Adapted from: Smith MK, Jones FHM, Gilbert SL, and Wieman CE. 2013. The Classroom Observation Protocol for Undergraduate STEM (COPUS): a New Instrument to Characterize University STEM Classroom Practices. CBE-Life Sciences Education, Vol 12(4), pp. 618-627; v Date: _____ Class: ___ Classroom arranged how? _____ No. students Observer Name: __ Instructor: ___

- 1. L'Listening Ind-Individual work; CG Clicker Q.discussn; WG-Worksheet group work; OG-Other group work; AnQ-Answer Q; SQ-Student Q; WC-Whole class discuss.; Prd-Predicting; SP-Student present.; TQ-Test/quiz; W-Waiting; O-Other 2. Lect-Leturing; RWW-Writing; PUp-Follow-up; PQ-Pose Q; CQ-Clicker Q; AnQ-Answer Q; MG-Moving/Guiding; 1o1-One-on-one; D/V-Demory; And-Admin; W-Waiting; O-Other 7. Pose Quiz: Particular interval, check columns to show what's happening in each category of raw vertical line to indicate continuation of activity). Check will piec columns where appropriate.

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${\bf *Formative\ Assessment*-Go\ back\ to\ assess\ segments\ with\ FA\ using\ codes\ below}$

Instructional feedback and responses that were coded after a student response to a formative assessment prompt or after a student question (McConnel et al., 2021).

Instructional feedback and responses that were coded after a student response to a formative assessment prompt or PR. - Description Praising or providing encouragement DDV - Displaying or verbally describing a distribution of student responses or themes within student responses EV - Providing an evaluation of the correctness of the student response C - Clarifying or providing further information SH. - Slaping student behavior such as study skills EXP - Prompting students to explore or elaborate on ideas (also coded as a new prompt)