



**DOUG
LEMOV**

Foreword by Norman Atkins

Teach

LIKE A

CHAMPION

2.0

75 VIDEOS INCLUDED

62 TECHNIQUES
THAT PUT STUDENTS
ON THE PATH
TO COLLEGE



Uncommon Schools | Change History.

JOSSEY-BASS™
A Wiley Brand

TEACH
LIKE A
CHAMPION
2.0

62 Techniques that Put Students
on the Path to College

DOUG LEMOV

Foreword by Norman Atkins

Short _____ Uncommon
Schools | Change History.

Long _____

J JOSSEY-BASS™
A Wiley Brand

Cover Design: Wiley
Cover Photographs: Jacob Krupnick
Author photo: Timothy Raab & Northern Photo
Copyright © 2015 by Doug Lemov. All rights reserved.

Published by Jossey-Bass
A Wiley Brand
One Montgomery Street, Suite 1200, San Francisco, CA 94104-4594 www.josseybass.com

Video clips copyright © 2015 by Uncommon Schools except for Clip 19, Clip 23, and Clip 64, which are copyright © 2015 Relay Graduate School of Education. All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning, or otherwise, except as permitted under Section 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the publisher, or authorization through payment of the appropriate per-copy fee to the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, 978-750-8400, fax 978-646-8600, or on the Web at www.copyright.com. Requests to the publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, 201-748-6011, fax 201-748-6008, or online at www.wiley.com/go/permissions.

Certain pages from this book and materials on the accompanying video content are designed for use in a group setting and may be used for educational/training purposes.

This free permission is restricted to limited use of the video content for your organization and the paper reproduction of book materials for educational/training events. It does not allow for systematic or large-scale reproduction, distribution (more than 100 copies per page, per year), transmission, electronic reproduction or inclusion in any publications offered for sale or used for commercial purposes—none of which may be done without prior written permission of the Publisher.

Permission is given for individual classroom teachers to reproduce the pages and illustrations for classroom use. Reproduction of these materials for an entire school system is strictly forbidden.

Limit of Liability/Disclaimer of Warranty: While the publisher and author have used their best efforts in preparing this book, they make no representations or warranties with respect to the accuracy or completeness of the contents of this book and specifically disclaim any implied warranties of merchantability or fitness for a particular purpose. No warranty may be created or extended by sales representatives or written sales materials. The advice and strategies contained herein may not be suitable for your situation. You should consult with a professional where appropriate. Neither the publisher nor author shall be liable for any loss of profit or any other commercial damages, including but not limited to special, incidental, consequential, or other damages. Readers should be aware that Internet Web sites offered as citations and/or sources for further information may have changed or disappeared between the time this was written and when it is read.

Jossey-Bass books and products are available through most bookstores. To contact Jossey-Bass directly call our Customer Care Department within the U.S. at 800-956-7739, outside the U.S. at 317-572-3986, or fax 317-572-4002.

For more information about Wiley products, visit www.wiley.com.

Library of Congress Cataloging-in-Publication Data is on file.

ISBN 978-1-118-90185-4 (pbk.)

ISBN 978-1-118-89879-6 (ebk.)

ISBN 978-1-118-89862-8 (ebk.)

Printed in the United States of America

Short _____
SECOND EDITION

PB Printing 10 9 8 7 6 5 4 3 2 1

Long _____

Contents

Video Contents	ix
Foreword	xxi
Acknowledgments	xxv
The Author	xxix
About Uncommon Schools	xxx
Introduction: The Art of Teaching and Its Tools	1

PART 1 Check for Understanding

1	Gathering Data on Student Mastery	27
	Technique 1: REJECT SELF-REPORT	30
	Technique 2: TARGETED QUESTIONING	34
	Technique 3: STANDARDIZE THE FORMAT	39
	Technique 4: TRACKING, NOT WATCHING	45
	Technique 5: SHOW ME	47
	Technique 6: AFFIRMATIVE CHECKING	51
	Reflection and Practice	55
	Useful Tools	55
2	Acting on the Data and the Culture of Error	57
	Technique 7: PLAN FOR ERROR	60
	Technique 8: CULTURE OF ERROR	64
	Technique 9: EXCAVATE ERROR	72

