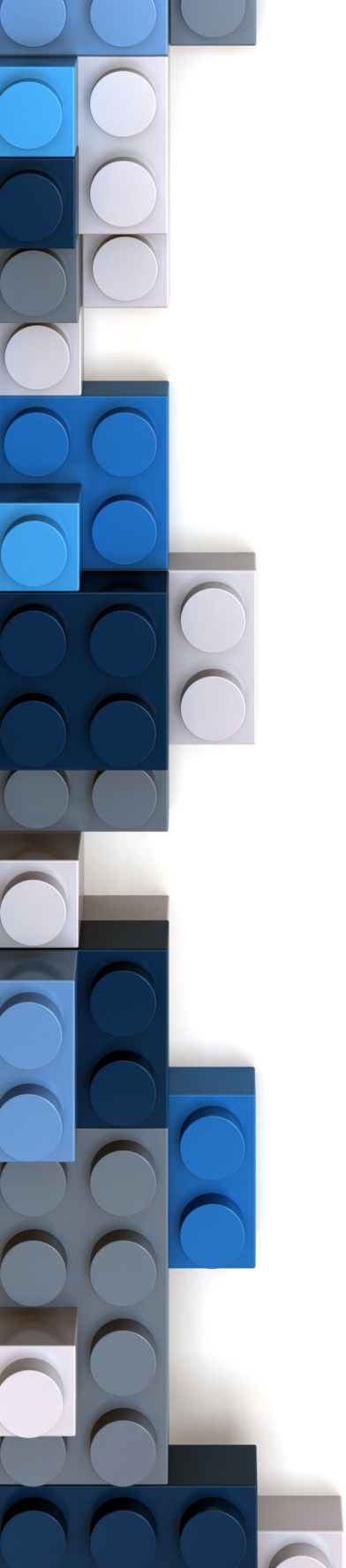


Learning That CLICS

Using Behavioral Science for Effective Learning Design

JANET AHN • MARY SLAUGHTER • JON THOMPSON

Learning That CLICS

Using Behavioral Science for Effective Learning Design

JANET AHN • MARY SLAUGHTER • JON THOMPSON

atd PRESS
Alexandria, VA

© 2022 ASTD DBA the Association for Talent Development (ATD)
All rights reserved. Printed in the United States of America.

25 24 23 22 1 2 3 4 5

No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, information storage and retrieval systems, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law. For permission requests, please go to copyright.com, or contact Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923 (telephone: 978.750.8400; fax: 978.646.8600).

ATD Press is an internationally renowned source of insightful and practical information on talent development, training, and professional development.

ATD Press
1640 King Street
Alexandria, VA 22314 USA

Ordering information: Books published by ATD Press can be purchased by visiting ATD's website at td.org/books or by calling 800.628.2783 or 703.683.8100.

Library of Congress Control Number: 2022931447

ISBN-10: 1-953946-32-1
ISBN-13: 978-1-953946-32-4
e-ISBN: 978-1-953946-33-1

ATD Press Editorial Staff
Director: Sarah Halgas
Manager: Melissa Jones
Content Manager, Learning Sciences: Alexandria Clapp
Developmental Editor: Kathryn Stafford
Production Editor: Hannah Sternberg
Text Design: Shirley E.M. Raybuck
Cover Design: Rose Richey

Layout: PerfecType, Nashville, TN

Printed by BR Printers, San Jose, CA

Buy This Book

Janet

I thank my parents, Bon and Dae Rheen, for always encouraging me to set high goals; my husband, Eddie, for being my rock; and my two daughters, Audrey and Everly, for being my biggest cheerleaders.

Mary

To my daughters, Lia and Ava. Thank you for the joy and steadfast love you bring into my life. You are the best gift imaginable.

Jon

I want to thank my parents, Mike and Helen, for helping me develop a love of learning; my brother, Ryan, for showing me how to have the courage to find my creative voice; and my wife, Christy, and daughters, Evelyn and Juliet, for their love and support and grace.

Contents

List of Contributor Sections vi

Prologue: Standing on a Foundation of Continual Change vii

Chapter 1: Discovering CLICS: A Stronger Approach to Analysis 1

Chapter 2: Our Brains and the Science of Learning 13

Chapter 3: Applying Capacity 19

Chapter 4: Applying Layering 39

Chapter 5: Applying Intrinsic Enablers 59

Chapter 6: Applying Coherence 77

Chapter 7: Applying Social Connections 97

Chapter 8: The CLICS Tool in Total 117

Chapter 9: CLICS in Design and Development 129

Chapter 10: The Future of Workplace Learning 137

Acknowledgments 141

Appendix: A Brief Tutorial on the Science of Testing Programs 143

References 149

Index 151

About the Authors 157

Contributor Sections

Case in Point: Kimo Kippen 24

Scientist Spotlight: Tessa West, PhD. 27

Case in Point: Jesse Jackson, EdD 43

Scientist Spotlight: Lisa Son, PhD 47

Scientist Spotlight: Paul J. Zak, PhD 61

Case in Point: Steven Sitek 62

Case in Point: Brandon Carson. 81

Scientist Spotlight: Adam Alter, PhD 86

Scientist Spotlight: Jamil Zaki, PhD. 99

Case in Point: Kelly Palmer 104

PROLOGUE

Standing on a Foundation of Continual Change

From the early planning stages for this book, we knew we were thinking differently about learning needs analysis compared with our past experiences. All three of us have held key learning leadership roles in various firms and have experienced firsthand the pressure to respond quickly to business leaders and market demands. We've also experienced times when learning was derailed, when it failed to meet learner expectations, or when it didn't produce the desired business impact. If you've ever found yourself in the position of defending why things didn't quite go the way you'd hoped, it's likely that some part of the needs analysis was either incomplete or ignored. The resulting business impact becomes lost time, wasted money, and frustrated colleagues—something none of us wants.

