ABSTRACT
        The guidelines included in this booklet draw from a 5-year
study reported in "Beating the Odds: Teaching Middle and High School Students
to Read and Write Well," which investigated English programs in 44 classrooms
in 25 schools in four states. The booklet states that, by comparing typical
programs with those that get outstanding results, researchers have been able
to identify the features of the more effective programs. It adds that, in
comparing two sets of classrooms, researchers have been able to identify and
validate the following six features of instruction that make a difference in
student performance: students learn skills and knowledge in multiple lesson
types; teachers integrate test preparation into instruction; teachers make
connections across instruction, curriculum, and life; students learn
strategies for doing the work; students are expected to be generative
thinkers; and classrooms foster cognitive collaboration. The booklet
discusses each one of these six features in turn, presenting some activities
that work as well as what does not work, and providing a classroom example
from a real-life school. (NKA)

GUIDELINES FOR

Teaching Middle and High School Students to Read and Write Well

Six Features of Effective Instruction

NATIONAL
RESEARCH
CENTER ON
ENGLISH
LEARNING &
ACHIEVEMENT

Judith A. Langer
with Elizabeth Close, Janet Angelis, and Paula Preller

booklet draw from a five-year study being conducted by Dr. Judith A. Langer, director of the National Research Center on English Learning & Achievement. She and a team of researchers have been investigating English programs in 44 classrooms in 25 schools in 4 states. By comparing typical programs with those that get outstanding results, Langer and colleagues have been able to identify the features of the more effective programs.

The results of this research are reported in a set of research reports and case studies including, *Beating the Odds: Teaching Middle and High School Students to Read and Write Well*, which details the features of effective instruction that are the subject of this booklet. *Excellence in English in Middle and High School: How Teachers' Professional Lives Support Student Achievement* examines the professional contexts that contribute to teachers' success. These reports, the case studies, and related articles can be found on CELA's web site (http://cela.albany.edu) or by contacting the Center (see page 16).

MOST

CLASSROOM

TEACHERS WORK

HARD PLANNING

LESSONS,

CHOOSING

MATERIALS,

TEACHING

CLASSES,

INTERACTING

WITH INDIVIDUAL

STUDENTS, AND

ASSESSING

STUDENT

PROGRESS.

YET SOME

SCHOOLS AND

TEACHERS SEEM

TO BE MORE

SUCCESSFUL

THAN OTHERS.

WHAT MAKES THE DIFFERENCE?

Langer's research reports, a set of case studies, and newsletter articles are available at

http://cela.albany.edu

GUIDELINES FOR

Teaching Middle and High School Students to Read and Write Well

Most classroom teachers work hard planning lessons, choosing materials, teaching classes, working with individual students, and assessing student progress. Yet some schools and teachers seem to be more successful than others. What makes the difference? Researchers at the National Research Center on English Learning & Achievement (CELA) are answering this question through a set of studies that examine student achievement in reading, writing, and other important literacy skills in classrooms across the country. These studies include examinations of student work and test scores, classroom observations, and interviews of students, teachers, and administrators in a variety of sites that represent the nation's diversity.

One of the studies has been examining English programs in two sets of middle and high schools with similar student populations. In one set of schools, students "beat the odds" and outperform their peers on high stakes, standardized tests of English skills and read and write at high levels of proficiency. In the other set of schools, students perform more typically. Most of the schools in the study serve students from high poverty, big city neighborhoods. By comparing these two sets of classrooms, we have been able to identify and validate six features of instruction that make a difference in student performance.

It is important to understand that the six features identified in this research are interrelated and supportive of one another. The higher performing schools exhibit all six characteristics. As you read the classroom examples, you will see that elements of all features can be found in each. Although addressing one feature may bring about improved student performance, it is the integration of all the features that will effect the most improvement.

It is important to understand that the six features identified in this research are interrelated and supportive of one another.