Short_____

Long_____

Technique 10: OWN AND TRACK	77
Reflection and Practice	79
Useful Tools	80

PART 2 Academic Ethos

3 Setting High Academic Expectations	87
Technique 11: NO OPT OUT	90
Technique 12: RIGHT IS RIGHT	100
Technique 13: STRETCH IT	108
Technique 14: FORMAT MATTERS	116
Technique 15: WITHOUT APOLOGY	122
Reflection and Practice	125
Useful Tools	126
4 Planning for Success	129
Technique 16: BEGIN WITH THE END	132
Technique 17: 4 Ms	137
Technique 18: POST IT	140
Technique 19: DOUBLE PLAN	143
Reflection and Practice	152
Useful Tools	153
5 Lesson Structure	155
Technique 20: DO NOW	161
Technique 21: NAME THE STEPS	164
Technique 22: BOARD = PAPER	169
Technique 23: CONTROL THE GAME	170
Technique 24: CIRCULATE	183
Technique 25: AT BATS	188
Technique 26: EXIT TICKET	190
Reflection and Practice	194
Useful Tools	194
6 Pacing	197
Technique 27: CHANGE THE PACE	201
Short_____ Technique 28: BRIGHTEN LINES	211
Long_____ Technique 29: ALL HANDS	214

Technique 30: WORK THE CLOCK	220
Technique 31: EVERY MINUTE MATTERS	224
Reflection and Practice	231
Useful Tools	232

PART 3 Ratio

7 Building Ratio Through Questioning	237
Technique 32: WAIT TIME	244
Technique 33: COLD CALL	249
Technique 34: CALL AND RESPONSE	262
Technique 35: BREAK IT DOWN	268
Technique 36: PEPPER	274
Reflection and Practice	276
Useful Tools	276
8 Building Ratio Through Writing	279
Technique 37: EVERYBODY WRITES	282
Technique 38: ART OF THE SENTENCE	285
Technique 39: SHOW CALL	290
Technique 40: BUILD STAMINA	299
Technique 41: FRONT THE WRITING	303
Reflection and Practice	308
Useful Tools	309
9 Building Ratio Through Discussion	311
Technique 42: HABITS OF DISCUSSION	316
Technique 43: TURN AND TALK	324
Technique 44: BATCH PROCESS	336
Reflection and Practice	339
Useful Tools	339

PART 4 Five Principles of Classroom Culture

10 Systems and Routines	349
Short_____	
Technique 45: THRESHOLD	353
Long_____	

Technique 46: STRONG START	356
Technique 47: STAR/SLANT	360
Technique 48: ENGINEER EFFICIENCY	361
Technique 49: STRATEGIC INVESTMENT: FROM PROCEDURE TO ROUTINE	365
Technique 50: DO IT AGAIN	373
Reflection and Practice	377
Useful Tools	377
11 High Behavioral Expectations	381
Technique 51: RADAR/BE SEEN LOOKING	387
Technique 52: MAKE COMPLIANCE VISIBLE	393
Technique 53: LEAST INVASIVE INTERVENTION	395
Technique 54: FIRM CALM FINESSE	403
Technique 55: ART OF THE CONSEQUENCE	406
Technique 56: STRONG VOICE	412
Technique 57: WHAT TO DO	417
Reflection and Practice	421
Useful Tools	422
12 Building Character and Trust	423
Technique 58: POSITIVE FRAMING	426
Technique 59: PRECISE PRAISE	433
Technique 60: WARM/STRICT	438
Technique 61: EMOTIONAL CONSTANCY	439
Technique 62: JOY FACTOR	442
Reflection and Practice	446
Useful Tools	447
Conclusion	451
Notes	453
Index	455
How to Access the Video Contents	
How to Use the DVD	
More Ways to Engage and Learn with Teach Like a Champion	

Short_____

Long_____

Video Contents

For information on accessing the video clips, see How to Access the Video Contents near the end of the book.

Introduction

Clip	Technique		Description
48	Strategic Investment: From Procedure to Routine		Paper Passing (Back in Ten): Doug McCurry encourages students to pass in their papers faster and faster with Positive Framing.

Gathering Data on Student Mastery (Chapter 1)

Clip	Primary Technique	Additional Techniques	Description
1	Reject Self-Report	Culture of Error	Spelling Words: Amy Youngman collects data on student mastery by quickly scanning each student's answer to see whether it is correct.
2	Standardize the Format	Culture of Error, Tracking, Not Watching	Disposition: Meaghan Reuler immediately identifies student misunderstandings thanks to materials that make mistakes easy to find—and to some careful looking.

Short _____

Long _____

Clip	Primary Technique	Additional Techniques	Description
3	Show Me	Excavate Error	Good Morning, Williams: Bryan Belanger uses hand signals to gauge student mastery. He responds quickly in consideration of the extent of the errors.
4	Show Me	Culture of Error	Go to IP: Jon Bogard uses Show Me to identify and correct common errors. Some students review; some earn independent practice.
5	Affirmative Checking	Culture of Error, Name the Steps, 100% Cycle	Here's the Deal: Bob Zimmerli sets "checkpoints" where students must check their answers with him before proceeding to more difficult problems.
6	Affirmative Checking	Do It Again, Positive Framing	Green Sticky Note: Hilary Lewis uses a "ticket" system to check students' work before they move on to independent practice.

