
A Map of Teaching Effectiveness: research-based vocabulary

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2021 rev 2023

An academic essay in response to questions about what teaching effectively is, and how we know it when we do it and see it.







Effective teaching supports student learning

“To begin this study, we had to define what we meant by outstanding teachers. That turned out to be a fairly simple matter. All the professors [that we studied]...had achieved remarkable success in helping their students learn in ways that made a sustained, substantial, and positive influence on how those students think, act, and feel.”

Ken Bain, *What the Best College Teachers Do*

Thinking through the research

The following model comes from a cross-walk of analyses of educational and psychological research, such as:

- Addy, T. M., Younas, H., Cetin, P., Rizk, M., Cham, F., Nwankpa, C., & Borzone, M. (2022). The development of the protocol for advancing inclusive teaching efforts (PAITE). *Journal of Educational Research and Practice*, 12(0), 65–93.
<https://doi.org/10.5590/JERAP.2022.12.0.05>
- Bransford, J. D., Brown, A. L., & Cocking, R. R. (Eds.). (2000). *How people learn: Brain, mind, experience, and school: expanded edition*. National Academy Press. <https://nap.nationalacademies.org/read/9853/chapter/1>
- Campbell, Corbin. (2023). *Great college teaching: Where it happens and how to foster it everywhere*. Harvard Education.
- CAST (2018) UDL or Universal Design for Learning Guidelines. <https://udlguidelines.cast.org>.
- Chickering, A., & Gamson, Z. (1987), Seven principles for good practice in undergraduate education. *AAHE bulletin*, 3.7.
- Hattie, J. A. C. (2009). *Visible learning: the Sequel: A synthesis of 2100 meta-analyses relating to achievement*. Routledge.
- Marsh, H. W., & Roche, L. (1993). The use of students' evaluations and an individually structured intervention to enhance university teaching effectiveness. [Authors of the SEEQ student questionnaire]
- Mayhew, M. J., Pascarella, E. T., & Terenzini, P. T. (2016). *How college affects students*. Volume 3, 21st century evidence that higher education works (Second edition.). Jossey-Bass.
- National Research Council. (2015). *Reaching Students: What Research Says About Effective Instruction in Undergraduate Science and Engineering*.

The top level:

Academic
Expectations

Rapport and
Relationships

Clarity

Transparency

Learning
Science

Inclusivity



A hand in a light-colored sleeve points to a specific location on a complex, multi-colored map or diagram. The map features a dense network of lines in various colors (blue, yellow, red, green, purple) and some text, suggesting a technical or organizational chart. The background is slightly blurred, focusing attention on the hand and the map.

— Assumptions

- As you read the following map of constructions, consider that *teaching effectiveness* encompasses the entirety of the course design and delivery.
- The whole course is an experience for the student, the combination of the syllabus, the course shell (LMS), the organization and practices of teaching, the teaching and mentoring occurring outside class, in multiple modalities with students, and the work assigned to students. It is also assumed that inclusive, student-centered, supportive teaching practices are observable and replicable, and would be woven throughout.

1. Academic Expectations



Establish and support appropriately high level of expectations for learning

Set *achievable* goals and learning outcomes and establish learning value of these for students

Provide clear pathways to success, supporting all students to get there

Employ disciplinary knowledge in a pedagogical context (known as ‘pedagogical content knowledge’)

Employ (“activate”) student prior knowledge

Align course goals with course assessments which are frequent and allow for improvement

Embed cognitive complexity (across all levels of the revised Bloom’s taxonomy)

2. Rapport & Relationships



Establish positive relationships with and between students, creating a positive class climate

Build pathways for faculty-student contact during and in between class sessions

Provide means of motivation for all students, accounting for student differences

Create a positive and supportive climate

Build and facilitate relationships to take advantage of the foundation of learning as relational

Demonstrate care for students and model care for self

Demonstrate ways of building rapport and relationships that are culturally relevant to all students

3. Clarity



Build clarity through course structure, student access to course materials, and communication

Communication is regular, timely, avoids jargon, and is both written and verbal

Clarity in feedback (summative and formative): assessment criteria are clear and communicated

