

Cognitive elaboration approaches to peer learning are based on information processing theory. Peer interaction is used to amplify individual performance of basic information processing activities such as encoding, schema activation, rehearsal, metacognition and retrieval.

Information processing theory suggests that performing these activities in the presence of peers will result in deeper processing and more active engagement with the tasks at hand. The presence of a peer can help students stay on task, and the feedback provided by a peer can help students understand when they need to check their understanding of the content they are trying to explain.¹

One of the most effective means of elaboration is explaining the material to someone else. Research on peer tutoring has long found achievement benefits for the tutor as well as the tutee (Devin-Sheehan, Feldman & Allen, 1976). In this method students take roles as recaller and listener. They read a section of text, and then the recaller summarizes the information while the listener corrects any errors, fills in any omitted material, and helps think of ways that both students can remember the main ideas. The students switch roles next time.²

Empirical Evidence for the Cognitive Elaboration Perspective

Donald Dansereau and his colleagues at Texas Christian University have found in a series of brief studies that college students working on structured “cooperative scripts” can learn technical material or procedures far better than can students working alone (Dansereau 1988; O'Donnell 1996; O'Donnell & Dansereau 1992; Newbern, Dansereau, Patterson & Wallace 1994).

In one of these studies, Dansereau and his colleagues found that whereas both the recaller and the listener learned more than did students working alone, the recaller learned more (O'Donnell & Dansereau 1992). This mirrors both the peer tutoring findings and the findings of Noreen Webb (1989, 1992), who discovered that the students who gained the most from cooperative activities were those who provided elaborated explanations to others. In this research as well as in Dansereau's, students who received elaborated explanations learned more than did those who worked alone, but not as much as those who served as explainers.³

¹ Text extracted from: O'Donnell, A. M., 2006. The role of peers and group learning. In: Alexander, P. A. & Winne, P. H. (eds.) Handbook of educational psychology, 2nd edition, Lawrence Erlbaum Associates, 781-802.

² Text extracted from: Weiner, I. B. (ed.), 2003. Handbook of Psychology, Volume 7. Educational Psychology. John Wiley & Sons Inc

³ Text extracted from: Weiner, I. B. (ed.), 2003. Handbook of Psychology. Volume 7, Educational Psychology. John Wiley & Sons Inc