

Five Key Recommendations for Improving Academic Literacy in PRIMARY GRADES

(grades K-3, What Works Clearinghouse)

IES Practice Guide, Improving Reading Comprehension in Kindergarten Through Third Grade.

(Shanahan, et al., Sept., 2010)

This practice guide presents five recommendations that are supported by research. The fundamental assumption in this guide is that the objective of reading instruction is to give young readers the tools they need to understand increasingly sophisticated material in all subjects from elementary through later years of school. The practices recommended are therefore not an end in themselves, but the means to developing sound ability in reading comprehension. To be successful, these five recommendations must be implemented in concert, and clearly explained in a rich educational context that includes the following: a comprehensive literacy curriculum, ample opportunity for students to read and write while being coached and monitored by teachers, additional instruction and practice for students based on the results of formal and informal assessments, and adequate resources for students and teachers.

1. Teach students how to use reading comprehension strategies

Good readers use many forms of thinking and analyzing text as they read. It is therefore important to teach beginning readers strategies for constructing meaning from text. A strategy is the intentional application of a cognitive routine by a reader before, during, or after reading a text. Comprehension strategies help readers enhance their understanding, overcome difficulties in comprehending text, and compensate for weak or imperfect knowledge related to the text. The strategies may be taught one by one or in combination. Both approaches can improve reading comprehension, so the panel recommends that teachers choose the approach they are most comfortable with in the classroom.

Teachers should also help students learn how to use comprehension strategies independently through the gradual release of responsibility. When releasing responsibility to students, however, be mindful that students differ in the extent of modeling or support they need from teachers in order to use strategies effectively.

Level of evidence: Strong

A. Teach students how to use several research-based reading comprehension strategies.		
<i>Research indicates that six strategies are the most important for reading comprehension in the primary grades that improve reading comprehension.</i>		
Effective Strategies:	Description:	To Promote Strategy Practice Examples of Activities:
Activating Prior Knowledge/Predicting	Students think about what they already know and use that knowledge in conjunction with other clues to construct meaning from what they read or to hypothesize what will happen next in the text. It is assumed that students will continue to read to see if their predictions are correct.	<ol style="list-style-type: none">1. Pull out a main idea from the text and ask students a question that relates the idea to their experience. Ask them to predict whether a similar experience might occur in the text.2. Halfway through the story, ask students to predict what will happen at the end of the story. Have them explain how they decided on their prediction, which encourages them to make inferences about what they are reading and to look at the deeper meaning of words and passages.
Questioning	Students develop and attempt to answer questions about the important ideas in the text while reading, using words such as where or why to develop their questions.	<ol style="list-style-type: none">1. Put words that are used to formulate questions (e.g., where, why) on index cards, and distribute to students.2. Have students, in small groups, ask questions using these words.
Visualizing	Students develop a mental image of what is described in the text.	<ol style="list-style-type: none">1. Explain to students that visualizing what is described in the text will help them remember what they read.2. Have students examine objects placed in front of them, and later a picture depicting a scene. Remove the objects and picture, and ask students to visualize and describe what they saw.3. Read a sentence and describe what you see to the students. Choose sections from the text and ask students to practice visualizing and discussing what they see.
Mentoring, Clarifying, Fix Up	Students pay attention to whether they understand what they are reading, and when they do not, they reread or	<ol style="list-style-type: none">1. Relate each strategy to a traffic sign (e.g., stop sign—stop reading and try to restate in your own words what is happening in the text; U-turn—reread parts of the text that do not make sense).

	use strategies that will help them understand what they have read.	2. Write different reading comprehension strategies on cards with their signs, and have students work in pairs to apply the strategies to text they do not understand.
Drawing Inferences	Students generate information that is important to constructing meaning but that is missing from, or not explicitly stated in, the text.	1. Teach students how to look for key words that help them understand text, and demonstrate how they can draw inferences from such words. For example, a teacher might show that a passage that mentions “clowns” and “acrobats” is probably taking place in a circus. 2. Identify key words in a sample passage of text and explain what students can learn about the passage from those words.
Summarizing/Retelling	Students briefly describe, orally or in writing, the main points of what they read.	1. Ask a student to describe the text in his or her own words to a partner or a teacher. 2. If a student has trouble doing this, ask questions such as “What comes next?” or “What else did the passage say about [subject]?”