As we wrote our book, we became keenly aware of the temporal nature of work. We began our planning at least a year before the word *COVID* hit the news. Throughout the global pandemic, we worked together—mostly virtually—not only adapting our approach to collaboration, but also adapting the book itself to be as relevant as possible to the changing nature of work. In all candor, having a project like this was a gift that helped sustain us through the isolation and uncertainty that the global pandemic created.

It's now hard to imagine a world more complex. Overwhelming amounts of information, workforce reskilling needs, digital transformations, and emerging technologies seem to be the norm. It's not enough to simply talk about the speed of change, but the very nature of change is increasingly disruptive and often unexpected, coming in tsunami-like waves. We receive early warning signals that the wave is coming, but it's hard to fathom the real impact until change is upon us.

Our world is in constant flux, and it's not limited to business. Our cultural, social, and economic fabrics are rapidly being challenged and redefined, often driven by global inflection points like a recession, a pandemic, climate change, and trade wars. While all that sounds quite ominous, the rise of technology, micro-financing, and digital trade is accelerating, making it possible for a new, interconnected world of work to emerge.

A clearer sense of our humanity is also on the rise. Empathy. Compassion. How we treat one another, the values we demonstrate, and the behaviors we model not only are transparent, but also can circle the globe, literally with a keystroke. What once was hidden is now visible. What once was acceptable may crumble under the scrutiny of exposure and accountability.

Workplace Learning Evolution: Enablement Over Control

The days of linear, predictable, and stable content, controlled by a corporate learning function, have come to an end. It's simply not possible for any of us—no matter how talented, how experienced, or how smart—to forecast the future of what will need to be learned. The days of control are gone, and the world of enablement has arrived.

For at least the last decade, the learning industry has focused significant energy and investment on technology, looking for ways to shift learning from the traditional classroom to more personalized, mobile, and on-demand delivery channels. Technology platforms, smartphones, and robust apps have enabled major shifts in how we've begun to reimagine work. We often say, "Google and YouTube have changed forever the way we learn." There's no going back from our real-time, situation-specific searches that teach us what we need in that moment.

As important as those advances have been and continue to be, the next revolution in learning is turning inward to our own biology—the preferences, constraints, and needs of human psychology and the brain. The fields of social psychology and neuroscience have exploded over the last 20 years, yet much of the research has remained within the walls of academia and medicine. This research has given us a deeper understanding of how our brains register, process, encode, and recall information—the very essence of learning.

Our epiphany is this:

- Change continues to rapidly accelerate, with information growing exponentially.
- Learning professionals live at the heart of individual and organizational transformations.
- No matter how clever the technology, how talented the instructional designer, or how adaptive the facilitator, our profession can increase its impact if we factor in how the human brain learns.

Start by Reimagining Analysis

This book was written by learning professionals for learning professionals who aspire to become better at their craft. We've focused on applying science (for example, social and organizational psychology and neuroscience) to the profession of learning, starting first with reimagining what analysis is, and then reskilling ourselves to have science-based conversations with each other and the business leaders we support.

Historically, analysis has been the easiest step to hurry through or skip altogether, as we either accept someone else's definition of the "problem," or we assume the gap can be closed by training. In this book you'll learn about a new science-based framework called CLICS™, which is our acronym for Capacity, Layering, Intrinsic enablers, Coherence, and Social connections. These domains are based on five science concepts crucial for learning. Our goal

is to share new tools that practitioners can immediately apply, building on their existing skill sets and methods. Additionally, we've intentionally designed CLICS to complement traditional methods of instructional design, be that ADDIE, SAM, or any other approach you may use.

About This Book

We begin in chapter 1 with an introduction to CLICS, describing the need to approach analysis in a new, more human-centric way. Then in chapter 2 we examine the underpinnings of the behavioral science of CLICS—how the brain works, learns, and applies.

In chapters 3–7, we present a deep dive into each of CLICS's respective domains along with practical applications. You'll learn about each domain and its relevant science concepts and models, then walk through three practical scenarios using the CLICS Tool. The intention is to immediately enable you to start using this framework when doing needs analysis with your stakeholders.

In chapter 8, we lay out the tool in its entirety and revisit one of our practical scenarios with a twist.

In chapter 9, we offer proven science-based techniques to apply during design and development to facilitate more effective learning outcomes.

Chapter 10 is our call to action for a learning approach that applies behavioral science insights to the world of work.

The appendix, "A Brief Tutorial on the Science of Testing Programs," provides straightforward guidance if you want or need to apply a rigorous approach to assessment. The process of measurement can be daunting, but consider whether this approach might be for you.

Throughout the book, sidebars containing interviews with business leaders (Cases in Point) and vignettes on the work of cutting-edge researchers (Scientist Spotlights) illuminate the practical side of these ideas.

So how should you use this book to get the most out of it?

- Apply the tool using a learning request you currently have before you.
- Reflect on how the scientific principles can help you guide conversations with your stakeholders.
- Identify questions to use in your own needs analysis that fit the domains but are relevant to your organization and circumstances.

To follow our work, or simply connect with us, please feel free to do so via LinkedIn:

- Mary: linkedin.com/in/maryslaughter
- Janet: linkedin.com/in/janet-n-ahn-phd-705b7796
- Jon: linkedin.com/in/jonthompson2758

We're so appreciative that you've chosen to read our work.

