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#9728 BUILDING LITERACY COMPETENCIES IN EARLY CHILDHOOD
#9891 MISUNDERSTOOD MINDS
#9906 GED 2002 LANGUAGE ARTS: WRITING AND READING
#9939 NARRATIVE WRITING 1: STRUCTURE—WHAT IS A NARRATIVE?
#10669 LANGUAGE

Funding for the Captioned Media Program is provided by the U.S. Department of Education

About the Developing Minds Video Library

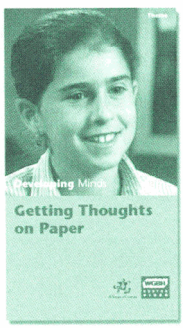
The *Developing Minds* multimedia library features the work of All Kinds of Minds, a private non-profit Institute, affiliated with the University of North Carolina at Chapel Hill. All Kinds of Minds offers a broad range of programs and resources that enable parents, educators, and clinicians to help children and adolescents with differences in learning achieve success in school and life. The Institute was co-founded by Dr. Mel Levine, who for more than 25 years has pioneered innovative programs to enhance the understanding and management of students' learning difficulties. Dr. Levine's comprehensive neurodevelopmental model draws on research from a wide range of disciplines. A renowned developmental-behavioral pediatrician, Dr. Levine is also Professor of Pediatrics at the University of North Carolina Medical School and Director of the University's Clinical Center for the Study of Development and Learning.

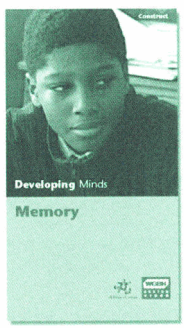
all kinds of minds

Developing Minds is a library of 22 videotapes with accompanying guides. The library is designed to help parents and teachers of elementary and middle-school children explore differences in learning through the approach and conceptual framework of developmental-behavioral pediatrician, author, and professor Dr. Mel Levine.

The heart of the collection, which features children and early adolescents with diverse learning profiles, is divided into *theme* and *construct* videos. The eight theme videos focus on children's struggles and successes with skills such as reading, writing, and mathematics as well as difficulties in communication, understanding, organization, feelings, and behavior. The eight construct videos begin where the theme videos end, illuminating breakdowns in such key areas of brain function as attention, memory, language, neuromotor, social cognition, temporal-sequential ordering, spatial ordering, and higher order cognition.

Dr. Levine guides viewers through the videos as he and other experts, teachers, parents, and children provide commentary and strategies. Together, the videos and print guides promote an understanding of learning differences—strengths and weaknesses—and strategies that help children become successful learners. This material also gives parents and teachers a common language to advance effective communication between home and school.





Theme Videos

Present the learning problems and successes of children and early adolescents (40–60 minutes each)

- Mastering the Challenge of Reading
- Getting Thoughts on Paper
- Thinking with Numbers
- Understanding
- Student Output: Producing, Performing, and Communicating
- Getting Organized/Work Habits
- Feelings and Motivation
- Behavioral Complications

Construct Videos

Provide deeper insight into specific neurodevelopmental breakdowns that contribute to differences in learning (30–60 minutes each)

- Attention
- Language
- Neuromotor Function
- Memory
- Social Cognition
- Temporal-Sequential Ordering
- Spatial Ordering
- Higher Order Cognition

How to Use

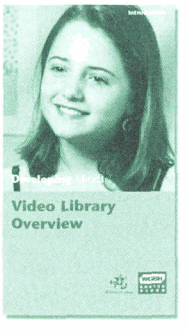
Together, this video and guide can be used to increase awareness and gain a deeper understanding of children's difficulties expressing their thoughts through writing. The video is divided into three segments: Observations, Teacher Strategies, and Parent Strategies. Observations features home and classroom scenes of children struggling with writing skills ranging from punctuation and spelling to remembering concepts and sequencing ideas. Teacher Strategies and Parent Strategies provide practical suggestions from Dr. Mel Levine, other experts, teachers, parents, and the children themselves to help children address a variety of writing problems.

The structure of the guide is similar to the videos, with sections on Observations, Teacher Strategies, and Parent Strategies. In addition, the guide provides a glossary of terms used in the video, a checklist of signs of writing problems, a brief background article on writing, and resources for further information.

There are many ways to use these materials, including watching the video alone, working with a partner, participating in a teacher or parent study group, or using the video and guide at a parent-teacher association gathering. However you choose to use them, these materials will provide insight into important difficulties that children experience with writing. The Viewing Tips on page 6 offer key questions to reflect upon after watching.

Tips for Using

- Scan the guide and read the introduction and background article. Watch the entire video, then rewatch it, using sections of the guide to reinforce what you see.
- To find information that addresses your needs, go directly to a particular section of the guide, such as Explore the Video, then view related video segments—or refer to the guide alone.
- Begin exploring the video library with ***Getting Thoughts on Paper*** for an overview of the topic. Then watch related construct tapes, such as ***Attention, Memory, Language, Higher Order Cognition,*** and ***Neuromotor Function*** for information information on key neurodevelopmental functions that affect writing.



Management by Profile Videos
Introduce a systematic process for developing an individualized educational path based on a child's neurodevelopmental strengths and weaknesses; *A Student Profile* showcases a child as he moves through the process (20–30 minutes each)

- Strategies for Parents
- Strategies for Teachers
- A Student Profile

Introduction Videos
Provide a brief description of the video library components; the Parents' and Teachers' videos also introduce the philosophy and approach of Dr. Mel Levine (10–20 minutes each)

- Video Library Overview
- Introduction for Parents
- Introduction for Teachers

Introduction

"I can think the thoughts, but I can't write them down. It's getting my hand to cooperate with my head and get them down on paper."

—Zander,
sixth grade student

Many adults frequently write down their thoughts, whether in the form of a "To Do" list, a birthday greeting, or a personal or work-related e-mail. If writing as a form of expression is a problem, however, adults can usually avoid it. Adults are seldom thrust into the position that most children are. Because a large part of success in school relates to how well children are able to express their thoughts in written form, those who are unable to accomplish this task may experience frustration, anxiety, and loss of motivation. As children grow older, writing demands increase—on assignments, tests, and notetaking. Children are expected to produce a higher volume of writing, to write faster, and to include more information in a thoughtful and clear manner.

