Research has identified a number of factors that affect test performance:

- Study skills
- Content knowledge
- Practice of questions in the same format as the test
- Test-taking skills
- Anxiety
- Fatigue and sleep deprivation

By reading this book, the examination taker will improve content knowledge and have the opportunity to test this knowledge with many case-based practice questions. This chapter, however, addresses the three topics not related to content knowledge: study skills, test-taking skills, and anxiety. The strategies provided will make studying for the Board Examination more effective and will optimize test performance on the exam.

Strategies for More Effective Studying

ANTICIPATE TEST CONTENT

A strategic approach to studying has been found to lead to better performance on examinations:

- Review the examination blueprint to understand the percentage of questions derived from each content area (available on the website for the American Board of Pediatrics [ABP] at https://www.abp.org)
- Complete the tutorial on taking the computer-based examination on the ABP website. The tutorial sample questions will explain how to use examination functions and provide a practice test to help you familiarize yourself with the different types of examination questions and format. Specifically, you will preview how to:
  - Answer questions
  - Change answers
  - Make notes electronically
  - Access the table of normal laboratory values, calculator, and electronic calipers
  - View figures
  - Mark questions for review

- Use the Progress Indicator and Time Remaining functions to keep track of item completion and time remaining for the test session
- Use the Navigation button or Review screen to view item completion status, items you have marked for review, or items with an electronic note, and to move quickly to items within the test
- Board Examination questions are derived using the following criteria and will:
  - Be focused on patient care
  - Address important clinical problems for which medical intervention has a significant effect on patient outcomes
  - Address commonly overlooked or mismanaged clinical problems
  - Pose a challenging management decision
  - Assess ability to make optimal clinical decisions

Clinical decision-making can be broken down into different tasks; the Board Examination is meant to test your ability to perform these tasks:

- Identify characteristic clinical features of diseases
- Identify characteristic pathophysiologic features of diseases
- Choose the most appropriate diagnostic tests
- Determine the diagnosis
- Determine the prognosis or natural history of diseases
- Select the best treatment or management strategy
- Choose risk-appropriate prevention strategies

Board Examination questions will never address an area in which there is no consensus of opinion among experts in the field

- Carefully review visual information because this is frequently used in Board Examination questions regarding disorders with characteristic skin lesions or findings on blood smear, bone marrow, electrocardiogram, radiograph, and other visual diagnostic tests

TIME MANAGEMENT

- Use the Residency In-Training Examination or a full-length practice test to identify your areas of weakness
- Use a “question drill-to-content” review ratio of 2:1 or greater to review subjects because this has been shown to be more successful than traditional review using the reverse ratio
After addressing your weaker subjects, conduct a focused review of other subjects as discussed earlier
Create a realistic study schedule and stick to it
Using the examination blueprint to budget your study time to cover all of the examination content areas without last-minute cramming
Plan to complete your study several days before the examination
Plan a question drill period for the last few days before the examination; use answers to incorrectly answered practice questions for targeted content review

Effective Approaches to Studying

The Survey, Question, Read, Recite, Review (SQ3R) study method has proven effective in improving reading efficiency, comprehension, and material retention
It provides a useful way to study for the Board Examination, regardless of the study resource used
Steps in the method are outlined in Table 1.1
Similar to the SQ3R method, students performing repeated cycles of studying, followed by writing down as much as they can recall, then restudying material and recalling again improved learning and retention of material and test performance
Studying with a small group can enhance study effectiveness by providing social support and increased confidence because individuals assume responsibility to review and teach particular areas to the group

Strategies for More Effective Test-Taking

The following strategies will be effective only if practiced, so plan to practice them in your question drill sessions; the website accompanying this book allows examination takers to practice answering questions in a timed test format.

