

Literature on the Improvement of Large Group Teaching: An Annotated Bibliography

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IMPROVEMENT OF TEACHING IN LARGE GROUPS: GENERAL SOURCES

In a non medical setting

Bligh, D. A. (1998). *What's the use of lectures?* Exeter, England: Intellect.

This book contains the best description of various methods of organizing a lecture that I have ever seen. Originally published in 1972, it was out of print for years. I loaned my dog-eared once too many times. It failed to return in the late 80s. Fortunately it has been republished recently. It's review of the literature is now classic in the field yet nothing has been discovered that disconfirms its major conclusions. Donald Bligh's advice for teachers is as relevant today as it was 30 years ago!

Brown, S. & Race, P. (2002). *Lecturing: A practical guide*. London: Kogan Page.

This very practical book is organized like a reference book, with a clear organization and chapters that could serve as stand-alone pamphlets. You do not need to read it from beginning to end. Just flip through the pages to find what you are looking for. And whatever you seek is likely to be found in this book. It includes chapters on the tools of lecturing, fostering active engagement by students, linking lecturing to other learning activities, and even chapters on areas not covered in other books such as history and philosophy of lecturing, architecture, and disabilities.

Eble, K. E. (1988). The lecture as discourse. In *The craft of teaching: A guide to mastering the professor's art*. San Francisco: Jossey-Bass, cha. 6.

Professor Eble presents eight methods of lecturing well and eighteen pitfalls, in this very readable chapter, illustrated with examples and literary quotations.

Gedalof, A. J. (1998). *Teaching large classes*. Green Guide No 1, STLHE Green Guides.

Halifax, Nova Scotia: Society for Teaching and Learning in Higher Education in cooperation with the Office of Instructional Development and Technology, Dalhousie University. This is the first of the popular Green Guide series sponsored by STLHE. The Green Guides are brief (50 pages), inexpensive, and practical guides. The ideas are grounded in real situations faced by Canadian teachers.

Gibbs, G. Habeshaw, S. & Habeshaw, T. (1992). *53 Interesting ways to teach large classes..*

Bristol: Technical & Educational Services.

This is the kind of book that can be enjoyed even on an airplane. It is illustrated with cartoons and packed with advice for the lecturer written in a snappy easy to digest format. Not all of the suggestions will be relevant to you, but since there are 53, you are bound to get something valuable out of it.

Gibbs, G. & Jenkins, A. (1992). *Teaching large classes in higher education: How to maintain quality with reduced resources*. London: Kogan Page.

This is an edited collection of case-study reports by innovative lecturers from a wide range of disciplines in universities and polytechnics. The articles span a great range of issues, from philosophic and broad strategic issues to specific teaching strategies. The many authors offer examples and guidelines, not only to teachers, but to students, departments and institutions as well.

McKeachie, W. J. (1994). *Teaching tips: Strategies, research, and theory for college and university teachers*. (Ninth Edition). Lexington, MA: D. C. Heath and Co.

This book has an excellent chapter on lecturing in its "basic skills" section. It also has an entire section devoted to teaching large groups. Within this section the reader can find chapters on how to help students be active learners in large classes; morale, discipline and order; student diversity; preparation for the teaching assistantship; and problem situations and problem students. As a bonus there are many others chapters that deal with issues such as discussion methods, one-to-one teaching, laboratory teaching, testing, grading, student feedback, and more.

Neff, R. A., & Weimer, M. (Eds.) (1989). *Classroom communication: Collected readings for effective discussion and questioning*. Madison, Wisconsin: Magna Publications.

The editors have selected ten key articles that address problems and practices of classroom communication. The volume is formatted like a workbook, with wide margins for the teacher to make notes and a set of questions at the end of each article designed to prompt the teacher into action.

Neff, R. A., & Weimer, M. (Eds.) (1989). *Teaching College: Collected readings for the new instructor*. Madison, Wisconsin: Magna Publications.

The articles are specifically selected to meet the needs of instructors with little experience, such as new appointees, part-time instructors or teaching assistants. They focus on the most obvious points about teaching, the "essentials". The editors suggest that the brief articles can be read over a sandwich or on the bus. Since the book is organized sequentially, the editors suggest that instructors read the first section before their first class.

Lewis, K. G. (1987). *Taming the pedagogical monster: A handbook for large class instructors*. Austin, Texas: The Center for Teaching Effectiveness, University of Texas at Austin.

The book is packed with suggestions for the new and experienced teacher alike. It includes characteristics of the effective large-class instructor, a discussion of alternative teaching modes, how to motivate students, encouraging student participation, methods of personalizing large-class instruction, suggested solutions to some of the big problems of large-class teaching, and a discussion of student needs.

Lowman, J. (1984). *Mastering the techniques of teaching*. San Francisco: Jossey-Bass.

