

Common Core Collaborative Cards

Numbers and Operations in Base Ten

Numbers and Operations – Fractions

Operations & Algebraic Thinking

What the Research Says

Research on the effectiveness of collaborative learning abounds. In *Productive Group Work – How to Engage Students, Build Teamwork, and Promote Understanding*, authors Frey, Fischer, and Everlove (2009, p. 3) state:

A large body of research shows that students involved in cooperative work demonstrate higher levels of academic learning and retention than their peers working individually. This increase in learning has been seen in elementary, middle, and high school students across disciplines.”¹

In *Tools for Teaching*, Barbara Gross Davis (1993) cites the following research on collaborative learning:²

Students learn best when they are actively involved in the process. Researchers report that, regardless of the subject matter, students working in small groups tend to learn more of what is taught and retain it longer than when the same content is presented in other instructional formats. Students who work in collaborative groups also appear more satisfied with their classes. (Sources: Beckman, 1990; Chickering and Gamson, 1991; Collier, 1980; Cooper and Associates, 1990; Goodsell, Maher, Tinto, and Associates, 1992; Johnson and Johnson, 1989; Johnson, Johnson, and Smith, 1991; Kohn, 1986; McKeachie, Pintrich, Lin, and Smith, 1986; Slavin, 1980, 1983; Whitman, 1988)

¹ Frey, N., Fischer, D., Everlove, S. (2009). *Productive group work: How to engage students, build teamwork and promote understanding*. ASCD: Alexandria, VA.

² Davis, Barbara Gross (1993). *Tools for Teaching*. Jossey-Bass Publishers: San Francisco.

Bibliography

- Burns, M. (2000). *About teaching mathematics: A K–8 resource*. Sausalito, CA: Math Solutions Publications.
- Davis, Barbara Gross (1993). *Tools for Teaching*. Jossey-Bass Publishers: San Francisco.
- Frey, N., Fischer, D., Everlove, S. (2009). *Productive group work: How to engage students, build teamwork and promote understanding*. ASCD: Alexandria, VA.
- Johnson, A., Norris, K. (2006). *Teaching today's mathematics in the middle grades*. Boston, MA: Pearson Education.
- Johnson, D., Johnson, R., Holobec, E., & Roy, P. (1984). *Circles of learning: Cooperation in the classroom*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Kanold, T., Briars, D., Fennell, F. (2012) *What principals need to know about teaching and learning mathematics*. Bloomington, IN: Solution Tree Press.
- Leinwand, S. (2000). *Sensible mathematics*. Portsmouth, NH: Heinemann.
- National Council of Teachers of Mathematics. (2000). *Principles and standards for school mathematics*. Reston, VA: NCTM.