Students learn skills and knowledge in multiple lesson types

Teachers integrate test preparation into instruction

Teachers make connections across instruction, curriculum, and life

Students learn strategies for doing the work

Students are expected to be generative thinkers

Classrooms foster cognitive collaboration

THIS BOOKLET IS DESIGNED for middle and high school personnel, especially teachers, who wish to improve their English programs. To produce this booklet, we have drawn from Langer's research report, *Beating the Odds: Teaching Middle and High School Students to Read and Write Well* (see page 16).
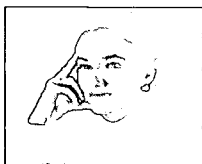
Judith A. Langer
with Elizabeth Close, Janet Angelis, and Paula Preller

FINDING 1

Students learn skills and knowledge in multiple lesson types

In schools that beat the odds, effective learning of and instruction in the knowledge and conventions of English and high literacy take place as *separated* and *simulated*, as well as *integrated* experiences.

In contrast, in more typically performing schools, although each approach might be used at some point, one or another instructional approach dominates.

What does this mean?

Teachers in the more effective programs use a variety of different teaching approaches based on student need. For example, if students need to learn a particular skill, item, or rule, the teacher might choose a *separated* activity to highlight it. Students would study the information as an independent lesson, exercise or drill without considering its larger meaning or use (e.g., they might be asked to copy definitions of literary terms into their notebooks and to memorize them).

To give students practice, teachers prepare or find *simulated* activities that ask students to apply concepts and rules within a targeted unit of reading, writing, or oral language. Students are expected to read or write short units of text with the primary purpose of practicing the skill or concept. Often students are asked to find examples of that skill in use in their literature and writing books, as well as in out-of-school activities. (For example, a teacher might ask students to identify examples of literary devices within a particular selection, or to write their own examples of these devices.)

To help students bring together their skills and knowledge within the context of a purpose-ful activity, teachers use integrated activities. These require students to use their skills or knowledge to complete a task or project that has meaning for them. (For example, in discussing a work or works of literature, students might be asked to consider how a writer's use of literary devices affects a reader's response to the piece.)

Teachers of the higher performing students use all three of these approaches. They don't use them in any linear sequence or in equal amount, but they use them as they are needed to help students become aware of and learn to use particular skills and knowledge. It is the combination of all three approaches, based on what the students need, that appears to make the difference. *Separated* and *simulated* activities provide ways for teachers to "mark" a skill or item of information for future use. *Integrated* activities provide ways for students to put their understandings to use in the context of larger and more meaningful activities.

In more typically performing schools, teachers often rely on one strategy, missing opportunities to strengthen instruction and to integrate it across lessons and throughout the year.

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Some activities that work

- Offering *separated* and *simulated* activities to individuals, groups, or the entire class as needed
- Providing overt, targeted instruction and review as models for peer and self-evaluation
- Teaching skills, mechanics, or vocabulary that can be used during *integrated* activities such as literature discussions
- Using all three kinds of instruction to scaffold ways to think and discuss (e.g., summarizing, justifying answers, and making connections)

What doesn't work

- Reliance upon any one approach to the exclusion of the other two
- Focus on *separated* and/or *simulated* activities with no integration with the larger goals of the curriculum

Classroom example

At Reuben Dario Middle School in Florida, Gail Slatko uses all three approaches to empower her students to be better readers, writers, and editors. For example, she often teaches vocabulary skills within the context of literature and writing, but she also asks students to complete practice workbook exercises designed to increase their vocabularies. And they create "living dictionaries" by collecting new words as they come across them in books, magazines, and newspapers. To provide practice with analogies, Gail goes beyond merely providing examples: she requires that students discuss their responses and explain the rationales for their answers. Later, students design vocabulary mobiles that she displays in the classroom. Gail uses the same approach when she targets literary concepts, conventions, and language. Students integrate literary and vocabulary learning when they create children's books. These books incorporate vocabulary, alliteration, and story telling through words and pictures. During one recent school year, five books were entered in the county fair competition, and one of them was awarded first prize. Gail's lessons are models for her students to use in their own reading and writing as well as when they are editing and responding to the writing of their classmates.