Acting on the Data and the Culture of Error (Chapter 2)

Clip	Primary Technique	Additional Techniques	Description
7	Culture of Error	Show Me	Who Changed Their Mind: Katie Bellucci normalizes error by encouraging students who corrected their work to raise their hands and "be proud!"
8	Culture of Error		Intros: Jason Armstrong tells students he "expects some disagreement" and doesn't care for now what the right answer is.

Short_____

Long_____

Setting High Academic Expectations (Chapter 3)

Clip	Primary Technique	Additional Techniques	Description
9	No Opt Out	Emotional Constancy	Immigrant: David Javicas stays steady at the helm and sticks with a student who declines to answer a question.
10	No Opt Out		Negative Five Halves: Derek Pollak solicits help from the class when a student is very near to a correct answer.
11	No Opt Out	Cold Call, Do It Again	Little Brown Insects: Jamie Davidson gets a student to improve her expression in reading after another student models what it means to “snap.”
12	No Opt Out	Targeted Questioning, Culture of Error	Clever Fox: Shadell Purefoy (Noel) asks a student to repeat a correct answer after she’s unable to answer the first time.
13	Right Is Right		Fabric: Grace Ghazzawi holds out for an all-the-way-right answer.
14	Right Is Right		Aunt Alexandra: Maggie Johnson pushes students to use precise language to describe a particular scene.
15	Right Is Right	Positive Framing	Volume: Jason Armstrong holds out for a thorough definition of volume after students present formulas and partial definitions.
16	Stretch It		Well Said: Art Worrell stretches the original student and then begins stretching other students to build a rigorous classroom culture.
17	Format Matters		“Gots to Be?”: Darryl Williams actively reinforces the language of opportunity by correcting informal phrases.
18	Format Matters		Hither: Beth Verrilli asks a student for more collegiate language.

Short _____

Long _____

Lesson Structure (Chapter 5)

Clip	Primary Technique	Additional Techniques	Description
19	Control the Game		Control the Game: Jessica Bracey keeps durations short and unpredictable, moving the reading around the room to involve lots of students.
20	Control the Game		Eyes In: Eric Snider balances student reading with his own modeling to build a culture of expressive reading.
21	Circulate		Read and Annotate: Domari Dickinson and Rue Rattray demonstrate the fundamentals of Circulate.

Pacing (Chapter 6)

Clip	Primary Technique	Additional Techniques	Description
22	Change the Pace	Show Me	Talk to Me: Erin Michels quickens classroom pace by shifting deftly among different styles of participation.
23	Change the Pace	Everybody Writes, Habits of Discussion	Listen, Things Have Changed: Jessica Bracey maintains a steady pace in her reading class by varying activities.
24	Brighten Lines		Clean Start/Clean Finish Montage: Seven teachers show examples of Brighten Lines by cleanly beginning and ending exercises.
25	All Hands		Bright Hands: Colleen Driggs shows her students how to raise their hands for a new question and lower them when someone else is called on.

Short _____

Long _____

Clip	Primary Technique	Additional Techniques	Description
26	Work the Clock		You're My Brain: Deena Bernett uses a stopwatch projection to allot specific amounts of time for certain activities.
27	Change the Pace	Brighten Lines	Pencils Up: Ashley Hinton puts together a number of pacing techniques to keep her class moving.

Building Ratio Through Questioning (Chapter 7)

Clip	Primary Technique	Additional Techniques	Description
28	Cold Call		I Saw a Lot of Thought: Gary Lauderdale's consistent Cold Calling keeps his students focused on the math.
29	Wait Time		Wait Time Montage: Maggie Johnson gives students think time, encouraging more reluctant scholars to participate.
30	Wait Time		Continental Congress: Boris Zarkhi narrates hands, and tells his students to put their hands down to make full use of the Wait Time he gives them
31	Wait Time		Think Time: Colleen Driggs encourages students to go back and look at their notes during think time.
32	Cold Call		What Word: Hannah Lofthus establishes a brisk rhythm with the way that she Cold Calls.

Short_____

Long_____

Clip	Primary Technique	Additional Techniques	Description
33	Cold Call		Hot Call: Colleen Driggs explains how she will “Hot Call,” as an opportunity for students to show they are “on fire.”
34	Cold Call		In Your Mind: Jon Bogard makes his Cold Calls predictable and positive, including calling on one student whose “hand was up in [her] mind.”
35	Call and Response		Birthdays: Janelle Austin keeps her students’ responses sharp.
36	Call and Response		Read to Us: Jennifer Trapp uses Call and Response to reinforce note-taking skills, grammar rules, and difficult pronunciations.
37	Pepper	Cold Call	Amendments: Art Worrell Peppers his classroom with questions about constitutional amendments.

Building Ratio Through Writing (Chapter 8)

Clip	Primary Technique	Additional Techniques	Description
38	Everybody Writes		Troy: Gillian Cartwright sets up rigorous student-driven discussions with eighteen minutes of pre-thinking in writing. Yes, eighteen minutes!
39	Everybody Writes		Sophisticate It: Rachel Coffin ups the ratio in her classroom by challenging students to complete a sentence that begins with a complex starter.

