

**Celebrating  
24 Years  
of Success with  
1/2 Million  
Students**

**A RESEARCH-BASED,  
VALIDATED PROGRAM.**

*THE BEST FOR ACCELERATING  
SUBGROUPS AS REQUIRED  
UNDER NCLB.*



**SOAR**

*BEYOND ADEQUATE YEARLY  
PROGRESS TO SUBSTANTIAL  
YEARLY PROGRESS*

**HOTS**

**HIGHER ORDER  
THINKING SKILLS  
PROGRAM FOR**

**AFTER SCHOOL  
REGULAR SCHOOL DAY**

*The Most Effective and Creative National Program for improving schools with  
Title I & LD students in grades 4-8. Treats all your students as gifted*

[www.hots.org](http://www.hots.org)

WHAT  
IS

HOTS

While there are many effective K-3 programs,  
**HOTS IS THE BEST FOR ACCELERATING**

A complete general thinking skills program for Title I and LD students in grades 4-8 that dramatically accelerates learning, test scores and social confidence.

HOTS combines computers with a sophisticated curriculum and Socratic dialogue in small group settings.

*HOTS is a gifted approach to improving high poverty schools & students (Title I & LD).*

HOTS  
THINKING ACTIVITIES

PRODUCES DRAMATIC GAINS IN

DEVELOPS THESE THINKING SKILLS

STATE TESTS

METACOGNITION

BASIC &  
ACADEMIC  
SKILLS

GENERALIZATION

SOCIAL  
CONFIDENCE

INFERENCE FROM  
CONTEXT

THINKING/  
PROBLEM  
SOLVING

INFORMATION  
SYNTHESIS

# HOTS

## IMPACT ON STUDENTS

*Close to 15% of HOTS TITLE I & LD students make honor roll.*

### **HOTS STUDENTS BECOME:**

- ❑ More confident in their own ability to solve problems and succeed academically.
- ❑ Less impulsive, more willing to disconfirm their initial hypotheses.
- ❑ More able to see relationships between and among concepts which were formerly viewed as discrete.
- ❑ Able to consider more information at a time while solving a problem.
- ❑ More willing to take risks when approaching problems.
- ❑ Most importantly, HOTS students are able to learn high-level content the first time it is taught.

***HOTS students learn everything better!***

*HOTS prepares at risk subgroups for state tests that increasingly emphasize thinking and problem solving skills.*



## TARGET GROUPS



### **TITLE I AND MILDLY IMPAIRED LD STUDENTS (GRADES 4-8\*):**

HOTS thinking activities produce much larger gains in basic skills and state tests than the remedial activities which they replace—in both reading and math.

*\*Students can start as early as mid-year of grade 3*

WITH EXPERIENCE IN OVER  
3,000 SCHOOLS,

**HOTS**  
**IS THE BEST!**

## RESEARCH VALIDATED/SCIENCE BASED

*Dramatic achievement and social gains have occurred equally for females and males across ethnic, racial and low-income subgroups – from urban to rural settings.*

*HOTS has been on the recommended reform lists of: Northwest Regional Educational Lab (CSRD), various states, Mid-Atlantic Regional Educational Lab, and the National Diffusion Network.*

### AWARDS

In addition to outstanding research results, HOTS schools have received many competitive awards such as:

- ❑ Foster Elementary School, Ludington, Michigan, was awarded the Michigan State Golden Apple Award for huge gains in test scores with underachieving students.
- ❑ Roosevelt Elementary, Santa Ana USD, received the Achieving Schools Award from the California State Dept. of Education.
- ❑ South Elementary, Mission, South Dakota, was recognized by the U.S. Department of Education as an exemplary schoolwide Title I program.
- ❑ Three of the 105 exemplary Title I awards nationwide went to HOTS sites: *Tucson Unified School District (AZ); Ludington Area Schools (MI); Wyomissing Area School District (PA).*
- ❑ Wright Elementary (CA) *Designated one of the top seven gain-producing Title I schools in California.*
- ❑ Oceanside School (CA) *Voted most innovative K-8 program by California School Board Association.*

### EVALUATION RESULTS

HOTS is one of the most successful, innovative interventions for enhancing basic, academic and thinking skills in at-risk students in grades 4-8. HOTS schools and students show gains in both reading and mathematics double the national average, and close to 15% make honor roll – learning gaps are reduced.