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IT IS IMPORTANT TO UNDERSTAND THAT THE SIX FEATURES IDENTIFIED IN THIS RESEARCH ARE INTERRELATED AND SUPPORTIVE OF ONE ANOTHER.

Teachers integrate test preparation into instruction

In schools that beat the odds, test preparation has been integrated into the class time, as part of the ongoing English language arts learning goals.

In contrast, in the more typically performing schools, test prep is allocated to its own space in class time, often before testing begins, apart from the rest of the year's work and goals.

What does this mean?

In higher performing schools, the knowledge and skills for performing well on high stakes tests are made overt to both teachers and students. Teachers, principals and district-level coordinators often create working groups of professionals who collaboratively study the demands of the high stakes tests their students will take. They even take the tests themselves to identify the skills and knowledge required to do well. They discuss how these demands relate to district and state standards and expectations as well as to their curriculum, and then they discuss ways to integrate these skills into the curriculum. This reflection helps teachers understand the demands of the test, consider how these demands relate to their current practice, and plan ways to integrate the necessary skills and knowledge into the curriculum, across grades and school years. This process helps them move the focus of test preparation from practice on the surface features of the test itself to the knowledge that underlies successful learning and achievement in literacy and English.

In addition, students learn to become reflective about their own reading and writing performance. Teachers provide students with ways to read, understand, and write in order to gain the abilities that are necessary for being highly literate for life, not merely for passing a test. Both students and teachers internalize the criteria for good performance, and students understand the purposes for and the requirements of the tests.

In more typically performing schools, teachers rely on more traditional approaches to test preparation. If preparation is done at all, it is inserted as a separate activity rather than integrated into the ongoing curriculum. The focus tends to be on how to take the test rather than on the underlying knowledge and skills necessary for success. Teachers give students old editions of the test, make their own practice tests using activities that mirror the test-at-hand, and sometimes use commercial materials with similar formats and questions. Preparation is often done one or two weeks (or more) before the exam, or the preparation is sporadic and unconnected across long periods of time. Students often do not understand the purpose of the test, nor what they can do to improve their performance.

Classroom example

When the Florida Writes! test was instituted, the Dade County English Language Arts central office staff and some teachers met to study and understand the exam and the kinds of demands it would make on students. They saw where the skills and knowledge required by the test related to state and district standards and their existing curriculum, and they identified areas that needed to be systematically addressed. Together, they developed curriculum guides that would create year-long experiences in different types of writing, including the kinds of organization, elaboration, and polishing required for each. This coordination began some years before our study of the programs in Dade County, and the instructional changes that had led to greater coherence were very evident in the classrooms we studied.

Today classes across the county are replete with rich and demanding writing experiences.

For example, Karis MacDonnell at Reuben Dario Middle School has her students think about writing prompts throughout the year. She wants them to understand how prompts are developed and how to best respond to them. In one lesson she has students study a prompt and identify its parts. The students identify the topic, the question, and the task (e.g., explanation, description).

Next she asks them to develop their own prompts for an essay about a book they have read. Before setting the students to work, Karis provides models she has created. As students complete their prompts in class, they bring them to her, and she reviews them to be sure that they contain the required parts and that they will help students to focus their ideas. Students then write essays based on these prompts. Thus she helps students gain not only skills necessary for the Florida Writes! test, but also skills that will support all of their writing.

Some activities that work

Using district and state standards and goals, teachers and administrators work together to
- analyze the demands of a test
- identify connections to the standards and goals
- design and align curriculum to meet the demands of the test
- develop instructional strategies that enable students to build necessary skills
- ensure that skills are learned across the year and across grades
- make overt connections between and among instructional strategies, tests, and current learning
- develop and implement model lessons that integrate test preparation into the curriculum

What doesn't work
- Short-term test preparation
- Test preparation that focuses on how to take the test
- Separate rather than integrate test preparation experiences

Students learn skills and knowledge in multiple lesson types

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Classrooms foster cognitive collaboration

IT IS IMPORTANT TO UNDERSTAND THAT THE SIX FEATURES IDENTIFIED IN THIS RESEARCH ARE INTERRELATED AND SUPPORTIVE OF ONE ANOTHER.