Writing is a complex activity composed of many subskills, such as letter formation, spelling, mechanics (e.g., punctuation, capitalization), grammar, and the ability to generate ideas and shape them into high-quality written language. For children to master getting their ideas on paper, a number of brain functions need to work together. Good writers remember rules, formulate and sequence ideas, and get their fingers to move a pencil quickly enough—all at the same time. They also think critically and creatively.

"I'll have a really good idea. I write it and it sounds like nothing."

—Elizabeth,
seventh grade student

In recent years, Dr. Mel Levine and other researchers have examined elements that are involved in writing. Research indicates that different kinds of brain functions are needed to be productive in writing. As Dr. Levine points out, "There is not another academic skill that demands that a child bring together as many different neurodevelopmental functions as are required for writing." Most researchers agree that graphomotor abilities, attention, memory, language, and higher order cognition are among the neurodevelopmental functions that play a role in a child's ability to communicate through writing.

Helping children become good writers involves, in part, giving them the tools they need to be successful. To do this requires dealing promptly with any neurodevelopmental differences a child has that may affect her written production—before the child becomes excessively anxious, loses her self-confidence, and totally gives up on writing.

Graphomotor

The ability to write legibly and efficiently plays an important role in getting thoughts on paper. Children must use their graphomotor abilities to form letters easily and legibly and to maintain a comfortable grip on their writing instrument. Underlying some writing problems are motor or muscular problems in which the fingers are unable to keep pace with the flow of ideas. Some children may appear unable to maneuver a pen or pencil—for example, they may not know where the pencil is while forming letters or they may exert too much or too little pressure while gripping their pen.

Attention

Attention control contributes to the effectiveness of writing. Writers must preview what they want to convey as they begin putting ideas onto paper. Writing also involves an enormous amount of self-monitoring to keep on track.

Often during writing tasks, children must concentrate for a long period of time. They must have the mental energy to keep working and focus on their writing. Being constantly distracted, overly tired, or fidgety during writing may be signals of attention issues.

"[A] draft is a work in progress . . . When we guide children through the writing process, we need to build the expectation that what they generate is going to be revised, [and] that they have to spend time up front to have enough to say."

—Louisa Moats, Ed.D.
Site Coordinator for the National Institute of Child Health and Human Development Early Interventions Project; Teacher Educator

Language

Language is an essential ingredient of writing. If a child does not have good oral language skills, he is much less likely to have good writing ability. One of the first questions teachers and parents should ask when they identify a child with writing difficulties is, "What is the quality of his oral language?"

Difficulties with specific elements of language (e. g. semantic use, sentence formulation, discourse production) can negatively affect a child's writing. When children have limited semantic understanding—comprehending words and their meanings and how words relate to one another—they have difficulty using words well in their writing. Children who do not understand sentence formulation, or how word order and grammar affect meaning, have difficulty constructing written sentences. When children have problems with discourse production—describing or explaining ideas at length—they find it difficult to elaborate on or expand their ideas in writing.

Memory

Memory abilities have a significant impact on writing. The rate at which children generate ideas must coincide with their retrieval of necessary vocabulary, spelling, and prior knowledge. When organizing their written compositions, children must think about a topic and draw upon facts and concepts. They also need to keep a constant flow of ideas and thoughts while writing. At the same time they must sequence the ideas and facts in the right order.

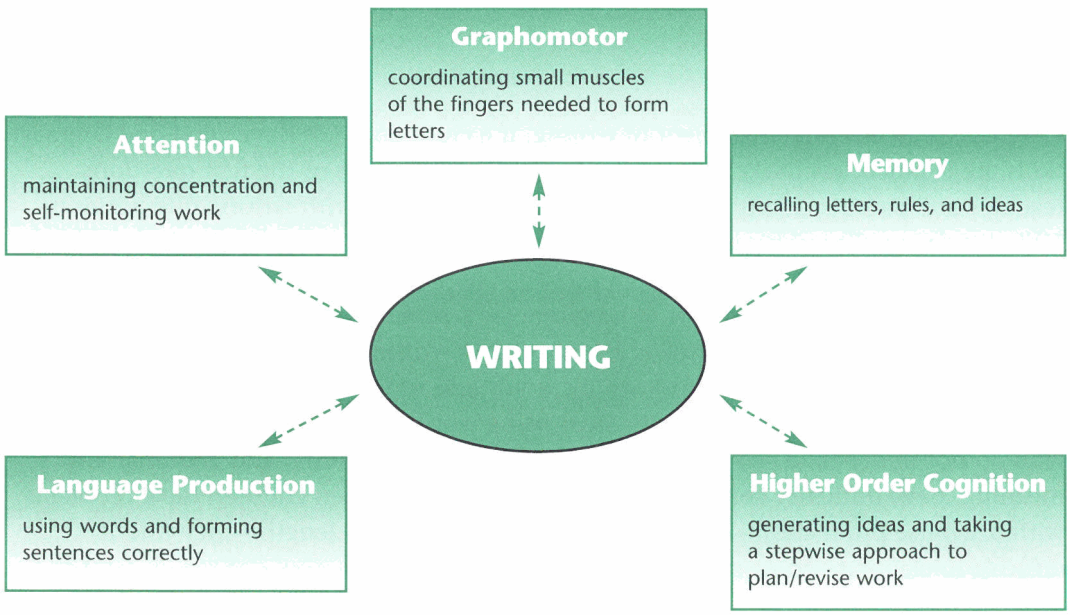
One of the most common problems children experience with writing—particularly in the middle grades—occurs when they cannot automatically remember subskills, such as spelling, punctuation, and letter formation. Children who have difficulty remembering the subskills and rules of writing automatically—without effort—often dislike writing and are exhausted by the effort required to complete written tasks.

