White Paper

How Executive Functioning Skills Are Built Into SQUARE



SQUEE: An Executive Functioning Approach to Writing

Executive functions are neurologically-based skills involving mental control and self-regulation. In essence, they are processes that relate to managing oneself and one's resources in order to achieve a goal (Cooper-Kahn & Dietzel, 2008). Executive functions highly influence the writing process and, ultimately, a written product (Kellogg, 1996).

SQ Write teaches students how to apply executive functioning skills to create logical, well-constructed essays through the use of engaging, real-life activities that employ the metacognitive strategies of **self-questioning**, **whole-to-part analysis** and **verbal mediation and rehearsal**.

Self-Questioning

Self-questioning is a technique used to access prior knowledge and leads students to become self-reliant thinkers and writers. The independent generation of self-questions allows for an indefinite amount of knowledge to be accessed for writing content (Blohm & Benton, 1991). Throughout SQ Write, students are directly taught the formulaic self-questioning process. Class activities model how the self-questioning formula can help to develop a specific section of the essay. As students practice and develop the skills necessary to generate self-questions, this inner talk leads to independent:

- access of stored memory
- construction of knowledge chains, or highly connected information
- generation of specific evidence that "shows" rather than simply "tells"

Students who independently generate concrete self-questions throughout the pre-writing process produce writing with more details, more examples, and more explanations than students not taught a self-questioning strategy (Blohm & Benton, 1991).

Whole-To-Part Analysis

Whole-to-part analysis breaks a broad idea into manageable chunks. Because it is easier to work on a small part, initiation increases and procrastination is minimized. SQ Write directly teaches students to use self-questioning to identify a main idea and then break it into smaller more detailed parts accompanied by evidence that supports understanding of the whole. (continued on next page)

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Students ask self-questions to:

- discover a main topic
- brainstorm 3 subtopics
- identify background information
- generate 2 details per subtopic
- produce specific evidence for each detail

Verbal Mediation & Rehearsal

Oral storytelling and rehearsal highly influence the development of effective written expression. Prior to writing, students must be able to verbalize their ideas in a detailed cohesive manner.

Most students more effectively organize information orally. Thus, verbal organization is a key trait in writing (Kellogg, 1996). SQ Write incorporates verbal mediation in a prescribed sequential process until students are ready to write.

This process, in conjunction with writing and reviewing work, is repeated in each phase of the essay-building process. If students have trouble making their ideas "sound right", the auditory feedback prompts them to alter the content. By adding, deleting, resequencing and rephrasing ideas, students refine their rough drafts before even beginning to write.

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SQ Write Executive Function Development

SQ Write specifically employs tools and methods that target and develop executive functions (Gioia, Isquith, Guy, Kenworthy, 2000) to improve writing.

Executive Function	Definition	Development with SQ Write
Inhibit	control one's own thoughts and actions	The Thought Organizer keeps students on a predetermined writing path and helps prevent rambling.
Shift	think flexibly and move freely from one idea or activity to another	Self-questioning helps students to think flexibly. The Thought Organizer identifies all the parts of the whole writing product, allowing students to move between ideas and activities without effort.
Emotional Control	modulate emotional responses with rational thought	Self-questioning provides students with a simple process to develop thoughts so that they don't become emotionally overwhelmed.
Initiate	begin a task and independently generate ideas	Students easily generate ideas through self-questioning. The Thought Organizer identifies all parts of the writing process so that students know how to begin composing sentences. Verbal rehearsal makes writing easier because students already have a mental imprint of the essay.
Working Memory	hold information in mind in order to complete a task	The Thought Organizer , Q Card , essay worksheets and Individualized Editing Booklet (IEB) provide students with visual records of their work, decreasing the load on working memory.
Planning/Organization	grasp main ideas and manage current and future tasks	Self-questioning helps students identify and convey main ideas. The Thought Organizer ensures that students manage workflow.
Organization of Materials	impose order on work	The Student Workbook contains a folder to hold all materials and helps keep students organized. The Q Card helps students effectively ask self-questions while the Thought Organizer and essay worksheets help them organize, resulting in answers and subsequent sentences and paragraphs.
Self-Monitoring	check work and monitor one's own performance	Verbal Rehearsal provides students with auditory feedback to hear if sentences sound right. Essay worksheets help ensure that students include all information needed in a detailed, complete essay. The IEB is an authentic editing tool that enables students to easily record prior writing mechanical errors so that they can avoid repeating them.

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To Learn More About How SQ Write Can Help Your Students
Become More Self-Reliant Writers

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