

Evaluation of the Writing Environment

Research question: how does the design of the Writing Environment affect the strategies of advanced writers?

Subjects

Group 1: 9 professional technical writers

Group 2: 9 graduate students

Task

To write a report on a technical subject (the manufacture and application of shape-memory alloys), based on a written material

Procedure

1st occasion: training for 1,5 hours; reading the source material

2nd occasion: writing a report in WE during a half-day

Source materials available

No paper and pencils

Data analyses

Comments from participants

Analysis of keystroke data

Logging was done in the Network mode and the Tree mode

(No logging of text generation!)

Quality assessment (two judges assessed the overall quality of the texts)

Results

- User comments

Positive on the following aspects of the system

The usefulness of the planning modes to develop the structure of document

The ability to see the current structure of ideas while composing

Negative comments on the following aspects:

Partitioning into nodes inhibited the view of the running text

Not all features of a word processor were supported

- Logs

A measure of the amount of top-down planning was used:

The percentage of nodes generated after their superordinate node

Mean value: 0.8; indicates mainly top-down generation

The organization of the writing process

Great variation:

Some did most of their planning in the beginning

Some interleaved planning with the text generation

(Planning in this case = global structure planning!)

- Written reports

Many headings used (mean: 16.2)

Some headings were never expanded into text

Total planning time was negatively correlated with quality of texts!

Why?

Elaborate plans were created; gave little time for formulating the text

Affordance of tool says: plan at the structure level!

How much time do people spend planning?

Ways of defining “planning” in the literature

Asking students which process they were in
(definition?)

Kellogg; resulted in 25 % planning

Counting all pauses in a logged session

Gould: Resulted in 2/3 of time planning

Interviews

Selzer; resulted in 80% planning

Planning time can be expected to depend on individual writing, style, on the nature of the task and on what is taken to be included in planning

However. using a tool for planning seems to increase the time used for planning

Questions

In what way do you think the instructions to the subjects (e.g. about how the system is used) might affect the outcome of the experiment?

For which types of tasks do you think that a brainstorming tool corresponding to the Network mode is useful?