B. Teach reading comprehension strategies individually or in combination.

Key reminder #1: Provides students with a sense of how each strategy is applied and how it differs from other strategies they've learned.

Key reminder #2: Create opportunities for students to read and practice using strategies with peers, teachers and independently.

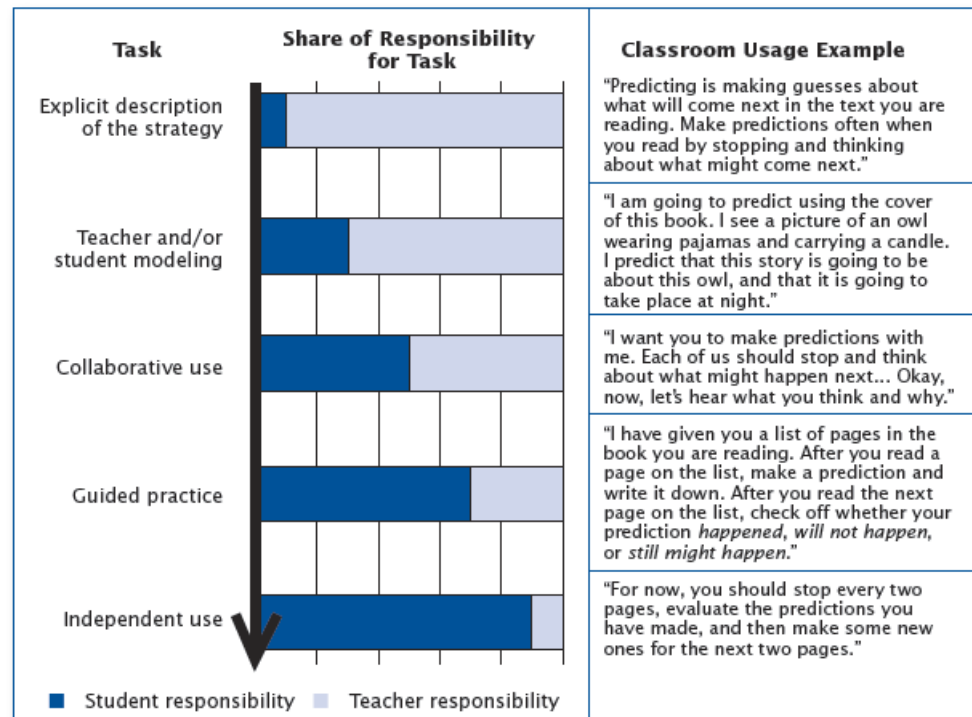
<u>Examples of multiple strategy formats:</u>	<u>Overview:</u>	<u>Typical strategies taught:</u>
Reciprocal Teaching	Take turns leading a conversation on the text using four strategies modeled by the teacher. The teacher describes all of the strategies in succession. The teacher then models each strategy in turn and explains why the strategy helps students understand the text. This method usually occurs in small groups.	Predicting Clarifying Questioning Summarizing. <i>This combination is meant to give students the tools they need to enhance and monitor their own comprehension.</i>
Transactional Strategy Instruction	Focus on a few strategies at a time, concentrating on improving the students' memory, comprehension, and problem-solving skills. The teacher selects from a large menu of strategies to explicitly teach (see below). Teachers then explicitly teach the strategies by explaining strategy use and processes, modeling the strategy using teaching “think-alouds,” assisting in practicing the strategy, and applying the strategy to reading and writing. Teachers should gradually release responsibility to the students. Teachers may use these strategies to motivate students to involve themselves in the text and to stimulate a class discussion about the text.	Activating prior knowledge Predicting Questioning Visualizing Summarizing Monitoring Clarifying Goal setting Text structure
Informed Strategies for Learning	Combine a variety of reading comprehension strategies to show students that the strategies they learn are useful and necessary for being able to read with understanding. To begin, teachers can explicitly teach several strategies that will help students to understand what they read. For example, teachers can model how they monitor their own understanding by stopping periodically and asking themselves whether they understand what they just read. When combining this strategy with others, teachers can display a bulletin board linking each strategy to a picture or themed metaphor (e.g., various road signs) representing how to put each into practice (in the previous example, a stop sign might remind students to stop and monitor their own understanding). The board serves as a reminder during lessons and while students read independently. Teachers encourage students to be aware of what they are reading, and students continually monitor and evaluate their own understanding.	Activating prior knowledge Drawing inferences Visualizing Summarizing Monitoring
Concept Oriented Reading Instruction	Teach comprehension strategies in the context of learning about an overarching concept, typically in the natural sciences, in order to engage students and motivate them to learn (Recommendation 5 describes the motivational components of this format). Teachers introduce one strategy per week, systematically integrating the strategies in later weeks. Teachers can bring in other instructional practices, including hands-on activities, collaborative learning activities, and offering students some choice in and control over what they learn.	Activating prior knowledge Questioning Summarizing Text structure

