**Resources on Participation and Classroom Interaction**

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**The Reasons for It**

Jones, R. C.“The “Why” of Class Participation, A Question Worth Asking.” *College Teaching,* 2008, *56* (1), 59-63.

 --Offers a good overview of the intentions behind the use of participation and suggests new ways of thinking about its use.

Tanner, K. D. “Talking to Learn: Why Biology Student Should Be Talking in Classrooms and How to Make it Happen.” *Cell Biology Education—Life Sciences Education,* 2009,*8,* 89-94.

 --If you need to be persuaded of the value of student interaction, this article makes a convincing case for it. It also lists the barriers that prevent many faculty from using interaction and offers an array of strategies for overcoming them. Never mind that it’s written about biology students, the contents are relevant in every discipline.

**Research on Participation**

Auster, C. J. and MacRone, M. “The Classroom as a Negotiated Social Setting: An Empirical Student of the Effects of Faculty Members’ Behaviors on Students’ Participation.” *Teaching Sociology,* 1994, *22*, 289-300.

 --In a study that compared classes with the most and least participation, there was significantly more participation when faculty asked analytical rather than factual questions and when they called on students by name, provided positive reinforcement and asked for student’s opinions even when they didn’t volunteer.

Frymier, A. B. and Houser, M. L. The Role of Oral Participation in Student Engagement. *Communication Education,* 2016, *65* (1), 83-104.

 --Two studies looked at the effectiveness of participation in engaging studentsand found the relationship between the two was weak. “The results of these studies challenge the long-held assumption that oral participation is unquestionably a good thing.” (p.101) One long-held assumption challenged: the role of grading in promoting engaged participation.

Howard, J. R. and Henney, A. C. “Student Participation in Mixed Age Classrooms.” *Journal of Higher Education*, 1998, *69* (4), *384-405.*

--Over half the students in this study did not participate in any of the 10 session of each class observed.

Keeling, E. L., Polacek, K. M., and Ingram, E. L. “A Statistical Analysis of Student Questions in a Cell Biology Laboratory.” *Cell Biology Education—Life Sciences Education,*  2009, *8* (Summer), 131-139.

 --Assigned students to write questions prior to labs. Analysis of the questions revealed students did not write many higher order questions and that this practice of writing questions did not dramatically improve the quality of the questions. Researchers conclude that in order to write better questions, students need direct instruction of the types and quality of questions.

Krohn, K. R., Foster, L. N., McCleary, D. F., Aspiranti, K. B., Nalls, M. L., Quillivan, C. C., Taylor, C. M., and Williams, R. L. “Reliability of Students’ Self-Recorded Participation in Class Discussion.” *Teaching of Psychology,* 2011, *38*(1), 43-45.

 --Empirically investigated a method of having students record and describe their discussion contributions which showed that student did not over-report their participation.

Marbach-Ad, G. and Sokolove, P. G. “Can Undergraduate Biology Students Learn to Ask Higher Level Questions?” *Journal of Research in Science Teaching,* 2000, *37* (8), 854-870.

--The results of this study answer the question yes. In a large biology course taught using a variety of active learning strategies that emphasized questioning, the quality of student questions improved significantly compared with a course taught using a lecture approach.

Nunn, C. E. “Discussion in the College Classroom: Triangulating Observational and Survey Results.” *Journal of Higher Education,* 1996, *67* (3), 243-266.

 --Half the students surveyed in this study said they participated infrequently or never in their classes.

Weaver, R. R. and Qi, J. “Classroom Organization and Participation.” *Journal of Higher Education*, 2005, *76* (5), 570-600.

 --“The more students perceive the professor as an authority of knowledge, the less likely it is they will participate in class.” (p. 586)

**Policy Options and Issues**

Dallimore, E. J., Hertenstein, J. H. and Platt, M. B. “Impact of Cold-Calling on Student Voluntary Participation.” *Journal of Management Education,* 2013, *37* (3), 305-341.

-- Findings that support the use of cold calling.

