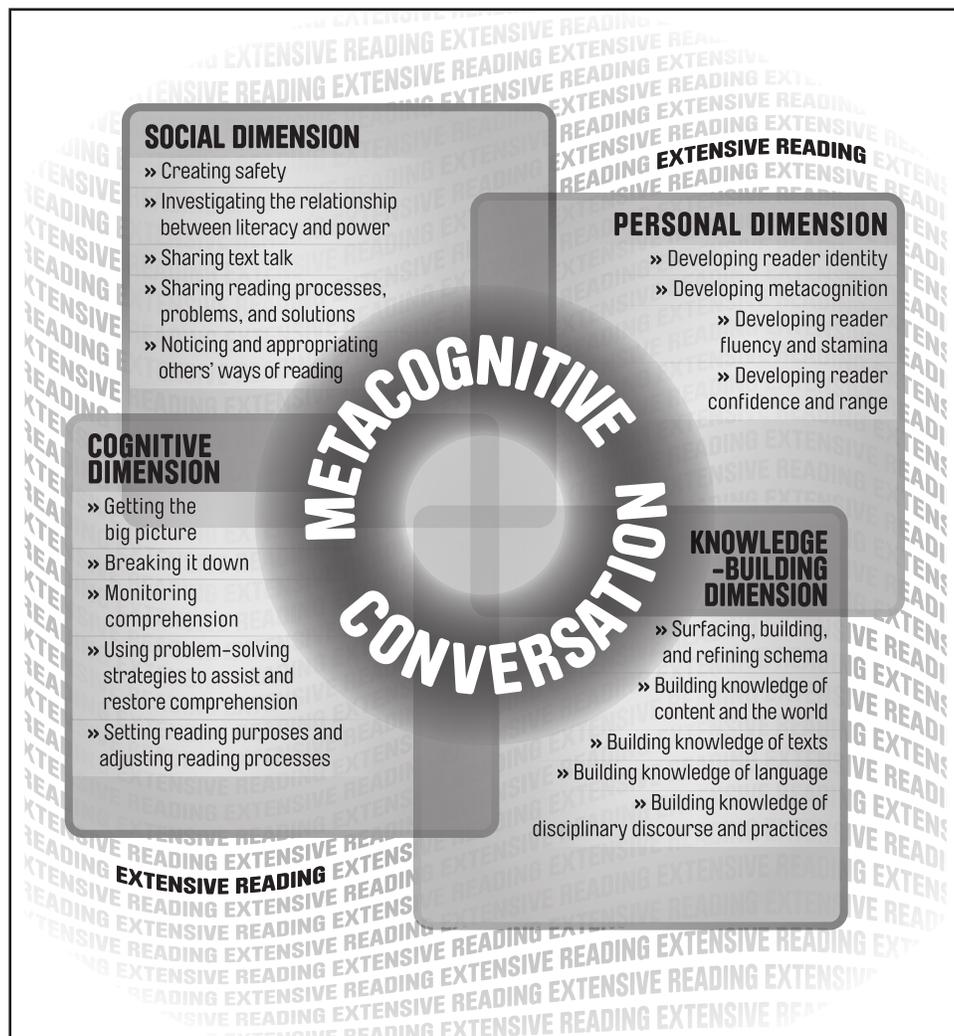


## The Reading Apprenticeship® Framework

Reading Apprenticeship is an approach to reading instruction that helps students develop the knowledge, strategies, and dispositions they need to become more powerful readers. It is at heart a partnership of expertise, drawing on what teachers know and do as discipline-based readers, and on adolescents' and young adults' unique and often underestimated strengths as learners. Reading Apprenticeship helps students become better readers by

- Engaging students in more reading—for recreation as well as for subject area learning and self-challenge;
- Making the teacher's discipline-based reading processes and knowledge visible to students;
- Making students' reading processes, motivations, strategies, knowledge, and understandings visible to the teacher and to one another;
- Helping students gain insight into their own reading processes; and
- Helping them develop a repertoire of problem-solving strategies for overcoming obstacles and deepening comprehension of texts from various academic disciplines.



## Reading Apprenticeship Framework

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In other words, in a Reading Apprenticeship classroom, the curriculum expands to include *how* we read and *why* we read in the ways we do, as well as *what* we read in subject area classes.