Teachers make connections across instruction, curriculum, and life

In the English programs of schools that beat the odds, overt connections are constantly made among knowledge, skills, and ideas and across lessons, classes, and grades as well as across in-school and out-of-school applications.

In contrast, in the more typically performing schools, connections are more often unspoken or implicit, if they occur at all. More often the lessons, units, and curricula are treated as disconnected entities.

What does this mean?

In the higher performing schools, teachers work consciously to weave a web of connections within lessons, across lessons, and to students' lives in and out of school. They make connections throughout each day, week, and year. And they point out these connections so that students can see how the skills and knowledge they are gaining can be used productively in a range of situations. In these schools, teachers also work together to redevelop and redesign curriculum. They share ideas and reflect upon their work.

In the more typical schools, even when lessons are integrated within a unit, students experience little interweaving across lessons; few overt connections are made among the content, knowledge, and skills being taught. Class lessons are often treated as separate wholes — with a particular focus introduced, practiced, discussed, and then put aside. Some teachers encourage students to make connections, but when classroom discussions are carefully controlled, the teacher predetermines the associations the students will make. Rather than encouraging students to find their own connections — or showing them how to do so — teachers guide them to guess the connections the teacher has

already made. In addition, teachers tend to work as individuals rather than as cooperative colleagues; an overall plan linking the various parts of the curriculum is often absent.

In the higher performing schools and districts, decisions concerning professional development are also based upon their relationship to the whole program and their connections to student needs and curricular goals established by teachers and administrators. Teachers often have a voice in planning and implementing professional development activities, and, because these activities relate to the program and teachers can see how they relate, new ideas and concepts presented through them are often integrated into curriculum and instruction.

In more typical schools and districts, when professional development materials and workshops are selected, teachers are rarely consulted, and there may be no attempt to integrate the activities into ongoing aspects of the existing program. Often, when educators gain information and ideas from such experiences, they do not use them fully; they select some parts and ignore other, necessary elements, thus diminishing their effectiveness.

Classroom example

When Shawn DeNight at Miami Edison High School learned about an unanticipated grade-wide field trip to a senior citizen center, he turned it into an advantage rather than an interruption to instruction. He used the trip to connect to and further one of his instructional goals. He had intended to have his students write a character analysis based on class literature readings. Instead, he used the trip as a basis for a research project in which each student met and interviewed a senior citizen and then used this information to develop a persuasive essay. He titled the visit "An Intergenerational Forum: Senior Citizens and Teens Discuss What It Means to Be a Liberal or Conservative." In preparation for the interview, students developed questions that would get at the person's thoughts and beliefs (e.g., Do you think men and women should have the same privileges?). Each student interviewed one person, collected responses to the questions, and then planned and wrote the essay, drawing on the interview for evidence that a person was liberal, conservative, or moderate. This activity then became practice for future character analysis while reading *Romeo and Juliet*.

Some activities that work

○ Making overt connections between and across the curriculum, students' lives, literature, and literacy
○ Planning lessons that connect with each other, with test demands, and with students' growing knowledge and skills
○ Developing goals and strategies that meet students' needs and are intrinsically connected to the larger curriculum
○ Weaving even unexpected intrusions into integrated experiences for students
○ Selecting professional development activities that are related to the school's standards and curriculum framework

What doesn't work

○ Isolated lessons
○ Lessons that leave connections implicit
○ Lack of follow-through on curricular goals by teachers and/or administrators
○ Selection of materials not connected to curricular goals
○ Professional development activities unrelated to goals or curriculum
○ Separated and isolated rather than integrated use of materials

IT IS IMPORTANT TO
UNDERSTAND THAT THE
SIX FEATURES IDENTIFIED
IN THIS RESEARCH
ARE INTERRELATED AND
SUPPORTIVE OF ONE ANOTHER.

