

## The Comprehension Needs Chart

Given the wealth of student data available on comprehension skills and related factors, it is helpful for teachers to integrate information from a variety of assessment sources into one system. Figure 6.1 presents the comprehension needs chart that we propose teachers use to consolidate student data. The chart permits teachers to enter data in categories pertinent to instructional planning, including the student's performance level on specific comprehension skills *that drive the "what" of instruction* and information on learner characteristics *that guide the "how" of instruction*. This chart helps teachers design the best approach to comprehension given a student's particular language and cognitive profile. The chart enables them to identify the specific comprehension skills that need attention and the oral language skills that support or undermine comprehension. Later in this chapter, we refer to this chart to plan instruction for our three students. Appendix C contains brief descriptions of each of the categories listed in the comprehension needs chart.

Using the comprehension needs chart, teachers translate results from formal and informal measures into one simple rating system for identifying instructional priorities. The following guidelines indicate how ratings are established for formal test results.

- |   |                                |                                 |
|---|--------------------------------|---------------------------------|
| 1 | Needs substantial improvement  | Below 35th percentile           |
| 2 | Needs improvement              | 35th percentile–49th percentile |
| 3 | Adequate or better performance | 50th percentile–65th percentile |

To illustrate, for students with average cognitive ability, performance on formal tests is rated as 1 (Needs substantial improvement) when a score is below the 25th percentile. For example, Billy's teacher rates overall reading comprehension as a 2 (Needs improvement) based on the CST report of Billy performing at the 35th percentile on the Woodcock-Johnson III Passage Comprehension Subtest. Billy's receptive vocabulary as measured by the Peabody Picture Vocabulary Test was at the 40th percentile, and therefore that

Student: _____	Teacher: _____
Rate each item on the following scale: 1 Needs substantial improvement 2 Needs improvement 3 Adequate performance or better	
<b>Date:</b> _____	<b>Rating</b>
<b>LEARNER CHARACTERISTICS</b>	
Verbal reasoning	
Receptive vocabulary	
Expressive vocabulary	
Listening comprehension	
Fluency	
Word attack	
Word identification	
Phonemic awareness	
Visual spatial	
Engagement	
Attention	
Working memory	
Background knowledge	
<b>DATA ON WHAT TO TEACH</b>	
<b>Overall Reading Comprehension (formal)</b>	
<b>Overall Narrative</b>	
Literal	
Inferential	
<b>Overall Expository</b>	
Literal	
Inferential	
<b>Narrative and Expository: Before-Reading Strategies</b>	
Access background knowledge	
Determine purpose for reading	
Preview text	
Make predictions	
Revise predictions as needed	
<b>Narrative: During-Reading Strategies</b>	
Recognize key information (setting, characters)	
Understand sequence	
Understand conflict	
Retell	
Summarize	
Understand emotions, beliefs	
Understand genre	
Understand recurring themes	

  

	<b>Rating</b>
<b>Expository: During Reading Strategies</b>	
Identify main idea	
Locate details	
Retell	
Summarize	
Recognize and understand description	
Recognize and understand sequence	
Recognize and understand classification	
Recognize and understand compare/contrast	
Recognize and understand cause and effect	
<b>Narrative and Expository: After-Reading Strategies</b>	
Make connection to prior knowledge	
Make inferences	
Generate explanations that extend text information	
Establish an opinion connected to text	
<b>Metacognitive Skills</b>	
Know strategies	
Vary strategies according to purpose of reading and nature of text	
Recognize comprehension breakdown	
Repair comprehension breakdown	
<b>VISUAL AIDS</b>	
Develop and use graphic organizers	
Recognize common organizational patterns that support comprehension (headings, caption)	

**Figure 6.1.** Comprehension needs chart.

factor is rated as a 2. But, Billy performed below the 35th percentile on two measures of expressive language (WISC-IV Verbal Comprehension Index and WISC-IV Vocabulary Subtest) and that factor is rated 1.