Higher Order Cognition

Writing is a higher-order cognitive process that may include idea generation, conceptualization, critical thinking, and creativity. By early adolescence, many written assignments demand critical thinking skills and conceptual ability, such as evaluating opposing ideas and drawing conclusions. Writing assignments often require children to generate original and creative ideas—a process that can be intimidating for even the best writers. Simultaneously, children must demonstrate that they have integrated and understood all spelling, grammatical, and punctuation rules. This integration function—which Dr. Mel Levine likens to the role of a symphony conductor—is critical for writing ability.

Writing Ability Diagram

This diagram offers a visual representation of the writing skills presented in the video.



Viewing Aids

The **Glossary** and **Signs of Writing Problems** explain concepts presented in the video. Refer to them as you view the video, or afterward when reflecting on how you might help a particular child.

Glossary

accommodations: adjustments to tasks that work around a child's neurodevelopmental differences or weak skills; sometimes referred to as bypass strategies

active working memory: a process in which needed ideas or parts of tasks are held together for use during an activity; for example, when correcting a punctuation error, you do not forget what you are writing about

attention: brain functions related to having the mental energy needed for learning and behavior, the processing of information, and the regulation of what you say and do

automaticity: recalling basic skills or facts with little or no mental effort; for example, in writing, recalling the rules of spelling and grammar

brainstorming: generating and thinking through original ideas

demystification: the process of helping children understand their learning strengths and weaknesses

dysfunction: weakness in any neurodevelopmental process, for example, not having enough mental energy to complete a task

expressive language: the ways in which thoughts are communicated in speaking or writing; expressive language abilities allow children to participate in class discussions, explain their ideas orally, and communicate thoughts in writing

graphomotor function: coordinating the small muscles of the fingers in order to maneuver a pen or pencil

long-term memory: a process in which previously learned skills and knowledge are consolidated and stored and can be retrieved when needed

mental effort: initiating and maintaining the flow of energy needed to complete assignments and tasks

neurodevelopmental functions: brain-based processes needed to acquire and produce knowledge, skills, and approaches to learning

neuromotor function: using the body's large and small muscles in a coordinated, effective manner

previewing: the process of thinking about a likely outcome of an action, statement, or plan

saliency determination: the process of deciding what is important

self-monitoring: the process of evaluating and keeping track of what you are doing

Signs of Writing Problems

Graphomotor Function
- finds it hard to form letters
- has difficulty manipulating a pencil
- grips a pencil uncomfortably tightly
- holds a pencil in an awkward manner
- struggles to coordinate small muscles to keep up with the flow of ideas

Attention
- is distracted or fidgety during writing tasks
- loses one's place while writing
- appears mentally fatigued or overly tired while writing
- doesn't exert effort if topic is not personally interesting
- is unable to get started on writing assignments

Memory
- cannot easily recall rules of spelling, grammar, and punctuation
- presents ideas out of sequence
- has trouble accessing prior knowledge while writing
- struggles to organize ideas while writing

Language
- has trouble reading back what is written
- has difficulty with word sounds or meanings
- cannot easily spell words so they reflect the way they are pronounced
- finds oral expression difficult
- struggles with sentence structure and proper word order

Higher Order Cognition
- cannot easily generate ideas or elaborate on them in writing
- has difficulty with writing tasks requiring creativity and/or critical thinking
- finds organizing writing tasks difficult

Explore the Video

Viewing Tips

- Watch the entire video to get a sense of the concepts and issues presented. Then rewatch the parts that interest you.
- View the video with a partner or in a small group, then discuss it. Consider the following questions: *How do problems with graphomotor abilities, attention, memory, language, or higher order cognition affect a child's writing? Which strategies are effective for helping children become better writers? Are there any strategies you might want to try?*
- Watch the video with a child who has a similar profile, then discuss reactions. Have siblings watch the video to gain understanding of their brother's or sister's difficulties with writing.

Observations

Go to these scenes to reinforce what you see in the video or to focus your discussion.

Graphomotor

Zander, a sixth grade student, demonstrates an awkward grip and trouble coordinating his pencil.

His teacher shares that Zander:

- finds it difficult to manipulate a pencil, almost as if he doesn't feel it
- has trouble with the formation of letters
- can become emotional when asked to write

Attention

Fifth-grader Gideon illustrates that while attention difficulties do not necessarily impair verbal expression, they can affect writing.

Gideon and his teacher describe his:

- difficulty focusing on both the mechanics of writing and his ideas
- inability to monitor where he is in the writing process, such that he skips words and punctuation along the way

Language

Kim has language difficulties that interfere with her writing.

Her teacher observes that Kim:

- is challenged by sounding out words and writing and spelling words so that they reflect the way they are pronounced
- recalls the words from memory, instead of reading aloud what she has written

Memory

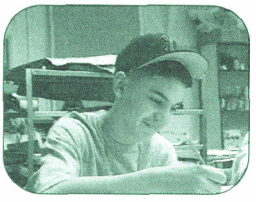
Recalling the rules involved in writing is a major drain on Max's memory.

He describes:

- being confused by spelling and grammar rules
- remembering what he wants to write before writing, but forgetting it when he actually tries to write down his ideas

Higher Order Cognition

Seventh-grader Arnaldo has difficulty writing when he does not understand the material.



He admits to:

- blanking out if he doesn't understand the work
- giving up when his ideas are blocked
- being a hard worker when he is clear on what he is doing

"If you want to help a kid become a better writer, you have to start by asking the question, 'Where's the breakdown occurring when he or she tries to write?' We can take a particular breakdown and say, 'How do we work around it and how do we practice it, and is there anything we can be doing, any material or apparatus we can be using, that will help us bypass and/or work on the weakness?'"

—Dr. Mel Levine

Teacher Strategies

The techniques used by teachers in these scenes can reinforce what you see in the video or focus your discussion.