Clarity in organization and course contents

Inclusive, culturally appropriate communication and accessible materials are used

Attention to effective student time-on-task

Clarity and transparency are intertwined and infused in all aspects of a course

4. Transparency



Assessments address purpose, tasks, and criteria explicitly

Exams and assignments are well-constructed, equitable, fair, and frequent

Purpose of all student work is stated. Formative and summative assessments are frequent and productive

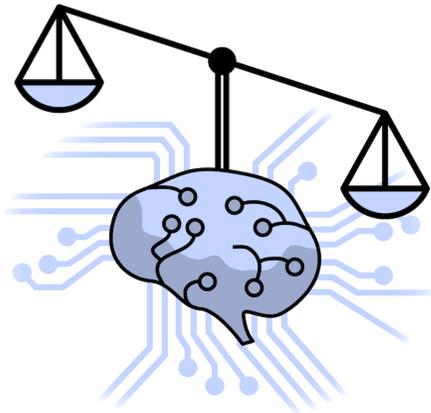
Clear instructions (verbal and written), deadlines, and support are given

Clear criteria and clear paths to success, scaffolded as needed, for assignments

Feedback is clear, prompt, purposeful

Student understanding is checked, and student feedback is requested and used

5. Learning Science



Embedded use of purposeful active learning in class sessions and modules

Peer-to-peer learning is incorporated into lecture, class sessions, and the course as a whole

Student self-reflection and metacognition is prompted and supported

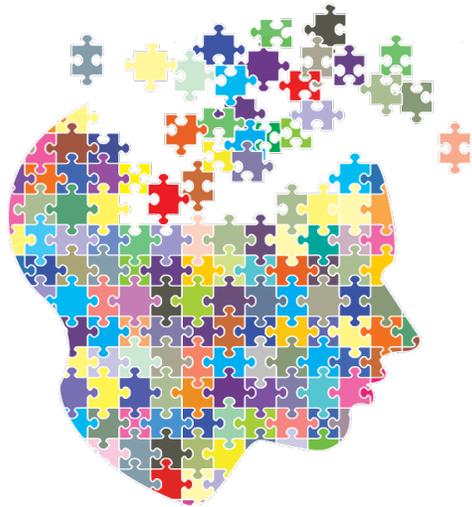
Share learning strategies and prompt self-assessment among students

Materials provided are accessible to all students

Use of principles of “how people learn”

Apply culturally relevant learning strategies

6. Inclusivity



**Learning is social, multi-faceted,
and contextual**

Universal design supports all students but especially underrepresented students and students at risk

Support all students through inclusive teaching and learning practices

Understand students' social contexts and incorporate relevant teaching practices, assessments, and course materials

The top level:

Academic
Expectations

Rapport and
Relationships

Clarity

Transparency

Learning
Science

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Enacting the vocabulary



Examine, what do you already do ?



Consider, are there gaps to address and practices to celebrate?