A number of types of informal tests may be used to augment diagnostic information. Sample informal tests are given in Appendix B, including student's self-rating on use of comprehension strategies, protocols for assessing literal and inferential comprehension of expository and narrative texts, and a graphic organizer for assessing understanding of narrative components. Guidelines for assigning ratings depend on the nature of the test. For example, student's self-ratings on their use of comprehension strategies can initially be taken at face value and adjusted by teacher observation and follow-up informal assessment as needed. The Appendix B protocol for assessing narrative and expository passages suggests asking 5 literal and 5 inferential questions for each type of text. On this type of task, students are rated as 1 (Needs substantial improvement) if fewer than half of the items are correct. A review of the graphic organizer for narratives provides teachers with a basis for rating students on their understanding of story elements, such as setting and conflict.

Figure 6.2 reflects the ratings assigned for Billy's performance on the informal assessments provided in Appendix B. For example, because Billy got less than half of the inferential questions correct on the informal narrative comprehension measure, his teacher rated him as 1 (Needs substantial improvement); he earned the same rating on the inferential questions for the expository text. These ratings are used to complete the comprehension

Measure	# Correct/ percentile	Rating
<ul style="list-style-type: none"> <li>• <b>Overall Comprehension Strategies (self-rating)</b> <ul style="list-style-type: none"> <li>• Accesses background information</li> <li>• Thinks about purpose for reading</li> <li>• Previews text</li> <li>• Makes predictions</li> <li>• Adjusts predictions during reading</li> <li>• Recognizes comprehension breakdown</li> <li>• Repairs comprehension breakdown</li> <li>• Makes connections to prior knowledge</li> </ul> </li> <li>• <b>Informal Narrative: Literal</b></li> <li>• <b>Informal Narrative: Inferential</b></li> <li>• <b>Informal Narrative: Graphic Organizer</b> <ul style="list-style-type: none"> <li>• Identifies key information (character, setting, etc.)</li> <li>• Identifies sequence</li> <li>• Identifies conflict</li> </ul> </li> <li>• <b>Informal Expository: Literal</b></li> <li>• <b>Informal Expository: Inferential</b></li> <li>• <b>Main Idea</b></li> </ul>		
		1
		2
		2
		1
		1
		2
		1
		1
	4/5	3
	2/5	1
		3
		3
		3
	4/5	2
	2/5	1
	1/2	2

**Figure 6.2.** Billy's ratings on informal comprehension assessments.

needs chart. Any items not directly assessed in the comprehension needs chart can be rated on the basis of teacher observation of classroom performance over time.

Figure 6.3 presents Billy's comprehension needs chart, with ratings assigned by his teacher and based on the results of both formal and informal tests. Relative strengths and weaknesses are quickly and easily identified using the chart. As stated, the strengths/weaknesses may then be used as a basis for determining both the *process* and the *content* of comprehension instruction. Using Billy as an example to start, we illustrate how teachers can use this tool to consolidate information and plan individualized reading comprehension instruction.

## DIFFERENTIAL APPLICATION OF TREATMENT STRATEGIES TO STUDENTS: OUR THREE STUDENTS

### Billy

Looking over the ratings in the comprehension needs chart, it appears that relatively weak oral vocabulary, verbal reasoning, and working memory undermine Billy's comprehension ability. Although receptive vocabulary was rated as a 2, the teacher has noticed that Billy's word meanings can be quite shallow, and she plans to take this into consideration when planning instruction. Given the rating of 1 on verbal reasoning, the teacher concludes that Billy's weak inferential comprehension skills likely stem from his underdeveloped abstract thinking, and she plans to adapt her instructional approach accordingly. Poor working memory also seems to contribute to Billy's difficulties; it prevents him from keeping an adequate amount of information in mind at one time. The teacher decides to teach Billy compensatory strategies for his weak working memory. A strength for Billy is his visual-spatial ability. This suggests that he will respond well to graphic organizers. The teacher takes all of these factors into account in planning *how* to teach. The *content* of instruction will be prioritized using the ratings in the comprehension needs chart as a guide.

