

Gerdineke van Silfhout

Fun to read or easy to understand?

Establishing effective text features for educational texts on the basis of processing and comprehension research

In this thesis, we related students' comprehension of their school texts to the cognitive processes underlying students' comprehension. This approach allowed us to answer the question why students in secondary education do or do not benefit from features that affect the structure and style of a text. Three experimental eye-tracking studies were conducted to investigate the effects of layout (continuous placement of sentences versus each sentence beginning at a new line), the presence of connectives, and the addition of narrative information to school texts (only factual content versus embedding factual content in a narrative text) on text comprehension of school texts in different genres.

On the basis of our results we can pinpoint several text features that trigger cognitive processes related to the continuous integration of new information in students' mental representation of a text. A continuous layout results in faster processing of upcoming text information, and faster processing is related to better text comprehension. The presence of connectives leads to a higher number of short regressive eye-movements, faster processing of upcoming text information and higher comprehension scores. Furthermore, expository texts that contain only factual content lead to more inter-clausal integrative regressions than narratives. Furthermore, expository texts result in better text comprehension than fictional narratives and students perceive these texts as more comprehensible than historical narratives.

The conclusions drawn from this study have implications for theories about the cognitive processing of texts and for the design and selection of optimally comprehensible texts for readers in secondary education.

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