

#1

According to metaanalysis data, the most important factor affecting student learning is the teacher¹

6X

Top teachers foster about 6-times more knowledge and skill growth per year versus the worst teachers²

4X

Teachers' educational skill impacts student outcomes ~4-times more than their subject-matter knowledge³

+\$20K

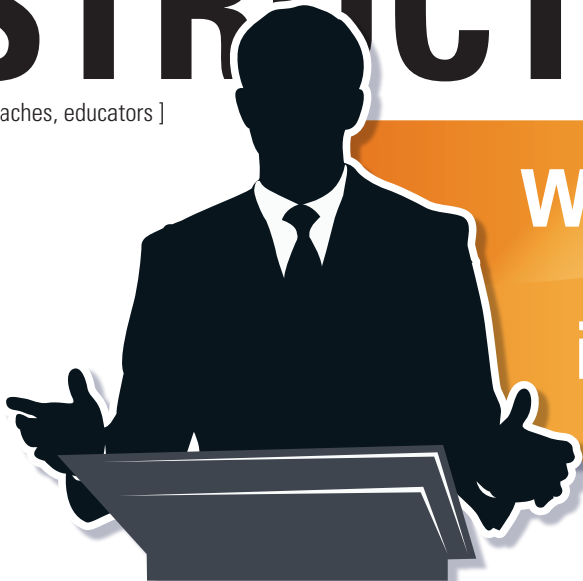
One-year of exposure to a top teacher (84th percentile) increases a student's lifelong earnings by \$20K⁴

+21%

Faculty development helps: In one study, student outcomes increased ~21% when teachers received it⁵

INSTRUCTORS MATTER

[aka teachers, trainers, coaches, educators]



What makes a quality instructor?

Instructional strategies involve meta-level prior planning. Many theories, philosophies, and practical models exist, but one easy approach is to use the SMEAC framework to help you plan.

2 INSTRUCTIONAL STRATEGIES

SITUATION

Who are the learners? What do they already know? What contextual factors may impact their learning?

- Group size
- Attitudes
- Jobs and duties
- Prior knowledge
- Experience levels

MISSION

What are the goals for the curriculum? What's the desired end-state, and why does it matter?

- Course objectives
- Ultimate end state
- End state rationale
- Course strategy
- Course milestones

EXECUTION

What's the specific plan of action? How will you tailor lessons? How will you sequence interactions?

- Lesson end states
- Instructional tactics
- Plans for adaptation
- Sequence
- Assessments

ADMIN

What resources and logistical constraints are relevant? Can you make use of any instructional technologies?

- Logistics
- Time constraints
- Facilities
- Resources
- Technologies

COMMAND

How will you monitor learning effectiveness? What personal skills are you practicing and improving?

- Delivery quality
- Gauge effectiveness
- Peer review
- Self-improvement
- Improvement areas

SKILLS & DEDICATION⁶

LEADERSHIP

- Set big goals with measurable standards
- Ensure all students achieve mastery
- Encourage learners to "own" their learning
- Value and connect with each learner
- Motivate via determination and enthusiasm

COMMUNICATION

- Present content in clear, compelling ways
- Actively engage learners in a dialog
- Ask a variety of thought-provoking questions
- Fluidly adapt your style in different settings
- Use dynamic, emotional language to engage

EXPERT TECHNIQUE

- Plan in detail, working backwards from the goal
- Use a large repertoire of interaction tactics
- Fluidly adapt instruction for maximum effect
- Maintain engagement via instructional tactics
- Keep a brisk, fluid momentum
- Establish effective and efficient routines
- Actively monitor learners and the learning context
- Employ frequent, appropriate assessments
- Give specific, timely, actionable, reflective feedback

CHARACTER

- Don't give up on your learners; have grit
- Look out for your own well-being
- Never stop learning; seek self-improvement
- Be a role-model for learners

3 FIVE CATEGORIES OF TACTICS

Tactics are the discrete activities in the instructional process.



DIRECT

explicit teacher-centric delivery, such as lectures or demonstrations



INDIRECT

teacher-managed but student-centric, such as guided discussions



INTERACTIVE

student-centric activities and peer-learning, such as cooperative learning



EXPERIENTIAL

hands-on activities, such as simulations or experiments



INDEPENDENT

individual, self-led learning, such as homework



TESTS FOR LEARNING

Formative assessments are less formal checks on learning that enhance its effectiveness. When used appropriately, their inclusion can improve students learning outcomes by 20–40 percentile points.⁷



Summative assessments are formal tests used to measure cumulative learning outcomes, such as at the end of a content section or course.



TESTS OF LEARNING

Sample Tactics

- Assigned Questions
- Case Studies
- Compare and Contrast
- Concept Maps
- Cooperative Learning Groups
- Decision-Forcing Cases
- Demonstrations
- Drill and Practice
- Ethical Decision Games
- Experiments
- Field Research
- Fishbowl Discussions
- Jigsaw Groups
- Journal Writing
- Metacognitive Prompts
- Model Building
- Role-play Exercises
- Sand Table Exercises
- Socratic Seminars
- Tactical Decision Games

4 ASSESSMENTS

CITATIONS

¹ Sanders, W. L., Wright, S. P., & Horn, S. P. (1997). Teacher and classroom context effects on student achievement. *Journal of personnel evaluation in education*, 11(1), 57-67.

² Marzano, J. S., & Pickering, D. J. (2003). *Classroom management that works: Research-based strategies for every teacher*. ASCD.

³ Darling-Hammond, L. (1999). *Teacher quality and student achievement: A review of state policy evidence*. Seattle, WA: University of Washington.

⁴ Hanushek, E. A. (2011). How much is a good teacher worth? *Education Next*, Summer 2011, pp. 41-45.

⁵ Yoon, K. S., Duncan, T., et al. (2008). The effects of teachers' professional development on student achievement. *Proceedings of the AERA Annual Meeting*.

⁶ Schatz, S., Bartlett, K., Burley, N., Dixon, D., Knarr, K., & Gannon, K. (2012). Making Good Instructors Great. *Proceedings of IITSEC*.

⁷ Ainsworth, L., & Viegut, D. (Eds.). (2006). *Common formative assessments: How to connect standards-based instruction and assessment*. Corwin Press.



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