After reviewing the literature on techniques of teaching, Professor Lowman discovered that they fall into two types, techniques for communicating the message clearly and in an organized fashion and techniques for maintaining rapport. He considers these two types of techniques to

be equally important to successful teaching. Because the book emphasizes both teacher-student relationship and teacher performances, it offers a useful counter force to the many books which emphasize teacher performances alone.

Sheffield, E. F. (Ed.) (1974). *Teaching in the Universities: No one way*. Montreal: McGill-Queen's University Press.

This is a delightfully different book. Instead of presenting teaching strategies, it presents the teachers themselves, very successful ones, their stories and their methods. When you reach the end of the book, the conclusion is obvious, there is "no one way" to be an excellent teacher. This is great news for the teacher who would like to be excellent but sees himself or herself as different from successful role models.

Weimer, M. G. (Ed.) (1987). *Teaching Large classes well*. San Francisco: Jossey-Bass.

This volume is exclusively devoted to the large class. It contains eight substantive chapters and a final one that presents an excellent annotated bibliography on large group teaching.

In a medical setting

Carruthers, D. B. (1988). Twelve mistakes made by university lecturers. *Medical Teacher*, 10(2), 165-167.

This is one of a series of very brief articles presenting tips for teaching in point form.

Cook, R. I. (1989). Learning theories implicit in medical school lectures. *JAMA*, 261(15), 2244-2245.

Cook briefly describes learning theories that underlie the typical medical faculty lectures.

Fabb, W. E., Heffernan, M. W., Phillips, W. A., & Stone, P. (1976). *Focus on learning in Family Practice*. Melbourne, Royal Australian College of General Practitioners.

Like McKeachie's book, this one is broad in scope and draws heavily from the literature on teaching and learning. It addresses educational objectives, adult learning, problem solving, learning theories, content, large and small group learning and teaching aids. A brief section on lecturing (pp. 163-167) presents a number of useful suggestions for improving lecturing as well as practical advice about resource needs, practice and feedback.

Foley, R., & Smilansky, J. (1980). *Teaching techniques: A handbook for health professions*. New York: McGraw Hill.

There is a chapter on the lecture and one on the use of questions. It addresses the usual topics of planning and organization, delivery skills, use of voice, body movement, audiovisual aids and skills of making the lecture more interactive. The chapter also contains checklists for evaluating lectures. A table in the appendix presents 17 different instructional media, and rates their effectiveness for various learning objectives.

Laidlaw, J. M. (1988). Twelve tips for lecturers. *Medical Teacher*, 10(1), 13-17.

This is one of a series of very brief articles presenting tips for teaching in point form.

Laidlaw, J. M. (1989). Twelve tips on preparing 35 mm Slides. *Medical Teacher*, 9(4), 389-393.

This is one of a series of very brief articles presenting tips for teaching in point form.

Newble, D., & Cannon, R. (1987). *A handbook for medical teachers. Second edition.* Lancaster, England: MTP Press.

This is a big red book (20 x 30 cm.), with large print, liberally sprinkled with cartoons. It is fun to read and packed with information on many topics important to teachers, including: lecturing, small group teaching, making presentations at a scientific meeting, use of media, clinical teaching, course planning, assessment of students, preparing teaching materials and where to find out more about medical education. The only criticism I can make of this excellent overview is that they sometimes attempt to condense too much into a few sentences. But it sure beats reading wordy texts that say nothing.

Schwenk, T. L., & Whitman, N. A. (1987). *The physician as teacher.* Baltimore: Williams & Wilkins.

Part one presents a view of teaching as a form of communication. It draws parallels between clinical practice and teaching in several chapters on physicians as communicators, the roles of teachers and learners, and the teacher-student relationship. The chapter (pp. 71-89) on lectures provides a review of the proper objectives of the lecture, and presents five methods by which teachers can maintain attention. Useful information on the topics of objectives, techniques, and a number of strategies for increasing active involvement including questioning, brain storming, demonstrating, role playing and problem solving.

With a focus on rapport, relationship, and the first impression

Brooks, R. P. (1987). In M. G. Weimer (Ed.) (1987). *Teaching Large classes well.* San Francisco: Jossey-Bass, pp. 39-44.

Professor Brooks believes that your performance on the first day of class "sets the stage for the remainder of the course". He offers a number of tips for getting the class started right.

Kuhn, L. (1988). What do we know about classroom communication apprehension? *Research Serving Teaching*, 2(2), 1-2.

Professor Kuhn concludes, on the basis of a review of the literature, that although 50% of students are apprehensive about communicating in classrooms, their apprehension can be reduced by a number of techniques that teachers can use. She lists four of them.