C. Teach reading comprehension strategies by using a gradual release of responsibility.

Key reminder #1: Remind students to use not only the strategy they just learned by also others they already know, and offer tips on when to use the strategies.

Key reminder #2: Talk with students about the value of using strategies to understand what they read so that they understand that strategies are important to both the assignment at hand and to reading in general.

Figure 1. Illustration of instructional practices to gradually release responsibility to students as task progresses



Source: Adapted from Duke and Pearson (2002).

Note: Teachers should modify these examples to best suit students' age and abilities.

2. Teach students to identify and use the text's organizational structure to comprehend, learn and remember content.

Research indicates that students comprehend and remember content better when they are taught to recognize the structure of a text because it can help them to extract and construct meaning while reading. For instance, understanding how stories are organized helps students to distinguish between major and minor events and predict how a story might unfold. Students can begin to develop a sense of structure as early as kindergarten. Narrative texts portray a story, or sequence of related fictional or nonfictional events involving individuals or fictional characters; in the elementary grades, narrative texts can include historical fiction, fables, and autobiographies. Informational texts include expository writing, pieces that argue in favor of one position or another, and procedural texts and documents. In the elementary grades, informational texts can include news articles, speeches, and timelines. Although instruction at that stage is typically based on narrative text, students in the early grades should also be exposed to informational text because its structure can build their understanding and recall of key points. Teachers should teach students to recognize text structure by gradually releasing responsibility while keeping the goal of independent reading in mind.

Level of evidence: Moderate

A. Explain how to identify and connect the parts of narrative texts.

Key reminder #1: Teachers should gradually introduce new structural elements in narrative texts while reinforcing elements that already have been taught.

Key reminder #2: In some stories, there are multiple events, so students must identify the same structural element more than once. For example, Little Red Riding Hood is set both in the woods and Grandmother's house.

Table 5. Elements of structure in a narrative text^a

Element	Description	Example
Characters	Who the story was about	A girl named Little Red Riding Hood, her grandmother, and the wolf
Setting	Where and when the story happened	The forest and Grandmother's cabin, during the day
Goal	What the main character was trying to do	Little Red Riding Hood set out to deliver a basket of food to her sick grandmother.
Problem	Why the main character took certain actions	Little Red Riding Hood was not aware that the wolf had eaten Grandmother.
Plot or Action	What happened to the main character or what she or he did to try to solve a problem	She met the wolf on her way to Grandmother's, and the wolf pretended to be Grandmother.
Resolution	How the problem was solved and how the story ended	A nearby hunter rescued Little Red Riding Hood and her grandmother from the wolf.
Theme(s)	General lessons or ideas	You shouldn't talk to strangers.

Source: The list of elements is drawn from **Baumann and Bergeron (1993)**, **Morrow (1996)**, and Pressley et al. (1990).

^a Not all stories contain examples of conflict. The panel provides the *Little Red Riding Hood* example to illustrate one option for describing these elements to students. Some students from various cultural backgrounds may not be familiar with certain folktales like this one. Teachers should construct lessons around texts that are best suited to their students.

B. Provide instruction on common structures of informational texts.

Key reminder #1: Teachers should instruct students not to rely solely on the clue words to identify the structure because those words may not always be used.

Key reminder #2: Teachers should advise students that not all texts of a genre follow a single structure or only the structures listed above, and it is a good idea to use a variety of texts to communicate this message.

Key reminder #3: Teachers should provide opportunities for students to use their text structure knowledge to read and comprehend increasingly challenging texts, including those that incorporate multiple structures, cover unfamiliar content, or diverge from the most common structures.