1. Ms. Herko gives seventh-grader Kim opportunities to become better at expressing her ideas in writing.

She:

- first gives the entire class its instructions in a variety of formats to reinforce understanding of what is expected
- frees Kim up on occasion to just express her thoughts in writing without any penalties for grammar or punctuation
- encourages Kim's flow of ideas by telling her in advance that no one else will be reading her work

"If I can find something that the children feel good about in their lives, talents they might have, anything that they are really focused on, then I go with it."

—Ellen Campius, seventh grade teacher

2. Teachers can allow students to bypass their graphomotor difficulties with writing.

Sixth-grader Zander:

- speaks into a tape recorder to get his thoughts captured and then transcribes the tape
- has learned to type
- says he can better concentrate on his writing while using the computer

3. Ms. LaRoche, a fourth grade teacher, describes how she accommodates Nick's existing memory capacity.

Her methods include:

- having Nick make a list of words that immediately come to mind when he's given a topic
- organizing the writing task into steps so he need not remember everything at once
- getting him to use his list of words to create sentences and then revise them
- encouraging Nick to read his work aloud because he is better at hearing mistakes than seeing or reading them
- allowing him to use the computer's spell check function

4. To help John maintain his attention on writing tasks, Ms. LeBar uses refocusing strategies.

Her methods include:

- cueing him with an agreed-upon signal when he is "off task"
- tapping his desk
- using a graphic organizer to help him jot down ideas before writing

Parent Strategies

The techniques used by parents in these scenes can reinforce what you see in the video or focus your discussion.

1. One father explains how he helps his children overcome their trouble getting started with written assignments.

He is on hand to:

- take dictation for them so their ideas can flow without anxiety over writing mechanics
- work with the children to revise and edit their writing
- listen to them talk about their ideas before writing them

2. Other parents in the video experiment with a variety of things to help children revise their written work.

They try:

- being available to consult
- suggesting that the child use a computer to edit
- helping the child organize thoughts
- explaining how writing is done in stages
- building the understanding that everything we write gets revised
- letting the child correct parents' writing mistakes
- suggesting that the child wait a day or so before proofreading
- using humor to keep things from getting too solemn

"I was able to help Zakia to be more productive by . . . listening to her ideas and helping her to understand that her goal is to put on paper what she can so eloquently express verbally."

—Parent

3. Nick's parents help him bypass his difficulties with writing.

They do this by:

- helping him organize his workspace
- sharing with Nick their own difficulties with writing
- having him use an electronic spell checker
- encouraging Nick's use of the computer to compose
- having Nick read aloud what he has written to practice proofing and prompt editing
- helping him develop self-worth by encouraging him to fix the computer's mechanical problems

Home and School Collaboration

"Close collaboration between the classroom and the home is critical to enabling a struggling student to become a successful writer."

—Dr. Mel Levine

Living with or teaching a child who has difficulty writing can be an emotionally charged experience. Frustration and confusion can complicate the conversation between parents and teachers about what to do. Respect for each other and open communication can reduce tension and enable parents and teachers to benefit from each other's expertise and knowledge of the child from different perspectives. Working together, parents, teachers, and the children themselves can inform one another about how to best address the child's needs.

Parents and Teachers Communicating about Writing

When you suspect a writing problem, schedule a parent-teacher meeting to share information about the child. The following "talking points" can help structure the discussion.

Share observations of the child's writing profile and discuss where the breakdown is occurring. What are the worries or concerns? Does the child have difficulty with a writing subskill, such as letter formation, mechanics, or generating ideas? Do difficulties in graphomotor ability, attention, memory, language, or higher order cognition seem to affect the child's writing? Does the child have similar problems when writing at home and at school?

Identify and discuss the child's strengths and interests. How can they be used to enhance his or her writing skills and motivation to complete written assignments? Can a child's curiosity about World War II or in cycling be used in a research report? Can parents capitalize on a child's love of photography by encouraging her to write brief descriptions of photographs that she or others have taken?

Discuss possible strategies. What have you both tried that has been successful and not so successful? Are there other ideas that might work?

Acknowledge emotional reactions to the situation. Discuss how children who experience frustration or failure may become so fearful that they give up on writing because they feel they cannot produce anything acceptable. Some children may then turn their energy to acting out or withdrawing from writing tasks. Share strategies to help the child cope.

Discuss appropriate next steps. Establish a plan for ongoing discussion and problem solving. Should specialists be consulted? How can you best advocate for the child?

When a problem with writing has been specified:

- Learn more about the process of writing from other experts, reference books, and Web sites. (See Resources beginning on page 19.)
- Seek assistance from colleagues and experienced parents, including professional organizations and support groups.
- Request that the school's special education teacher or learning specialist observe the child, then consult with you on strategies to use both in the classroom and at home.
- Investigate the availability of professional help from pediatricians and related service specialists such as occupational therapists and speech-language pathologists.

Talking with Children about Their Strengths and Weaknesses

"In the adult world, what really counts is how strong your strengths are, not how weak your weaknesses are." **—Dr. Mel Levine**

Moments of frustration as well as pride are common for children with writing problems and for the adults who work with them. Some children may give up and see themselves as failures. Others may exhibit behavior complications that relate to their difficulties with writing. Dr. Levine suggests using a process called demystification, which, through open discussion with supportive adults, helps children learn to put borders around their differences and understand that, like everyone else, they have strengths and weaknesses. This process creates a shared sense of optimism that the child and adult are working toward a common goal, and that learning problems can be successfully managed. The following suggestions can help you demystify children's difficulties with writing.

Eliminate any stigma. Empathy can reduce children's discouragement and anxiety about their writing difficulties. Emphasize that no one is to blame, and that you know that often they need to work harder than others to write successfully. Explain that everyone has differences in the way they learn. Reassure children that you will help them find ways that work for them. Share an anecdote about how you handled a learning problem or an embarrassing mistake.

Discuss strengths and interests. Help children find their strengths. Use concrete examples, but avoid false praise. You might say to a child who seems to effortlessly learn a new software program, "You're a real computer whiz. Could you write a short guide telling me how to use the program?" Identify books, videos, Web sites, or places in the community that can help children build on their strengths and interests.