Lowman, J. (1984). Developing interpersonal skills and teaching style. *In Mastering the techniques of teaching.* San Francisco: Jossey-Bass, Cha 3.

In this chapter Professor Lowman discusses the teacher's techniques for promoting rapport with students and fostering the kinds of relationships that enhance motivation and satisfaction.

McKeachie, W. J. (1986). Meeting a class for the first time. In *Teaching tips: A guidebook for the beginning college teacher (eighth edition).* Lexington, MA: D. C. Heath and Co., Cha. 3. Among other advice for the first day, McKeachie's introduces the technique of "problem posting", as a device for getting students right into the content without delay.

Shulman, L. (1975). The dynamics of the first class. *Teaching Forum*, 1-3.

"The way in which a course begins can have a profound impact on the classes which follow". So argues, Professor Shulman, of the University of Guelph. He outlines a number of features of the successful first class.

Sorensen, G. (1989). The relationship among teachers' self-disclosive statements, students' perceptions, and affective learning. *Communication Education*, 38, 259-276.

Professor Sorensen describes the results of a study in which she found that teachers' disclosures, during their initial interactions with students, appear to be crucial to student perceptions of the teacher. Specifically, by confining their disclosures to those which have been shown to create positive emotions and attitudes in students, teachers can enhance student perceptions and increase their effectiveness.

Svinicki, M. (Fall, 1989). If learning involves risk-taking, teaching involves trust-building. *The Journal of Staff, Program, & Organization Development*.

A very brief and excellent paper addressing the importance of creating a trusting environment in the classroom.

Tiberius, R. G. (1993-94). The why of teacher/student relationships. *Teaching Excellence*. 5(8), 1-2.

A brief argument supporting the importance of teacher-student relationships to the effectiveness of learning. Relationships are not "icing on the cake" but one of its central ingredients.

Volp, P. M. (1988). Why are faculty-student relationships important? *Research Serving Teaching*, 2(4), 1-2.

Volp cites evidence to show that "the most important contributing factor to intellectual development, with student background variables held constant, was faculty concern for teaching and student development". The effectiveness of the faculty relationship was the key influence on the intellectual development of the students.

With a focus on the organization of material for lecturing

Bentley, D. A. (1981) More ammunition for the note-taking feud: the spaced lecture. *Improving College and University Teaching*, 29, 85-87.

Suggests dividing the lecture time into segments, one in which students just listen and others in which they take notes. There is evidence that students don't do both things well when they attempt them simultaneously.

Davis, R. J. (1965) Secrets of master lecturers. *Improving College and University Teaching*, 13, 150-151.

He extracted two common characteristics from an analysis of master lecturers: simplicity of subject matter and abundant use of appropriate examples.

Hudson, H. T. (February, 1985). Teaching physics to a large lecture section. *The Physics Teacher*, 81-84.

Professor Hudson describes a number of "procedures", which he has devised over 7 years, for organizing his teaching, both within the lecture and the course, aimed at controlling distractions, reducing the loneliness of the lecture situation, and making the material relevant to the students immediate concerns.

Lowman, J. (1984). Selecting and organizing material for class presentations. In *Mastering the techniques of teaching*. San Francisco: Jossey-Bass, Cha 5.

I already commented on this excellent book on page one. Professor Lowman also addresses characteristics of organization.

Osterman, D. N., & Coffey, B. (1980). *A new teaching approach: The feedback lecture*. Corvallis: Oregon State University.

They recommend organizing the lecture as a series of questions.

Russell, I. J., Hendricson, W. D., & Herbert, R. J. (1984). Effects of lecture information density on medical student achievement. *Journal of Medical Education*, 59, 881-889.

In this study the authors attempted to find out how much information could be packed into a lecture before reaching the point of diminishing returns. They found that, at an average rate of speech, a high density lecture (in which about 80% of the sentences present new information, for example) produced worse student performance than a low density lecture (in which about only 50% of the sentences introduced new information). In the high density lecture new information interfered with basic material that had been learned before. They suggest using at least half of the lecture time for restating and reinforcement.

Weaver, R. L., & Cotrell, H. W. (1987). Lecturing: essential communication strategies. In M. G. Weimer (Ed.) (1987). *Teaching Large classes well*. San Francisco: Jossey-Bass, pp. 57-70.

They discuss a number of communication strategies for lecturing, including managing instructor anxiety, using time efficiently, motivating students, communicating enthusiasm and organizing content.

With a focus on encouragement of interaction and participation

Booher, R. K., & Seiler, W. J. (1982). Speech communication anxiety: An impediment to academic achievement in the university classroom. *Journal of Classroom Interaction*, 18(1), 23-27.

Bowers, J. W. (1986). Classroom communication apprehension: A survey. *Communication Education*, 35(4), 372-378.