- ❑ Two years after implementing HOTS, Catherine Strehle & Estelle Elementary schools, Jefferson Parrish, LA, made such high gains on the state test that they received the state's highest gain ranking level of "Exemplary Academic Growth". Before HOTS, they had both been very low achieving schools. Students also showed substantial growth on the national Iowa test in all content areas.
- ❑ On state tests in Cleveland County District, NC, gains in schools with HOTS substantially exceeded state growth targets. Comparison non-HOTS schools failed to meet growth targets.
- ❑ Title I HOTS students in Clovis (NM) out-performed gifted students in regional science contests.
- ❑ A dissertation at the University of Arizona finds that HOTS simultaneously increases IQ, Metacognition, Writing, Reading Comprehension, GPA, and Novel Problems Solving skills in 4th and 5th grade Native American Students, while non-HOTS Title I students declined.
- ❑ Ten percent of the Title I students in Hopkins (MN) were rediagnosed as gifted after a year in the program.

### PUBLICATIONS

Articles about HOTS have recently appeared in such noted publications as

- |                                 |                                  |  |
|---------------------------------|----------------------------------|--|
| ❑ <i>Educational Leadership</i> | ❑ <i>Phi Delta Kappa</i>         | ❑ <i>The Computing Teacher</i>         |
| ❑ <i>ASCD Update</i>            | ❑ <i>Electronic Learning</i>     | ❑ <i>The Christian Science Monitor</i> |
| ❑ <i>INSTRUCTOR</i>             | ❑ <i>Computer Education News</i> | ❑ <i>The Los Angeles Times</i>         |
| ❑ <i>Principal Magazine</i>     | ❑ <i>Teacher</i>                 | ❑ <i>California English Teacher</i>    |
|                                 |                                  | ...and more!                           |

*HOTS was featured on ABC World News Tonight with Peter Jennings*

# HOW TO IMPLEMENT

# HOTS

## USE

## LOW – MEDIUM POVERTY SCHOOLS

Specialized program for accelerating the following sub-groups  
Title I, LD, low-income minorities, in grades 4-8

## WHEN

During school day or after school program

## APPROACH

Selected groups of 10-14\* students go to the HOTS area where they are taught by a HOTS specialist

### *During the school day:*

HOTS Period is at least 35 minutes,  
4-5 days/week

### *After School:*

At least 140 minutes over 2-3 days/week

1 Computer per Student

Train at least one HOTS specialist

*(Optional – 3 hour Socratic workshop for all K-8 teachers in the school)*

*\*The higher number is with a paraprofessional*



## ADVANTAGES

- Improves sub-groups as required under NCLB
- Focuses on students who need help
- Enables low-performing students to learn at much higher levels thereby improves the thinking climate in all classrooms
- Highly effective / Low Cost
- Eliminates all other compensatory services; these students receive only HOTS

## WHO SHOULD BE PLACED IN HOTS

### TITLE I

Students in grades 4-8 between 15th – 40th percentile in reading. Students below the 15th percentile in reading should be considered individually and should be placed in HOTS only if they have the ability to generalize and/or be reflective in any activity.

### LD

Mildly disabled students in grades 4-8 who are above 80 verbal IQ.

## WHO SHOULD NOT BE PLACED IN HOTS

Students whose primary language is not English until they have some basic English skills; Transient students who are not likely to be in school for at least one year.

Severely dyslexic students.

*These students should be placed in a different program that emphasizes content reinforcement.*

# HIGH POVERTY SCHOOLS

(At Least 75% Free & Reduced Lunch)

## Schoolwide Program for Grades 4-8

During school day

Classroom Teacher goes to a Computer Area with a HOTS Specialist and Each Teaches Half of the Class

### *During the school day*

HOTS Period is at least 35 minutes, 4-5 days/week

1 Computer per Student

Train all Classroom / Content Teachers in targeted grade levels plus at least one HOTS Specialist

**SCHOOLWIDE**

- ❑ Improves Whole School and all Subgroups
- ❑ Serves Large Numbers of Students Cost Effectively
- ❑ Classroom / Content Teachers use the thinking development Socratic techniques in all teaching

Use HOTS with  
**ALL STUDENTS**  
in targeted grade Levels

For students reading above grade level you can:

- Create independent work
- Use advanced HOTS lessons
- Combine them with similar students from other classes