De Vita, G. “Inclusive Approaches to Effective Communication and Active Participation in the Multicultural Classroom.” *Active Learning in Higher Education,* 2000, *1* (2), 168-180.

 --Identifies key issues relative to the learning experiences of international students.

Graham, C. R., Tripp, T. R., Seawright, L., and Joeckel III, G. L. “Empowering or Compelling Reluctant Participators Using Audience Response Systems.” *Active Learning in Higher Education,* 2007, *8* (3), 233-258.

--Clickers had a positive impact on “reluctant participants.” It was more positive when clickers were used formatively and not for grades or other evaluative measures, like attendance.

Weimer, M. A Choice About Participation, Teaching Professor Blog Post, October 3, 2013 . Find it at: [www.facultyfocus.com](http://www.facultyfocus.com)

 --A participation policy that gives students a choice as whether they want to be called on or volunteer.

White, Genevieve. Seen but not Heard: The Introverts in our Classrooms

<http://www.theguardian.com/teacher-network/teacher-blog/2012/may/02/introverts-classrooms-education>

--A personal reflection from an introverted teacher who realizes that she uses instructional strategies that appeal to extroverts and what she did about it.

**Grading Participation**

Boniecki, K. and Moore, S. “Breaking the Silence: Using a Token Economy to Reinforce Classroom Participation.”*Teaching of Psychology,* 2003, *30*(3): 224-227.

 --Gave “tokens” to students who answered a teacher question correctly. Students submitted tokens at the end of the period for bonus points on the exam.

Chylinski, M. “Cash for Comment: Participation Money as a Mechanism for Measurement, Reward, and Formative Feedback in Active Class Participation. *Journal of Marketing Education,* 2010, *32* (1), 25-38.

 --An innovative system that rewards students with “cash” for good comments and questions and uses the “cash” as a vehicle for recording contributions.

Craven, III, J. A. and Hogan, T. “Assessing Student Participation in the Classroom.” *Science Scope,* 2001, *25* (1), 36-40

--Contains a rubric that can be used to assess participation.

Dancer, D., and Kamvounias, P. Student Involvement in Assessment: A Project Designed to Assess Class Participation Fairly and Reliably. *Assessment & Evaluation in Higher Education,* 2005, *30* (4), 445-454.

 --A good model for involving students in setting the criteria for grading participation and in assessment their participation and that of their peers.

Mainkar. A.V. “A Student Empowered System for Measuring and Weighing Participation in Class Discussion.”*Journal of Management Education,* 2007,*32*(1)*,* 23-37.

 --An interesting system that involves students in the assessment of participation.

Mello, J. A.“The Good, The Bad, and the Controversial: The Practicalities and Pitfalls of the Grading of Class Participation.”*Academy of Educational Leadership Journal,* 2010, *14*(1), 77-97.

--An excellent article that explores the pros and cons of grading participation, issues that make it challenging to grade and offers some alternative strategies.

Penny, L. and Murphy, E. “Rubrics for Designing and Evaluating Online Asynchronous Discussions.” *British Journal of Educational Technology,* 2009, *40* (5), 804-820.

 --Analyzed 50 rubrics which identified 153 performance criteria for online discussions. Organized these criteria into four major categories: cognitive, mechanical, procedural/managerial and interactive. Lots of items included in the article.

Rogers, S. L. “Calling the Question: Do College Instructors Actually Grade Participation?” *College Teaching,* 2013, *61* (1), 11-22.

 --In a survey of 352 instructors, 82% indicated on the course syllabus that participation was a student responsibility. 75% of them grade it.

Weimer, M. *Learner-Centered Teaching: Five Key Changes to Practice. 2nded. San Francisco: Jossey-Bass, 2013.*

--I describe the process I use to let students set the participation policy in the class (pp. 101-104) and how I use self- and peer assessment in grading participation (pp. 189-191).

Woods, D. R. “Participation is more than Attendance.” *Journal of Engineering Education,*1996, *85*(3), 177-181.

 --Reports on a method that allows students to establish the grading criteria for participation.