Short_____

Long_____

Clip	Primary Technique	Additional Techniques	Description
40	Everybody Writes		Romeo and Juliet: Lauren Latto teaches her students to sustain their focus in writing for longer periods.
41	Show Call		Beautiful Formula: Paul Powell normalizes the process of “good to great” and sends a very clear message about accountability for written work by Show Calling exemplary work.
42	Show Call	Culture of Error	Boxes: Katie McNickle Show Calls a number of different students’ work to show different approaches to solving the same problem.

Building Ratio Through Discussion (Chapter 9)

Clip	Primary Technique	Additional Techniques	Description
43	Habits of Discussion		Master of the House: Yasmin Vargas uses a series of questions and nonverbals to encourage productive discussion.
44	Turn and Talk		Little Guy: Rue Rattray uses a variety of methods to keep his Turn and Talks engaging for his students.
45	Turn and Talk		Turn and Talk Montage: Eric Snider uses a series of efficient prompts and follow-ups to keep his Turn and Talks accountable and efficient.
46	Turn and Talk		Show Not Tell: Laura Fern uses a number of different techniques to ensure efficiency, consistency, and rigor in her Turn and Talks.

Short_____

Long_____

Systems and Routines (Chapter 10)

Clip	Primary Technique	Additional Techniques	Description
47	Strategic Investment: From Procedure to Routine		Thank You for Knowing What to Do: Stephen Chiger delegates roles to create a culture of autonomy in his classroom.
48	Strategic Investment: From Procedure to Routine		Paper Passing (Back in Ten): Doug McCurry encourages students to pass in their papers faster and faster with Positive Framing.
49	Strategic Investment: From Procedure to Routine		Before and After: "Group A" and "Stand Up": Nikki Bowen works through procedures with her students until they become second nature and support student autonomy.
50	Strategic Investment: From Procedure to Routine		Ben Franklin: Lauren Moyle's class transitions from desks to the floor by singing a song about the continents.
51	Do It Again		Faster: Sarah Ott teaches her kindergarteners how to do classroom tasks such as coming together on her signal.

High Behavioral Expectations (Chapter 11)

Clip	Primary Technique	Additional Techniques	Description
52	This clip demonstrates what a culture of high behavioral expectations looks like at maturity.		Perimeter: Erin Michels demonstrates a number of high behavioral expectations in a lesson using "triangulous units."

Short_____

Long_____

Clip	Primary Technique	Additional Techniques	Description
53	100%, Part 1: Radar/Be Seen Looking		Grab Bag: Rachel King moves to Pastore's Perch and scans the room at the moment she wants to monitor her class more closely.
54	100%, Part 1: Radar/Be Seen Looking		Crisp Sound of a Rip: Patrick Pastore demonstrates effective use of Pastore's Perch.
55	100%, Part 1: Radar/Be Seen Looking	Pepper	As a Decimal: Michael Rubino scans consistently and uses some "moves" to intimate that he is looking carefully.
56	100%, Part 2: Make Compliance Visible	Show Me	Show What You Know: Amy Youngman makes compliance visible with visible commands like "pen caps on."
57	100%, Part 2: Make Compliance Visible		Really Clever: Ashley Hinton scans the classroom even while she works with individual students. Her vigilance pays off with a happy classroom.
58	100%, Part 3: Least Invasive Intervention		Montage: Ashley Hinton demonstrates a series of subtle nonverbal interventions used to keep her class focused.
59	100%, Part 3: Least Invasive Intervention		I Need a Couple SLANTs: Alexandra Bronson subtly resets her whole class via a positive group correction.
60	100%, Part 3: Least Invasive Intervention		You Know Who You Are, and Puritans: Bob Zimmerli and Laura Brandt demonstrate different takes on anonymous individual correction.
61	100%, Part 3: Least Invasive Intervention		Eyes on the Speaker: Jaimie Brillante demonstrates private individual correction by whispering to a student.

Short _____

Long _____

Clip	Primary Technique	Additional Techniques	Description
62	100%, Part 3: Least Invasive Intervention		Don't Miss It: Jason Armstrong uses a whisper correction to make public corrections feel private.
63	100%, Part 3: Least Invasive Intervention		Nonverbals Montage: Lucy Boyd uses a variety of different nonverbal interventions to keep her students hard at work during discussion.
64	100%, Part 4: Firm Calm Finesse		Fix How You're Sitting: Channa Comer demonstrates Firm Calm Finesse as her class gets restless.
65	100%, Part 5: Art of the Consequence		Regular Polygon: Ana O'Neil delivers two consequences with grace and calm, and encourages students to get back in the game.
66	100%, Part 5: Art of the Consequence	Culture of Error	Examine: Bridget McElduff demonstrates a number of techniques while giving a productive consequence.
67	Strong Voice		Inappropriate Time: Christy Lundy uses <i>do not engage</i> in a situation every teacher has seen some version of.
68	Strong Voice		Draw My Line: Jessica Merrill-Brown uses the <i>self-interrupt</i> to keep the full attention of her class even while she's sitting down.
69	Strong Voice		Middle School: Mike Taubman uses a series of <i>self-interrupts</i> to ensure student focus.