Discuss areas of weakness. Use plain language to explain what aspect of a writing skill is difficult for the child. Use concrete examples, such as, "You may have difficulty starting a writing assignment because you have many wonderful ideas but you don't know where to begin."

Emphasize optimism. Help children realize that they can improve—they can work on their weaknesses and make their strengths stronger. Point out future possibilities for success given their current strengths. Help children build a sense of control over their writing by encouraging them to be accountable for their own progress. A child who has difficulty generating ideas from scratch may learn to use a brainstorming strategy. Have the child monitor her progress in becoming a better brainstormer by keeping track of her many good ideas.

Identify an ally. Help children locate a mentor—a favorite teacher, an adolescent, or a neighbor—who will work with and support them. Explain to children that they can help themselves by sharing with others how they learn best. Older children can explain the strategies that work for them while younger ones may need adult support. Encourage children to be active partners with their allies.

Protect from humiliation. Help children strengthen self-esteem and maintain pride by protecting them from public humiliation related to their differences in learning. Always avoid criticizing children in public and protect them from embarrassment in front of siblings and classmates. If a child has graphomotor problems that affect handwriting, do not share drafts of his work with others.

Management by Profile

Demystification—helping children understand their neurodevelopmental strengths and weaknesses—is part of Management by Profile, a process developed by Dr. Levine and All Kinds of Minds for managing the education of children with differences in learning. Teachers, parents, and the children themselves participate in developing a learning plan for the child that includes strengthening of strengths, accommodations, interventions at the break-down points, and protection from humiliation.

For more information on Management by Profile, see the Management by Profile guide and the videos, *Strategies for Parents, Strategies for Teachers,* and *A Student Profile.*

Strategies to Try

Strategy Tips

Decide which strategies to try by observing the child and identifying the ways in which he or she learns best.

- It may take several attempts to see positive results from one strategy. Don't give up too soon.
- If the first few strategies you try do not improve the child's skills, try others.
- Most of these strategies can be adapted for use with different age groups.

You may use the strategies on the following pages to help children who are experiencing problems with writing. Many of those listed are accommodations—they work around a child's differences by offering alternate approaches. For instance, if a child is having trouble writing, consider postponing cursive writing instruction. Other strategies are designed to specifically strengthen a weakness. For example, inviting children to write about things they are interested in and know a lot about. From the strategies suggested below, select those that you and the child think might work best.

General Strategies

Create a safe environment for writing. Balance feedback between what is good about the writing and what needs improvement. Always highlight whatever is positive in a child's writing. Avoid comparing one child's writing with another's.

Evaluate content and mechanics separately. Help the child to see that she may have good ideas and still need to work on a particular writing subskill. Always correct any grammatical or other speech errors in private, and in a respectful way.

Encourage a variety of writing activities. Keeping a daily journal can be motivating and can provide needed practice. Consider other fun writing assignments such as writing to pen pals. Parents may ask their child to compose songs and/or record family trips.

Use free writing. Set a time each day and have children write about anything that interests them. Stress that no one else will read what they write, nor will the writing be evaluated.

Allow enough time for each assignment. Help children estimate how long a given task will take to complete. Consider giving them additional time to complete a written assignment or test. Rather than have something due at the end of the class period, let children turn in the assignment at the beginning of the next day. Let children write less when a deadline cannot be extended.

"Explicit instruction is basically where you have a clear idea what it is you want children to learn and explicitly teach it."

—Edwin Ellis, Ed.D
Professor of Teacher Education
University of Alabama

Make your expectations explicit. When presenting an assignment or giving directions, clarify your expectations. Tell children the process you want them to use to write a report and model that process for them.

Provide time for revision and proofreading. Emphasize that writing is a process. Encourage children to become comfortable revising drafts. Explain to children that it is easier to proofread what they have written several days after writing it rather than immediately.

Use cooperative writing projects. Provide opportunities for children to work in groups as they work on writing assignments. Designate a different role for each group member, such as researcher, proofreader, brainstormer, and illustrator.

Graphomotor

Help the child find the right writing instrument. Make sure the child feels a sense of control with the pen or pencil. Try aids such as pencil grips. Suggest using pencils—they provide more friction on the paper than pens, do not smear easily, and can be erased.

Allow the child to print. If a child is having difficulty writing, consider postponing cursive writing or give him the choice of cursive or print.

Provide technology. Make tools available that facilitate writing, such as computers. Teach touch typing. Allow children to record their ideas on audiotape and then transcribe them. Or, take dictation of a child's story and have the child review and revise the written product.

Check that the child has the optimum setup for writing. Is her chair and desk a good fit in terms of height, stability, and slant? (A child may find a slanted work surface, such as a desk easel, helpful for writing and drawing.) Is she more stable with the paper taped to the desk or held by a magnetic paper holder rather than having to hold it with her free arm? Is she more comfortable writing on the floor while lying on the carpet, or at waist level sitting upright at a desk, or at an upright surface like the chalkboard?

Provide a model. For children who press down too hard on their paper, have them draw a line exerting appropriate pressure while you observe. Whenever children are writing, have them compare the lines in their writing with the model line and adjust pencil pressure as necessary.

Have the child practice forming letters. Have children trace letters. Gradually reduce the complete letter shape to dots so that the child can practice making the letters by connecting the dots, then eventually move to making the letter alone.

Make note taking more manageable. Give children partially completed outlines and handouts to decrease the amount of information they need to copy or the amount of text on which they need to take notes.

Attention

Prepare work plans for written assignments. Show children how to create their own work plans before beginning an assignment. Allow them to make a sketch, a brief summary, or an outline to use as a blueprint.

Emphasize key information. Allow children to copy information from the chalkboard or overhead in separate stages. Make sure all information to be copied is written clearly. Highlight important information by underlining it or by using a different color.

Teach children to preview. Help them get started on assignments by encouraging children to think ahead of time about the completed assignment and what it will look like or what they will do in the assignment. Have children make a list of materials they will need to write their book report or have them outline what information they will include in their story or report. Ask them to consider what they will need to describe in the beginning and middle of a story so their ending will make sense.