Because Billy is placed in a general education classroom, his comprehension instruction is not individualized, except for when he receives in-class support. The in-class support teacher selects the following areas to work on with Billy:

- Improve inferential skills, in particular
  - Identifying and expressing the main idea
  - Understanding characters' feelings
  - Making predictions
- Develop strategies for use before, during, and after reading
  - Accessing background information
  - Predictions
- Introduce QAR for test taking

Student: <u>Billy</u>		Teacher: <u>Ms. Adams</u>	
Rate each item on the following scale:			
1 Needs substantial improvement			
2 Needs improvement			
3 Adequate or better performance			
Date: <u>October 2, 2009</u>		Rating	
<b>LEARNER CHARACTERISTICS</b>			
Verbal reasoning	1		
Receptive vocabulary	2		
Expressive vocabulary	1		
Listening comprehension	2		
Fluency	1		
Word attack	1		
Word identification	1		
Phonemic awareness	1		
Visual spatial	3		
Engagement	3		
Attention	3		
Working memory	1		
Background knowledge	2		
<b>DATA ON WHAT TO TEACH</b>			
<b>Overall Reading Comprehension (formal)</b>		2	
<b>Overall Narrative</b>			
Literal	2		
Inferential	1		
<b>Overall Expository</b>			
Literal	2		
Inferential	1		
<b>Narrative and Expository: Before-Reading Strategies</b>			
Access background knowledge	1		
Determine purpose for reading	2		
Preview text	2		
Make predictions	1		
Revise predictions as needed	1		
<b>Narrative: During-Reading Strategies</b>			
Recognize key information (setting, characters)	3		
Understand sequence	3		
Understand conflict	3		
Retell	2		
Summarize	1		
Understand emotions, beliefs	1		
Understand genre	TBO*		
Understand recurring themes	TBO		
		<b>Rating</b>	
<b>Expository: During Reading Strategies</b>			
Identify main idea	1		
Locate details	2		
Retell	1		
Summarize	1		
Recognize and understand description	TBO		
Recognize and understand sequence	TBO		
Recognize and understand classification	TBO		
Recognize and understand compare/contrast	TBO		
Recognize and understand cause and effect	TBO		
<b>Narrative and Expository: After-Reading Strategies</b>			
Make connection to prior knowledge	1		
Make inferences	1		
Generate explanations that extend text information	1		
Establish an opinion connected to text	2		
<b>Metacognitive Skills</b>			
Know strategies	1		
Vary strategies according to purpose of reading and nature of text	1		
Recognize comprehension breakdown	2		
Repair comprehension breakdown	1		
<b>VISUAL AIDS</b>			
Develop and use graphic organizers	2		
Recognize common organizational patterns that support comprehension (headings, caption)	2		
*TBO = to be observed			

**Figure 6.3.** Billy's comprehension needs chart.  
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Billy's in-class support teacher designs the following approach based on data in the comprehension needs chart and observation of Billy's performance in class:

- Because of his difficulty with verbal reasoning, introduce content with experiences and examples Billy can relate to before requiring abstract thinking.
- Because of vocabulary weaknesses, carefully consider the language in texts and instruction.
- To compensate for poor working memory and vocabulary weaknesses, provide visual aids such as graphic organizers and pictures whenever possible. These tools will promote visualization of concepts as well.

### ***Strategies for Improving Inference: Main Idea***

Billy's in-class support teacher decides to teach the concept of main idea with expository text since comprehension of expository text has been shown to be more challenging for students than comprehension of narrative text. Moreover, a frequent assignment in Billy's social studies class is to identify the main idea of textbook sections. Billy's in-class teacher chooses the Getting the Gist strategy for teaching main idea, developed by Klinger, Vaughn, and Schumm (1998). Students are taught to follow the steps listed here:

- Read through the passage two paragraphs at a time.
- Determine whether what was read is mostly about a person, place, or a thing and specifically identify that subject.
- Identify the most important point about the subject.
- Write one sentence, comprising 12 words or less, that summarizes the most important point.

The teacher provides additional instructional sessions on this skill until Billy reaches mastery and then monitors his application of it on other assignments for an extended period of time.

