Mapping What Works

**Thinking Maps Alignment to What Works Clearinghouse Evidence-based Practice Guides**

How do we know what works in the classroom? By looking at the evidence. Thinking Maps is aligned with evidence-based practices reviewed by What Works Clearinghouse (WWC) and included in their Evidence-based Practice Guides.

The Every Student Succeeds Act (ESSA) promotes the use of federal education dollars on programs with evidence of effectiveness. Building this evidence starts with demonstrating alignment to practices that have been proven to work in the classroom. WWC’s practice guides provide specific recommendations based on reviews of available research, experiences of practitioners, and the expert opinions of a panel of nationally recognized experts. These guides, each of which focuses on a specific topic or content area, outline the strategies and practices that have the strongest evidence of effectiveness in the classroom.

Thinking Maps is aligned to many of the recommendations in the WWC practice guides, in particular those practice books focused on reading, writing, intervention, English Language Learners, and general academic achievement.
## THINKING MAPS ALIGNMENT TO WWC PRACTICE GUIDES: OVERVIEW

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CRITICAL THINKING AND ACADEMIC READINESS

Thinking Maps helps students develop the foundational skills they need for effective learning. The Maps are used across all grade levels and content areas to support development of portable, student-owned learning strategies.

Practice Guide: Organizing Instruction and Study to Improve Student Learning

Recommendation #3: Combine graphics with verbal descriptions.
Visuals help students understand and analyze complex ideas. Combining words and images (dual coding) optimizes learning and improves comprehension, retention, and recall. Thinking Maps engages the visual processing centers of the brain with concrete visual representations of cognitive processes such as Defining, Describing, Comparing and Contrasting, Classifying, Sequencing, Cause and Effect, Identifying Part/Whole Relationships, and Seeing Analogies. Students combine both words and visual representations as they create Maps that put content into graphical form. The Maps are a “visual language for learning” that improves learning outcomes across all grade levels and content areas.

Recommendation #4: Connect and integrate abstract and concrete representations of concepts.
Thinking Maps makes thinking visible for students. The Maps are designed to make cognitive processes—including Defining, Describing, Comparing and Contrasting, Classifying, Sequencing, Cause and Effect, Identifying Part/Whole Relationships, and Seeing Analogies—concrete for students. Each Map is a concrete representation of a thinking process.

READING

Reading is a foundational skill for learning across all content areas. Thinking Maps supports reading comprehension, vocabulary development, and other important literacy skills.

Practice Guide: Improving Reading Comprehension in Kindergarten Through Third Grade

Recommendation #1: Teach students how to use reading comprehension strategies.
Comprehension strategies such as activating prior knowledge, visualization, monitoring understanding, and retelling or summarizing help students make sense of complex text and improve understanding and recall. Thinking Maps provides a structure for applying comprehension strategies while students read. For example, students may use a Map to pull details out of the text and organize them in ways that improve comprehension. Students can also use Maps to retell or summarize the big ideas from a piece of text. Teachers can use Maps in whole-class discussions to activate prior knowledge collaboratively prior to reading.

Recommendation #2: Teach students to identify and use the text’s organizational structure to comprehend, learn, and remember content.
Thinking Maps helps students understand and analyze text structure. Each of the eight Maps is aligned to a particular cognitive process, including Defining, Describing, Comparing and
Contrasting, Classifying, Sequencing, Cause and Effect, Identifying Part/Whole Relationships, and Seeing Analogies. The different Maps are aligned with text structures such as Explanatory, Literary Non-Fiction, Procedural, or Argumentative/Persuasive. Students learn to recognize the different text structures and select the appropriate Map to analyze the text. The Maps provide a structure for taking notes and organizing their ideas as they read.

**Recommendation #3: Guide students through focused, high-quality discussions on the meaning of text.**

Thinking Maps is ideal for group discussion and collaborative learning. Students learn how to “talk off the Map,” organizing their ideas individually or in small groups into a Map form and then using the Map to communicate their ideas to peers. Thinking Maps supports critical thinking and deep comprehension, preparing students to develop, communicate, and defend their ideas about the texts they are reading.

**Practice Guide: Foundational Skills to Support Reading for Understanding in Kindergarten Through 3rd Grade**

**Recommendation #1: Teach students academic language skills, including the use of inferential and narrative language, and vocabulary knowledge.**

Thinking Maps builds a foundation for academic language development. The Maps are aligned with core cognitive skills, including Defining, Describing, Comparing and Contrasting, Classifying, Sequencing, Cause and Effect, Part/Whole Relationships, and Analogies. Students learn to listen for key vocabulary and questions that are associated with each cognitive process. As they gain proficiency with the Maps, they also gain proficiency with the academic vocabulary associated with each Map type. This creates a universal “language for learning” that crosses all content areas. Maps can also be used for general vocabulary development by defining words, comparing and contrasting related terms, classifying vocabulary words, or creating analogies that improve understanding. The *Maps as Vocabulary Word Games* module in the Thinking Maps Learning Community (TMLC) introduces game-based activities that leverage the Maps for vocabulary development.

