

EDUCATIONAL PSYCHOLOGY

ACTIVE LEARNING EDITION

FOURTEENTH EDITION

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Composition: SPI Global
Printer/Binder: LSC Communications/Wiillard
Cover Printer: Phoenix Color/Hagerstown
Text Font: ITC Garamond Std. Regular

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Cataloging-in-Publication Data is on file at the Library of Congress



ISBN 10: 0-13-520650-2
ISBN 13: 978-0-13-520650-8

To my husband,

Wayne K. Hoy

A remarkable scholar,
A demanding and caring mentor,
A dedicated father and grandfather,
And a wonderful companion in life.

The best is yet to be...

ABOUT THE AUTHOR



So you will know your author a bit better, here is some information.

Anita Woolfolk Hoy was born in Fort Worth, Texas, where her mother taught child development at TCU and her father was an early worker in the computer industry. She is a Texas Longhorn—all her degrees are from the University of Texas, Austin, the last one a PhD. After graduating, she was a psychologist working with children in elementary and secondary schools in 15 counties of central Texas. She began her career in higher education as a professor of educational psychology at Rutgers University, and then moved to The Ohio State University in 1994. Today she is Professor Emerita at Ohio State. Anita's research focuses on motivation and cognition, specifically, students' and teachers' sense of efficacy and teachers' beliefs about education. For many years she was the editor of *Theory Into Practice*, a journal that brings the best ideas from research to practicing educators. With students and colleagues, she has published over 150 books, book chapters, and research articles. Anita has served as Vice-President for Division K (Teaching & Teacher Education) of the American Educational Research Association and President of Division 15 (Educational Psychology) of the American Psychological Association. Before completing this fourteenth edition of *Educational Psychology*, she collaborated with Nancy Perry, University of British Columbia, to write the second edition of *Child Development* (Pearson, 2015), a book for all those who work with and love children.

PREFACE

Many of you reading this book are enrolled in an educational psychology course as part of your professional preparation for teaching, counseling, speech therapy, nursing, or psychology. The material in this text should be of interest to everyone who is concerned about education and learning, from the nursery school volunteer to the instructor in a community program for adults learning English. No background in psychology or education is necessary to understand this material. It is as free of jargon and technical language as possible, and many people have worked to make this edition clear, relevant, and interesting.

The text maintains the new, unique format that was created for the previous Active Learning Edition. If you didn't see that text, this one is probably unlike any textbook you have encountered. It is divided into 44 easy-to-read modules. Research in educational psychology points to several reasons why this format will help you learn. First, we have known for years that learning is faster and more permanent if you study smaller chunks over a longer period of time instead of trying to jam more learning into your brain in a short period of time. Also, we know that learning is deeper and more meaningful if you act on what you read—connect and apply your understandings before you get too far away from the new information. Third, we know that motivation is higher when goals are specific, the task is moderately challenging, and it can be accomplished with reasonable time and effort. Fourth, more frequent testing and checking your understanding early lets you correct misconceptions and relearn so you do not remember the wrong information. Finally, we know that your lives are full and your assignments are many, so shorter, more manageable readings fit better into your schedule. Mastering these active learning modules will help you become more self-regulating and in charge of your own academic life. So welcome to a better, more research-based way to learn educational psychology—my favorite subject!

Since the first edition of *Educational Psychology* appeared, there have been many exciting developments in the field. The fourteenth edition continues to emphasize the educational implications and applications of research on child development, cognitive science, learning, motivation, teaching, and assessment. Theory and practice are not separated in the text, but are considered together. The book is written to show how information and ideas drawn from research in educational psychology can be applied to solve the everyday problems of teaching. To help you explore the connections between research and practice, you will find in these pages a wealth of examples, lesson segments, case studies, guidelines, and even practical tips from experienced teachers. As you read this book, I believe you will see the immense value and usefulness of educational psychology. The field offers unique and crucial knowledge to any who dare to teach and to all who love to learn.

NEW CONTENT IN THE FOURTEENTH EDITION

Across the book, there is increased coverage of a number of important topics. Some of these include:

- Increased coverage of the **brain, neuroscience, and teaching** emphasized in Cluster 2 and also integrated into several other Clusters.
- Increased coverage of **the impact of technology and virtual learning environments** on the lives of students and teachers today.
- Increased emphasis on **diversity in today's classrooms** (see especially Clusters 1 to 6). Portraits of students in educational settings make diversity real and human

for readers. In a number of Clusters there are new exercises asking readers to “Put Yourself in Their Place” as a way to develop empathy for many students and situations.

