

CCI Recommends . . . Top Ten Teaching/Learning Papers

For those interested in the rationale behind changing the way we teach in higher education, we suggest the articles by Black, Chickering & Gamson, and Spence.

Black, K.A., 1993, *What to do when you stop lecturing*: Journal of Chemical Education, v.70, p.140-144.

Chickering, A.W., and Gamson, Z.F., 1987, *Seven principles for good practice in undergraduate education*: American Association of Higher Education Bulletin, March, p.3-7.

Spence, L.D., 2001, *The case against teaching*: Change, Nov/Dec, p.11-19.

If you want to learn more about how to use collaborative learning methods in your classes we recommend Ebert-May et. al, and Lord. (See also Paulson and Reynolds & Peacock)

Ebert-May, D., Brewer, C., and Allred, S., 1997, *Innovation in large lectures – teaching for active learning*: Bioscience, v.47, p. 601-607

Lord, T.R., 2001, *101 reasons for using cooperative learning in biology teaching*. American Biology Teacher, v.63, p.30-38.

If you are curious about the data supporting the incorporation of these alternative teaching/learning strategies you should review results in Crouch and Mazur, Hake, and Paulson.

Crouch, C.H., and Mazur, E., 2001, *Peer Instruction: Ten years of experience and results*. American Journal of Physics, v. 69, p. 970-977.

Hake, R.R., 1998, *Interactive-engagement versus traditional methods: A six-thousand-student survey of mechanics test data for introductory physics courses*. American Journal of Physics, v. 66, p.64-74.

Paulson, D.R., 1999, *Active learning and cooperative learning in the organic chemistry lecture class*: Journal of Chemical Education, v. 76, p.1136-1140.

Finally, if you just want to read about examples of some of the things people did in their classes to promote learning, you should take a look at the work of King and Reynolds & Peacock. (See also Ebert-May, Crouch & Mazur, and Paulson.)

King, A., 1995, *Designing the instructional process to enhance critical thinking across the curriculum*: Teaching of Psychology, v.22, p.13-17.

Reynolds, S.J., and Peacock, S.M., 1998, *Slide observations – Promoting active learning, landscape appreciation, and critical thinking in introductory geology courses*: Journal of Geoscience Education, v.46, p. 421-426.