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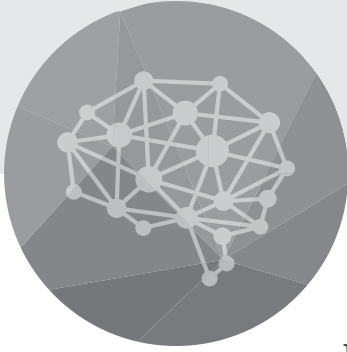
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I N T R O D U C T I O N

Maneuver Your Footwork With Four Steps

Delivering content and effectively using the formative assessment process can be quite overwhelming to some teachers. We wondered how we could make this powerful, highly differentiated process more doable. Because we love to dance, rhyme, chant, and make content easier, we came up with the cha-chas chant.

Chunk it, we teach a bit
Chew it, they think about it
Check it, do they know?
Change it, to watch them grow (Jensen & Nickelsen, 2014, p. 186)

This Book's Focus

Neuroscience and evidence-based research have changed how we eat, sleep, move, think, learn, teach—how we live our lives. Neuroscientists explore our brains to show how they respond to different environments. For example, physical exercise not only benefits the physical body, but it also benefits mental capabilities (Erickson et al., 2011). Aerobic exercise can increase hippocampus volume leading to cognitive improvements and the “alleviation of depression and anxiety” (Sleiman et al., 2016). The hippocampus is a part of the brain associated with long-term memory and learning transfer. When it improves and grows, so does cognitive

function and memory. These factors have positive implications for memory performance and suggest that fitness protects against brain volume loss (Erickson et al., 2011).

Another example is University of California Berkeley professor Marian C. Diamond's (2001) seminal research revealing that the brain responds to enriching environments. She was the first to prove that the brain can change and improve with experience. She examined some of Albert Einstein's brain, where she found an abundant amount of support cell—more than average. And her research with rats that showed novel toys (rotating the type of toys), companions, healthy food, space in a cage, and other factors changed the anatomy of the brain. Her research concludes that impoverished environments can lower capacity to learn, while enriched environments increase plasticity, learning, and memory. The bottom line is that much research, the past and present, supports how important environment is. (There is even an ongoing conflict regarding whether we can grow new brain cells, known as neurogenesis in the hippocampus. The implications are important.)

This book will explore cognitive and behavioral sciences as well as other evidence-based research that help us determine how to reach students more efficiently and effectively. This scientific basis is our book's foundation along with the formative assessment process and

differentiation efficacy—which back the multitude of strategies we offer.

The *formative assessment process* says the following (Schimmer, 2018).

- Learning never ends. It is an iterative process.
- Assessment is for evaluating information and moving students forward faster with their learning. It allows the teacher and student to partner in the process of closing the gap between the student's current work or thinking and the desired learning.
- Teachers and administrators don't discipline students for not learning something by a certain date but rather, they partner with them to update the growth toward the standards.
- The latest assessment is the most accurate—no matter what quarter.

Learning is all about students reaching the learning target, goal, outcome, or objective in an engaged, enjoyable manner. Learning is a rough draft and can be quite sloppy at times. This is to be expected, and formative assessment is part of it.

Differentiation and the formative assessment process go hand in hand. You can't separate them. They have the same goals for student learning, and they mirror our goals for students as well.

- We want students to joyfully learn the curriculum and more.
- We want students to be active learners with opportunities to make the content more meaningful and connected to their lives and their world.
- We want students to be independent thinkers, so they can use powerful strategies that allow them to learn faster and more efficiently.
- We want to partner with our students to guide, facilitate, help, support, and cheer them on to do their very best thinking daily.
- We want students to take on the responsibility of monitoring their own learning, reflecting on it, and determining next best steps with our guidance, teaching, and facilitation.
- We want students to be prepared for life outside the classroom and to be productive citizens who help lead us successfully into the future.

To that end, we've included dozens of strategies so K–8 teachers around the world could see effective instruction and differentiation as *doable* and as a *must do*. You will see templates filled in as examples throughout the book. Elsewhere in the book, and online at go.hbe.com.au, you can access blank versions of these templates. Here, teachers see the brain-based evidence that proves that using daily formative assessment and differentiation is not a choice, but rather a necessity. As teachers, we put this process into play in our own classrooms with great success, and as educators and consultants, we saw teachers' mindsets and toolkits, as well as students' engagement and achievement, change throughout the years we coached. This book is a mindset changer. *Teaching With the Instructional Cha-Chas: Four Steps to Make Learning Stick* will introduce four steps into your instruction: (1) chunking, (2) chewing, (3) checking, and (4) changing. Content mastery and greater student achievement will result.

This Book's Strategies

Each strategy in chapter 2 through chapter 6 includes the grouping method (whole group, small groups, partners, or individual), directions, an example or template (or both), simple suggestions for differentiation (ways you can *change* the lesson by bumping it up for advanced students, breaking it down to scaffold for learners who are struggling, and specializing it for some of the other challenges you face in your classroom), and how to incorporate technology (including links to useful websites and apps).

Every strategy we included addresses a variety of learning preferences, and literacy components (reading, writing, listening, and speaking). While you won't see those features specifically called out, you can use the strategies in confidence knowing they are there. Also, be aware that chapter 7 addresses more purposeful differentiation strategies.

You shouldn't give the strategies independently as worksheets, but rather use them as thinking and discussion templates, and as part of the gradual release of responsibility model (Fisher & Frey, 2015; Pearson & Gallagher, 1983), which requires the teacher to model each strategy (*I do*), provide opportunities for guided practice (*we do*), and small-group or partner practice (*two do*) before expecting students to demonstrate the strategy independently (*you do*).