- Increased coverage of effective application of learning principles as identified by the *Institute for Educational Sciences* (<https://ies.ed.gov/ncee/wwc/PracticeGuide/1>)

Key content changes in each Cluster include:

- **Cluster 1:** My goal is that this text will provide the knowledge and skills that will enable students to build a solid foundation for an authentic sense of teaching efficacy in every context and for every student, so there is new information on the **Every Student Succeeds Act (ESSA)**. Also, the section on research now includes **mixed methods** (complementary methods) (see Table 1.2) and **evidence-based practice**.
- **Cluster 2:** New information on the **brain and brain imaging techniques, synaptic plasticity, brain development in childhood and adolescence, and implications for teaching**. Also, there is greater critical analysis of Piaget’s and Vygotsky’s theories.
- **Cluster 3:** Updated section on **physical changes in puberty, cultural differences in play, childhood obesity, eating disorders** and the Web sites that promote them, **parenting, aggression, racial identity, and self-concept**.
- **Cluster 4:** New sections on **biases in labeling, neuroscience and intelligence, problems with learning styles, ADHD, student drug use, seizure disorders and other serious health concerns, and autism spectrum disorders**.
- **Cluster 5:** New information on **language development, emergent literacy, language diversity, and bilingual education**.
- **Cluster 6:** New coverage of **intersectionality, ethnicity and race, prejudice, expanded coverage of stereotype threat, gender, gender identity, sexual orientation, and creating culturally compatible classrooms**.
- **Cluster 7:** Expanded coverage of **ethical issues in behavioral approaches, reasons for classroom disruptions, and teaching implications** of behavioral learning.
- **Cluster 8:** Updated coverage of the **brain and cognitive learning, multitasking, working memory and cognitive load, concept teaching, desirable difficulty, effective practice, and teaching implications** of cognitive learning theories.
- **Cluster 9:** All new section on **teaching for complex learning and robust knowledge, updated discussion of metacognitive strategies, retrieval practice, worked examples, argumentation, and critical thinking**.
- **Cluster 10:** New sections on **designing learning environments, facilitating in constructivist classrooms, scaffolding, asking and answering deep questions, and the flipped classroom**. Updated discussion of **collaboration, learning in a digital world, and computational thinking**.
- **Cluster 11:** Updated coverage of **modeling, self-efficacy and agency, teacher efficacy, self-regulated learning, and emotional self-regulation**. New section on **grit**.
- **Cluster 12:** Cluster reorganized around **five broad themes** in motivation. Updated treatment of **expectancy-value-cost theory**. New section on **mindsets**. Updated material on **flow** and on the **TARGET framework for motivation**.
- **Cluster 13:** New sections on the role of **relationships, social skills, and mentoring in classroom management**. Updated material on **dealing with discipline problems, bullying and cyberbullying, restorative justice, and culturally responsive classroom management**.
- **Cluster 14:** Updated research on **teaching, homework, and teacher expectations** as well as new sections on **learning targets, the Common Core, asking deep questions, and giving feedback**.
- **Cluster 15:** New sections on **formative and interim assessment, guidance for using different types of test formats and rubrics, and assessing complex thinking**. Updated material on **discussing test results with families, controversies around high-stakes testing, value-added assessment, and PARCC and SBAC tests**.

A CRYSTAL CLEAR PICTURE OF THE FIELD AND WHERE IT IS HEADED

The fourteenth edition maintains the lucid writing style for which the book is renowned. The text provides accurate, up-to-date coverage of the foundational areas within educational psychology: learning, development, motivation, teaching, and assessment, combined with intelligent examinations of emerging trends in the field and society that affect student learning, such as student diversity, inclusion of students with special learning needs, education and neuroscience, educational policy, and technology.

MyLab for Education

The most visible change in the fourteenth edition (and certainly one of the most significant changes) is the expansion of the digital learning and assessment resources embedded in the etext. Designed to bring you more directly into the world of K–12 classrooms and to help you see the very real impact that educational psychology concepts have on learning and development, these digital learning and assessment resources also:

- Provide you with practice using educational psychology concepts in teaching situations.
- Help you and your instructor see how well you understand the concepts presented in the book and the media resources.
- Help you more deeply think about and process educational psychology and how to use it as a teacher (and as a learning tool).