Reading Apprenticeship instructional routines and approaches are based on a framework that describes classroom life in terms of interacting dimensions that support reading development:

**Social:** The social dimension draws on learners' interests in peer interaction as well as larger social, political, economic, and cultural issues. Reading Apprenticeship creates a safe environment for students to share their confusion and difficulties with texts, and to recognize their diverse perspectives and knowledge.

**Personal:** This dimension draws on strategic skills used by students in out-of-school settings, their interest in exploring new aspects of their own identities and self-awareness as readers, their purposes for reading, and their goals for reading improvement.

**Cognitive:** The cognitive dimension develops readers' mental processes, including their repertoire of specific comprehension and problem-solving strategies. The work of generating cognitive strategies that support reading comprehension is carried out through shared classroom inquiry.

**Knowledge-Building:** This dimension includes identifying and expanding the knowledge readers bring to a text and further developing it through personal and social interaction with that text. Students build knowledge about language and word construction, genre and text structure, and the discourse practices specific to a discipline—in addition to the concepts and content embedded in the text.

These dimensions are woven into subject area teaching through **Metacognitive Conversations**—conversations about the thinking processes students and teachers engage in as they read. **Extensive Reading**—increased opportunities for students to practice reading in more skillful ways—is the necessary context for this framework to succeed.

## Reading Apprenticeship Framework<sup>1</sup>

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**Social:** The social dimension draws on learners' interests in peer interaction as well as larger social, political, economic, and cultural issues. Reading Apprenticeship creates a safe environment for students to share their confusion and difficulties with texts, and to recognize their diverse perspectives and knowledge.

- Creating safety
- Investigating the relationship between literacy and power
- Investigating the relationship between literacy and social identity
- Investigating the relationship between literacy and status
- Sharing text talk

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<sup>1</sup> Adapted from Schoenbach, R., Greenleaf, C., & Murphy, L. (2012). *Reading for understanding, 2nd ed.* San Francisco, CA: Jossey-Bass, Inc.

- Sharing reading processes, problems, and solutions
- Noticing and appropriating others' ways of reading
- Noticing and appreciating cultural resources others bring to texts

**Personal:** This dimension draws on strategic skills used by students in out-of-school settings, their interest in exploring new aspects of their own identities and self-awareness as readers, their purposes for reading, and their goals for reading improvement.

- Developing reader identity
- Identifying out-of-school cultural resources that can support in-school literacy practices
- Developing metacognition
- Addressing affective dimensions of literacy learning that result from cultural mismatch or pervasive negative stereotypes
- Finding or creating identification in de-raced texts
- Developing reader fluency and stamina
- Developing reader confidence and range

**Cognitive:** The cognitive dimension develops readers' mental processes, including their repertoire of specific comprehension and problem-solving strategies. The work of generating cognitive strategies that support reading comprehension is carried out through shared classroom inquiry.

- Getting the big picture
- Breaking it down
- Monitoring comprehension
- Monitoring affective responses
- Identifying life-based problem-solving strategies that can be applied to reading
- Using problem-solving strategies to assist and restore comprehension
- Setting reading purposes and adjusting reading processes

**Knowledge-Building:** This dimension includes identifying and expanding the knowledge readers bring to a text and further developing it through personal and social interaction with that text. Students build knowledge about language and word construction, genre and text structure, and the discourse practices specific to a discipline--in addition to the concepts and content embedded in the text.

- Surfacing, building, and refining schema
- Identifying relevant cultural funds of knowledge
- Building knowledge of content and words

- Building knowledge of texts
- Building knowledge of language
- Building knowledge of disciplinary discourse and practices

These dimensions are woven into subject area teaching through **Metacognitive Conversations**--conversations about the thinking processes students and teachers engage in as they read. **Extensive Reading**—increased opportunities for students to practice reading in more skills ways--is the necessary context for this framework to succeed.

## TEAM TOOL 4.2

## Personal Reading History Protocol

Individually and then together, team members reflect on high and low moments in their reading histories and the implications for their work inquiring into their own reading and the reading of their students.

### PURPOSE

The group understands that the Personal Reading History routine is an opportunity to reflect on how people develop reader identities and what hinders or helps in that development. By sharing their reader histories, team members will better understand the beliefs and attitudes about reading development they bring to their work together. The activity will also help team members rehearse what it might be like to bring the Personal Reading History into their classrooms.

