

## Literature Search Criteria

In the context of creating an online database for Inquiry and Knowledge Building activities for the New York City Department of Education, AIR staff conducted a comprehensive literature review of the research about potentially promising practices in education. The literature search aimed to provide an updated view of the most current evidence base for classroom-level and school-level practices in English Language Arts / Literacy and math / numeracy. The focus of the literature searches was informed by available research, the New York State Standards, and experts' recommendations regarding schools' needs. These considerations yielded the following skill areas:

### ELA/Literacy

- Content Reading and Writing
- Explicit Comprehension Strategies
- Phonemic Awareness and Phonics
- Reading Fluency
- Text Meaning
- Vocabulary
- Writing Mechanics
- Writing Organization and Development

### Math/Numeracy

- Decimals
- Fractions
- Linear Patterns, Equations and Functions
- Probability and Data Analysis
- Ratios, Rates, Proportions, Percents
- Spatial Geometry and Measurement
- Whole Numbers: Multiplication and Division
- Whole Numbers: Addition and Subtraction

The search process included searching the following academic databases: PsycARTICLES, PsycINFO, Professional Development Collection, Academic Search Premier, Psychology and Behavioral Sciences Collection, PsycEXTRA, SocINDEX with Full Text, Mental Measurements Yearbook, JSTOR, Dissertation Abstracts, and ERIC. The review of the literature used a systematic approach that included publicly available materials only (for example, published in journals, books, or on the internet). No research before 1978 was considered for the research evidence, and in most cases, the research included was published in 1990 or later. Types of studies included consisted of original quantitative studies, single-case subject design and case studies, literature reviews by trustworthy sources, and meta-analyses. The search was not exhaustive, as it meant to provide a sample of the available evidence. For a complete and exhaustive review of all the research published on specified strategies, educators should consult the What Works Clearinghouse website at <http://ies.ed.gov/ncee/wwc/>.

The strategies identified included classroom instruction and organization practices and school-wide practices. Some of those practices entail only a single key action, while others are in a form of a program that includes multiple components. Because the evidence base is still evolving, it was of interest to include also those practices supported by weak and less reliable research, if they matched the recommendations of experts in the field (e.g., the National Reading Panel, the International Reading Association, the National Math Panel, expert panels' practice guides produced by the What Works Clearinghouse).

Although there was an effort to prioritize strategies with evidence-base that pertains to students in grades fourth through twelfth, for some specific skills, empirical studies with younger students and studies with first year college students were included as supporting research evidence. In addition, an effort was made to prioritize research including studies with diverse student populations in urban settings.

Recognizing that academic performance is influenced by students' psychological adjustments, classroom-level and school-level strategies addressing student motivation and engagement, student behavior, and students' interpersonal skills were included. In addition, fundamental cognitive skills such as organization skills, memory, and attention were also included in the literature search.

The research identified was sorted by the main implementation features and targeted sub-skills. The results of this sorting process yielded the variables shown in the variable maps. When exploring those variable maps, educators should take into account the characteristics of their schools and the fact that additional variables, not shown in those maps, may affect student achievement.