The online resources in the Enhanced Etext with MyLab for Education include:

- **Video Examples.** In almost all Clusters, embedded videos provide illustrations of educational psychology principles or concepts in action. These video examples most often show students and teachers working in classrooms. Sometimes they show students or teachers describing their thinking or experiences.



MyLab Education
Video Example 2.1

- **Podcasts.** In all Clusters, AnitaTalks podcasts provide direct links to relevant selections from Anita Talks About Teaching, a series of podcasts in which Dr. Woolfolk discusses how the Clusters in this text relate to the profession of teaching.



MyLab Education
Podcast 2.1

- **Self-Checks.** Throughout the Clusters you will find MyLab for Education: Self-Check quizzes. There are four to six quizzes in each Cluster, with one at the end of each major text section. They are meant to help you assess how well you have mastered the concepts covered in the section you just read. These self-checks are made up of self-grading multiple-choice items that not only provide feedback on whether you answered the questions correctly or incorrectly, but also offer rationales for both correct and incorrect answers.

- **Application Exercises.** Also at the end of each major section, you can find one or two application exercises that can challenge you to use Cluster content to reflect on teaching and learning in real classrooms. The questions you answer in these exercises are usually constructed-response items. Once you provide your own answers to the questions, you will receive feedback in the form of model answers written by experts.

- **Practice for Your Licensure Exam.** Every Cluster ends with an exercise that can give you an opportunity to apply the Cluster's content while reading a case study and then answering multiple-choice and constructed-response questions similar to those that appear on many teacher licensure tests. By clicking on the MyLab for Education hotlink at the end of a Connect and Extend to Licensure exercise, you can complete the activity online and get feedback about your answers.

- **Classroom Management Simulations.** In the left-hand navigation bar of MyLab for Education, you will be able to access interactive simulations that engage you in decision making about classroom management strategies. These interactive cases focus on the classroom management issues teachers most frequently encounter on a daily basis. Each simulation presents a challenge scenario at the beginning and then offers a series of choices to solve each challenge. Along the way you receive mentor feedback on your choices and have the opportunity to make better choices if necessary.

MyLab Education Self-Check 2.5

▼ PRACTICE USING WHAT YOU HAVE LEARNED

To access and complete the exercises, click the link under the images below.

Scheme, Assimilation, and Accommodation



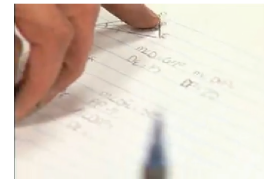
MyLab Education
Application Exercise 2.1

Piagetian Concepts in a First Grade Lesson



MyLab Education
Application Exercise 2.2

Using Cultural Tools To Guide Learning



MyLab Education
Application Exercise 2.3

▼ CONNECT AND EXTEND TO LICENSURE

MULTIPLE-CHOICE QUESTIONS

- Mr. Winstel was worried about his former star student, Ramon. As the seventh-grade year progressed, Ramon was frequently being called into the principal's office for skateboard stunts that broke school rules and bordered on dangerous. Recently, Ramon's parents contacted Mr. Winstel to alert him to the fact that Ramon had been skipping school to hang out with some older boys in the neighborhood. Which of the following answers would typically best describe what is happening with Ramon?
 - Ramon's culture demands that boys of his age begin to engage in behaviors that reflect fearlessness.
 - Ramon's limbic system is maturing, but his prefrontal lobe has not yet caught up.
 - Ramon is engaging in deviant behaviors as a cry for attention from his parents.
 - Ramon is undergoing a period of synaptic pruning, which causes adolescents to engage in risk-taking behavior.
- Miss McClintock discovered that five of the children in her class were developmentally advanced. All of the students' language skills were exploding! Although many of the students still had trouble sharing, a few appeared to understand that by sharing, everyone could be happy. Finally, there was even one child who could solve conservation problems. According to Piagetian theory, in what stage are the students in Miss McClintock's class?
 - Formal operations
 - Concrete operations
 - Preoperational
 - Sensorimotor
- In introducing students to persuasive advertising methods, which of the following approaches would be most apt to lead to student retention?
 - Determine what students already know about the topic, and connect new information to their prior knowledge.
 - Have students initially watch several commercials and take notes.