"Should you try to fix a problem or bypass it? I think you have to do both. . . . Sometimes you work around the problem; at the same time, in another setting or with other tasks, you're trying to fix it."

—Dr. Mel Levine

Use the PLAN strategy to help organize writing and free the child to brainstorm ideas.

- Preview the assignment—think about things such as the purpose and audience.
- List the main topics you plan to write about, along with details for each.
- Assign an order for the topics.
- Note ideas in complete sentences.

Teach children to self-monitor. During a writing task, teach them how to stop and evaluate how well they are doing. For example, tell them, "Every 10 minutes you will need to stop and check to see if you are getting your point across." Teach children to ask themselves questions such as, "How is it going?" and "Do I need to make changes?"

Help children maintain their mental energy for writing. Allow them to take frequent breaks while writing. Suggest that they get up and walk around during these breaks.

Help children stay focused. Allow them to choose the best place for them to do writing assignments. Let them listen to music if it helps their concentration.

Help children get started. Assist the child by making sure he has the right writing tools available and has an organized workspace. If needed, provide a jumpstart to help him begin, such as the first sentence of a paragraph.

Teach children editing. Streamline the editing process by having children skip every other line when writing a draft to leave space for making edits. Teach children how to use editing symbols, so that instead of having to rewrite everything, they can use notation to indicate what needs to change.

Ask children to write about topics of interest. Invite children to write about things that they know a lot about. Make high-interest magazines available and ask children to write about what they have read in them.

Language

Encourage children to read their writing aloud while editing it. Teach children how to listen for where sentences begin and end so that they may apply proper punctuation and capitalization, and also listen for grammatical errors.

Have children practice the sequencing of ideas. They might write ideas or sentences on strips of paper and then order the strips before writing.

Use prompts and reminders. You might give children the words to use when writing.

Provide opportunities for children to practice speaking. Encourage children to express ideas and elaborate on them in everyday speech. Build in opportunities for oral reports and discussions on topics that interest them.

Practice elaboration. Use visual stimuli to trigger speech. Ask children to describe, explain, or elaborate on photographs, illustrations, and pictures. Frame questions that are designed to elicit responses requiring more than one word answers—for example, rather than ask a child if she liked a television program (answer could be yes or no), ask her to describe what she liked best and least about the program.

Memory

Automatize the rules of spelling, grammar, and punctuation. Use explicit instruction to promote automatic recall of rules. Build practice into lessons. Review skills and knowledge routinely to help children do things more automatically.

Break writing assignments into steps or stages. Make brainstorming the first stage, drafting ideas the second stage, revision the third stage, and correcting spelling and grammar the last stage before the final draft. Spread out the stages over time.

Generate ideas apart from writing. Allow children to record their ideas on a planning sheet or into a tape recorder that they read or listen to later when they are ready to write.

"[His] writing is understandable in terms of spelling. . . . But in terms of grappling with concepts and ideas, it's kind of like he's gotten all these ideas into his brain . . . and then [they] just pour out in some way that's not necessarily very sensible."

—Suzanne Herko, middle school teacher

Give children a writing template. Provide them with templates that structures the organization of the text to be written. The template might be a diagram of what the lead paragraph could contain, or an outline for the child to follow.

Teach mnemonic strategies. A strategy for editing an essay might be to review capitalization, omissions, punctuation, and spelling (COPS). Have children write COPS on the upper left hand corner of their papers as a reminder. To track progress, have them record each time they found a particular error. Graph their results.

Reduce the emphasis on certain subskills. Place a priority on children getting their ideas down on paper, without worrying about spelling or punctuation.

Higher Order Cognition

Use graphic organizers—such as a web—to organize ideas. Encourage children to map out what they want to say before they begin writing. Have them number their ideas in order of presentation. Suggest that children diagram or draw their ideas before starting to write.

Encourage children to use brainstorming before starting an assignment. Start the brainstorming process with something of interest to the child. Allow the child to brainstorm in any way he prefers—for example, if the child has difficulty with writing, let him brainstorm orally.

Use sentence starters to trigger thoughts. Ask children to finish a sentence, such as "Jack runs . . . ." by asking them questions about the sentence starter, such as, "What kind of person was Jack?" and "Where was Jack running?"

Reduce the number of start-up tasks required for a written assignment. Rather than expect a child to locate and organize all of the reference materials for a large homework project and begin writing on the same night, gather the materials for her. Parents can make the work more manageable by helping the child set up a neat workspace for homework.

For more strategies to address weaknesses in writing, refer to the *Neuromotor Function*, *Attention*, *Memory*, *Language*, and *Higher Order Cognition* videos and guides in this library.

Background on Writing

In virtually every grade in every school, students are putting pencil to paper as never before. While national tests show that few students perform at expected writing levels, educators are convinced that good writing is critical to children's future success. Consequently, educators are spending considerable time teaching students how to write in a clear, concise manner. Many schools now have writing specialists. Others have instituted or expanded writing classes. Nationwide, many teachers are being educated in new ways to help students turn their ideas into literate pieces of work.

Most educators agree that students need to write more. In some classrooms, children are being given time at the beginning of class to write about anything that pops into their heads—a practice called free writing. Sometimes students write essays about math equations, describing how they arrived at their answers. Other teachers stress writing all the time—in homework assignments, in journals, on quizzes, and in classroom activities across the curriculum. On some standardized tests, there are fewer multiple choice questions and more questions requiring answers in the form of short paragraphs and essays.

The emphasis on writing may work well for those children for whom practice makes perfect. For others, however, more writing does not necessarily mean becoming more competent writers. Often, less skillful writers finish quickly and produce less than more competent writers. Dr. Steve Graham, faculty member at the University of Maryland, conducted a study in which he found that children with writing difficulties spent only six or seven minutes writing an essay. But when encouraged to write more, the struggling students came up with new and interesting material, proving they did have more to say.