CHAPTER 1

Discovering CLICS: A Stronger Approach to Analysis

For today's learner, time and attention in the workplace, and in life, are at a premium. For organizations depending on those learners and the learning professionals tasked with supporting them, this is even more true. For those of us responsible for the design and development of learning, we've all probably heard something like this from our stakeholders:

- "Our people don't understand our new processes or what they need to do differently. Can't we pull some training together quickly?"
- "We need a new onboarding program that will make new hires proficient at their jobs in 30 days."
- "If we don't train people as soon as possible, we're not going to hit our sales targets. We need to start training now!"

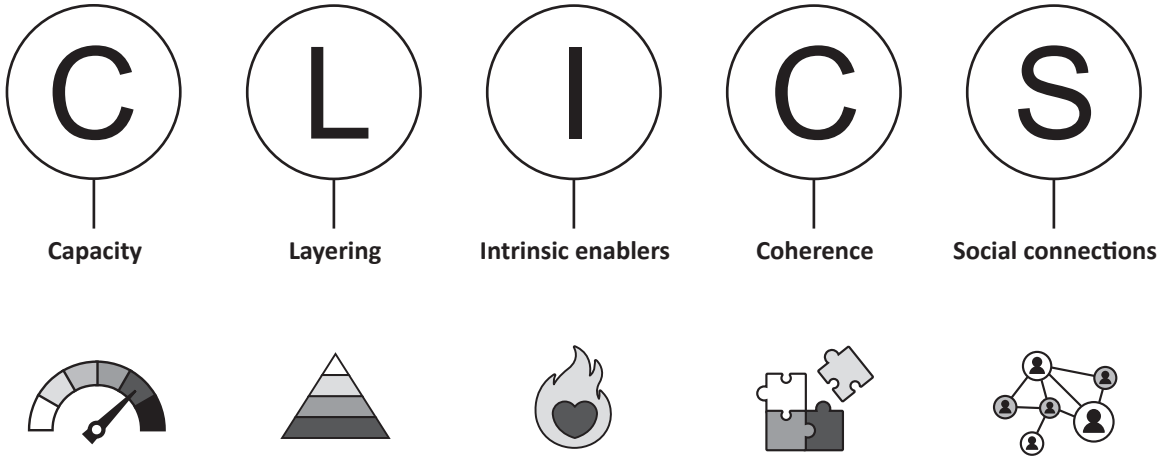
If this sounds familiar, you're not alone. But, in order to actually help learners achieve lasting learning, it's essential to start at the beginning—how learning actually happens in our brains and is reinforced in our environment. This book provides the context, workplace examples, and supporting science that you'll need to approach analysis in a new way, using CLICS as a framework to guide your thinking, questioning, and assessment of the situation that may (or may not) require a learning solution.

The CLICS Framework

CLICS is a domain-based framework, grounded in social and organizational psychology and neuroscience concepts, that defines how our brains learn most effectively. The framework has implications across all phases of the learning solution process, which affects the overall learner experience as well as actual learning itself.

The primary goal of CLICS is to maximize the likelihood of sustained individual learning in an organizational context (Figure 1-1). Achieving this goal was the singular reason we created CLICS, with the five indicated domains, each underpinned by science foundations. The learner-relevant and workplace-relevant considerations help to balance the fact that learning solutions must consider both the audience for which they are intended as well as the environmental ecosystem into which they are deployed.

Figure 1-1. CLICS Framework



Relationship to Analysis, Design, Development, and Delivery

CLICS is intended to help learning professionals and stakeholders analyze the essential elements that impact how learning occurs in our brains and is reinforced (or not) in the environment—long before executing the design, development, and delivery of a potential learning solution.

In the analysis phase, our job is to ask questions that clarify the issues at hand. The goal is to not only define the root causes but also understand what the desired outcomes truly are. The starting point is a robust understanding of the needs of the learners as well as demands felt by stakeholders. The strong analysis creates clarity about what should be included in any recommended solution, whom it is intended for, and why they need it.

While this book focuses on the front-end analysis and definition of need, the CLICS framework is equally applicable when making decisions about the design, development, and delivery of learning solutions. Once in the delivery phase, organizations then have an opportunity to measure efficacy and impact, ultimately guiding modifications or confirming that we've created a solution that CLICS.

Broad Workplace Impact

At the core of CLICS is the recognition that learning solutions do not exist in a vacuum, and learning happens via structured learning events as well as on the job. Incoming information flows at an ever-increasing speed and volume, and it's often hard to distinguish the signal from the noise. That means part of the role of an effective analysis is to clearly define where learning is part of the solution, and not contribute to the "noise" by adding programs or content that don't positively affect the challenges at hand. In addition to being efficient with a learner's time, we should strive to set them up for success by maximizing the likelihood of real learning.

Within CLICS, the five domains connect and relate to one another as they examine the workplace context of how learning will happen, including the systems and environment into which learning should be integrated. Each domain considers both learner-relevant factors as well as workplace-relevant factors, because without both, the analysis would be incomplete (Figure 1-2).

Figure 1-2. CLICS Framework Considerations of Needs Analysis

No learning solution exists in a vacuum, so the environment into which that learning solution will be deployed is just as relevant as the content itself.

CLICS Domain Definitions

To get started, let's look at high-level definitions for each of the CLICS domains. Each domain will be described in greater detail in subsequent chapters.

Capacity

Capacity concerns the volume of information competing for the learner's working memory. Working memory is finite and can quickly reach capacity. When working memory is overloaded, extraneous information becomes "noise," requiring our brains to invest resources to look for the signals in the noise. Said another way, if everything

is a priority, nothing is a priority. Capacity planning provides us with a clear set of parameters as part of the analysis, determining what is essential to retain and what might be considered optional.

A sense of overload can occur within a given learning solution, as well as from the external cognitive load being placed on the learners. For example, avoiding major training initiatives for tax professionals during tax season is a clear recognition of their capacity constraints that should be honored.