Students learn strategies for doing the work

In schools that beat the odds, in English language arts classes students are overtly taught strategies for thinking as well as doing.

In contrast, in more typically performing schools, the focus is on the content or skill, without overtly teaching the overarching strategies for planning, organizing, completing, or reflecting on the content or activity.

What does this mean?

It is important for students to learn not only subject matter content, but also how to think about, approach, and do their work in each subject. In higher performing schools, teachers divide new or difficult tasks into segments and provide their students with guides for accomplishing them. However, the help they offer is not merely procedural: They guide students through the process and overtly teach the steps necessary to do well. They provide strategies not only for how to do the task but also how to think about it. These strategies are discussed and modeled, and teachers develop reminder sheets for student to use. In this way, students learn the process for completing an assignment successfully.

Most of the teachers in the higher performing schools share and discuss rubrics for evaluating performance with their students. They also incorporate rubrics into their ongoing instruction as a way to help students develop an understanding of the components that contribute to a higher score. Discussion of the rubric expectations enables students to develop more complete, more elaborate, and more highly organized responses to an assignment. Sometimes students design a rubric with their teacher so that they clearly understand what is expected of them.

In higher performing schools, students learn and internalize ways to work through a task, and to understand and meet its demands. Through these experiences, they not only become familiar with strategies they can use to approach other tasks, including high stakes tests, but they also develop ways to think and work within a specific field. Teachers scaffold students' thinking by developing complex activities and by asking questions that make the students look more deeply and more critically at the content of lessons.

In more typical schools, instruction focuses on content or skills rather than on the process of learning. Students do not develop the procedural and/or metacognitive strategies necessary to complete tasks independently. Teachers concentrate on covering the required information, focusing on the answer rather than on how to get to the answer. Students are not helped to internalize the methods and strategies for accomplishing tasks.

Some activities that work
° Providing rubrics that students review, use, and even develop
° Designing models and guides that lead students to understand how to approach each task
° Supplying prompts that support thinking

What doesn't work
° Focus on skills and content
° Instructions that lack procedural strategies to support and extend thinking

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Classroom example

Kate McFadden-Midby at Foshay Learning Center in California provides her students with strategies for completing any task that she thinks is going to be new or challenging for them. For example, early in the year she provides strategies for group participation. She assigns specific roles that help students include important concepts and encourage participation of all members. The roles rotate, and students become comfortable filling all of them.

Many subsequent assignments require the application of these collaborative strategies. For example, when her students are learning character analyses, Kate asks them to begin by developing critical thinking questions. She tells them that the questions must be ones that anyone could discuss, even someone who has not read the book (e.g., one student asked, "Why are some people so cruel when it comes to revenge?").

Before students meet with their groups, she provides these directions:
1. share your critical thinking question with your group;
2. tell your group partners why you chose that particular question and what situation in the book made you think about it.

Next, she asks the students to choose two characters from the book (or books) they have read, in order to compare the characters' viewpoints on that question. The students engage in deep and substantive discussion about their classmates' questions, and in so doing gain clarity on the goals and process of the task. As students work to develop their questions, they are applying their group strategies as well as developing ways to analyze characters.

These group discussions are followed by a pre-writing activity in preparation for writing a description of the characters they choose. Kate instructs them on how to develop a T- Chart. One character's name is placed at the top of one column of the T, and the other character's name at the top of the other. She asks them to list characteristics: what their characters were like, experiences they had, opinions, etc. By using this chart, Kate provides the students with a way to identify characteristics and then ways to compare them across characters.

Students again meet with their groups and present their characters. Kate scaffolds the students' thinking by asking questions about the characters: What kind of person was the mother? What are some adjectives that might describe her? How do you think those things could influence how she feels?