Frederick, P. J. Student involvement: Active learning in large classes. In M. G. Weimer, (Ed.) (1987). *Teaching Large classes well*. San Francisco: Jossey-Bass, pp. 45-56.

In this chapter Professor Frederick reviews some of the literature which I have cited in this section of the bibliography.

- Frederick, P. J. (1986) The lively lecture—8 variations. *College Teaching*, 34(3), 43-50.
Professor Frederick presents eight variations on the traditional lecture which are designed to increase student involvement and interaction. He is sensitive to the fact that teachers have different personalities and that no one teacher can use all methods. Therefore he presents a spectrum of ideas and invites teachers to choose a method which is suitable to his or her personality and teaching style.
- Gleason, M. (1986). Better communication in large courses. *College Teaching*, 34(1), 20-24.
In this article Dr. Gleason identifies five "environmental" problems of the lecture setting and a variety of techniques that teachers can use to overcome the problems and enhance communication in large classes. For example, the large physical space of a lecture theatre is a disadvantage to communication. You can't make it small but you can make it feel small by treating it as if it were, by moving around the room, and so on.
- Haber, M. J. (1979). Increasing class participation using small groups. *Clearing House*, 52, 295-297.
- Jackson, M. W. (1989). Less lecturing, more learning. *Studies in Higher Education*, 14(1), 55-68.
- Moss, G. D., & McMillen, D. (1980). A strategy for developing problem-solving skills in large undergraduate classes. *Studies in Higher Education*, 5(2), 161-171.
Professors Moss and McMillen provide a strategy for conducting a problem solving exercise in a large first-year undergraduate class.
- Poltorak, R. W. (1985). The colloquium module: Rx for somnifacient lectures. *Journal of College & Science Teaching*, 421-423.
Professor Poltorak describes a method of interjecting lively interaction into the lecture using a reading assignment that is attached to a series of questions and activities. A few days after the reading assignment is passed out, he devotes a lecture period to the discussion of the answers. Students form discussion groups of two to five in which they review the questions and check answers with one another.
- Schwartz, P. L. (1989). Active, small group learning with a large group in a lecture theatre: A practical example. *Medical Teacher*, 11(1), 81-86.
Professor Schwartz describes a method in which he invites students to form groups of not more than six, who spread around the lecture theatre and work for about half an hour on a question sheet that he has passed out. At the end of the allotted time each group sends a representative to the blackboard to enter his or her groups responses to the questions. He then runs through the answers to the questions and asks students to interrupt if they disagree or do not understand. The key to the lively interaction that follows is that groups have already committed themselves by putting answers on the board and are therefore usually quite ready to defend their positions.
- Stanton, H. E. (1978). Small group teaching in the lecture situation. *Improving College & University Teaching*, 26, 69-70.

Dr. Stanton reviews the widely used methods of Hill and Northedge for organizing small group discussions. The method sets up a kind of "snowballing" effect in which individual work is followed by work in pairs, then small group discussion, and finally reporting back to the main group. Stanton proposes a modification of this method for use as an occasional alternative to a monologue.

Weaver, R. L. (Fall, 1983). The small group in large classes. *The Educational Forum*, 65-73. He describes a method whereby the lecturer can invite students to form small discussion groups in the large lecture theatre. The groups can be asked to illustrate material, to develop new ideas, extend lecture material, solve problems. He even outlines a method whereby the students can be examined in these discussion groups. Students found that the discussion groups, compared to traditional lecturing, were more engaging, encouraged the learning of interaction skills, and helped them to apply the material to their own lives.

With a focus on voice and drama and the techniques of the presentation

Bender, P. U. (1995). *Secrets of power presentations*. Willowdale, Ontario: Firefly Books. Although Bender is writing for speakers in the business sector, not for college teachers, his book would be valuable to any public speaker who is interested in the fine details of technique. He tells us how to hold our heads, what to wear, how to ask a question or use a projector. The book is peppered with interesting quotations and enlivened by humour.

Donaldson, E. L. (1995). *Caring for your voice: Teachers & coaches* Calgary, Alberta: Detselig Enterprises. This book shows people who talk a lot, and lecturers are often among them, what they need to know to improve and maintain the quality of their voice through the hear. The author includes practical exercises to develop the voice, describes underlying causes of voice problems and enlivens the text with numerous case studies.

Tauber, R. T. & Mester, C. S. (1994). *Acting lessons for teachers: Using performance skills in the classroom*. Westport, Connecticut: Prager. The authors define dramatic skills in teaching, provide evidence to support the effectiveness of those skills in teaching, and offer a number of dramatic lessons including the following: the use of physical and vocal animation, classroom humour, space, teacher role playing, props, suspense, and surprise. Each lesson contains examples and personal testimony from award-winning college faculty.