achieve 100% mastery before moving on to the next level. Assessments in other areas are made at the end of each 12 hours of tutoring and are utilized by the tutor to plan additional instruction in comprehension strategies or make other adjustments in the student's program. Finally, continuous assessment by the student himself, a facet of metacognition, is built into the learning-how-to-learn paradigm.

Individual Program. Subsequent to the student interview and assessments, and in consultation with the student's teacher or appropriate school district staff, an individual remediation plan is designed to bring the student to proficiency in the targeted areas. This might include instruction in decoding, reading fluency and text comprehension skills, and tools to improve subject matter comprehension as well as guided applica-

tion of the reading and learning skills in the removal of various academic deficiencies. The goal is to first strengthen the student in literacy skills and learning skills—the foundation for learning any subject. Thereafter, tutoring concentrates on the application of these

skills to remove deficiencies in academic areas.

Systematic Instruction. In keeping with research on reading instruction (Armbruster et al., 2001) Applied Scholastics tutors follow an explicit and systematic program of decoding instruction that presents learning material in a clearly defined sequence with mastery required at each of the five instructional levels. Eight sets of procedures are provided for drilling sounds, letters, words and phonics rules. Learning-how-to-learn instruction is also presented systematically, and students master each content section before progressing to the next.

Reading Aloud. The key to gaining reading fluency is reading aloud in high volume (Armbruster et al., 2001). Students who are not reading at grade level read aloud with guidance from the tutor from jointly selected reading material in each tutoring session. Reading aloud provides the tutor with an ongoing assessment of the student's ability and assists in making certain that the student's choice of

reading material is maintained at an appropriate level of difficulty—i.e., his independent reading level. The idea is to choose a slow gradient of books, from the most elementary to the more complex, and use a quantitative approach, so the individual graduates easily from the *Little Red Hen* to Shakespeare without losing the desire to read. A large quantity of high-interest, graded books are made available to facilitate appropriate choices.

Program Evaluation. Applied Scholastics tutoring produces both academic and attitudinal results. Where possible, tutoring programs sponsored by Applied Scholastics are evaluated using school district achievement test, attendance and discipline data. At times standardized tests are administered by Applied Scholastics as pre- and post tests. Results of tutoring programs are available upon request.

How Does the Model Align with Current Research?

Vocabulary Development. Study Technology embodies Mr. Hubbard's discovery that word meaning is one of the most important components of comprehension. In fact, Mr. Hubbard identified the "misunderstood word"

as the major barrier to learning. In Study Technology training, students learn and apply a specific and detailed step-by-step paradigm for achieving full conceptual understanding of any word. The strategy is applied whenever the student encounters a word he does not fully understand. It includes practice in use of the word and establishes the word with all of its meanings in the student's vocabulary. It assures fluency for reading, speaking, listening or writing.

Today's learning research confirms both the importance of word study and the instructional method employed in Applied Scholastics interventions. "Learning, as a language-based activity, is fundamentally and profoundly dependent on vocabulary knowledge" (Baker, Simmons, &

Kameenui, 1995). Furthermore, vocabulary instruction should be explicit and systematic and include word-learning strategies (Armbruster et al., 2001). Using a multi-faceted approach to vocabulary development that includes wide reading (i.e. reading aloud) and the teaching of word consciousness along with word-learning strategies is recommended (Nagy, n.d.).

Metacognition. Metacognition is an emerging construct in educational research for which there is not yet a uniform definition but refers generally to the awareness of one's thinking and the strategies one is using as a means to comprehension. Comprehension monitoring, a critical part of metacognition, has received a great deal of attention in the read-

ing research on text comprehension. "Good readers use metacognitive strategies to think about and have control over their reading. Comprehension monitoring instruction teaches students to be aware of what they do understand, identify what they do not understand, and use appropriate 'fix-up' strategies to resolve problems in comprehension" (Armbruster et al. 2001). Metacognition has been shown to have a significant



In Applied Scholastics tutoring the tutor tests the student's decoding skills at the end of each instructional level.

positive effect on vocabulary learning as well (Chamot and O'Malley 1994).

Metacognition is the cornerstone of learning-how-to-learn and the Applied Scholastics tutoring model and has always been so. The strategy was built into Study Technology by its developer long before it became known as "metacognition." Furthermore, consistent with current findings about what works best, metacognition is not taught directly in Study Technology, but is induced through the manner in which learning tasks are presented to the student (Palincsar et al., 1991). Applied Scholastics students are routinely taught methods of correcting comprehension when it fails. Learning tasks are presented to students in a sequence that tests comprehension and generates feedback to the student promptly and frequently. Through this routine the student learns to be aware of and monitor his comprehension and employ remedies as needed. He has been induced to adopt metacognitive strategies. Applied Scholastics students test comprehension continuously during study so as to be fully aware of what they do understand and what they do not understand. Students who can do these things are truly independent learners and no longer dependent upon a teacher as the gatekeeper of knowledge.



Drilling with flash cards assists students to master essential skills.

Best Practices. Another body of research in education has been directed toward the identification of "best practices" in tutoring programs (Wasik, B.A. 1998). Most of these are prominent in Applied Scholastics tutoring, the components of which are described above: (1) coordination with school staff; (2) customized program; (3) well planned and structured tutoring sessions; (4) frequent assessment of student progress; (5) student goal setting; and (6) program evaluation.

Summary

The great majority of struggling learners suffer from inadequate reading ability as well as from not knowing how to learn. The Applied Scholastics tutoring model addresses both deficiencies. Individual needs are met through systematic instruction in basic decoding and/or fluency skills as well as instruction in how to learn. The strategies taught in learning-how-to-learn produce high levels of literacy and comprehension. Students who know how to spot and handle learning barriers increase their

vocabularies and adopt metacognitive comprehension strategies that promote further learning and the ability to apply knowledge in content areas. While learning-how-to-learn instruction improves learning for any student, it is uniquely suited to

those students who approach it with gaps in their achievement due to insufficient comprehension skill and/or vocabulary.

The Applied Scholastics tutoring model aligns with recommendations of the National Reading Panel for reading instruction and, as well, incorporates tutoring methods and practices recognized as effective in current educational research.

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