Over time, they will use the T-Chart as an organizational strategy in several writing assignments, and Kate will introduce them to a variety of other supportive strategies. Although her assignments are complex, her students can be successful because Kate provides helpful strategies along the way. They gain insight not merely into specific content (e.g., the characters of the lessons above), but also into how to do the assigned work and how they can apply these tools in other learning situations.

Students learn skills and knowledge in multiple lesson types

Teachers integrate test preparation into instruction

Teachers make connections across instruction, curriculum, and life

Students learn strategies for doing the work

Students are expected to be generative thinkers

Classrooms foster cognitive collaboration

IT IS IMPORTANT TO UNDERSTAND THAT THE SIX FEATURES IDENTIFIED IN THIS RESEARCH ARE INTERRELATED AND SUPPORTIVE OF ONE ANOTHER.

Students are expected to be generative thinkers

In schools that beat the odds, the tenor is such that even after student achievement goals are met, English language arts teachers move beyond immediate goals toward deeper understandings and generativity of ideas.

In contrast, in the more typically performing schools, once students exhibit use of the immediate understandings or skills at focus, teachers move on to another lesson.

What does this mean?

All of the teachers in the higher performing schools take a generative approach to student learning. They go beyond students' acquisition of skills or knowledge to engage students in creative and critical uses of their knowledge and skills. Teachers provide a variety of activities from which students will generate deeper understandings. For example, when studying literature, after the more obvious themes in a text are discussed, teachers and students together explore the text from many points of view, both from within the literary work and from life. Students may be asked to research the time period, to consider how issues in the piece relate to current issues, or to compare the treatment of issues in this literary work with the treatment of the same issues in other pieces they have read. Teachers are attuned to questions raised by the students and use the students' concerns as opportunities to further elaborate and generate meaning. Once students arrive at a level of expertise, teachers continue to provide an array of activities that provoke them to use what they have learned to think and learn more.

In contrast, in the more typical schools, the learning activity and the thinking about it seem to stop when the desired response is given or when the assigned task is completed. When students appear confused or uncertain, teachers will often give them the "right" answer and move on to the next activity rather than capitalize on the opportunity to provoke further study and probing of the issue. The learning consists more of a superficial recall of names, definitions, and facts than a deeper and more highly conceptualized learning.

Some activities that work
- Exploring texts from many points of view (e.g., social, historical, ethical, political, personal)
- Extending literary understanding beyond initial interpretations
- Researching and discussing issues generated by literary texts and by student concerns
- Extending research questions beyond their original focus
- Developing ideas in writing that go beyond the superficial
- Writing from different points of view
- Designing follow-up lessons that cause students to move beyond their initial thinking

What doesn't work
- Stopping once students have demonstrated understanding
- Asking questions with predetermined answers that require little or no discussion or thought
- Covering content rather than addressing the complexities of understanding

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Classroom example

Gloria Rosso* at Hudson Middle School teaches research skills using the World Wide Web, hard copy material, and interviews as sources of information, but she wants her students to go beyond their initial research questions and to discover new areas of inquiry. To do this, she engages her students in a generative activity that extends the learning of content as well as of the research process.

She begins with what she calls a mini-unit on the students' surnames — what they mean and their histories. She teaches students to create good questions and has them interview their parents about family history. As the students talk at home, they identify additional questions about their families, culture, and history that they wish to pursue. Gloria teaches the students how to access information on the Web and in the school library to search for answers to their questions, and she encourages them to continue to redefine and build upon their initial questions as they find more information.

As students work, Gloria invites them to explore the use of symbols as a background to devising their own coats of arms. This activity encourages students to move beyond factual interpretation of information to a more symbolic or conceptual level.

While Gloria helps with research skills, the students discuss what they are learning with one another and share the ways in which the research about their names provide a living trail of history. These discussions move students to rethink their own research efforts and to consider other ways of extending their knowledge. At the end of this unit, students write essays about their experiences, including what they have learned about themselves and their families. But the learning does not stop here. With these goals met, Gloria expects the students to move beyond what they have learned as they research and study African American culture and experiences in language arts class, and as they complete related research activities in science, social studies, and health classes.