The papers of less skillful writers may also be difficult to read because of handwriting, spelling, or grammatical errors. Many struggling writers feel the process takes too long. They may respond by rushing through their revisions and edits, focusing on isolated details rather than the entire paper. Nonsensical sentences, disjointed paragraphs, and meandering structure may all signal difficulties with writing.

Most children make mistakes or experience problems in writing as part of the process of becoming better writers. They may reverse words, spell poorly, or have difficulty producing their thoughts in writing. When a writing problem is suspected, it is important to look at many elements, including the nature of the problem, the frequency of its occurrence, the age of the child, and the writing instruction.

While most states have standards for the skills students should master in each grade, many educators back away from specifying exactly what a student should or shouldn't know. Instead, they ask teachers and parents to watch children carefully to ensure they are making continuous progress. One increasingly popular way to monitor progress is through collecting a portfolio of a child's work over time.

While some children may be wrongly judged as having a writing problem, others have problems that are missed. "Accusations of laziness, poor motivation, and reprehensible attitude are often directed toward struggling writers," says Dr. Mel Levine of All Kinds of Minds. "The results can be a serious loss of incentive, a generalized academic disenchantment, and demoralization." The reasons why children may struggle with writing are complex and varied. Researchers like Dr. Levine point to the

neurodevelopmental functions that underlie the skill of writing, such as graphomotor abilities, attention, and language. Virginia Berninger of the University of Washington has studied the relationship between working memory and writing. Her research has shown that working memory helps students set goals, generate ideas, plan sentences, structure a body of work, and even revise it. Students must use working memory to visualize what they are trying to say, then use it again to get ideas down on paper.

Researchers have tested the effectiveness of different ways for students to manage the writing process, including improving a pencil grip that frustrates a child and helping children think of writing in a multifaceted way. This approach may involve breaking down the writing process for students and helping evaluate their work as they accomplish each step, such as brainstorming, planning, spelling, and grammar.

Intervention research has shown that some students need to be taught explicit skills about writing to help them manage writing as a problem-solving process. Accomplished writers use specific skills to manage writing, composing, and organization. Beautifully written prose does not always flow effortlessly.

Dr. Graham and Dr. Karen Harris, also of the University of Maryland, believe that for students to learn the necessary writing skills, they must value what they are writing and work on projects they choose. When these elements are in place, the likelihood of self-regulation—the ability to define, plan, monitor, and evaluate their own work—increases. In addition to promoting self-regulation, many students need to be taught specific skills to navigate through the various roadblocks that can arise on the path to becoming a good writer.

In their current work, Drs. Graham and Harris and researcher Dr. Gary Troia suggest that teachers show students how to "mindfully" plan when writing. Mindfulness during writing describes the care students can take when writing, instead of coming up with a quick and mindless response. During mindfulness, students are asked to compare a specific strategy, such as reviewing punctuation separately from spelling, to their own approach, such as trying to spot all the problems in a written piece in one quick read. Then students are asked to figure out why the new strategy was suggested. They are also asked to remember whom they are writing for, to keep in mind whether the audience will understand what they are trying to convey.

Dr. Donald D. Deshler, director of the Institute for Research in Learning Disabilities at the University of Kansas, has worked with his colleagues to develop and evaluate the effectiveness of strategies to improve the writing quality and quantity of students with learning differences. Perhaps the best known strategy for editing is COPS, or Capitalization, Organization, Punctuation and Spelling. This strategy involves teaching students to review their writing by looking for, and correcting, errors in those specific categories.

Dr. Carol Sue Englert at Michigan State University has also developed an acronym to help students manage the writing process. It is called POWER, or Plan, Organize, Write, Edit, Rewrite/Revise. The research of Englert and her colleagues suggests that providing students with a framework, a systematic way to approach writing, can help them work through difficult steps in the writing process.

At a more basic level, research has shown that handwriting and spelling can affect the quality and quantity of a child's writing, which in turn may influence the child's confidence about his or her writing.

Helping Children Become Better Writers

- Respect the feelings children have about their written work.
- Don't put work on display or have classmates look at it without a child's permission.
- Hand out notes from class lessons to minimize the impact of graphomotor problems on notetaking.
- Provide directions for assignments that children can easily follow.
- Save old tests and papers for students to review for ideas and organization.
- Encourage children to approach writing using a problem-solving process. For example, suggest that they first plan and organize their ideas, then translate them into words, phrases, and sentences, then check their writing for correct spelling, grammar, and punctuation.

But how to help those children is a topic open to some debate. Some teachers, for example, feel the use of spell check software, especially at the high school level, can mask problems students may suffer from later in life. Others, however, feel that the computers help students overcome frustration they feel about spelling or handwriting problems that can hamper their ability to write.

Dr. Levine stresses that many different strategies can work to help struggling writers. For example, he and others suggest that students work collaboratively on writing assignments and be given tasks, such as researcher or copyeditor, at which they can excel. When children feel successful at some aspect of writing, they are more motivated to improve. Most of all, explains Dr. Levine, students need to be seen as individuals in the writing process, each with his or her own strengths and weaknesses.

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Web Sites

www.allkindsofminds.org "Management Strategies by Theme: Writing"

www.ldonline.org/newsltr "Understanding Why Students Avoid Writing"

www.nces.ed.gov/pubs/96845.html "Can Students Benefit from Process Writing?"

Other

Northwest Regional Educational Laboratory, Portland, Oregon

National Writing Project, Berkeley Calif.

Resources

For more information about understanding and managing differences in writing, consult the references below.

Web Sites

All Kinds of Minds
www.allkindsofminds.org Explores the Institute's approach to guiding children through the writing process. The Library section of the site includes case studies and articles such as "Igniting Their Writing: The Struggle to Get Ideas on Paper" by Dr. Mel Levine and "Measurement of Written Language Expression" by Stephen R. Hooper et al. The site's LearningBase offers further guidance and references for teachers and parents including the feature, "Getting Thoughts on Paper."

Assistive Technology, Inc.
www.assistivetech.com Offers a range of products and services to facilitate communication—backed by 20 years of research at Boston's Children's Hospital. One example is "WriteAway," a software program combining basic word processing with proven communication enhancement strategies for those who have difficulty with oral and/or written communication.

