

## Classroom Observation Protocols

### Reformed Teaching Observation Protocol (RTOP)

This classroom observation protocol measures the extent to which a class embodies

Reference Piburn, M., and Sawada, D. (2000). Reformed Teaching Observation Protocol (RTOP) Reference Manual. ACEPT Technical Report.

### Teaching Dimensions Observational Protocol (TDOP)

This classroom observation protocol uses a two-minute time sampling method to track classroom teaching practices across five different dimensions: teaching methods, pedagogical strategies, student-teacher interactions, cognitive engagement, and instructional technology. The TDOP was based on a protocol by Osthoff et al. (2009).

Hora, M. T. and Ferrare, J. J. (2013). Instructional systems of practice: A multidimensional analysis of math and science undergraduate course planning and classroom teaching. *J. Learn. Sci.* 22, 257.

Reference Osthoff, E., Clune, W., Ferrare, J., Kretchmar, & White, P. (2009). Implementing immersion: Design, professional development, classroom enactment and learning effects of an extended science inquiry unit in an urban district. Madison: University of Wisconsin-Madison, Wisconsin Center for Educational Research.

Webpage: <http://tdop.wceruw.org/>

### Classroom Observation Protocol for Undergraduate STEM (COPUS)

This classroom observation protocol uses a two-minute time sampling method to track instructor and student

### UTeach Observation Protocol (UTOP)

This observational instrument can be used to assess the overall quality of classroom instruction from kindergarten to the undergraduate level. The UTOP was designed to allow individuals to evaluate teaching effectiveness, while valuing different modes of instruction.

Webpage: <http://utop.uteach.utexas.edu/>

### Oregon Teacher Observation Protocol (TOP)

This observation protocol measures implementation of reformed teaching strategies.

Reference: Wainwright, C. L., Flick, L. B., and Morrell, R. (2003). Development of instruments for assessment of instructional practices in standards-based teaching. *Journal of Mathematics and Science: Collaborative Explorations*, 20:146.

### Inquiring into Science Instruction Observation Protocol (ISIOP)

This classroom observation protocol is designed to assist evaluators and researchers in determining the extent to which quality pedagogical practices and instruction about scientific inquiry are present in secondary science teaching.

Webpage: <http://isiop.edc.org/>

### Partnership for Undergraduate Life Sciences Education (PULSE) Vision and Change Rubrics

These rubrics were developed by the PULSE Vision & Change Leadership Fellows to help departments self-assess the extent to which they have adopted the instructional principles outlined in the Vision and Change report (2011).

Reference: Aguirre, K. M., Balser, T. C., Jack, T., Marley, K. E., Miller, K. G., Osgood, M. P., PapeLindstrom, P. A., and Romano, S. L. (2013). PULSE Vision & Change. *CBE Life Sci Educ* 12(7) 1581.

American Association for the Advancement of Science (AAAS) (2011). Vision and change in undergraduate biology education: A call to action, Washington, D.C.

## Self-Assessment of Teaching Practices and Beliefs

### Approaches to Teaching Inventory (ATI)

The original instrument designed by Prosser and Trigwell (1999) is composed of 16 items that determine the degree to which an instructor is focused on conceptual change/study focused (CCSF). The other scale measures the degree to which an instructor is focused on information transmission/teacher focused (ITTF). An additional part of the survey

developed by Lindblom Ylance et al. (2006) regulation strategies, including self-regulation, external regulation, and lack of regulation.

References Trigwell, K., Prosser, M. & Waterhouse, F. (1999) Relations between learning, Higher Education 37:73-83.

Trigwell, K. & Prosser, M. (2004). Development and use of the Approaches to Teaching Inventory, Educational Psychology Review, 16:419-424.

Lindblom

teaching efficacy. *Innovations in Education and Teaching International* 48, 430.

### [Teacher Efficacy Scale \(OSTES\)](#)

and management. Access to the instrument can be found at <http://u.osu.edu/hoy.17/research/instruments/>

Reference: Tschaner, Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive construct. *Teaching and Teacher Education*, 17, 783-805.

### [Teacher Efficacy Scale \(TES\) Long Form](#)

An 22 item instrument that measures teaching efficacy and personal efficacy. Access to the instrument can be found at <http://u.osu.edu/hoy.17/research/instruments/>.

Reference: Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive construct. *Teaching and Teacher Education*, 17, 783-805.

### [Teacher Efficacy Scale \(TES\) Short Form](#)

A 10 item instrument that measures teaching efficacy and personal efficacy. Access to the instrument can be found at <http://u.osu.edu/hoy.17/research/instruments/>.

Reference: Hoy, W. K., & Woolfolk, A. E. (1990). Organizational socialization of student teachers. *American Educational Research Journal*, 27, 279-300.

### [College Teaching Self-Efficacy Scale \(CTSES\)](#)

This is a 5 item general teaching self-efficacy scale for college professors.

Prieto-

ReferencePrieto, L.R., AltmajerE.M. (1994). The relationship of prior training and previous teaching experience to self-efficacy among graduate teaching assistants. *Research in Higher Education*, 5(4), 481-497.

## Graduate Student Teacher Development and Self