TEACHING EFFECTIVENESS FRAMEWORK

PEDAGOGICAL CONTENT KNOWLEDGE DOMAIN

Pedagogical Content Knowledge is the intersection of content and pedagogical expertise. When instructors know their students' prior knowledge and preconceptions, they intentionally choose instructional strategies that work best in their discipline for their current students.

Effective instructors use evidence-based practices to make the connection between their students, the content area, and instructional strategies.

Knowledge of Content and Instructional Strategies

- Determine breadth and depth of content necessary for course level: align with pre- co-, and subsequent courses
- Present information in a sequence that makes sense to a (new, intermediate, advanced) learner
- Scaffold lessons and activities to support students in reaching the level of critical thinking needed to master course objectives
- Keep current on issues of racism/sexism, racial tensions, and contemporary cultural issues in the United States, especially in relation to your discipline 👥
- Use a variety of instructional strategies to engage a variety of learners
- Determine which instructional strategies work best for your teaching style and your students
- Teach students about Bloom's Taxonomy and how it relates to higher level thinking required for course concepts
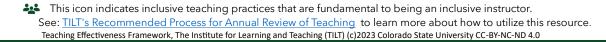- Provide explicit reading strategies for your discipline

Knowledge of Students

- Proactively address common student misconceptions 👥
- Assess prior knowledge of learners; use it to plan/revise class sessions 👥

Information Literacy

Collaborate with librarian to:
- Introduce students to discipline-specific databases to find relevant information for your assignments
- Support students in evaluating information sources for credibility and accuracy using the standards of your discipline
- Teach students how to consume information sources (e.g., research papers, blogs, audio visual, data sets, news articles, primary sources) in your discipline
- Demonstrate how to use information ethically—in accordance with the CSU Academic Integrity and Honesty guidelines.
- Teach students to create products (e.g., research papers, blogs, audio visual, data sets, news articles, primary sources) that align with your discipline

👥 This icon indicates inclusive teaching practices that are fundamental to being an inclusive instructor.
See: TILT's Recommended Process for Annual Review of Teaching to learn more about how to utilize this resource.

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LEVELED CRITERIA & SELF ASSESSMENT RUBRIC

Use this rubric to reflect on your current instructional practices, set a teaching goal, and monitor growth. TILT recommends revisiting this throughout the year to continue to reflect and adjust as you work towards your goal. TILT does not recommend using this as an observation tool or for direct evaluation. See TILT's Recommended Process for Annual Review of Teaching to learn more about how to utilize this resource.