Table 6. Structures of informational text

Structure	Description	Example	Common Clue Words	Sample Activities
Description	What something looks, feels, smells, sounds, tastes like, or is composed of	Characteristics of a hurricane		Have students use the details in a descriptive paragraph to construct an illustration or three-dimensional display.
Sequence	When or in what order things happen	A storm becomes a hurricane	first, then, next, after, later, finally	Assign each student to represent one event in a sequence. Ask the class to line up in order and, starting at the front of the line, to explain or enact their respective events in turn.
Problem and Solution	What went wrong and how it was or could be fixed	Hurricane Katrina destroyed homes and stores, so groups like the Red Cross had to bring food and medicine from other parts of the US	because, in order to, so that, trouble, if, problem	Provide opportunities for students to act out key phases of a passage.
Cause and Effect	How one event leads to another	What happened to the people who lived in Louisiana after Hurricane Katrina	because, therefore, cause, effect, so	Have students match up pictures representing "causes" and "effects" in a game-like activity.
Compare and Contrast	How things are alike and different	How hurricanes are the same as or different from tornadoes	both, alike, unlike, but, however, than	Set out overlapping hula hoops, one to represent each side of the comparison, and have students sort visual representations of each characteristic into the shared and different areas of each hoop.

Source: The list of structures was derived from Williams et al. (2007) and Duke (2000). The panel developed the definitions and examples for illustrative purposes.

3. Guide students through focused, high-quality discussion on the meaning of text.

The panel recommends that teachers lead their students through focused, high-quality discussions in order to help them develop a deeper understanding of what they read. Such discussions among students or between the students and the teacher go beyond simply asking and answering surface-level questions to a more thoughtful exploration of the text. Through this type of exploration, students learn how to argue for or against points raised in the discussion, resolve ambiguities in the text, and draw conclusions or inferences about the text.

Level of evidence: Minimal Evidence

❖ *NOTE ABOUT MINIMAL EVIDENCE:* There is minimal evidence that participating in high-quality discussion improves reading comprehension for the target population; most studies on using discussions either observed older students or were not designed to conclusively prove the effectiveness of such discussions. Despite this, the panel believes these types of discussions are critical tools for helping students understand what they read. The use of discussion in teaching has a long history, and the panel is aware of extensive evidence of its effectiveness with older learners. Thus, the lack of evidence supporting this practice with younger students is because the claim has rarely been tested empirically and not because studies have failed to find discussion to be effective. For these reasons, and drawing on the panelists' own experiences in working with and observing the learning of young children, the panel believes this to be an important recommendation.

A. Structure the discussion to complement the text, the instructional purpose, and the readers' ability and grade level.

Adapting for Younger Students

#1: Take a greater role by asking more questions when working with younger students.

#2: Explicitly model how to think about the question. For example, the teacher could say: "The question asks about what koalas eat. I am going to look for a heading that talks about food or eating. Headings are these larger, boldface words that tell us what a part of the text is about. Here's a heading that says 'Food for Koalas.' I am going to read that section. I think it will tell me what koalas eat."

#3: Read aloud and ask students periodically about what's happening, what the story is about, or what they think is going to happen.

#4: Facilitate a discussion by using a variety of higher-level questions that prompt the students to interpret the text.

#5: Read a selection aloud, and have students discuss it with a partner and then report back to the class. To start a discussion at that point, the teacher can ask students whether they think the character did the right thing.

Table 7. Description of NAEP categories of comprehension

Category of Comprehension	Description
Locate and Recall	Identify the main ideas and supporting details; find elements of a story; focus on small amounts of text
Integrate and Interpret	Compare and contrast information or actions by characters; examine connections across parts of text; consider alternatives to what is presented in the text; use mental images
Critique and Evaluate	Assess text from numerous perspectives, synthesizing what is read with other texts and other experiences; determine what is most significant in a passage; judge whether and the extent to which certain features in the text accomplish the purpose of the text; judge either the likelihood that an event could actually occur or the adequacy of an explanation in the text

Source: Categories of comprehension and their descriptions are drawn from the *Reading Framework for the 2009 National Assessment of Educational Progress*, National Assessment Governing Board (2008), where they are referred to as "cognitive targets."

