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## Information Sources in Automatic Meaning Assessment of Reading Comprehension Questions

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In CL, automatic meaning assessment of reading comprehension questions is an active field of research. One approach pursued are alignment-based systems, such as the CoMiC System (Meurers et al. 2011): linguistic units of an answer and its predefined target answer are aligned. The system then classifies answers as correct or incorrect based on number and type of alignments, using a supervised machine learning setup. As shown in Ziai et al. (2012), manually specified target answers support alignment-based evaluation of answers with high accuracy. We here explore whether it is possible to identify the information the question asks about directly in the reading text, and whether these information sources can be used in content assessment as a replacement for the teacher provided target answers.

We set up a crowd-sourcing study in which crowd workers, presented with a text and a reading comprehension question from the CREG corpus, marked up to five sentences as information sources. To test whether these information sources can replace the manually specified target answers, we compared the classification accuracy of the CoMiC system based on information sources with the accuracy based on target answers: the accuracy based on information sources is only slightly below the one based on target answers. Next, we identified those parts of the information sources that really contribute to answering the question. Based on Ziai & Meurers (2014), we performed manual focus annotation in the information sources. Content assessment of answers based only on the focused parts of the information sources significantly improved the classification accuracy which is now close to the classification accuracy reached with target answers.

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