Visit OTEI resources and services for support



Visit the OFA: Office of Faculty Advancement



Consult the Faculty Manual and Faculty Senate

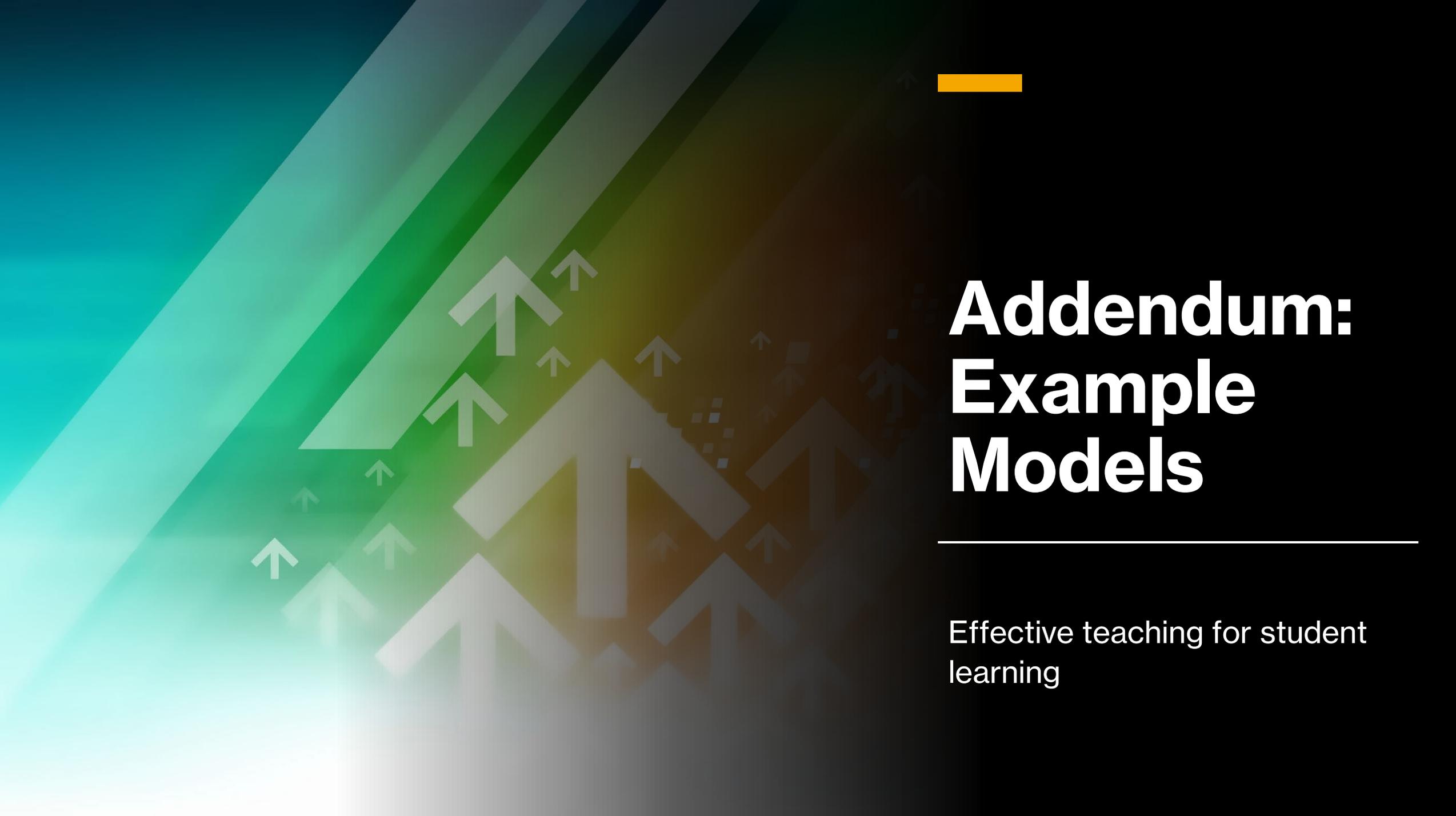
What counted as evidence that a professor profoundly helped and encouraged students to learn deeply and remarkably? That question proved to be more complex.

No one type of evidence would do in every case...

In some cases, the evidence came in clearly labeled packages; in others, we had to collect it from unmarked jars and piece it together like anthropologists in search of a lost civilization. The types of evidence available depended on both the individual and the discipline.