### ***Strategies for Improving Inference: Understanding Characters' Feelings***

Billy's in-class support teacher notes that, on the informal narrative test, Billy showed adequate skills for the literal aspects of story comprehension, such as identifying setting and problem. However, his responses reflected a lack of higher level skills such as understanding characters' emotions and general themes. This finding was consistent with his language profile that indicated weaknesses in verbal reasoning. She adopts the following plan:

- Beginning at a fairly concrete level, the in-class support teacher models by thinking out loud how she would feel in the same situation as that presented in the story. She elicits from Billy how he would feel in a related situation with which he would be familiar.
- Continuing with a concrete approach, she lists the types of text (e.g., dialogue) in which he might find clues about a character's feelings, and she models how to identify these in text.
- Next, she guides him, providing feedback as they go, as he reads the next section of text and talks about the characters' feelings.

### ***Strategies for Activating Background Knowledge Before, During and After Reading***

The classroom teacher generally spends time helping the children activate their background knowledge related to the text; she also provides new background information. The in-class support teacher realizes that due to his language and working memory weaknesses, Billy is not absorbing the new information as easily as his classmates, and he needs reinforcement through repetition, using the following instructional strategies:

- She has observed that Billy benefits from having new material presented visually, and she uses pictures from the Internet to illustrate events discussed by the teacher.
- She asks eliciting questions to prompt Billy to think about his prior knowledge on the subject and to make connections between the pictures and the information which the teacher presented.
- The in-class support teacher models and then oversees Billy's use of the KWL graphic organizer for consolidating background information related to the text they are reading.

### ***Before Reading: Making Predictions***

The in-class support teacher, reviewing Billy's chart, decides that a critical "before-reading" skill to work on is making predictions. She gives him explicit instruction in making predictions, using a record-keeping form to make the approach concrete for Billy (Figure 6.4).

- Given the length of the chapter and her observation of the length of text to which Billy can profitably attend, she decides that he should reevaluate his predictions after each page and fill in the blank in the directions line accordingly.
- They discuss the title of the story and background information.

Initial Prediction: _____		
Pages	Check if Your Prediction Was Correct	Next Prediction

**Figure 6.4.** Prediction chart

- She models by thinking aloud and then writing on the record-keeping form her own brief prediction about what the story will be about.
- They read one page and the in-class support teacher models, again by thinking aloud, how to check the initial prediction by locating supporting information in the text. If her prediction was correct, she simply checks the second box on the form. If her prediction was not validated, she discusses why, citing specific information from the text, and then writes the revised prediction in the second box.
- She has Billy make a prediction for the next page and write that in the first box of the next row. She reads the next page with Billy and guides him in his thinking aloud about the prediction. She asks him to identify the place in the text where he can assess and prove or disprove his prediction. She oversees his completion of the record-keeping form.
- When the in-class support teacher is satisfied that Billy has mastered the process, she permits him to practice working on this activity independently in the classroom.
- If his independent classroom work is done satisfactorily, he may get an assignment to complete the chapter for homework.

### **Strategies for Introducing QAR**

In addition to providing instruction for his *individualized* content needs, the in-class support teacher allocates some time to support the QAR strategy taught by the general education teacher. She develops a multisensory approach in which Billy learns to identify the various types of questions through systematic instruction in constructing his own questions.

In keeping with the principles of direct instruction, instruction begins with the simplest type of question, which Billy practices until it is mastered. To keep Billy's concentration on the task of generating questions and to get maximum exposure to the conceptual level of classroom texts, the teacher reads the classroom text with Billy rather than having him read it on his own.

The instructional process goes through the cycle below as Billy learns to master each of the four question types:

- Generate and answer a Right There question. The teacher models how to ask what, when, or how something is happening in a segment of text. She then requires Billy to formulate the questions, first orally and then in writing. Following successful question writing, Billy's teacher provides Right There questions from his classroom text for him to read and answer. She repeats this cycle for each of the question types.
  - Think and Search question
  - Author and You question
  - On Your Own question



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