Chapters 4 and 5 talk more about this model, but table I.1 shows how our four-step instructional cha-chas cycle correlates with Douglas Fisher and Nancy Frey's (2008) gradual release of responsibility. While most lessons follow the gradual release in the order here, a teacher may choose to change this. For example, a lesson might start with a *you do* that has a question to

activate prior knowledge. Either way, the goal in each lesson is to have all four types of release, done gradually and based on the checkpoints and data received from those checkpoints.

Table I.1: Gradual Release of Responsibility in the Instructional Cha-Chas Cycle

Step in Four-Step Cycle	Gradual Release of Responsibility	What Does the Teacher Do?	What Does the Student Do?
Chunk	<i>I do</i> Direct instruction	<ul style="list-style-type: none"> • Shares learning target—the lesson's purpose • Makes content relevant and interesting; gets student buy-in • Models the skill or explains or shows content (via a think-aloud) • Directs instruction • Provides engaging tools • Chunks for ten to fifteen minutes (depending on student grade) 	<ul style="list-style-type: none"> • Actively listens and watches • Sits near the teacher • Possibly takes notes • Might form general questions, <i>How does this connect with me</i> questions, and <i>I wonder</i> statements
Chew, check, and change	<i>We do</i> Guided practice	<ul style="list-style-type: none"> • Provides interactive instruction • Guides students • Asks questions to ascertain learning • Prompts and cues to support students • Listens to conversations to assess • Starts to release some responsibility so students try the learning • Differentiates when needed (change instruction) • Pulls small groups based on what is seen or heard • Gives feedback to move work closer to learning target 	<ul style="list-style-type: none"> • Responds to questions • Practices what he or she just learned • Asks questions for clarification • Seeks peer help, for example, turn and talk • Makes thinking visible (via annotations, graphic organizers, two-column notes, mind maps, whiteboards, and so on) so teacher can assess • Receives feedback and changes work accordingly
Chew, check, and change	<i>Two do</i> Collaboration	<ul style="list-style-type: none"> • Creates opportunities for student conversations via purposeful groups • Creates question and statement stems to help with discussions • Has word walls available so students can use academic and domain-specific vocabulary terms • Listens to and observes students • Documents the daily data for where students are with the learning target • Organizes data and makes changes based on the data • Gives feedback to move work closer to learning target 	<ul style="list-style-type: none"> • Discusses what he or she learns in structured manners with domain-specific vocabulary • Practices, in an interactive, fun group format, what he or she learns • Receives feedback from peers and changes work accordingly • Makes connections • Reflects and assesses productiveness of his or her group work time • Might play games to reinforce learning target

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Step in Four-Step Cycle	Gradual Release of Responsibility	What Does the Teacher Do?	What Does the Student Do?
Chew, check, and change	<i>You do</i> Independent practice	<ul style="list-style-type: none"> • Confers with students; possibly pulling a small group of students to reteach, give extra support, and scaffold (differentiate) • Observes and documents student understanding • Gives feedback to move work closer to learning target • Clarifies confusions 	<ul style="list-style-type: none"> • Works in school • Strategically applies what he or she learns in the lesson to complete the assessment (evidence of learning target mastery) • Assesses personal progress toward learning target

Source: Adapted from Fisher & Frey, 2008.

During each phase of the gradual release of responsibility, as the students chew on the content, you will check their understanding and change instruction as you need to. We'll go into this in more detail in chapters 6 and 7 (page 117 and 159, respectively).

We firmly believe this book will enhance your teaching in many ways. You will enjoy the strategies that are in line with high-quality standards. They are rigorous, highly engaging, and easy to implement with any topic in grades K–8. They are not suppositions. They have and are producing results in classrooms across the world.

This Book's Organization

Because we know that dancers never step on stage without choreographing their routine and effective teachers never step into a classroom without first choreographing their instruction, we've split the book into two parts, the first of which guides your planning. The second guides your step-by-step instruction implementation.

Part I includes chapters 1–3. Chapter 1 examines the formative assessment process and introduces our four-step instruction cycle to help you maximize learning. Chapters 2 and 3 focus on the planning required to effectively frame your instruction before embarking on the four-step cycle. Specifically, chapter 2 deals with how to design effective daily learning targets and formative assessments to ensure that each student meets the standard. We present a lesson-planning template to get you started. You'll see this template in later chapters as well. Chapter 3 explores the importance of knowing

your students academically, socially, and emotionally, and planning the most effective methods for instruction. That includes strategies for preassessing, activating prior knowledge, pre-exposing, and priming their brains for the content.

Part II includes chapters 4–8. In each chapter, we'll share strategies that help you accomplish each step in the instructional cha-chas and provide ways to differentiate for students as well. Chapter 4 introduces the first step of our instructional cha-chas cycle: chunking, or breaking, the content into manageable pieces for students. We'll examine some of the best strategies to ensure that every student receives relevant, rigorous, and robust content. Chapter 5 covers the second step of the cycle: providing an opportunity for students to chew, or engage with, the content. We'll share some of our favorite strategies for reaching the variety of learners in your classroom to ensure that all students master the content. Chapter 6 examines the third step: checking, or evaluating, where students are in mastering the standard. This is the formative assessment step. We'll explain why it is crucial to examine evidence every day for every student and provide strategies that make that possible. Chapter 7 covers the final step of the instruction cycle: changing, or differentiating, the instruction. We'll share strategies that allow teachers to more purposefully differentiate their instruction, grouping, pacing, practice, and more based on their formative assessment results. Chapter 8 provides a sample lesson plan that shows you how to bring all the dance steps together for a quality lesson designed for maximum learning. We also include a lesson-plan template, checklists, and self-assessment to help you teach this way.

Let's dance!