Short_____

Long_____

Building Character and Trust (Chapter 12)

Clip	Primary Technique	Additional Techniques	Description
70	Positive Framing		Positive Framing Montage: Janelle Austin demonstrates nearly a dozen ways to narrate the positive.
71	Precise Praise		Symmetry: Hilary Lewis gives positive reinforcement that provides students a model for success.
72	Precise Praise		Looking Sharp: David Javicas privately and genuinely praises replicable student actions.
73	Precise Praise		Kudos: Stephen Chiger doubles back to help a student better see how and why she was successful.
74	Joy Factor		Phantom of the Opera: Roberto de León makes the act of reading joyful.
75	Joy Factor		Simón Bolívar: Taylor Delhagen lightens the mood by getting in touch with the joyful side of Simón Bolívar.

Short_____

Long_____

Acting on the Data and the Culture of Error

Technique 7: Plan for Error. Increase the likelihood that you'll recognize and respond to errors by planning for common mistakes in advance.

Technique 8: Culture of Error. Create an environment where your students feel safe making and discussing mistakes, so you can spend less time hunting for errors and more time fixing them.

Technique 9: Excavate Error. Dig into errors, studying them efficiently and effectively, to better understand where students struggle and how you can best address those points.

Technique 10: Own and Track. Have students correct or revise their own work, fostering an environment of accountability for the correct answer.

Short_____

Long_____

fun and tricky as the data indicated, you might combine your effective data gathering with taking action. As the idea of planning a section for review or extension suggests, checking for understanding can and should also mean responding when you do achieve success. In truth, that also is a form of acting on the data, though one we tend to reflect on less because good news seems less urgent. Nonetheless, it's still an opportunity. In such a case, you might include a focus on success points or planning "challenges" in your lesson.

CULTURE OF ERROR

Create an environment where your students feel safe making and discussing mistakes, so you can spend less time hunting for errors and more time fixing them.

In order to consistently identify misunderstandings, champion teachers create a classroom culture that embraces error. Over and over again, as my team and I examined videos of top teachers, we noticed that they made CFU a shared endeavor between themselves and their students. From the moment students arrived, the teachers worked to shape their perception of what it meant to make a mistake, pushing them to think of "wrong" as a first, positive, and often critical step toward getting it "right." They recognized that students could best learn from mistakes if they were willing to acknowledge and share them. There was immense value in the learning that came from error if they could make it feel safe to be wrong.

Once this **Culture of Error** is created, once it's safe to be wrong, students are as likely as not to *want* to expose their mistakes to their teacher. This shift from defensiveness or denial to openness is critical. If your goal is to find and address the mistakes your students make, your task is far more difficult if your students seek to hide their errors from you. If, in contrast, they willingly share their struggles, mistakes, and errors, you can spend less time and energy hunting for them and more time fixing and learning from them. Similarly, if the goal is for students to learn to self-correct—to find and address

Short _____

Long _____

errors on their own — becoming comfortable acknowledging mistakes is a critical step forward.

My team and I observed this kind of *Culture of Error* in Katie McNickle’s classroom at North Star Academy in Newark, New Jersey, during a recent lesson. After a series of challenging problems, Katie asked her students to nominate problems they would “like to review.” Seven or eight hands calmly went up. A student asked for clarification on what it meant to distribute mathematically. “Great question,” Katie responded, and explained the concept. The student remained confused, so Katie asked a classmate to model a problem and then another. Crucially, Katie’s tone never wavered — calm, steady, nonjudgmental — implying “of course some of you are struggling with this.” Also crucial: the student’s classmates were supportive, not only providing explanations but also never denigrating a peer’s struggle. None of this was accidental.

We asked Katie what sorts of things she did to make students so comfortable exposing their own errors and supporting their classmates. She told us that every day, students do a challenging set of problems, their “Excellence” problems. They track how many they get right, but their score doesn’t count for their grade until Friday’s lesson. Students are accountable for learning as much as they can for four days so that they succeed on the fifth day. The incentive is to ask as much as they can. Still, you could set up this structure and not have students engage as much and as positively as Katie’s do. In terms of long-term investment in *Culture of Error*, Katie notes, “In the beginning of the year, I praise students who are brave enough to ask questions.” In the lesson we watched, students reported their scores back to her as she tracked them on a clipboard. Katie’s only comments were to quietly narrate growth: “You went up five points, Tiarra,” she might say. “I shout out the students who show improvement from day to day as opposed to only complimenting the top scorers,” she said. “I think I’ve also trained and encouraged students to be helpful to their peers, by really making a big deal of it when others eagerly volunteer to explain: ‘Wow, great to see that so many of us are willing to share their expertise!’ and I use a lot of language like, ‘Who can help her out?’ or ‘Let’s make sure he understands,’ so the kids start to view their class as a team — working together toward the common goal of mastery.”