Layering

Layering concerns the optimal framing, structuring, sequencing, and repetition of concepts to ensure deep learning. This domain accounts for not only the sequencing of concepts included within the immediate need being analyzed, but also an understanding of related concepts the intended learners may, or may not, have previously encountered. Said another way, layering addresses the prerequisite knowledge that learners need before integrating new concepts.

Intrinsic Enablers

Intrinsic enablers are the motivating conditions required to enhance intrinsic motivation, to generate personal relevance and foster lasting learning. It's about finding those critical elements of value for the learners that cause them to flip the switch internally from being told to learn something to seeing the value and choosing to learn. Content that is relevant to actual job performance is typically embraced because of its intrinsic value to the learner.

Coherence

Coherence is the cognitive ease with which information fits together and amplifies related ideas. This domain incorporates the fit of concepts with one another as well as how the new concepts will relate to past learning experiences. An analysis sets the stage to ensure that the learners are not receiving conflicting guidance and that they understand any subtle nuances across competing ideas.

Social Connections

Social connections relate to the interpersonal support structure (be that physical, emotional, and psychological) necessary to learn optimally and to be effective. Analysis in this domain seeks to understand the skill or concept being taught, as well as what degree of social connection will help a learner absorb the new information.

To increase the likelihood of sustained learning, analysis in this domain seeks to uncover social opportunities to demonstrate and receive feedback when on the job, creating stronger emotional ties to the content itself.

How to Apply the Framework to Business Challenges

As learning professionals, we can experience many potential reasons why a stakeholder may come to us to define, design, develop, and deliver a new learning solution. Here are relevant examples of potential challenges that often trigger a needs analysis:

Situational

- Improve business results
- New business priorities
- New business tools
- Process change
- Compliance

Priority-Driven

- Answer on demand
- Enable professional development
- Drive change management

Competency-Based

- Broad skills
  - Leadership
  - Interpersonal
  - Compliance
  - Problem solving
  - Collaboration
  - Communication
- Technical skills
  - Tools
  - Role-specific

Role-Based

- People
  - Teaming
  - Coaching
  - Leading
  - Managing
  - Onboarding
- Tools
  - Software training
  - Physical tool training
- Process for "how to"
  - Do my job
  - Work with one another
  - Work with clients

CLICS Framework: Learning Analysis Question Tool

Throughout the book we will analyze three practical examples of where a stakeholder has asked the learning team for help. We'll use these scenarios to walk through the relevant questions from each domain of the CLICS framework.

We'll start by considering:

- The stakeholder's expressed need
- Characteristics of the intended learner population
- Sample questions to be asked and elements you'll want to consider as you evaluate the elements impacting each domain of the CLICS framework

Here you can see the structure of the CLICS Framework: Learning Analysis Question Tool, or CLICS Tool (Figure 1-3). Remember, during analysis, you're not yet defining a solution. Instead, you're gathering the necessary details that could support a solution. This is all about gathering information and defining the requirements of the challenge presented by your stakeholder.

Figure 1-3. CLICS Framework: Learning Analysis Question Tool

Domains and Science	Learner-Relevant Considerations	Workplace-Relevant Considerations
Capacity **Science:** • Finite working memory • Consequences of cognitive overload • Methods to enhance capacity	**How Much Is Sufficient?** *Solution balances how much information is essential versus how much learners can process, recall, and apply* **Core Questions** ❑ What outcomes are required to achieve success? ❑ Who are the essential learners to inform the learning requirements? ❑ How significant or complex is the necessary behavior change? **Additional Questions You Deem Relevant**	**What Will Compete or Distract?** *Solution considers competing initiatives and distractors to maximize learners' attention* **Core Questions** ❑ What other initiatives are currently planned that impact the learners? ❑ How will the organization prioritize the solution over competing demands? ❑ How could implementation be segmented to optimize learning? **Additional Questions You Deem Relevant**
Layering **Science:** • Schema acquisition • Spacing • Repetition	**What Structure Makes Sense?** *Solution integrates sequence, spacing, and frequency of critical concepts* **Core Questions** ❑ How will the new solution build on existing capabilities? ❑ What remedial support or incremental skills and knowledge are necessary? ❑ How much time will learners have to learn new concepts? **Additional Questions You Deem Relevant**	**How Does It Build on What Exists?** *Solution has purposeful connections to the workplace environment* **Core Questions** ❑ What related learning elements already exist? ❑ How capable are managers of reinforcing through feedback? ❑ What messaging will reinforce what has been learned? **Additional Questions You Deem Relevant**
Intrinsic enablers **Science:** • Intrinsic vs. extrinsic motivation • Relatedness • Competence • Autonomy • Self-concordance	**Why Will the Learner Care?** *Solution addresses meaning and relevance felt by learners* **Core Questions** ❑ How will the solution be relevant to learners? ❑ How might the solution feel rewarding? ❑ What level of autonomy will the solution support? **Additional Questions You Deem Relevant**	**How Are Intrinsic Enablers Promoted?** *Solution incorporates environmental prompts that activate learners' intrinsic motivation* **Core Questions** ❑ How will the solution align to the organization's purpose? ❑ How will leaders and managers reinforce the solution? ❑ How will the organization promote learner autonomy? **Additional Questions You Deem Relevant**