Ken Bain, *What the Best College Teachers Do*





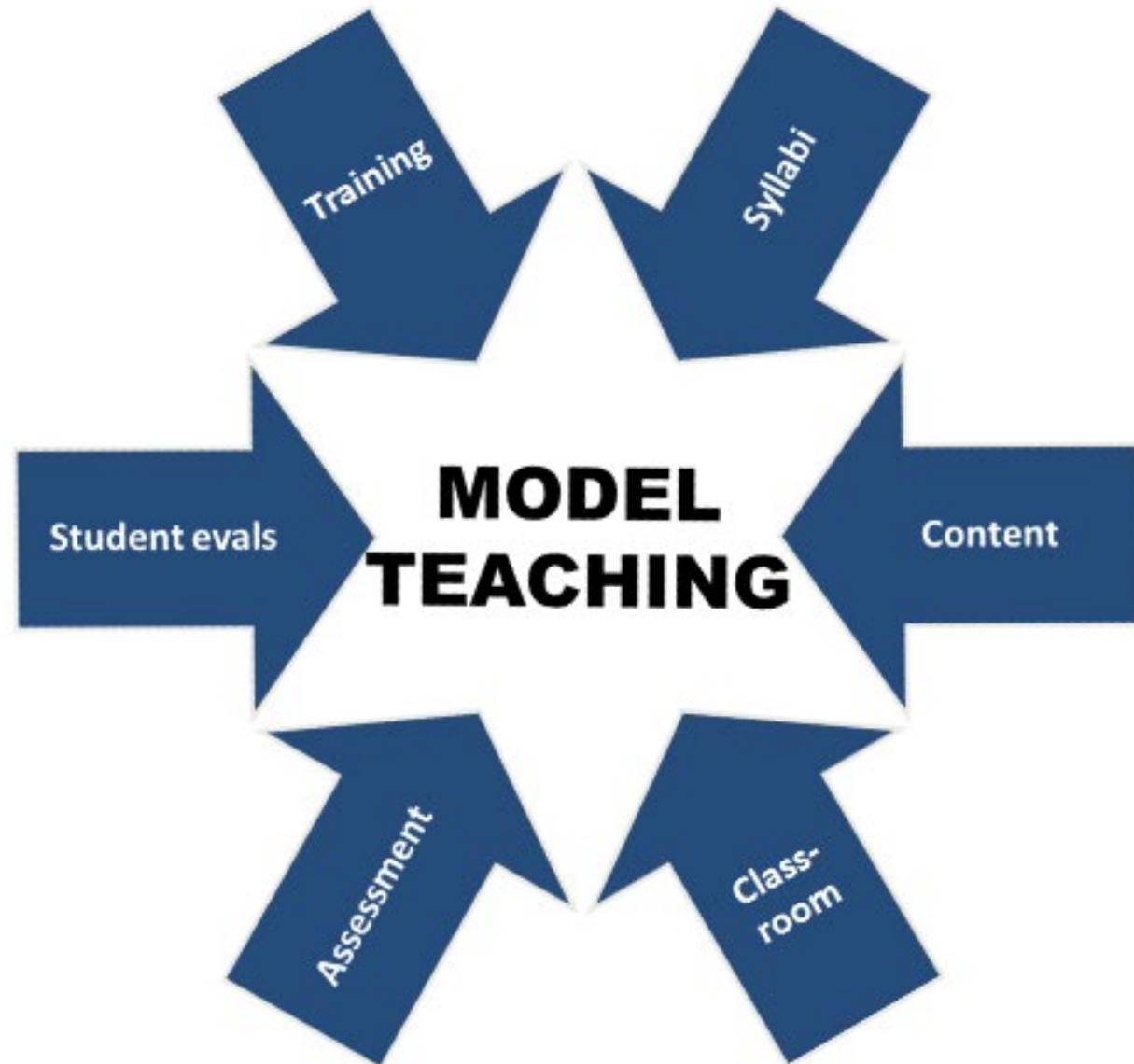
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Addendum: Example Models

Effective teaching for student
learning

Model Teaching

- <https://regangurung.com/model-teaching/>
- Richmond, A. S., Boysen, G. A., & Gurung, R. A. R. (2016). *An Evidence-based Guide to College and University Teaching: Developing the Model Teacher*. New York: Routledge
- Sponsored by the American Psychological Association: Society of Teaching.



The Protocol for Advancing Inclusive Teaching Efforts (PAITE) (Addy et al, 2023)

Identify Prior Knowledge and do comprehension checks

Use diverse examples, media, and visuals

Make real-world connections

Build relationships and community standards

Use student names

Use verbal affirmation and growth mindset language

Address exclusionary acts

Equitable participation; address group not individual identity

Active learning used

Student choice incorporated

Effective Teaching

Marsh and Roche, 1994

- Learning / academic value
- Lecturer enthusiasm
- Organization and clarity
- Group interaction
- Individual Rapport
- Breadth of coverage
- Examinations / grading
- Assignments / reading
- Workload / difficulty