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Evidence	Advanced	Proficient	Developing	Emerging
Knowledge of Content and Instructional Strategies • Discipline based evidence informed instruction • Sequencing and level • Instructional strategies	Instructor consistently uses evidence informed instructional strategies for that specific discipline. Instruction and assessments are effectively sequenced, appropriate for the level of students in the course, and consider abilities of current students. Instruction is dynamic and adapted in the moment when necessary.	Instructor uses several instructional strategies known to work for their discipline. Most instruction and assessments are effectively sequenced, appropriate for the level of learners in the course, and consider abilities of current students. Instruction is sometimes adapted in the moment when necessary.	Instructor uses some instructional strategies known to work for their discipline. Some instruction and assessments are effectively sequenced, appropriate to the level of learners in the course, and consider abilities of current students. Instruction is mostly static, one or two adjustments made when necessary.	Instructor uses some instructional strategies that may or may not work for their discipline. Instructor is unaware or unsure of whether concepts are effectively sequenced or appropriate for the level of learners in the course or consider abilities of current students. Instruction is static, no adjustments made for student needs.
Knowledge of Students • Misconceptions, alternative conceptions, and preconceptions • Connections within the course, curriculum and beyond	The instructor intentionally addresses misconceptions, alternative conceptions, or preconceptions. They regularly make essential connections between course content, other courses in the curriculum, and to contemporary issues in the field.	The instructor addresses several misconceptions, alternative conceptions, or preconceptions. They make many relevant connections between course content, other courses in the curriculum, and to contemporary issues in the field.	The instructor addresses some misconceptions, alternative conceptions, or preconceptions. They occasionally make connections between course content, between courses in the curriculum, and to contemporary issues in the field.	The instructor addresses an occasional misconception. They do little to make clear connections between course content, other courses, and contemporary issues in the field.
Information Literacy • Collaboration with library resources • Level of support	The instructor works with the discipline-specific librarian to develop students' information literacy skills in relevant course assignments. Students are provided ongoing feedback (commensurate with experience level) in using discipline-specific databases and the ethical evaluation and consumption of data sources–in accordance with academic integrity and honesty guidelines.	The instructor works with the discipline-specific librarian to develop students' information literacy skills in relevant course assignments. Students are provided some feedback (commensurate with experience level) in using discipline-specific databases and the ethical evaluation and consumption of data sources–in accordance with academic integrity and honesty guidelines.	The instructor refers students to library resources for research assignments. Students are encouraged to use discipline-specific databases and ethical evaluation and consumption of data sources–in accordance with academic integrity and honesty guidelines.	The instructor briefly addresses evaluating information sources for accuracy and credibility and the ethical evaluation and consumption of data sources–in accordance with academic integrity and honesty guidelines.
Learning Assistant (LA) and Graduate Teaching Assistant (GTA) Implementation (If applicable)	The instructor acts as instructional guide for colleagues, GTA's, and/or LA's. Weekly meetings are held to prepare LA's and GTA's for upcoming classes to ensure they are ready to support students during class time.	The instructor acts as instructional guide for GTA's and/or LA's. Weekly meetings are held to prepare LA's and GTA's for upcoming classes to ensure they are ready to support students during class time.	One or two meetings are held during the semester to prepare LA's and GTA's. The instructor encourages LA's and GTA's to assist students when asked.	The main role of LA's and GTA's is to grade student work. Little to no interaction with students is encouraged.

References

Derting, T. L., & Ebert-May, D. (2017, October 13). *Learner-Centered Inquiry in undergraduate biology: Positive relationships with long-term student achievement*. CBE-Life Sciences Education. https://www.lifescied.org/doi/10.1187/cbe.10-02-0011

Guerriero, S. (2017). *Teachers' Pedagogical Knowledge and the Teaching Profession Background Report and Project Objectives*. https://www.oecd.org/education/ceri/Background_document_to_Symposium_ITEL-FINAL.pdf

Herring, M. C., Koehler, M. J. & Mishra, P. (Eds.). (2016). Handbook of Technological Pedagogical Content Knowledge (TPACK) for Educators (2nd ed.). New York, NY: Routledge.

Lee, C., Saat, R., Loke, H., Pendidikan, I., Kampus, G., Razak, T., & Com, S. (2015). The Knowledge of Teaching-Pedagogical Content Knowledge (PCK). In *The Malaysian Online Journal of Educational Science*. https://files.eric.ed.gov/fulltext/EJ1085915.pdf

Magnusson, S. J., Borko, H., & Krajcik, J. S. (1999). Nature, sources, and development of pedagogical content knowledge for science teaching. In J. Gess-Newsome & N. Lederman (Eds.), Examining Pedagogical Content Knowledge (pp. 95-132). Boston, MA: Kluwer Press.

NARST. (2018). *Pedagogical Content Knowledge: Teachers' Integration of Subject Matter, Pedagogy, Students, and Learning Environments NARST*. Narst.org. https://narst.org/research-matters/pedagogical-content-knowledge

Oleson, A. & Hora, M. T. (October 23, 2013). Teaching the way they were taught? Revisiting the sources of teaching knowledge and the role of prior experience in shaping faculty teaching practices. Higher Education. DOI 10.1007/s10734-013-9678-9

Porter, L., Bailey Lee, C., & Simon, B. (2013, March). Halving fail rates using peer instruction: a study of four computer science courses. In *Proceeding of the 44th ACM technical symposium on Computer science education* (pp. 177-182).

Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. Educational Researcher, vol 15(2), pp. 4-14.