Domains and Science	Learner-Relevant Considerations	Workplace-Relevant Considerations
Coherence **Science:** • Associated network • Decoherent systems • Fluency	**How Big Is the Change?** *Solution associates new concepts with prior knowledge to promote adoption* **Core Questions** ❑ How does the solution fit with existing skills and knowledge? ❑ What context will help learners relate to the solution? ❑ How easy will the solution be for learners to understand? **Additional Questions You Deem Relevant**	**How Different Is the Desired State?** *Solution fits with, and is reinforced by, the workplace environment* **Core Questions** ❑ What leadership support is necessary to enable the change? ❑ What is different about the proposed change? ❑ What key elements in the workplace should change to support success? **Additional Questions You Deem Relevant**
Social connections **Science:** • Social learning theory • Social norms • Growth mindset	**How Will Connections Enhance Learning?** *Solution promotes interactions with others to help embed new concepts* **Core Questions** ❑ With whom will learners practice? ❑ From whom will learners receive feedback? ❑ How will learners be able to observe role models in action? **Additional Questions You Deem Relevant**	**How Could Connections Be Reinforced?** *Solution uses tools and processes to drive interpersonal interactions that activate learning* **Core Questions** ❑ What tools will learners leverage to interact with one another? ❑ In what ways will leaders encourage collaboration to accelerate adoption? ❑ How will successes and failures be shared? **Additional Questions You Deem Relevant**

Three Practical Examples

As we move into the individual chapters for each of the five domains of CLICS, our goal is to enable you to practice each element of the framework. We will share example scenarios that demonstrate how to apply CLICS to common, real-world situations.

In each of the CLICS domain chapters, we'll put the framework into action by exploring three common types of learning and change requests we typically face when serving the learning and development needs of our organizations.

These common situations will involve the following challenge areas:

- Situational
- Priority-driven
- Competency-based and role-based

Scenario 1 (Situational)

Improve business results: Revenue generation. Who has ever had a frustrated stakeholder come to them with the urgent request to create "training" to help improve performance and produce better results for the business? Chances are probably high that you have. Yet who hasn't wondered when this happens, "Is another course really the right solution?" Or, more to the point, "Are we even addressing the right challenge to solve the right problem?"

In this first scenario, your stakeholders are looking to improve business results and drive increased revenue. This common example usually comes with an existing assumption of what process or tool needs to be trained to drive those improved revenue results.

Additionally, these requests usually include some language like, "We really need you to train the <insert job role here> on the new process or tool next month, and have everyone up to speed with the new way of doing things about two to three weeks after go-live of that new process or tool."

Here are some company details. When working through this scenario in the subsequent domain chapters, it will be helpful to keep in mind some basic information about the company that will inform responses to the CLICS Tool: Core Questions.

Scenario 1: Company Details

Organization Type: Global products and services company

Employees: 25,000 worldwide

Footprint: Offices in North America; South America; Asia; and Europe, the Middle East, and Africa (EMEA)

Stakeholders:
- Chief revenue officer
- VP of sales
- Product marketing business unit lead

The Ask: Your organization's sales figures are not meeting projections, so the three stakeholders ask you to design and deploy training on some revised approaches to selling (such as moving from transactional-based selling to relational-based selling) and some new sales software to better manage the process.

Scenario 2 (Priority-Driven)

Change management: Hybrid work. For many years, the idea of "work where you are" has been a common theme for workforce and workplace planning. The global pandemic accelerated efforts to move toward the formalization of policies and procedures that support working models where an employee may not be physically colocated with peers in the same office or even in the same city.

These new ways of working drive significant and broad-reaching change throughout an organization with potential impacts not only on how employees work with one another, but on how they serve their clients. Potential changes connected to hybrid work models are more relevant than ever.

In the second scenario, you'll encounter a priority-driven example of change within an organization. Stakeholders have approached HR requesting training to prepare employees for a new way of working. This is a broad-reaching situation affecting multiple roles throughout the organization, requiring upskilling for the systems and procedures that will make such a change possible.

Change initiatives with as broad a scope as this can quickly become unmanageable as the scope balloons to capture more requirements and audiences. In these situations, it is more important than ever to keep watch on the dependencies and connections between systems, processes, and people to ensure cohesive planning and communications from end to end.

Scenario 2: Company Details

Organization Type: National consumer products company

Employees: 60,000 nationally across the US

Footprint: Offices in New York, Atlanta, Dallas, Salt Lake City, and Los Angeles, and other facilities spread regionally

Stakeholders:
- Chief operations officer
- Chief HR officer
- Chief information officer
- Business unit leads

The Ask: Your organization is looking to enable hybrid ways of working following recent office closures due to the COVID-19 pandemic, as well as achieve long-term goals of enabling future-focused strategies of the workforce. As a result, training and change management is needed on new systems, processes, and behaviors among employees, as well as on how to interact with clients.

Scenario 3 (Competency- or Role-Based)

New leadership development: Inclusivity. We hear just about every day the words *diversity* and *inclusion*, so much it can be easy to confuse the two, but each has a distinct difference. Khalil Smith, Akamai Technologies' Vice President of Inclusion, Diversity, and Engagement, said it well:

> *Leadership is synonymous with inclusion. Being able to organize others, listen to a variety of ideas, synthesize an optimal solution, and galvanize people to deliver on those ideas, is key to being a leader. At the core of those behaviors is an authentic, deliberate, and unyielding commitment to inclusion. If a leader is ignoring the will and input of those around them, they are missing out on some of the most powerful and sustainable elements of leadership, and are instead relying on brute force, fear, coercion, or a misguided belief that they alone have the best and most complete answers to increasingly complex and multi-faceted problems (Ahn 2021).*

Corporate diversity, equity, and inclusion efforts have now expanded to include belonging—a sense of fit, alignment, and psychological safety. Seeking other's perspectives and understanding differences increases the likelihood of authentic and actionable inclusion. The price of ignoring this is increased voluntary attrition, or even worse, people who quit and stay.

In the third scenario, you'll be stepping in as an L&D professional with a global financial services organization. Historically, there has been a positive history of diverse representation, given the mix of the workforce in the organization's offices and its global presence. However, current events have brought the organization to an inflection point, and the CEO and board want to examine the organization's values and practices to ensure inclusive practices are in place. This will mean a complete update of all leadership curricula to account for the new focus.