### INDIVIDUAL WRITING

Provide about ten minutes for team members to write individual responses to prompts about key moments or events in their development as readers:

- What reading experiences stand out for you? High points? Low points?
- Were there times when your reading experience or the materials you were reading made you feel like an insider? Like an outsider?
- What supported your literacy development? What discouraged it?

### PARTNER SHARING

Explain that partners and then the whole group will share highlights from their journey to becoming adult readers and subject area teachers. Allow six minutes for partners to share. Provide these guidelines:

- Take turns describing some highlights of your reading histories. Let one person speak without interruption, then discuss. Reverse roles after three minutes.
- Discuss commonalities and surprises in your histories.
- What were some similarities in your barriers and supports?
- What were some surprises?

### GROUP DISCUSSION

The whole group debriefs these reflective partnerships. As in debriefing the Personal Reading History in classrooms, it is important to make sure there is space made for participants to talk about reading barriers and not to assume that reading has been easy and supported for everyone on the team.

- What ideas do you have about the impact of reading experiences in people's lives?
- What ideas do you have about how reflecting and sharing our Personal Reading Histories may impact our work as a team?
- How might teachers and students benefit from doing Personal Reading Histories in class?

\*See also the discussion and protocol for classroom investigation of Personal Reading History in Chapter Three of *Reading for Understanding*.

# Father's Butterflies

by VLADIMIR NABOKOV

**D**URING my adolescence, the butterfly enthusiast (“*le curieux*,” as the *honnêtes gens* used to put it in judicious France, “*the aurelian*,” as the poets said in grove-rich England, the “fly doctor,” as they wisecracked in advanced Russian circles) who wished to acquire from books a general notion of the fauna of Europe, including Russia, was compelled to scabble for his crumbs of information in entomological journals in six languages and in multivolume, hard-to-find editions such as the Oberthür books or those of Grand Duke Nikolai Mikhailovich. The absence or utter inadequacy of “references” in the atlases *ad usum Delphini*, the tedious perusal of the index of names enclosed with an annual volume of a monthly journal, the sheer number of these journals and volumes (in my father’s library there were more than a thousand of the latter alone, representing a good hundred journals)—all this had to be overcome in order to hunt down the necessary reference, if it existed at all. Nonetheless, even in my exceptionally propitious situation things were not easy: Russia, particularly in the north, dwelt in a mist, while the local lists, scattered through the journals, totally haphazard, scanty, and cruelly inaccurate in nomenclature, only maddened me when at last I ferreted them out. My father was the preeminent entomologist of his time, and very well off to boot, but the ordinary amateur, unable to dispatch his scouts throughout Russia, and denied the opportunity—or not knowing how—to gain access to specialized collections and libraries (and an accidental boon, the hasty inspection of collections at a lepidopterological society or in the cellar of some museum, does not satisfy the true enthusiast, who needs to have the boon always at hand), had no choice but to hope for a miracle. And that miracle dawned in 1912 with the appearance of my father’s four-volume work *The Butterflies and Moths of the Russian Empire*.

Although in a hall adjoining the library dark-red cabinets contained my father’s supremely rich collections, consisting of specimens complete with thoroughly accurate names, dates, and places of capture, I personally belonged to the category of *curieux* who, in order to acquaint themselves properly with a butterfly and to visualize it, require three things; its artistic depiction, a compendium of all that has been written about it, and its insertion within the general system of classification. With no words and no art, without a penetrating and synthesizing process of thought, for me a butterfly would remain incomplete. Only one thing could wholly replace these three demands: if I had caught it myself, if the expression of the given specimen’s wings corresponded to the individual particulars of a familiar habitat (with its smells, hues, and sounds) where I would

## Arcadia

Interview with Nikolay All, June 1940

In Russian.

I was surprised even by the customs officers on the passenger wharf. [ . . . ] When they opened my suitcase and saw two pairs of boxing gloves, two officers put them on and began boxing. The third became interested in my collection of butterflies and even suggested one kind be called “captain.” When the boxing and the conversation about butterflies finished, the customs men suggested I close the case and go. Doesn’t this show how straightforward and kind Americans are?

[*Novoe Russkoe Slovo*, June 23, 1940]

From a letter to Mikhail Karpovich,  
c. mid-June 1940

From New York. In Russian. Unpublished.