Want More? Clip 42. Want more? Watch Katie McNickle reinforcing her *Culture of Error* in clip 42.

Short _____

Long _____



See It in Action: Clip 7

In clip 7, Katie Bellucci reviews a distribution problem with her class. After collecting all student answers and working through the problem together as a class, Katie normalizes error by telling students who initially got the wrong answer but have since corrected themselves to hold up their hands high and “Be proud! You just figured it out!”—making it clear that getting it wrong is neither a negative nor a permanent state, but rather a positive step on the way to mastery.

Building a Culture of Error

A classroom is a culture established through the words and actions not only of the teacher but also of the students. A teacher alone cannot establish a culture in which it is safe to struggle and fail. If snickers greet a classmate who gets an answer wrong, for example, or if impatient hands wave in the air while another student is trying to answer, very little that a teacher does will result in students’ willingly exposing their errors to the group.

Shaping how students respond to one another’s struggles is therefore a must. It is a process that starts with teaching students the right way to handle common situations *before* they happen. Explain how you expect them to act when someone struggles with the rationale, practice those expected behaviors in hypothetical situations, and when a breach inevitably occurs, reset the culture firmly, but with understanding. You might say something like, “Just a minute. I want to be very clear about the respect we will all show one another when we are in this classroom. We will support each other and help one another. And we will never, ever undertake actions that tear down another person. Among other things, we know that person could just as well be us.”



Want More? Clip 66. Watch Bridget McElduff reinforce expectations that students will not laugh at one another’s errors in clip 66.

When you think about making it safe to struggle, it’s important to consider that this is not about just eliminating potentially negative or corrosive behaviors among your students. Even better would be fostering a culture where students actively support one another as they struggle through the learning process. Collegiate Academies in

Short_____

Long_____

New Orleans does a great job of encouraging this culture. When someone is struggling to answer a question, peers (or teachers) “send love,” making a subtle hand gesture that means, “I’m supporting you.” When a student works hard to give an answer his or her peers appreciate, they show that appreciation with snapping—positive student-to-student feedback for quality work. This positive culture is one of the most remarkable and powerful things about a remarkable group of schools.

Lastly, let’s not forget that it’s not just students whose errors matter. You will of course make a mistake at some point in class, too. That much is inevitable. Most likely, your mistake will be public, with thirty or so students watching you make it. They will note whether you dismiss, deny, minimize, embrace, acknowledge, or even study it. How you communicate and depict mistakes—both students’ and your own—in the classroom is very important.

That all said, a classroom culture that respects error, normalizes it, and values learning from it is one of the characteristics of a high-performing classroom. *Culture of Error* has four key parts: expecting error, withholding the answer, managing your tell, and praising risk-taking.

Expect Error

Take a moment to examine the language two champion teachers used to communicate to their students their expectations about making mistakes. Consider, first, Bob Zimmerli, who stopped his math class after observation revealed a consistent error (failing to combine like terms) among his students. “I’m so glad you made that mistake,” Bob said to the class, calling them together. “It’s going to help me to help you.” Message: mistakes are normal, valuable in many ways, and a source of insight. Bob wasn’t bothered by the mistake, but communicated that when they happened, he wanted to know about them. Then he proceeded to reteach combining like terms. Compare that to something more typical, along the lines of, “Guys, I should not be seeing people with $-2x$ and $+2x$ in the same equation. You know by now to combine like terms.” In that case, students will quickly learn that if they are making mistakes, they are likely to be a source of disappointment to their teacher. As a result, students are likely to respond by trying to conceal their errors. That doesn’t mean they combine like terms any better, just that when they struggle, the teacher won’t find out about it.

By the way, I’m not saying here that you shouldn’t have exacting standards and expect diligence from your students. You should. You don’t have to jump up and down and say, “Hooray for your mistake! It’s so valuable!” every time you get one. What you are looking to do is build a culture that, by seizing opportunities here and there over time, shows that

Short_____

Long_____

errors are a normal part of learning—a positive part, often—and are most useful when they are out in the open. After a mistake occurs, our message should communicate that we are glad to know about it and, perhaps, that our first assumption is that the misunderstanding is likely to have some cause that is not anybody’s “fault.” It’s easy to assume that confused students weren’t paying attention or don’t value the knowledge, and of course there are cases when that’s true. However, it’s far more productive to assume that students are confused because the material is complex the first time they see it, or because our explanations were somehow imperfect after all, or just because students are like you and me and sometimes need to go over it one more time.