- Lecture students on the major persuasive techniques, and have a quiz to assess learning.
 - Have students form groups to research persuasive techniques.
- Research studies involving the brain and learning indicate that all but which one of the following statements is true?
 - There is no such thing as "left-brain" and "right-brain" thinking.
 - The production of new neurons continues into adulthood.
 - Using different modalities for instruction and activities that draw on different senses may support learning.
 - Pruning can damage heavily used cognitive pathways.

CONSTRUCTED-RESPONSE QUESTIONS

Case

When planning for instruction, Mr. Gething remembered that students should be neither bored nor frustrated. Although this made sense to him, he was unsure how he would compensate for the diverse group of students he had in his second-period language arts class. Some students had difficulty with the English language, and other students planned to participate in the school's annual Shakespearean play. He knew that by grouping students of mixed ability, he could occasionally draw on the talents of his knowledgeable students to assist the less-advanced students. He also understood that without guidelines, students might not accomplish anything.

- Explain the theory of learning Mr. Gething is initially drawing on, and identify the individual credited with it.
- What is the term for the assistance that the more knowledgeable class members may provide to the less-advanced students in order to help them succeed? List some strategies these students might use to assist their peers.

MyLab Education Licensure Exam 2.1

- **Study Modules.** In the left-hand navigation bar of MyLab for Education, you will also find a set of Study Modules. These interactive, application-oriented modules provide opportunities to learn foundational educational psychology concepts in ways other than reading about them. The modules present content through screen-capture videos that include animations, worked examples, and classroom videos. Each module consists of three parts. In the first part, begin with the Learn section that presents several key concepts and strategies. Then work through the problems in the Apply section. These will give you practice applying the concepts and principles to actual teaching and learning scenarios. The third part of each module is a multiple-choice test in the Assess section. This test includes higher-order questions that assess not only what you can remember about the module's content but also how well you can apply the concepts and strategies you've learned to real-life classroom situations.
- **Video Analysis Tool.** Our widely anticipated Video Analysis Tool is also available in the left-hand navigation bar of MyLab for Education. The Video Analysis Tool helps you build your skills in analyzing teaching. Exercises provide classroom videos and rubrics to scaffold your analysis. Timestamp and commenting tools allow you to easily annotate the video and connect your observation to educational psychology concepts you have learned in the text.

Additional Text Features

With an unswerving emphasis on educational psychology's practical relevance for teachers and students in classrooms, the text is replete with current issues and debates, examples, lesson segments, case studies, and practical ideas from experienced teachers.

Point/Counterpoint sections in each Cluster present two perspectives on a controversial question related to the field; topics include debates on the kinds of research that should guide education (p. 21), brain-based education (pp. 42–43), the self-esteem movement (p. 115), pills or skills for students with ADHD (p. 161), the best way to teach English language learners (p. 216), should girls and boys be taught differently? (p. 259), using rewards to encourage student learning (pp. 308–309), what's wrong with multitasking? (p. 323), teaching critical thinking and problem solving (p. 388), problem-based education (pp. 416–417), are “grittier” students more successful? (p. 466), the value of trying to make learning entertaining (p. 511), zero tolerance (p. 559), the Common Core standards (p. 584), and holding children back (p. 642).

Guidelines appear throughout each Cluster, providing concrete applications of theories or principles discussed. See, for example, pages 54, 92, 97, 146, 155, 196, 211, 242, 291, 324, 349, 383, 438, 440, 459, 512, 541, 553, 588, 601, 636, and 644.

Guidelines: Family and Community Partnerships sections offer specific guidelines for involving all families in their children's learning—especially relevant now, when demand for parental involvement is at an all-time high and the need for cooperation between home and school is critical. See, for example, pages 51, 89, 154, 213, 305, 342, 393, 528, 572, 596, and 654.

Teachers' Casebook sections present students with realistic classroom scenarios at the beginning of each Cluster and ask “What Would You Do?”—giving students the opportunity to apply all the important topics of the Cluster to these scenarios via application questions. Students may then compare their responses to those of veteran teachers appearing at the end of each Cluster. See, for example, pages 75, 185, 275, 398, and 531.

Reaching Every Student sections present ideas for assessing, teaching, and motivating ALL of the students in today's inclusive classrooms. See, for example, page 70.

Lessons for Teachers are succinct and usable principles for teaching based on the research. See, for example, page 505.