Warmest thanks for your very kind offer, I accept with pleasure. If it’s absolutely all right by you, we would come at the very beginning of July. [ . . . ] I can’t think without a quiver—a sweet, torturing quiver—that my passion for entomology will also be satisfied in Vermont. I am writing Avinov about some of my scientific findings in this domain.

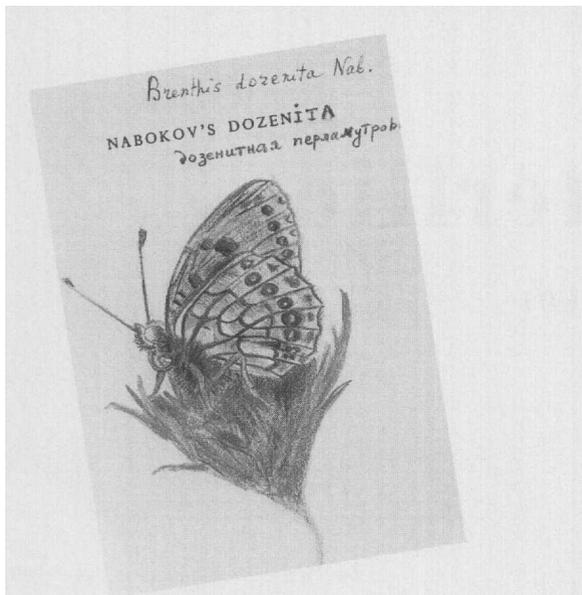
[Bakhtmeteff Archive, Columbia University]

From a letter to Elizaveta and  
Marussya Marinel, August 25, 1940

From West Wardsboro, Vermont. In Russian. Translated DN.

We are staying amid marvelous green wilds with the wonderfully kind Karpoviches, where one can go around half-naked, write an English novel, and catch American butterflies (soon I’ll have to start using your sweater: fall is near). My position is fatally undecided, so far nothing has worked out, and the thought of winter is rather frightening, but, by comparison, it is a genuine paradise here.

[*Selected Letters 1940–1977*, 33]



### A Job for Eternity

From "Prof. Woodbridge in an Essay on Nature Postulates the Reality of the World"

Review of Frederick J. E. Woodbridge,  
*An Essay on Nature* (1940).

That philosophers are essentially diurnal creatures (no matter how late into the night their inkpots and spectacles glitter) and that space would not be space if color and outline were not primarily perceived are suppositions that transcend the author's "naïve realism" just at the point where he seems to be most securely hugging the coast. But is visibility really as dominant as that in all imaginable knowledge of Nature? Though I personally would be satisfied to spend the whole of eternity gazing at a blue hill or a butterfly, I would feel the poorer if I accepted the idea of there not existing still more vivid means of knowing butterflies and hills.

[*New York Sun*, December 10, 1940]