Now, consider Roxbury Prep math teacher Jason Armstrong, who, in one recent lesson, began communicating his expectations even before he started teaching the problem he was reviewing with his class. Asking to hear the answers his students came up with, he didn’t ask for someone who had the “right answer.” His words were, “Let’s hear people’s answers for number 2. I suspect there’s going to be some disagreement here, so I might hear a couple different people’s answers.” He then took *four* different answers from the class. Each time he asked for more, his words—“Are there any *other* answers out there?”—implied that the normal state of affairs is to see different answers among smart people doing challenging work. This also serves to teach that math is not just a matter of deciding between a right answer and a wrong one but, sometimes, a matter of deciding among a wide array of plausible answers. If the questions are hard, Jason’s teaching intimidated, of course people will disagree.

Withhold the Answer

In the same lesson as the one I just described, Jason Armstrong introduced a second problem to his students for discussion, and his choice of language was again striking:

Jason: OK, now for the four answers we have here, A, B, C and D, I don’t want to start by asking which one you think is right, because I want to focus on the explanations that we have. So let me hear what people think of D. I don’t care if you think it’s right or wrong; I just want to hear what people think. Eddie, what did you say about it?

You’ve probably noticed that Jason’s language emphasizes the importance of mathematical thinking (as opposed to just getting it right). That’s valuable. Where many teachers say things like, “I want to focus on the explanation. How you think about this is as important as whether you got it right,” what Jason does is different because *students*

Short_____

Long_____

don't know whether or not they are discussing a right answer. He has asked them not to discuss how they got the answer *they* gave — and therefore think is right — but an answer that he chose.

We often begin reviewing a problem by revealing the right answer and then, suspense alleviated, talking about it. However, as soon as students know the right answer, the nature of their engagement tends to change. They shift to thinking about whether they got it right and how well they did. No matter how much they love the math for the math's sake (or the history or science or literature for its sake), part of them is thinking “Yes! I got it” or “Darn, I knew that” or “Darn, why do I keep messing up?” If Jason had said, “The answer here is B, but I want to look at D,” some students would almost assuredly have thought, “Cool, I knew that,” *and then stopped listening as closely because in their minds they had gotten it right and didn't need to listen.*

One of the simplest and easiest things you can do to begin building a *Culture of Error* is to delay revealing whether an answer is right or wrong until after you've discussed it, and perhaps an alternative. By *withholding the answer* until after you've discussed the question, you retain a bit of suspense, keep students productively engaged, and avoid the distraction of “Did I get it right?” for a few seconds. This can be very productive, not just as an intellectual exercise, but as a cultural one, in causing students to spend less energy evaluating their work (“I got it right. That's awesome! I'm awesome” or “I got it wrong. I am such an idiot”) and more energy thinking about the underlying ideas (“I hadn't thought of doing it that way. I wonder if he'll get the answer I got”).

The fact that Jason's question is a multiple-choice question makes it simple to withhold the answer, but it's also viable to do this with an open-ended question. If you were a history teacher and your question was, “How did the Treaty of Versailles affect Europe in the twenty years after the treaty?” you might put up an answer from a student, several answers from several students, or some bullet points “we might see in an answer” and ask: “So, what do you think?” Because knowing whether they are looking at right or wrong answers focuses students more on evaluating and less on analyzing, in many cases such an approach would be more productive than saying, “Here's Sally's answer. What'd she leave out?” or “Here's Sally's answer. Why is it right?”



See It in Action: Clip 8

Short _____

In clip 8 we see Jason Armstrong, a fifth-grade math teacher from Boston's Roxbury Prep, initiate two different discussions during the same lesson. Jason creates an environment in which students are free to make and admit

Long _____

mistakes as they seek to understand every possible answer choice and facet of each problem.

Jason manages his body language and tone to support a strong *Culture of Error*. Notably, he responds to each student's contributions with "affective interest": leaning toward students as they share, glancing curiously at their papers, raising his eyebrows inquisitively, nodding his head in agreement, or showing he's deep in thought by placing his hand on his chin in a "thinking man" gesture. Jason also responds to *all* answers in the same neutral tone of voice and dutifully writes each of them on the board, which helps him avoid giving away the answer. Over the course of the lesson, we then see students mirror his affect, raising their hands to analyze answer choices that they initially eliminated or overlooked.

Manage the Tell

In poker circles, players have to watch their "tell" — the unintentional signals they give that reveal the status of their hand to savvy opponents. A good player can figure out that an opponent's habit of rubbing his eyes is a nervous tic revealing a poor hand. Having a tell puts you at such a disadvantage that some elite players wear sunglasses and hooded sweatshirts to ensure they don't reveal too much.