In addition, you'll be supporting the newly hired chief diversity officer as she plans and implements an overhaul of the current organizational values through the lens of diversity, equity, and inclusion. This will include learning to support any new systems and processes that emerge as part of the changes.

Scenario 3: Company Details

Organization Type: Global financial services

Employees: 100,000 globally

Footprint: Offices in North America; South America; Europe, Middle East, and Africa (EMEA)

Stakeholders:
- Chief executive officer
- Chief talent officer
- Chief diversity officer (newly hired)
- Board of directors

The Ask: Your organization is looking to support and empower broadscale updates to its corporate values in support of current DEI realities. The objective, and hope, of your stakeholders is to help the organization to attract and retain the top talent in the world around financial services. This includes the recent hiring of a chief diversity officer, who will be leading the delivery of this mandate from the CEO and board of directors.

Looking Ahead

Now you have an understanding of the CLICS framework and are ready to see how we apply the five domains in chapters 3 through 7. First, though, we will review some of the foundational scientific concepts behind CLICS and why its considerations should matter to you.

Index

Page numbers followed by *f* and *t* refer to figures and tables, respectively.

A

accommodation, 40
agility, 104
Alter, A. L., 26
Alter, Adam, 86
amygdala, 21
analysis phase, 2
Asch, Solomon, 102
assessments, 143–148
    correlation and causation, 143–144
    via scientific method, 145–148
assimilation, 40
autonomy, 64

B

balance, changing views of, 137
behaviors
    modeling of desired, 75
    practicing of desired, 114–115
behavior shifts, 96
brain, 13–17
    and decoherence, 79
    learning, 16
    memory, 13–15
    motivation, 17
Bruner, Jerome, 41
business challenges, 5

C

Capacity (CLICS domain), 3–4, 19–37, 20*f*
    analysis application guide, 27–37
    in CLICS Tool, 6*f*
    expansion of working memory, 25–27
    integrated in instructional systems design, 130–131
    leveraging, 19
    management of, 23–25
    in Scenario 1, 120–121
    workplace assessments of, 20–22
Carson, Brandon, 81–82
case studies, collecting data with, 146
causation, 143–144
cerebellum, 21
change
    time to process, 138
    views of, 103
chunking, of information, 26, 130
classical conditioning, 16
CLICS framework, 1–11, 2*f*
    application of, to business challenges, 5
    and CLICS Tool, 5, 6*f*–7*f*
    domains of, 3–4
    other applications for, 2
    practical examples of, 7–10
    workplace impact of, 3

CLICS Tool (CLICS Framework: Learning Analysis Questions Tool), 5, 6*f*–7*f*, 117–128, 118*f*
Capacity in, 28*f*
Layering in, 48*f*
in Scenario 1, 119–128
cognitive capacity, 21–22. *See also* Capacity (CLICS domain)
cognitive dissonance, 79
cognitive fluency, 85, 134
Cognitive Load Theory, 22
cognitive overload, 4, 25, 27
Coherence (CLICS domain), 4, 77–96, 78*f*
analysis application guide for, 86–96
in CLICS Tool, 7*f*, 87*f*
enhancement of, 84–86
integrated in instructional systems design, 133–134
leveraging, 77–79
in Scenario 1, 125–126
workplace assessments of, 80–84
communications, 132
competence
facilitating learners' feelings of, 69
and Intrinsic enablers, 64
competency-based challenges, 5. *See also* Scenario 3 (competency- or role-based)
complexity, levels of, 36–37
context mapping, 131
continuous schedule, of reinforcement, 46
control groups, 147–148
correlation, 143–144
culture of safety, 112
current conditions, not accounting for, 74

D

data, collection of, 146–147
decision making, 137–138
decoherence, 78–84
deep learning, 43
deliberate practice, 132
delivery phase, 2
dependent variables, 147
digital learning, 105
discretionary effort, 61–62
disfluency, 86

E

Ebbinghaus, Hermann, 14
Ebbinghaus forgetting curve, 14, 15*f*
elaborative rehearsal, 25
employee experiences (EX), 138
eustress, 103
experiential activities, 133
experimental groups, 147–148
experiments, designing, 147
experts
novices vs., 84
used in workplace learning, 102
extraneous cognitive load, 22
extrinsic motivation, 17, 60, 64

F

feedback
integrating Social connections with, 134
on learning experiences, 80
Festinger, Leon, 79
fixed mindsets, 103, 109
fluency, 86
cognitive, 85, 134
enhancing, 26
poor level of, 90
visual, 85, 134

G

germane cognitive load, 22
growth, allowance for, 115
growth mindsets, 103

H

Harry Potter book series, 97

hippocampus, 21
human-centric learning, 139
hybrid work
and changes in decision making, 137–138
and Layering, 44
in Scenario 2, 8–9 (*See also* Scenario 2 (priority-driven))
hypotheses
develop, 145–146
specification of, 147
test, 146–147

I

imitation, 16
inclusivity, in Scenario 3, 9–10. *See also* Scenario 3 (competency- or role-based)
independent variables, 147
innovation, 104
in-person learning, 105
instructional systems design (ISD), 129–135
Capacity integrated in, 130–131
CLICS applied to, 2
Coherence integrated in, 133–134
Intrinsic enablers integrated in, 132–133
Layering integrated in, 131–132
Social connections integrated in, 134–135
interpersonal support structures, 4
interviews, collecting data with, 146
intrinsic cognitive load, 22
Intrinsic enablers (CLICS domain), 4, 59–75
analysis application guide for, 65–75
in CLICS Tool, 6*f*, 60*f*, 66*f*
integrated in instructional systems design, 132–133
leveraging, 59–60
promotion of, 64–65
in Scenario 1, 123–125
workplace assessments of, 60–64
intrinsic motivation, 17, 60
addressing personal, 71
becoming extrinsic, 64
and Intrinsic enablers, 4
ISD. *See* instructional systems design (ISD)