B. Develop discussion questions that require students to think deeply about text.

Adapting for Younger Students

#1: *These types of questions can be adapted to students in kindergarten through 3rd grade, but teachers of students in kindergarten or 1st grade who are just becoming familiar with these types of questions may have to ask more follow-up questions to clarify what in the text led the students to respond as they did. Specifically, younger students may find it difficult to take on the viewpoint of the author or a specific character. Teacher guidance can help them recognize and appreciate those viewpoints, drawing on the empathy that children have at this age.*

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C. Ask follow-up questions to encourage and facilitate discussion.

Examples of recommended follow-up questions:

- What makes you say that?
- What happened in the book that makes you think that?
- Can you explain what you meant when you said _____?
- Do you agree with what _____ said? Why or why not?
- How does what you said connect with what _____ already said?
- What does the author say about that?
- Let's see if what we read provides us with any information that can resolve _____'s and _____'s disagreement.

Table 8. Sample discussion questions related to NAEP categories of comprehension

Locate and Recall	What is the main idea of this section? Who were the main characters in <i>Goldilocks and the Three Bears</i> ?
Integrate and Interpret	How did the bears feel when they found Goldilocks? Why did they feel that way? How did Goldilocks feel? Why did she feel that way? What are the differences between how Goldilocks and the bears felt?
Critique and Evaluate	What do you think is the most important message in this story? How well did the author describe the new ideas in what you just read? If the author asked you what she could have done differently or better to help other students understand, what would you tell her? How might Goldilocks behave in the future based on her experience in this story?

Source: Categories of comprehension are drawn from the *Reading Framework for the 2009 National Assessment of Educational Progress*, National Assessment Governing Board (2008), where they are referred to as "cognitive targets." The panel created sample questions for illustrative purposes.

D. Have students lead structured small-group discussions.

Adapting for younger students:

#1: Small-group discussions for younger students will be shorter and more structured than discussions for older students; the questions will also require more follow-up questions.

Key Reminder #1: Because it will take time for students to understand how to moderate their own discussions, it is imperative that teachers provide scaffolding and practice to support the students' growth in this area (e.g., asking them to clarify what they mean, whether they agree with a prior statement, or whether there is more to add before moving on to the next topic⁸⁵). For additional support, students in the upper elementary grades may help model peer-led discussion for younger students.

4. Select texts purposefully to support comprehension development.

There is no such thing as “one-size-fits-all” when it comes to selecting a text for teaching reading comprehension. The panel believes that early exposure to different types of text builds the capacity to understand the large variety of reading material that students will encounter as they move from grade to grade. Not only should teachers introduce students to a variety of texts, but teachers should also ensure that a selected text (1) is rich in depth of ideas and information, (2) has a level of difficulty commensurate with the students’ word-reading and comprehension skills, and (3) supports the purpose of the lesson. There are no specific texts that the panel believes are more appropriate than others for strategy training. Specifically for younger students, the panel believes that all texts require students to make inferences or check their understanding, and students’ comprehension could always be enhanced by retelling elements of the text.

Level of evidence: Minimal Evidence

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A. Teach reading comprehension with multiple genres of text.

The NAEP Reading Framework divides texts into the two broad types of literary and informational. Literary texts include narratives, which portray a story, or sequence of related fictional or nonfictional events involving individuals or fictional characters, and poetry. Informational texts analyze or describe factual information about the natural or social world. The panel recommends that teachers use both literary and informational texts to teach reading comprehension instruction, because a student’s mastery of one does not necessarily transfer to the other.

Literary texts include fiction, literary nonfiction, and poetry; in the elementary grades, literary texts can include historical fiction, fables, and autobiographies.

Informational texts include expository writing, pieces that argue in favor of one position or another, and procedural texts and documents. In the elementary grades, informational texts can include such texts as news articles, speeches, and timelines.

B. Choose texts of high quality with richness and depth of ideas and information.

Stories with strong literary merit and informational texts that are accurate, well-written, and engaging are consistently a good choice for teaching reading comprehension. Many resources are available to teachers as they search for high-quality texts, including lists of children’s book award winners.⁹⁷ Following are some features of high-quality text that place appropriate demands on young readers’ interpretive abilities:

- Rich content (e.g., character development in literary text or elaborate detail in informational text)
- Strong organization
- Variation and richness in word choice and sentence structure

C. Choose texts with word recognition and comprehension difficulty appropriate for the students’ reading ability and the instructional activity.