This name is a pseudonym.

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Classrooms foster cognitive collaboration

In schools that beat the odds, English learning and high literacy (the content as well as the skills) are treated as social activity, with depth and complexity of understanding and proficiency with conversations growing from interaction with present and imagined others.

In contrast, in the more typically performing schools, students tend to work alone or together on answering superficial questions rather than engaging in substantive discussion from multiple perspectives.

What does this mean?

In higher performing schools, students work in communicative groups, and teachers help students participate in thoughtful dialogue. Students engage in the kind of teamwork that is now so highly prized in business and industry. They bring their personal, cultural, and academic knowledge to these interactions, in which they play the multiple roles of learners, teachers, and inquirers and have opportunities to consider issues from multiple perspectives. Minds bump against minds as students interact as both problem-generators and problem-solvers. Teachers expect students not merely to work together, but also to sharpen their understandings with, against, and from one another. In the higher performing schools, even whole class activities, particularly discussions, foster similar cognitive collaborations. Students learn to work together, listening to and interacting with one another about the ideas at hand. Teachers understand the importance of treating students as members of dynamic communities that rely on social and cognitive interactions to support learning.

Teachers in more typical schools and classes focus on individual thinking rather than on collaborative work. Even when students work together, they think in parallel rather than engaging in thoughtful, interactive conversation. Cognitive interactions about ideas are minimal and their focus is on completing tasks on their own. Students may cooperate in completing tasks, but they don't work their conceptualizations through with each other. Often individual students in a group will each complete parts of a worksheet and then exchange answers rather than working and thinking together as a collaborative group.

Teachers in more typical schools often express concerns about managing collaborative groups. They worry that students will become unruly, distracted, or off task when working together. As a result of these concerns, teachers tend to treat each learner as an individual. They assume that group interaction will either diminish the thinking of the students or disrupt the discipline of the class. Rather than teaching the students to take their group work seriously and trusting them to do so, they develop activities that ensure that students will work independently and quietly.

Some activities that work

Students working in small and large groups to
- share their ideas and responses to literary texts, questions, etc.
- question and challenge each others' ideas and responses
- create new responses

Teachers providing support during discussions and group work by
- moving from group to group
- modeling questions and comments that will cause deeper discussion and analysis
- encouraging questions and challenges that cause students to think more deeply

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Classroom example

Cathy Starr*, at Hudson Middle School, uses both whole class and small class activities to foster cognitive collaboration. These activities weave into one another and together support students' developing thinking. For example, in response to reading assignments, she asks each student to bring three thought-provoking questions to class as a stimulus for discussion. Students meet in small groups to discuss these questions and come up with one or two "big" questions for the entire class. Cathy moves from group to group, modeling questions and comments, and provoking deeper discussion and analysis by the students. The small groups bring their selected question(s) to the entire class, and the class uses these as the focus for the larger discussion. After the whole class discussion, Cathy lists items on which the students agree as well as issues that still need to be resolved in further discussions. Students use these lists as the starting point for further small group discussions.

Whether participating in small groups or in whole class discussions, the students are required to interact in thoughtful ways. They listen to and weigh the responses of other students against their own understandings. They ask for clarification and express their differences. This social activity is critical to moving their understandings forward.

What doesn't work

Students working
° alone without time to discuss, question, or share ideas
° together but not engaged in discussions or assignments that require them to grapple with ideas together

Teachers assigning
° tasks that encourage independent work rather than group interaction
° questions that have predetermined answers

* This name is a pseudonym.

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CELA IS THE ONLY NATIONAL

center funded by the U.S. Department of Education to conduct research dedicated to improving the teaching and learning of English language and literacy, grades K-12. CELA's mission is to identify the best ways to strengthen English and language arts programs, practices, and policies. We focus on the knowledge and skills students need to effectively read, write, and communicate throughout their lives.

May 2000

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