As teachers, we also have tells — unintentional cues that reveal what we're thinking, such as whether an answer was right or wrong or whether we valued what a student said. A tell causes us to communicate more than we realize, earlier than we realize it. It compromises our ability to withhold the answer. And it can often result in our unwittingly communicating disdain for errors.

One of my tells as a teacher was the word "interesting," offered in a benign but slightly patronizing tone of voice and usually with a "Hmmm" in front of it and a single long blink of both eyes. I would use it, without realizing it, in my English classes when a student gave an interpretation I thought was flimsy. I know this was my tell because one day after a student offered an interpretation of a chapter, I said, "Hmmm. Interesting." At which point, a student named Danielle said quite clearly from the back of the classroom, "Uh oh. Try again, Danny!" She knew what "interesting" meant: "Well, that was disappointing." Like most teachers, I was saying a lot more than I thought I was. My message to Danny was, "You probably should have kept that thought to yourself," and Danny and all my students knew that. So much for making it safe to be wrong. And of

Short_____

Long_____

course I was tipping savvy students off in other ways. I could always count on Danielle to step in just when I wanted someone to debunk a poor idea. She was so reliable! In part, it turns out, because she'd been interpreting my tell all semester long and as a result got a steady stream of hints about how to express my own opinion back to me.

One of my most capable colleagues describes a different tell. When students gave an answer in her class, she would write it on the board if it was correct, but wouldn't bother if it was wrong. Sometimes she would call on a student and turn to the board, marker poised as if to write, only to turn back to the class upon hearing the answer, and recap the marker. Click. Message received.

We all have tells — several, probably — and because they are unintentional, we may send them over and over, communicating a message to students that undercuts what we might intend to say. Students figure out these tells surprisingly quickly, so it's important to seek them out in our own teaching and manage them. Of course, we'll never be perfect. Of course, it's fine to say, "Interesting" or even to explicitly say, "I think we can do better" or "No, I'm sorry that's not correct." You just want to be aware of and intentional about what you communicate and when. Think for a moment about what might be the most common teacher tell: "Does anyone have a *different* answer?" (When was the last time you said *that* when someone got it right?) In using this phrase without intentionality, you would first communicate that the answer was wrong and therefore risk disengaging students from thinking as deeply about it as they would if they didn't know. Second, you would implicitly say to the student who answered, "If that's all you've got, please don't speak again."

It's worth noting that the most persistent tells are usually in response to wrong answers, but we can also have tells for right answers — a big bright face or perhaps the inflection on the word "why" in a statement like, "And can you tell us *why* you think Wilbur is afraid?" Clearly, it's not a negative to show appreciation and enthusiasm for a great answer. But it *is* worth considering whether that enthusiasm sometimes gives away too much, too soon or, if it's used too often, what its absence communicates. Ideally, we'd all be alert to our tells and manage them — replacing them as often as possible with a consistent and balanced expression of appreciation that's not quite approval.

Praise Risk-Taking

The final aspect of creating a *Culture of Error* is to praise students for taking risks and facing down the challenge of a difficult subject. Katie McNickle talked about this when she reflected on how she built the *Culture of Error* in her classroom: "I praise students who are brave enough to ask questions." It's especially useful to encourage students

Short_____

Long_____

to take risks when they're not sure. A statement such as, "This is a tough question. If you're struggling with it, that's a good sign. Now, who'll be bold and start us off?" reminds students that being a scholar means offering your thoughts when you're not sure, and sometimes *because* you're not sure. You can reinforce that positively by saying, for example, "I love the fact that this is a hard question and so many of you have your hands in the air," or you can shorthand that by simply referring to your students' "brave hands" when you see them raised (for example, "Who wants to take a shot at our challenge question? Beautiful. Love those brave hands . . . Diallo, What do you think?"). If discussing a particularly difficult passage in a book, you could try acknowledging the difficulty by saying something like, "This is a question that people have debated for centuries, but you're really attacking this." In a *Culture of Error*, students should feel good about stepping out on a limb, whether they're right or wrong.

Want More? Clip 1, Clip 4, and Clip 5. Want more? See if you can spot key elements of a *Culture of Error* in the classrooms of Amy Youngman in clip 1, Jon Bogard in clip 4, and Bob Zimmerli in clip 5.

EXCAVATE ERROR

Dig into errors, studying them efficiently and effectively, to better understand where students struggle and how you can best address those points.

Once you've made mistakes public, comfortable, natural, and a matter of course, the benefits of a *Culture of Error* really start to accrue. Teachers who use diagnostic assessments know that studying and analyzing error is one of the most valuable teaching tools there is. The great—and sometimes underutilized—benefit of such tools is the error analysis they enable you to conduct. You look at a question and assess not only who got it right but also who got it wrong, what they got wrong, and why. You notice that of the twelve who did not accurately describe the events in the passage, nine missed the

Short _____

Long _____