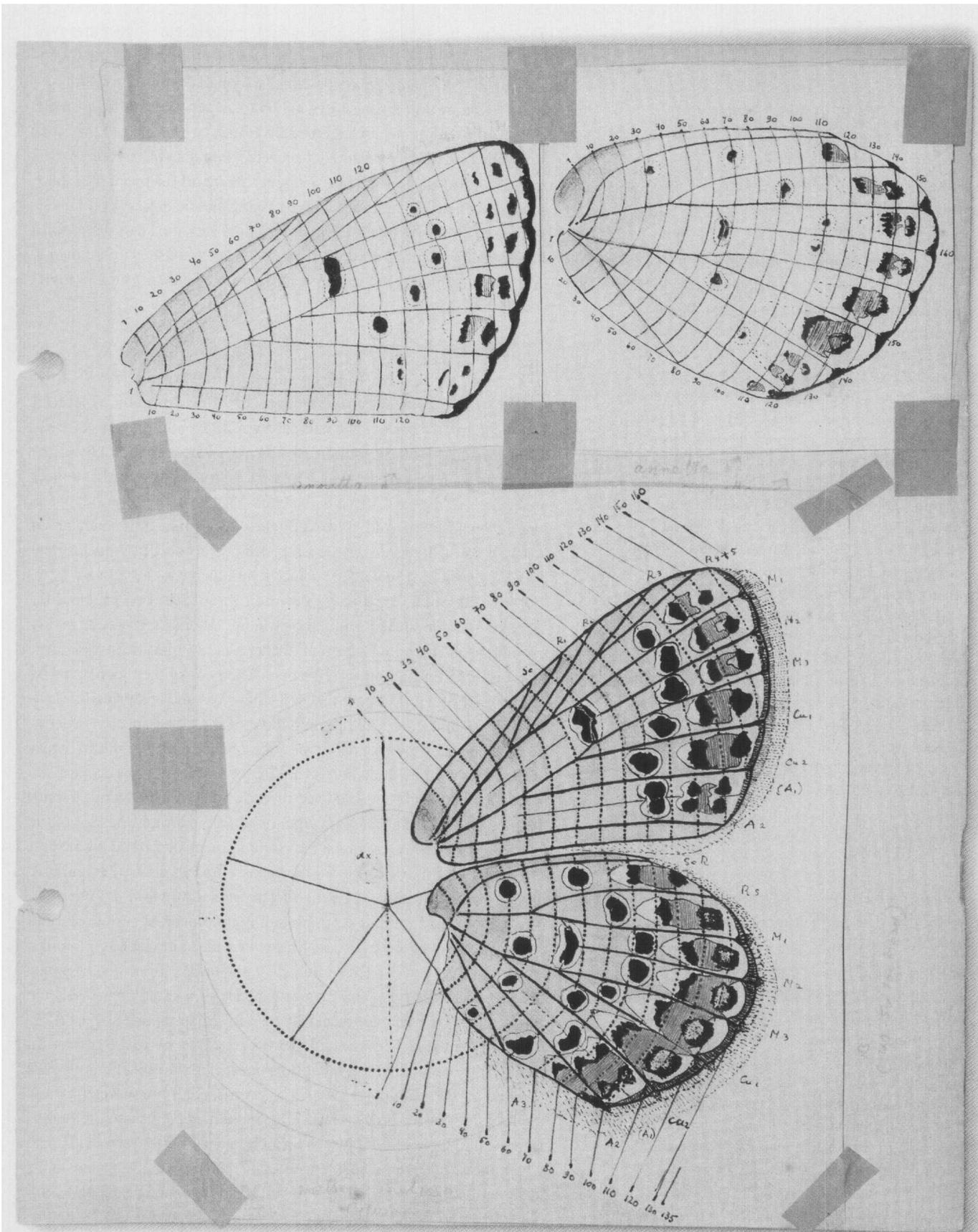
From a letter to Edward Weeks,  
September 19, 1941

From Wellesley, Massachusetts.