# WHY HOTS

## HOTS IS THE MOST POWERFUL APPROACH BECAUSE:

- ❑ It enables students to become more sophisticated and motivated learners who now learn at higher levels the first time something is taught.
- ❑ It empowers the lowest student to take equal advantage of all the other quality programs in your school.
- ❑ It can be used with any curriculum or any state or nationally normed test.
- ❑ It's affordable – no ongoing materials or support costs.
- ❑ The Socratic conversations develop thinking skills by making up for the lack of conversation in the home.
- ❑ It's the most widely used and validated reform program to date for grades 4-8.
- ❑ It's built on the best techniques of using computers, based on brain research, and uses the most advanced teaching techniques, eg; constructivism and metacognition.
- ❑ HOTS provides advanced skills and social confidence – while also producing even greater gains in basic skills and state test scores.
- ❑ The general thinking skills & strategies enable students to learn everything better – across all the content areas.

**STOP OVER-REMEDIATING:  
HOTS + aligned quality skill instruction  
– Produces Greater Gains –  
Than just added instruction  
on the state standards.**

# SOCRATIC TEACHER TRAINING



An exciting week long workshop is provided to HOTS teachers on how to use Socratic techniques when teaching the HOTS curriculum. Teachers are trained in small groups on how to maintain an active learning environment in which students are given the time and responsibility to think problems through and articulate their ideas.

Trainings are scheduled year round according to demand. It is desirable for the principal and program coordinator to participate in a portion of the workshop with the teacher(s).

## HOTS LOGISTICS

HOTS should be the only compensatory service provided to target students and subgroups. HOTS students should not miss their reading and math content classes.

A cost sheet & hardware specifications can be found in the attachments pocket on the next page.

The listed costs included everything; training, software, tradebooks curriculum & support

Macintosh and Windows compatible.

*HOTS solves the biggest problem in American education – the failure of reform to reduce learning gaps after the third grade.*

*While Socratic teaching is very effective, it is also very difficult at first. In Socratic dialogue the teacher teaches by asking questions rather than telling the students what to do. The questions are designed to help students arrive at conclusions on their own.*

*Learning in HOTS comes from the sophistication of conversation between student and teacher — not from the computer or the software.*

*HOTS training provides interactive practice and has been the most successful model for preparing instructors to teach Socratically.*





# HOTS

## IS SIMPLY THE BEST

*"The HOTS Program is one of the most successful programs that I have ever encountered. I witnessed the Chapter's kids' enthusiasm and feeling of pride. These kids would walk down the halls saying, 'We're going to the gifted class'."*

*Cynthia Fairall  
Principal, Harmony Hills Elementary  
San Antonio, Texas*

*"This is the best program I have found. My principals tell me that this is the most successful program they have encountered. It impacts all academic areas, and improves behavior and attendance. Teachers love the program."*

*Dr. John Connelly  
Assistant Superintendent  
Ellenville, New York*

*"Students are becoming critical thinkers rather than rote performers."*

*Henry Vega  
Principal, Carrillo Intermediate School  
Tucson, Arizona*

*"What is most impressive about our HOTS Program is the high motivational impact it has had on our students, teachers and parents."*

*Margarett J.B. Sanford  
Principal, Ernest J. Dossin Elementary  
Detroit, Michigan*

*"HOTS students demonstrate better attendance, behavior and self-confidence. Our HOTS students are now expected to make the 'B' honor roll."*

*Norbert Mengot  
Principal, Foster Elementary  
Ludington, Michigan*



*Developed by Dr. Stanley Pogrow, Professor of Education.*

*One of the nation's foremost experts on using technology to accelerate the learning of disadvantaged students.*

# HOTS

*is the first thinking skills program designed and validated for Title I and LD students.*

# HOTS

*provides "advanced" skills—while also producing even greater gains in basic skills, academic achievement and state tests.*



# THE ONE AND ONLY THINKING SKILLS PROGRAM THAT ALSO DRAMATICALLY IMPROVES TEST SCORES

## A COMPLETE CREATIVE SYSTEM

- Software (Mac or Windows)
- Detailed daily lessons (2 years worth)
- Creative, research based curriculum
- Socratic training
- Support
- Schoolwide options
- Parental involvement
- Tradebook sets

## IMPLEMENTATION STEPS

- Contact HOTS Central
- Visit Sites
- Develop a plan
  - Who should teach HOTS?
  - Should HOTS be offered during the school day and/or after school?
  - Obtain needed hardware
- Schedule training

# HOTS<sup>TM</sup> ATTACHMENTS



## FOR FURTHER HOTS INFORMATION CONTACT:

Thinking With Computers  
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