**Recommendation #3: Teach students to decode words, analyze word parts, and write and recognize words.**

Thinking Maps can be used to analyze words and word parts and build word recognition skills. Young students can combine pictures and words on their Maps as they learn to recognize and define new words. The Brace Map, which is used to analyze Part/Whole Relationships, helps students understand the parts of words (such as beginning and ending sounds or prefix/root/suffix relationships). A Tree Map may be used to list and classify words in various ways (for example, words with the same beginning sound, rhyming words, or parts of speech). Using the Maps combines linguistic and visual thinking to build proficiency with word recognition and vocabulary development.

**Practice Guide: Improving Adolescent Literacy—Effective Classroom and Intervention Practices**
**Recommendation #1: Provide explicit vocabulary instruction.**

Thinking Maps can be used in a variety of ways to support vocabulary development. Students can use Maps to define, compare, and classify words and to analyze word parts (such as prefix/root/suffix relationships). The *Maps as Vocabulary Word Games* module in the Thinking Maps Learning Community (TMLC) introduces game-based activities that leverage the Maps for vocabulary development.

**Recommendation #2: Provide direct and explicit comprehension strategy instruction.**

Thinking Maps gives students a set of tools that make comprehension strategies concrete and explicit. Students use the Maps to analyze text features, text structure, and content. The Maps provide a visual structure for applying comprehension strategies such as summarizing, questioning, and identifying the main idea and supporting details. Using the Maps promotes active reading and builds metacognitive skills students need to monitor their own understanding, connect to prior knowledge, and think critically about what they are reading. Because the Maps are tied to core cognitive processes and used consistently across all content areas, they are more effective in building comprehension skills than standard graphic organizers.

**Recommendation #3: Provide opportunities for extended discussion of text meaning and interpretation.**

Thinking Maps supports meaningful discussion between students. Students use the Maps to organize their thinking and learn how to talk “off the Map” to share their ideas with peers and teachers. Creating Maps independently or collaboratively prepares students for in-depth discussion and interpretation of complex texts.

**Recommendation #4: Increase student motivation and engagement in literacy learning.**

Building confidence in learning ability and comprehension skills improves motivation and engagement. Thinking Maps empowers learners with “student-owned” learning strategies that they carry with them from class to class and grade to grade. The Maps are not simply assignments; they are tools that students use to maximize their learning. As students gain proficiency with the Maps, they are learning how to access and activate their own thinking processes. The Maps have been proven to raise academic achievement and improve critical and creative thinking ability for students of all backgrounds and ability levels, including English Language Learners, Special Education students, and students from disadvantaged backgrounds. Teaching students to activate metacognitive processes “closes the gap” for struggling students and builds confidence in their learning abilities. This translates into increased engagement with academic content and motivation in the classroom.

**WRITING**

Effective writing starts with effective thinking. Thinking Maps and *Write from the Beginning...and Beyond* help students organize their thinking for clearer writing and communication across the content areas.
Recommendation #2: Teach students to use the writing process for a variety of purposes.

Thinking Maps is used across the writing process—including planning/pre-writing, writing and reflection—as well as for analyzing written materials to understand text structure and purpose. The Maps provide a structure to help students organize their thoughts prior to writing. Different Maps can be used to analyze or organize different kinds of texts; for example, a student may use a Flow Map to plot out a narrative story, a Multi-Flow Map to develop ideas for a cause-and-effect expository piece, or a Tree Map to outline supporting arguments for a persuasive piece. Write from the Beginning...and Beyond training shows teachers how to apply the Maps in the writing process and includes specific strategies for narrative, expository/informative, argumentative and response to text writing.

Recommendation #4: Create an Engaged Community of Writers

Thinking Maps is a whole-school “language for learning” that builds strong communities of thinkers, learners, and writers. Students use the Maps not only to organize their thinking but also to share their ideas with teachers and peers. Thinking Maps provides an effective tool to facilitate peer discussion, shared learning, and collaborative idea generation. As students gain proficiency with the Maps, they are able to transfer these skills across content areas and grade levels to become better writers and communicators.

Recommendation #1: Explicitly Teach Appropriate Writing Strategies Using a Model-Practice-Reflect Instructional Cycle

Thinking Maps makes the writing process visible for students. Teachers can use the Maps to explain and model the writing process for students. As students create their own Maps, they learn how to organize and reflect on their thinking prior to writing. They can also use Maps to analyze and respond to their own writing and writing products from their peers. Write from the Beginning...and Beyond training shows teachers how the Maps are used throughout the writing process including Goal Setting, Planning, Drafting, and Evaluating. Teachers also learn specific strategies for narrative, expository/informative, argumentative and response to text writing.