Put Yourself in Their Place experiences develop empathy by asking students to imagine how they would feel in different situations. See pages 209, 210, 247, 295, 371, 503, and 647.

Stop and Think activities give students firsthand experience with the concept being discussed, as on pages 232, 317, 320, 487, 488, 534, 579, and 625.

SUPPLEMENTARY MATERIALS

Many supplements to the textbook are available to enhance readers' learning and development as teachers.

ONLINE INSTRUCTOR'S MANUAL. Available to instructors for download at www.pearsonhighered.com/educator is an *Instructor's Manual* with suggestions for learning activities, supplementary lectures, group activities, and additional media resources. These have been carefully selected to provide opportunities to support, enrich, and expand on what students read in the textbook.

ONLINE POWERPOINT® SLIDES. PowerPoint slides are available to instructors for download at www.pearsonhighered.com/educator. These slides include key concept summarizations and other graphic aids to help students understand, organize, and remember core concepts and ideas.

ONLINE TEST BANK. The *Test Bank* that accompanies this text contains both multiple-choice and essay questions. Some items (lower-level questions) simply ask students to identify or explain concepts and principles they have learned. But many others (higher-level questions) ask students to apply those same concepts and principles to specific classroom situations—that is, to actual student behaviors and teaching strategies. The lower-level questions assess basic knowledge of educational psychology. But ultimately, it is the higher-level questions that can best assess students' ability to use principles of educational psychology in their own teaching practice.

TESTGEN®. TestGen is a powerful test generator available exclusively from Pearson Education publishers. Instructors install TestGen on a personal computer (Windows or Macintosh) and create their own tests for classroom testing and for other specialized delivery options, such as over a local area network or on the web. A test bank, which is also called a Test Item File (TIF), typically contains a large set of test items, organized by Cluster and ready for your use in creating a test, based on the associated textbook material. Assessments—including equations, graphs, and scientific notation—can be created in either paper-and-pencil or online formats.

The tests can be downloaded in the following formats:

- TestGen Testbank file—PC
- TestGen Testbank file—MAC
- TestGen Testbank—Blackboard 9 TIF
- TestGen Testbank—Blackboard CE/Vista (WebCT) TIF
- Angel Test Bank (zip)
- D2L Test Bank (zip)
- Moodle Test Bank
- Sakai Test Bank (zip)

ACKNOWLEDGMENTS

During the years I have worked on this book, from initial draft to this most recent revision, many people have supported the project. Without their help, this text simply could not have been written.

Many educators contributed to this edition and previous editions. Ellen L. Usher (University of Kentucky) contributed her remarkable scholarship and delightful writing to revise Clusters 6 and 11. Carol Weinstein wrote the section in Cluster 13 on spaces for learning. Michael Yough (Purdue University) looked over several Clusters including Cluster 5, “Language Development, Language Diversity, and Immigrant Education.” Cluster 5 was also improved by suggestions from Alan Hirvela, The Ohio State University. Jerrell Cassady, Ball State University, provided invaluable guidance for Cluster 12, “Motivation in Learning and Teaching.” The portraits of students in Clusters 1 and 6 were provided by Nancy Knapp (University of Georgia).

As I made decisions about how to revise this edition, I benefited from the ideas of colleagues around the country who took the time to complete surveys, answer my questions, and review Clusters.

For their revision reviews, thanks to Karen Banks, George Mason University; Marcus Green, North Carolina State University; Cheryl Greenberg, University of North Carolina at Greensboro; Michelle Koussa, University of North Texas; Nicole Leach, Mississippi State University; and Lu Wang, Ball State University.

Many classroom teachers across the country and around the world contributed their experience, creativity, and expertise to the *Teachers' Casebook*. I have thoroughly enjoyed my association with these master teachers, and I am grateful for the perspective they brought to the book:

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 VALERIE A. CHILCOAT • 5th-/6th-Grade Advanced Academics
 Glenmount School, Baltimore, MD