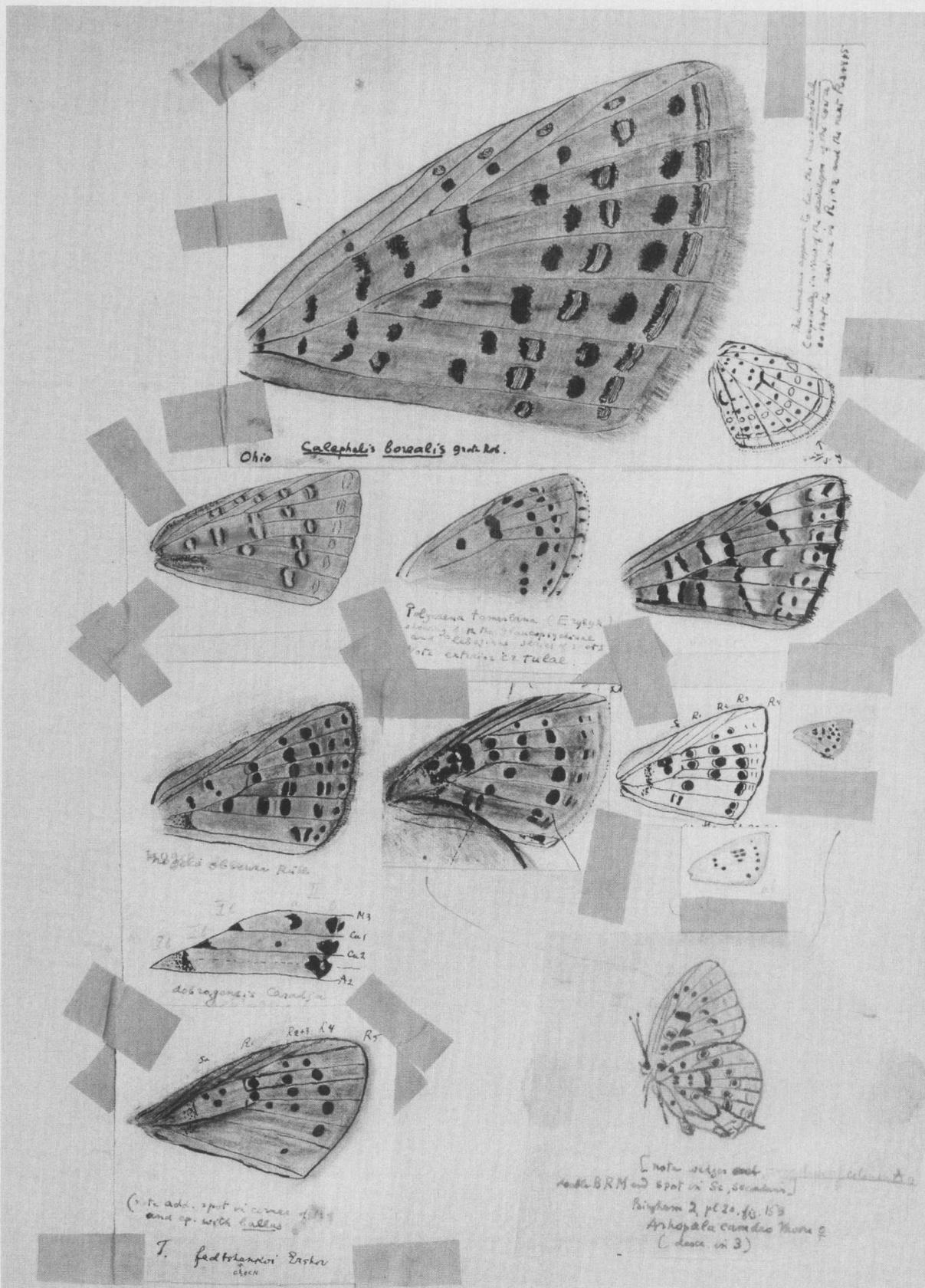
It is pathetically dull to watch the good old eastern combination of butterflies on the college lawns here—after my Western orgies: rather like a garden in Cambridgeshire after a summer in the mountains of Spain.

[Weeks Collection, University of Texas, Austin]

have lived through all that impassioned, insane joy of the hunt, when as I climb the rock, my face contorted, gasping, shouting voluptuously senseless words, I do not notice thorn or precipice, and see neither the viper under my feet nor the shepherd, yonder, observing with the irritation of ignorance the spasms of the madman with his green net as he approaches his heretofore undescribed prey. In other words, it was impossible to reconcile the creative contact between me and the countless rarities collected by others and not defined in the journals, or hopelessly buried in them. And, even though, through the glass top and bottom of the ultra-sleek sliding cases of my father's collection (lowering my gaze for hours down endless rows of thickset, small Hesperidae, in various hues of black with specks from hydrochloric acid and checkered fringes, and turning the case upside down to examine pearlescent cabalistic markings—little kegs, hourglasses, trapezes, on the rowantinged or sulphury-grayish undersides of the hind wings), aided by the inscriptions on the labels, I could make a meticulous study of the local mutability of forms, it was only when I found those species and races assembled, researched, and especially, illustrated in the just-published *Butterflies and Moths of the Russian Empire* that a fascinating, lifelike portrait would reveal to me the mystery of the prepared lepidopteron: henceforth it was mine.



Nabokov created a "scale-mapping" technique to trace the evolution of wing patterns in butterflies by counting the numbers of scale rows on each wing. These drawings, done at Harvard, show the undersurfaces of the wings



Courtesy of the Estate of Vladimir Nabokov/Berg Collection, New York Public Library

Nabokov compared the wing patterns of many groups of butterflies to develop a theory of butterfly evolution. On this sheet he pasted examples of the underside wing patterns from many members of the Lycaenidae family

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## Capturing the Reading Process Notetaker

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### Reading Process Analysis

#### Individual Reading

Read silently as you would when you want to understand something. Use any strategies you commonly use to make sense of text. (Pens and sticky notes are in the table boxes.)