D. Use texts that support the purpose of instruction.

Given the large variety of possible goals, the panel believes these points are important for teachers to consider when selecting texts to support the instructional purpose. When the teacher is:

- Giving a lesson on text structure: Begin with a text about a familiar topic in which the structure is easy to identify. Move to a text on a less familiar topic and with a somewhat more complex structure.
- Introducing students to a strategy (such as summarizing): Select a text where the strategy is easily applied. Once students have had time to practice, select a more challenging text.
- Building a student’s depth of understanding: Avoid texts that only reinforce a student’s knowledge of sound-letter relationships. These types of texts are more suitable for practicing decoding and word recognition.
- Teaching students to make predictions: Select a text that is unfamiliar to them, or one in which many outcomes are possible.
- Reading with students (such as with a big book or digitally projected text): Select a text that is just above the students’ reading level.
- Reading to students (such as a readaloud): Select a text that is well above the students’ reading level but is at their listening comprehension level.

5. Establish an engaging and motivating context in which to teach reading comprehension.

Students must actively engage with text to extract and construct its meaning, and they will become better readers if they are taught reading comprehension in an engaging, motivating context. A teacher can create this context by clearly conveying the purpose of each lesson, explaining to students how the comprehension strategies will help them learn, and impressing on them that the power to be successful readers rests as much with them as it does with their teacher. In addition, the panel believes that teachers must help students focus not only on completing classroom tasks but also, and more importantly, on the larger goal of learning. Teachers should choose reading materials that offer students a choice in what to read and an opportunity to collaborate with one another by retelling elements of the text.

Level of evidence: Moderate Evidence

A. Help students discover the purpose and benefits of reading.

Adapting for Younger Students

#1: *If students cannot yet read what is posted around the classroom, pair the text with pictures.*

#2: *Although some students may not yet be able to read an entire book on their own, literacy centers can get students excited about reading by providing a special place in which they can read at their own level and pace.*

Key Reminder #1: Promote literacy by encouraging students to see value in each reading activity. 117

- Relate a new text to others that students have already read and enjoyed.
- Point out other books written by the same author.
- Identify texts on topics in which students have expressed interest.

B. Create opportunities for students to see themselves as successful readers.

C. Give students reading choices.

Adapting for Younger Students

#1: *Provide limited and specific choices. This can help them learn how to make choices and stay on task.*

Reading choices should be in line with the teacher's instructional purpose. The panel encourages teachers to think creatively about how to give their students a choice in what they read. For example, teachers can:

- Allow students to choose from a variety of reading activities or centers. Students could go to their classroom literacy center and choose to read to themselves, to a friend or stuffed animal, or to a tape recorder that would later be reviewed by the teacher.
- Permit students to choose the order in which they complete their work. When flexibility is possible, teachers can allow students to decide which center to visit or which text to read first within a set time frame.
- Encourage students to think of questions that lead them to texts that will hold their interest. Teachers can support students in finding topics that interest them during reading activities. For example, one student might be interested in the weather, and the teacher may guide him or her toward asking, "Where does thunder come from?" and then direct the student to a text that could answer his or her question.
- Allow students to choose how to respond to a text. Students might present what they learned from their book to the class, work in a group to dramatize a story, keep a journal about the text, or compose an alternative ending to a story for others to read.
- Give students a choice in where they can read. Some students might be more comfortable reading at their desks or in a secluded corner of the classroom where they are better able to concentrate. For others, a comfortable chair or carpeted area with pillows might be more inviting.
- Allow students to choose from a selection of texts that serve an instructional purpose. For example, to teach about the similarities and differences between animals, teachers might allow students to choose from various texts about animals and ask them to report on what they learned to the group. Students can also take turns selecting a text for the teacher to read aloud to the class from a limited range of options appropriate to the lesson.

D. Give students the opportunity to learn by collaborating with their peers.

Adapting for Younger Students

#1: *Teachers can provide props such as cutouts or puppets and model how the students will use the puppets to retell the story.*

Key Reminder #1: Encourage students to support and motivate one another as they do challenging reading comprehension activities.

Key Reminder #2: Collaborative learning opportunities, whether simple or elaborate, should allow all the students in the group to work together to complete the task. The panel believes that collaborative learning activities are most productive under two conditions:

(1) when the students perceive their roles as valuable, and

(2) when teachers motivate students to help their peers learn rather than simply giving their peers the answer.