Abstract: Chat-based Computer Supported Collaborative Learning (CSCL) often suffers from limitations due to the communication medium. A frequently reported consequence is the lack of discourse coherence and by this a lack of cognitive coherence in the learning process. To overcome these deficiencies, the implementation of explicit references with chat messages caused higher learning results. However up to now, we do not know enough about the responsible cognitive processes. Although eye movements have proved to be a valuable source of information for the study of cognitive processes, they are hardly regarded within CSCL. To bridge this gap, we proposed a coding scheme for global text processing in CSCL on the base of eye movement measures. In the current experimental study, we analysed eye movements during a chat-based CSCL scenario to gain indications of learners use of explicit references for text processing. The results allow implications for a modified design of (chat-based) CSCL.