#### Individual Think-Write

Take a few minutes to make some notes about the processes you used to make sense of this text.

Even if you weren't explicitly aware of them while you were reading, what strategies or approaches did you use to engage with or make sense of the text? Where was the text unclear? What did you do to make sense of it at that point? What problems remain, if any?

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## **Our Reading Strategies List**

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The strategies our group used to make sense of the text:

Notes for getting started in the classroom:

## BOX 4.7

## Using a Metacognitive Bookmark

## PURPOSE

When teachers first model metacognitive conversation with a Think Aloud, many give students a bookmark for keeping track of the common kinds of thinking processes the teacher will be demonstrating.

Students can use this same bookmark as a scaffold for their own metacognitive conversations when practicing with a partner.

As a scaffold, its use should fade as students become more comfortable with metacognitive conversation routines.

## PROCEDURE

- Give each student a copy of the bookmark and briefly review students' understanding of the various categories and examples.
- Explain that as you Think Aloud, you will model many of these. Ask students to listen for examples.
- Think Aloud, modeling metacognitive conversation.
- Invite students to describe some of the thinking processes you used.

Let students know that they can use the bookmark whenever they practice metacognitive conversation on their own and with classmates.

*Note:* The bookmark is a sample only. Please adapt and revise it according to your subject area and student needs.

## Sample Metacognitive Bookmark

*Predicting*

I predict . . .  
In the next part I think . . .  
I think this is . . .

*Visualizing*

I picture . . .  
I can see . . .

*Questioning*

A question I have is . . .  
I wonder about . . .  
Could this mean . . .

*Making connections*

This is like . . .  
This reminds me of . . .

*Identifying a problem*

I got confused when . . .  
I'm not sure of . . .  
I didn't expect . . .

*Using fix-ups*

I'll reread this part . . .  
I'll read on and check back . . .

*Summarizing*

The big idea is . . .  
I think the point is . . .  
So what it's saying is . . .

English teacher Doug Green<sup>3</sup> reverted to literature instruction instead of thinking aloud—more than he is happy remembering:

I found myself falling into explaining the short story to them rather than talking about my thinking as I read the short story. It was really hard for me to discipline myself to do that because one of the thinking strategies is making connections to other things. And as soon as I start making connections to other things, I lead myself very quickly into explaining the short story instead of talking about my thinking techniques. That was hard to resist.

The idea of modeling a Think Aloud for her adult GED students gave technical college instructor Michele Lesmeister the jitters. As she explains in

# Health-Related Variables and Academic Performance Among First-Year College Students: Implications for Sleep and Other Behaviors

Mickey T. Trockel, MS; Michael D. Barnes, PhD; Dennis L. Egget, PhD

**Abstract.** The authors analyzed the effect of several health behaviors and health-related variables on grade point averages of a random sample of 200 students living in on-campus residence halls at a large private university. The set of variables included exercise, eating, and sleep habits; mood states; perceived stress; time management; social support; spiritual or religious habits; number of hours worked per week; gender; and age. Of all the variables considered, sleep habits, particularly wake-up times, accounted for the largest amount of variance in grade point averages. Later wake-up times were associated with lower average grades. Variables associated with the 1st-year students' higher grade point averages were strength training and study of spiritually oriented material. The number of paid or volunteer hours worked per week was associated with lower average grades.

**Key Words:** academic performance, college students, grade point average, health-related behaviors, sleep

Improved academic performance is an appropriate goal for college health promotion personnel, just as improved job performance is a desired outcome for worksite health promotion professionals. A common measure of academic performance is grade point average (GPA), and determining the factors that most affect it is important to universities. Good grades in college are highly related to career success.<sup>1</sup>

Health behaviors potentially affecting college student GPA include a wide range of actions and habits: exercise, sleep, and nutritional habits; development and use of social support systems; time and stress management techniques.<sup>2</sup> Health-related variables in addition to other physical, emotional, social, and spiritual health indicators potentially

affect college students' academic performance. Clearly, it is not possible for one study to consider the entire range of health-related variables that are potential influences on college students' GPAs.