On this edition, I was again privileged to work with an outstanding editorial group. Their intelligence, creativity, sound judgment, style, and enduring commitment to quality can be seen on every page of this text. Kevin Davis, Director and Publisher, guided the project from reviews to completion with the eye of an artist, the mind of a scholar, and the logistical capacity of a high-powered computer. He proved to be an excellent collaborator with a wise grasp of the field and a sense of the future. Casey Coriell, Editorial Assistant, kept everything running smoothly and kept my e-mail humming. On this edition I was fortunate to have the help of Kathy Smith. She carefully and expertly read and reread every page—and improved the writing and logic in every Cluster. Her expertise and dedication set the standard for everyone in this project. Alicia Reilly was the outstanding developmental editor with the perfect combination of vast knowledge, organizational ability, and creative thinking. The text features, *Teachers' Casebook*, and excellent pedagogical supports would not exist without her tireless efforts. Content and Media Producers Janelle Rogers, Lauren Carlson, and Daniel Dwyer from Pearson and Gail Gottfried kept all aspects of the project moving forward with amazing skill, grace, and good humor. Somehow they brought sanity to what could have been chaos and fun to what might have been drudgery. Now the book is in the able hands of marketing managers Christopher Barry and Krista Clark. I can't wait to see what they are planning for me now! What a talented and creative group—I am honored to work with them all.

Finally, I want to thank my family and friends for their kindness and support during the long days and nights that I worked on this book. To my family, Marion, Bob, Eric, Suzie, Lizzie, Wayne K., Marie, Kelly, and the newest member, Amaya—you are amazing.

And of course, to Wayne Hoy, my friend, colleague, inspiration, passion, husband—you are simply the best.

—ANITA WOOLFOLK HOY

A NOTE ON THE COVER

Discovery Learning Meets Need for Guidance

In the fall of 2009, I finally acted on a promise made to my daughter that we would take an art class together. She had received a brochure describing art classes at her community center—the watercolor class on Wednesday evenings caught our eye.

I had not taken any art classes since high school, so I didn't know what to expect. Armed with our new tubes of watercolors, brushes, and paper (all of which cost more than I remembered from high school) we began.

The first night, there were six small practice assignments—a tree trunk, rocks, a brick wall, a face, water in a stream, and a vase. Each gave us practice with one technique such as mixing to get flesh tones or using masking fluid to protect white areas of the paper. We watched the teacher demonstrate how to begin each skill, but he said little.

Over the next eight weeks, I remembered what it is like to be a complete novice. I had no idea how to prepare paper, mix colors, or choose brush sizes. At first the whole process seemed very frustrating. Every class we watched the teacher paint a particular fall scene for an hour, then we tried to do the same scene. He said very little.

I needed more guidance. I went and Googled “painting watercolor trees.” Amazing—the web is full of step-by-step instructions, videos, and tutorials. Instant gratification! I painted every evening. I finally had to use painting as a reward.... “When you finish grading 10 papers from your seminar, then you can paint.”

The Wednesday class always had the same structure. We had an assignment. The instructor demonstrated for the first 30 to 45 minutes, showing how to begin. He said very little. I learned to ask questions: “What color is that?” “Are you working on wet paper?” As we painted, he circulated around the room, but made very few comments. So, I continued to ask questions: “How do I make color clearer?” “How do I make this look more like water (trees, rocks, leaves, feathers...)?” I went home and painted and Googled.

At the time I found the class somewhat frustrating. I knew so little and the teacher knew so much. I needed more direct instruction! Yet as I look back, I see many elements of good studio teaching:

- Our first assignments were small, targeted pieces that focused on one skill, using just a few colors.
- We always saw a model (though I wish he had “thought out loud” more as he painted).
- We had many levels of expertise in the room—so there were peer models as well. I learned to ask them questions too.
- The climate was affirmative. Both the teacher and our fellow students found something authentically good about everyone's paintings.

Looking back I also learned some things about myself as a learner.

- I like guidance—up to a point. But once I had the basics, I enjoyed inventing.
- I love the web! It is a fountain of learning possibilities.
- Getting to a finished product is very motivating for me—I had to make myself stop painting at night and then sometimes dreamed about brush strokes.

I have continued taking watercolor classes. You can see some of the results in this book—the cover and the pictures on the opening pages of Clusters 1 and 4. I am grateful to my teachers, Teri Clemente and Anneke Tigchelaar, for their wonderful guided discovery approach to teaching and for my fellow students, the Women of Watercolor (aka. WOW) in Naples, Florida. These classes gave me two excellent gifts—great time with my daughter and a deeper appreciation of what artists do. You know when you look at an abstract painting in a museum and think, “I could do that.” Well—maybe not right away, but with guidance, invention, and practice....

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