STRATEGIES FOR TIME USE
Know the examination schedule for the computer-based examination (see http://www.abp.org)
Return from breaks early; you must check in after breaks, and the examination clock restarts at the end of the break regardless of your return time
Know the time allotted per examination question (i.e., examination time in minutes divided by number of examination questions)

Budget your time; unfinished questions are lost scoring opportunities
Keep track of your use of time by checking time targets at each quarter of the total examination time
To fully use other test-taking strategies, use less than the allotted time per question (we suggest 15–30 seconds less per question)
To focus on pertinent data, read the question and answer options before reading the question stem; the stem is the part of the test item that precedes the question and answer options and is usually case-based
Answer questions you know first and quickly guess on those you do not know

STRATEGIES FOR GUESSING AND REASONING
Identify key words or phrases that affect the question’s intent (e.g., at this time, now, initially, most, always, never, except, usually, least)
Determine whether the following factors limit your thinking to certain disease categories:
Patient factors
Age, sex, race, or ethnicity
Exposures caused by occupation, travel, or residence
Immune status
Factors related to illness presentation
Time course of illness (i.e., acute, subacute, or chronic)
Symptoms or findings present or stated to be absent
Pattern of diagnostic data (e.g., presence of a known symptom triad, pathognomonic finding)
Eliminate answer options likely to be incorrect. Remember that incorrect options are usually written to be plausible or even partially correct.
Examine similarities and differences between answer options (e.g., mutually exclusive options)
Answer questions based on established standards of care, not anecdotal experiences
Do not be afraid to use partial knowledge to eliminate answers
When unsure of an answer, enter your best guess (research shows it is often correct) and flag the question on the computer for later review
Answer all questions—there is no penalty for wrong answers
Please note that once you click the End Session button, you cannot go back to review or change responses for that test session
Check that you have completed any answer review of changes and have entered a response for all questions before you click the End Session button

Table 1.1. SQ3R Study Method

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
<td>Survey section headings and summaries first.</td>
</tr>
<tr>
<td>Question</td>
<td>Convert headings, legends, and Board Examination tasks into “questions.”</td>
</tr>
<tr>
<td>Read</td>
<td>Read to answer your “questions.”</td>
</tr>
<tr>
<td>Recite</td>
<td>Recite answers and write down key phrases and cues.</td>
</tr>
<tr>
<td>Review</td>
<td>Review notes, paraphrase major points, draw diagrams, and make flashcards</td>
</tr>
<tr>
<td></td>
<td>for material that is difficult to recall.</td>
</tr>
</tbody>
</table>

STRATEGIES FOR CHANGING ANSWERS
Spending less than the allotted time per examination question allows you to finish examinations early: this extra time allows you to benefit from answer changing
Despite conventional wisdom, research shows that most test takers benefit from answer changing
You are more likely to change from a wrong to a right answer if you:
  Reread and better understand the test item
Maximizing Test Performance: Effective Study and Test-Taking Strategies

STRATEGIES FOR ERROR AVOIDANCE

- Rethink and conceptualize a better answer
- Gain information from another test item
- Remember more information
- Correct a clerical error (e.g., the intended answer was not the entered answer)

STRATEGIES FOR ANXIETY REDUCTION

- Anxiety is a natural part of taking an examination, but high test anxiety will adversely affect test performance
- Consider formal counseling if you have had problems with high test anxiety in the past
- Consider writing about your negative thoughts and worries about the examination for 10 minutes on the day of the test; this has been found to significantly improve test performance for those with high test anxiety
- Actively manage anxiety by decreasing the effect of unknowns on your anxiety level. Use the following methods:
  - Review the “Exam Day: What to Expect” section of the ABP’s guide to the certification examination (see http://www.abp.org)
  - Test-drive the travel route and determine time to the test site; locate parking and the site itself if it is in a building with other businesses
  - Bring a sweater or dress in layers to prepare for examination room temperature variations
  - Bring a snack for unexpected hunger and medications for potential illness symptoms
  - Allow a minimum of 30 minutes before your test appointment for check-in procedures
  - Avoid overly anxious test takers; they heighten your anxiety level, which can hurt your test performance
  - Use relaxation techniques:
    - Deep muscle relaxation is an effective relaxation technique; it involves tensing and relaxing each muscle group until all muscles are relaxed
    - To reduce anxiety further, engage in exercise during the period when you are preparing for the examination
  - Being well rested is imperative

Suggested Readings