In this study, we analyzed the effects of several health-related variables on 1st-year college students' GPAs. Although several studies have identified the influence of many health-related factors on academic performance, the results have often been inconsistent. Furthermore, college-specific information regarding academic performance and its relationship to health-related behaviors is rare.<sup>3</sup> Such information has implications for developing programs and services, helping colleges and universities retain students, improve students' academic performance, and reduce the resource burden for student support services.<sup>3,4</sup>

## Previous Studies

### Exercise

A few researchers have evaluated the effect of exercise on university students' academic performance. Turbow,<sup>5</sup> in a study involving 891 upperclassmen and graduate students, found students who exercised 7 or more hours per week obtained significantly lower grades than students who exercised 6 or fewer hours weekly or not at all. However, a study involving 710 students at California State University, Fresno,<sup>6</sup> was unable to show a significant relationship between academic achievement and exercise. The reasons for these disparate results are not apparent.

### Sleep Habits

Reports in the literature implicate a negative effect of sleep deprivation on college students' cognitive performance.<sup>7</sup> One observer found poorer academic performance among university students whose weekend sleeping periods were significantly delayed compared with weeknight sleep-

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*Mickey T. Trockel is a doctoral candidate in the Department of Community Health, University of Illinois, Champaign; Michael D. Barnes is an associate professor in the Department of Health Sciences at Brigham Young University in Provo, Utah, where Dennis L. Egget is director of the Statistical Research Center.*

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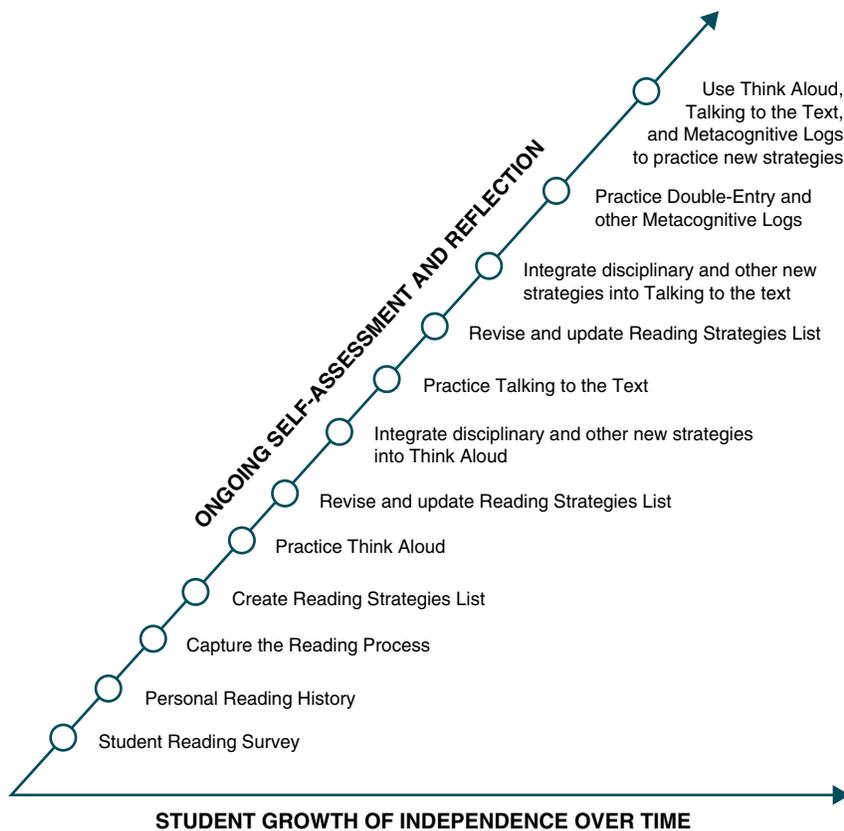
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<b>Evidence</b> <i>I saw, heard, read...</i>	<b>Interpretation</b> <i>I wondered, made a connection, thought...</i>

## TEAM TOOL 6.3

## A Progression for Building Metacognition in Shared Class Reading

In this model sequence of metacognitive reading experiences that build students' reading independence, the first three activities occur once, and the others recur in increasingly refined or increasingly expansive iterations.



- Team Tool 6.4, Identifying Routines and Scaffolds Note Taker, then invites teachers to review *Reading for Understanding* with a stack of sticky notes at hand, tagging specific routines and scaffolds that could support their beginning instructional goals.
- With those ideas from *Reading for Understanding* in mind, teachers fill in a matrix that relates goals, content, texts, activities, the Framework, and