ERIC Clearinghouse on Reading, English, and Communication (ERIC/REC)
http://eric.indiana.edu Allows parents and teachers to search for bibliographies, lesson plans, and reports on a range of writing-related topics, such as handwriting instruction; includes a link to NAEP's study, "The Nation's Report Card: Focus on Writing."

Hello Friend/Ennis William Cosby Foundation
www.hellofriend.org Offers resources for people with learning differences, their families, and educators.

International Dyslexia Association
www.interdys.org Provides information on assistive technology, medical and educational research, conferences and seminars, and teaching methods; publishes the scholarly research journal Annals of Dyslexia.

LD Online
www.ldonline.org Links to extensive resources on the topic of writing for parents and educators; see LD in Depth section for a review of the technology and software that can assist children who struggle with the writing process.

The National Information Center for Children and Youth with Disabilities
www.ldonline.org/ld_indepth/teaching_techniques/nichcy_interventions_bib.html Lists references related to "Strategies for Writing" from NICHCY, a national information/referral center providing information to families and educators.

Schwab Learning
www.schwablearning.org Offers families information for identifying and managing differences in learning differences and resources for connecting with others; provides information in both Spanish and English.

Articles and Pamphlets

American Occupational Therapy Association, Inc. and the American Occupational Therapy Foundation. **Parents Ask about Occupational Therapy Services in Schools.** Offers a guide to questions often asked about occupational therapy services; available online at www.ldonline.org/ld_indepth/writing/ot_questions.html

Gersten, Russell, Scott Baker, and Lana Edwards. **Teaching Expressive Writing to Students with Learning Disabilities.** The ERIC Clearinghouse on Disabilities and Gifted Education, ERIC/OSEP Digest #E590, December 1999. Offers three components that consistently led to improved outcomes in teaching expressive writing to students with learning differences based on a meta-analysis of the research literature. Ordering information is available by calling 1-800-328-0272. The full text is online at www.ldonline.org/ld_indepth/writing/ERIC_E590.html

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Isaacson, Stephen. **Simple Ways to Assess the Writing Skills of Students with Learning Disabilities.** Adapted for the Web site, LD OnLine, from a similar article by Isaacson in *The Volta Review* 98, no. 1 (1996): 183–199. Describes types of writing assessments that help identify strengths and weaknesses, and support planning instruction and reporting progress; available online at www.ldonline.org/ld_indepth/writing/isaacson_assessment.html

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Cunningham, Patricia M., et al., ed. **Reading and Writing in Elementary Classrooms**. New York: Longman, 2000. Offers tested teaching tips for the classroom. One chapter is fully devoted to writing; many examples are grade level-specific.

Hall, Janice K. Alan E. Grimes, and Beverly Salas. **Evaluating and Improving Written Expression: A Practical Guide for Teachers, 3d. ed**. Austin, TX: Pro-Ed, 1999. Gives teachers and students an overview of "what makes good writing." Concepts and activities are designed for regular classroom teachers, resource room teachers, and parents. To order, call 1-800-897-3202.

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Levine, Melvin D. **Educational Care, 2d ed**. Cambridge, MA: Educators Publishing Service, 2002. Covers key themes in academic performance. The book is intended to be a practical guide to the understanding and collaborative management of differences in learning. For each topic, there are recommendations regarding what needs to be done at home and also in school to help a struggling child or adolescent succeed.

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Audio and Videotape

All Kinds of Minds. **Reaching Minds—language topics (audio)**. Part of the Reaching Minds audiotape series includes several titles related to language differences, such as "What We Can Learn from Spelling," "Reading Well and Spelling Poorly," and "Attention and Spelling." All can be ordered online at **www.allkindsofminds.org**

The National Center to Improve Practice. **Multimedia and More: Help for Students with Learning Disabilities (video)**. Shows how multimedia can be used to stimulate students and enhance their writing skills; focuses on the experiences of a tenth-grade English class in Massachusetts. A nine-minute online video clip that can be accessed at **www.ldonline.org/ld_indepth/technology/multimedia.html**

Resources for Children and Adolescents

Creative Zone: Creative Writing
www.EdGate.com/st_cz_cw.html Links to Web resources, such as Stone Soup, KidsNews and Inkspot, that encourage children to write their own stories and submit them for possible Web publication

Kids Info—International Dyslexia Association
www.interdys.org/kidsinfo.stm Gives basic facts, definitions, homework tips, software programs, and an "ask the expert" feature, with separate sections for children ages 6–8, 9–11, and 12–15. Children also can pair with a virtual pen pal at www.interdys.org/kidsonly.stm

LD Online—KidZone
www.ldonline.org/kidzone/kidzone.html
Offers self-advocacy tips, lists books to help children understand their particular learning differences, and invites children to submit creative writing to its KidsZone Magazine.

Story Quest—Story-Writing
http://tqjunior.thinkquest.org/5115 Offers children tips on how to break story writing into smaller steps.

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Levine, Melvin D. **The Language Parts Catalog**. Cambridge, MA: Educators Publishing Service, 1999. Helps adolescents 12 years and older understand the various parts of language and the roles language plays in school and in social life. The book is especially useful in trying to demystify students with language dysfunctions. Readers who believe they have weak language functions may "send away" for replacement parts. Students also are given specific remedial techniques to try while waiting for their "parts" to arrive in the mail.

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The *Developing Minds* video library is produced by the Educational Programming and Outreach department, Special Telecommunications Services division of the WGBH Educational Foundation.

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Developing Minds is a production of WGBH Boston in association with All Kinds of Minds.

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Major funding for *Developing Minds* is provided by Schwab Learning, a program of the Charles and Helen Schwab Foundation; ExxonMobil Foundation; Spencer T. and Ann W. Olin Foundation; Emily Hall Tremaine Foundation; The Roberts Foundation; and Geraldine R. Dodge Foundation.

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ISBN 1-57807-742-7

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