Recommendation #2: Integrate Writing and Reading to Emphasize Key Writing Features

Thinking Maps provides a clear structure for analysis of text structures and features. Using the Maps to analyze texts improves reading comprehension as well as students’ awareness of how texts are structured and how various text features (such as headings, images, and captions) relate to each other and add to the readability of the text. Careful and structured analysis of a variety of text types (such as Explanatory, Literary Non-Fiction, Procedural, or Argumentative/Persuasive) helps students translate the elements of effective writing into their own work. Using the same Maps for analysis of existing texts and organization of their own writing makes the translation more explicit and effective.
ENGLISH LANGUAGE LEARNERS

English Language Learners (ELLs) need extra support in the classroom to unlock their learning potential. Thinking Maps and *Path to Proficiency for English Language Learners* help ELLs improve language proficiency, build academic vocabulary, and access grade-level content.

**Practice Guide: Teaching Academic Content and Literacy to English Learners in Elementary and Middle School**

**Recommendation #1: Teach a set of academic vocabulary words intensively across several days using a variety of instructional activities.**

Thinking Maps is an effective tool for vocabulary study for English Language Learners (ELLs). The visual format makes the Maps accessible for ELLs of all English proficiency levels. Newcomers can integrate pictures and native language translations with new vocabulary words on the Maps as they build their understanding of word meanings. As their vocabulary grows, Maps can be combined to define words, compare and contrast related terms, classify vocabulary words, or create analogies. The *Maps as Vocabulary Word Games* module in the Thinking Maps Learning Community (TMLC) introduces game-based activities that leverage the Maps for vocabulary development.

**Recommendation #2: Integrate oral and written English language instruction into content-area teaching.**

Thinking Maps makes grade-level content accessible for students of all backgrounds and ability levels, including English Language Learners. *Path to Proficiency for English Language Learners* training shows teachers how to leverage the Maps to help ELLs expand their academic vocabulary, improve comprehension of content-area material, and meet grade-level academic standards. Combining visual and linguistic information on the Maps activates “dual coding” in the brain to improve understanding, retention, and recall. The Maps can be used by students of all language proficiency levels. As their language proficiency grows, the Maps become springboards for oral communication and written work products. Using the Maps to organize their thinking and solidify their language skills helps ELLs become better thinkers, writers, and communicators across all content areas.

**Recommendation #3: Provide regular, structured opportunities to develop written language skills.**

Thinking Maps helps ELLs organize their thinking and clarify their understanding of vocabulary and ideas before they write. *Write from the Beginning…and Beyond* training shows teachers how to use the Maps throughout the writing process. Students use Maps to gather and organize information and plan their writing products. They learn how to “write off the Maps” to translate their thinking into formal writing. Thinking Maps makes the writing process easier and more effective for all students, including ELLs.

**Practice Guide: Effective Literacy and English Language Instruction for English Learners in the Elementary Grades**
Recommendation #3: Provide extensive and varied vocabulary instruction.
Thinking Maps is an effective tool for vocabulary study for English Language Learners (ELLs). The visual format makes the Maps accessible for ELLs of all English proficiency levels. Newcomers can integrate pictures and native language translations with new vocabulary words on the Maps as they build their understanding of word meanings. As their vocabulary grows, Maps can be combined to define words, compare and contrast related terms, classify vocabulary words, or create analogies. The Maps as Vocabulary Word Games module in the Thinking Maps Learning Community (TMLC) introduces game-based activities that leverage the Maps for vocabulary development.

Recommendation #4: Develop academic English.
Thinking Maps builds a foundation for academic language development. The Maps are aligned with core cognitive skills, including Defining, Describing, Comparing and Contrasting, Classifying, Sequencing, Cause and Effect, Part/Whole Relationships, and Analogies. Students learn to listen for key vocabulary and questions that are associated with each cognitive process. As they gain proficiency with the Maps, they also gain proficiency with the academic vocabulary associated with each Map type. This creates a universal “language for learning” that crosses all content areas.

Recommendation #5: Schedule regular peer-assisted learning opportunities.
Thinking Maps provides a springboard for peer discussion both among ELLs and between ELLs and English-speaking peers. Thinking Maps is used by all students in the school, creating a universal “language for learning” that encompasses both ELLs and native English speakers. Students with varying language proficiency levels can all create Maps adapted to their own level of English proficiency. The Maps may look different; for example, some students may rely more on images and simple vocabulary terms while others will show a more sophisticated use of language. However, all students are able to engage with the same grade-level content through the Maps. This provides a basis for discussion between students of different language proficiency levels. Students learn how to organize their thinking using the Maps and “talk off the Maps” in peer discussions. Students can also create Maps collaboratively for small group projects and other peer-assisted learning activities.

Contact us for more information!