J

Jackson, Jesse, 43–44

K

Kippen, Kimo, 24
knowledge
coherence of new, 4
and Layering, 4
organization of, by experts vs. novices, 84

L

Lady Gaga, 59
Layering (CLICS domain), 4, 39–57, 40*f*, 42*t*
analysis application guide for, 47–57
approaches to, 45–47
in CLICS Tool, 6*f*, 48*f*
integrated in instructional systems design, 131–132
lack of planning for, 42–43
leveraging, 39–40
in Scenario 1, 122–123
workplace assessments of, 41–44
leadership
lack of support from, 51, 54, 72, 93, 111
messaging by, 72
modeling of desired behaviors by, 75
role of, in workplace learning, 102
leadership development
coherence in, 81–82
in Scenario 3, 9–10 (*See also* Scenario 3 (competency- or role-based))
learner-relevant considerations
for Capacity, 28, 30*f*, 33*f*, 35*f*, 120*f*
in CLICS Tool, 6*f*–7*f*
for Coherence, 87, 89*f*, 91*f*, 94*f*, 125*f*
for Intrinsic enablers, 66, 68*f*, 70*f*, 73*f*, 124*f*

learner-relevant considerations (*continued*)
for Layering, 48, 50*f*, 52*f*, 55*f*, 122*f*
for Social connections, 106, 108*f*, 110*f*, 113*f*, 127*f*
learners
missing affected, 31
target population for, 34
learning, 16
capacity needed for, 23
changes in environment of, 138
deep learning, 43
making human-centric, 139
and mindsets, 103
from mistakes, 112
structure of, 41
transfer of, 45
long-term memory (LTM), 14

M

management, of Capacity, 23–25
massing study time, 47
memory, 13–15
Layering and structure to improve, 41
long-term memory, 14
short-term memory, 14
working memory (*See* working memory)
mentors, 100, 102
Miller, George, 14
mindsets, 103
mistakes
allowance for, 115
learning from, 112
mnemonic techniques, 26, 130
modeling
integrating Social connections with, 134
by leadership, 75, 82
and social learning theory, 100
motivation, 17. *See also* extrinsic motivation; intrinsic motivation
and coherence, 85
and Intrinsic enablers, 4
points or rewards as, 133
multitasking, 27

N

needs analysis, 3*f*
negative correlation, 144
negative reinforcement, 46
network associations, 81, 90, 95–96
neural capacity, 21
Novartis, 62–63
novices, experts vs., 84

O

observational learning, 16
on-the-job peers, 102
operant conditioning, 16
operations calendar, 131
Oppenheimer, D. M., 26

P

Palmer, Kelly, 104
parallels, drawing, 133–134
Parks, Rosa, 100
partial schedule, of reinforcement, 46
Pavlovian conditioning, 16
peer pressure, 102
peers, 100, 102
peer-to-peer networks, 104
performance support, 135
personal relevance, of learning, 69
PFC (prefrontal cortex), 21
points, as reinforcement, 133
positive correlation, 144
positive reinforcement, 46
practice
deliberate, 132
of desired behaviors, 114–115
prefrontal cortex (PFC), 21

priorities, setting clear, 27
priority-driven challenges, 5. *See also* Scenario 2 (priority-driven)
promotion, of Intrinsic enablers, 64–65
punishment, 16
purpose, 62

Q

quantification, of correlation, 144

R

recall, of information, 15
recognition, of information, 15
regional differences, 51, 53
reinforcement, 16
  and Layering, 45
  negative, 46
  points or rewards as, 133
  positive, 46
  timing of, 46
relationships, 65
relearning, of information, 15
repetition
  integrating Layering with, 132
  lack of planning for, 56
  and Layering, 41
  and memory, 14
  spaced, 45
representative samples, assigning, 148
retrieval, of information, 15
revenue generation, in Scenario 1, 8. *See also* Scenario 1 (situational)
rewards, as reinforcement, 133
role-based challenges, 5. *See also* Scenario 3 (competency- or role-based)

S

safety, culture of, 112
Scenario 1 (situational), 8, 119–128
  Capacity in, 29–32, 120–121
  Coherence in, 88–90, 125–126
  Intrinsic enablers in, 67–69, 123–125
  Layering in, 49–51, 122–123
  Social connections in, 107–109, 126–128
Scenario 2 (priority-driven), 8–9
  Capacity in, 32–34
  Coherence in, 90–93
  Intrinsic enablers in, 69–72
  Layering in, 51–54
  Social connections in, 109–112
Scenario 3 (competency- or role-based), 9–10
  Capacity in, 34–37
  Coherence in, 93–96
  Intrinsic enablers in, 72–75
  Layering in, 54–56
  Social connections in, 112–115
schedules
  in instructional systems design, 131
  planning considerations for, 32
  for reinforcement, 46
schemas
  acquisition of new, 40
  missing necessary, 96
scientific method, 145–148, 145*f*
  analyze and interpret findings, 147–148
  develop theory and hypothesis, 145–146
  test hypothesis and collect data, 146–147
self-concordant goals, 65
short-term memory (STM), 14. *See also* working memory
Sitek, Steven, 62–63
situational challenges, 5. *See also* Scenario 1 (situational)
SMEs (subject matter experts), 102
Smith, Khalil, 9–10
social connections
  and agility, 104
  and decision making, 138
  fostering, 102
  and innovation, 104

social connections (*continued*)
and Intrinsic enablers, 65
and technology, 104
Social connections (CLICS domain), 4, 97–115, 98*f*
analysis application guides for, 105–115
in CLICS Tool, 7*f*, 106*f*
integrated in instructional systems design, 134–135
and Intrinsic enablers, 65
leveraging, 97–99
in Scenario 1, 126–128
workplace assessments of, 99–105
social factors
related to academic success, 99
related to discretionary effort, 61–62
social learning theory, 100
social norms, 102, 111
Son, Lisa, 47
spaced repetition, 45, 47
integrating Capacity with, 130
lack of planning for, 109
STM (short-term memory), 14. *See also* working memory
stress, related to change, 103
subject matter experts (SMEs), 102
success, measures of, 36
surveys, collecting data with, 146–147
Sweller, John, 22

T

target audience
for learners, 34
trouble defining, 92
task switching, 27
technology
and learning, 63
and social connections, 104
and speed of change, 138
test groups, 147–148
theory, developing, 145–146
timing, for reinforcement, 46
transcendent purpose, 62
transfer of learning, 45

V

values, 56
vicarious learning, 16
virtual learning, 105
visual fluency, 85, 134

W

West, Tessa, 27
work hours, 27
working memory
and Capacity, 3–4
expansion of, 25–27
work-life integration, 137
workplace assessments
of Capacity, 20–22
of Coherence, 80–84
of Intrinsic enablers, 60–64
of Layering, 41–44
of Social connections, 99–105
workplace impact, of CLICS framework, 3
workplace learning. *See* learning
workplace-relevant considerations
for Capacity, 29, 31*f*, 33*f*, 36*f*, 121*f*
in CLICS Tool, 6*f*–7*f*
for Coherence, 87, 89*f*, 92*f*, 95*f*, 126*f*
for Intrinsic enablers, 66, 68*f*, 71*f*, 74*f*, 124*f*
for Layering, 48–49, 50*f*, 53*f*, 56*f*, 123*f*
for Social connections, 106, 108*f*, 111*f*, 114*f*, 127*f*

Z

Zak, Paul J., 61–62
Zaki, Jamil, 99

Buy This Book

About the Authors

Janet N. Ahn

Janet Ahn, PhD, is an experienced experimental social psychologist preparing some of the world's biggest organizations for the challenges of tomorrow. She believes in the power of behavioral science to transform lives and companies. She trained with eminent psychologists from Barnard College, Columbia University (Bachelor degree), New York University (PhD), and Teachers College, Columbia University (postdoctoral fellowship).

She spent more than 12 years in higher education as a tenure-track professor of psychology, and built a portfolio of consulting, teaching, and research expertise in behavior change, motivation and persistence, goal pursuit, growth mindset, cognitive biases, inter- and intra-group dynamics, survey methods and assessment, experimental methods, statistics, and design. As a global organizational leader, she leads product innovation, research and development, and digital solutions expansion on topics such as how leaders can effectively manage teams in a hybrid workplace, organizational responsibility for individual employee well-being, management and leadership development, and diversity, equity, and inclusion. She is a sought-after speaker and subject matter expert at academic and industry conferences. Her work has also been featured in various media outlets such as *Axios*, *Women's Health Magazine*, *Thrive Global*, NPR, *American Educator*, *Business Insider*, CBS, and *USA Today*.

Janet is a first-generation college student and is bilingual in Korean and English. Her hobbies include staying active by hiking, biking, and practicing yoga. She lives in the Atlanta area with her husband and two daughters.

Mary F. Slaughter

Mary F. Slaughter is a seasoned corporate executive, human capital consultant, and published author. Her global enterprise roles have included chief learning officer, chief talent officer, global head of employee experience, chief diversity and inclusion officer, and chief human resources officer. In addition to consulting with Fortune 100 firms on their talent agendas, Mary has worked for such notable brands as AT&T, Lucent Technologies, Wachovia, SunTrust, Morningstar, The NeuroLeadership Institute, Deloitte, and EY. Her executive advisory roles have including the Association for Talent Development (ATD) Board of

Directors, Bersin by Deloitte's Advisory Council, and The Conference Board's Council on Learning, Development and Organizational Performance. She also has specialized in advising women CEOs leading start-ups in Silicon Valley.

A frequent industry speaker, Mary has been featured in *Harvard Business Review*, *Business Insider*, PwC's *strategy+business*, *Fast Company*, *Quartz*, *Reworked*, *Talent Management*, *TD*, *CLO*, *Selling Power,* and *Consulting* magazines.

Under her leadership, her teams have won awards from Bersin & Associates for leadership development, Brandon Hall for sales talent management, *CLO Magazine* for academic partnerships, *Training Magazine's* Top 125, ATD BEST for exceptional enterprise learning, and *Consulting Magazine* as one of the top management consulting firms for building a career.

Mary resides in Atlanta with her amazing daughters who brighten her life every day.

Jon Thompson

Jon has spent the past 25+ years serving clients, stakeholders, and learners in the talent development space. He has held roles at organizations of all sizes, from startups to global corporations, both in industry and in service, as an internal and external consultant with organizations such as IBM, SunTrust Banks, Deloitte, The NeuroLeadership Institute, EY, and The Coca-Cola Company, where he currently serves as director of learning experience and innovation. Additionally, Jon served four years in leadership positions with the Greater Atlanta Chapter of ATD, including two years as the VP of technology on the chapter's executive board. He also has been part of two ATD BEST and Training Top 125 award-winning teams.

Jon has a passion for learning strategy, technology, and architecture, especially as it relates to the continuous learning model and the intersection of ways in which technology both supports and enables effective behavior change and meaningful learning experiences for learners.

Jon lives in the Atlanta area with his wife, their two daughters, and two dogs.