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Features of Online Newspaper Articles

Influencing Reader Satisfaction

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ABSTRACT

The experience of satisfaction when reading an on-line newspaper is influenced by a lot of very diverse factors. A study by the Readership Institute of the Media Management Center at the Northwestern University [1] showed that the story topic only accounts for about 40% of a story's satisfaction rating. Not many studies were carried out on influencing factors, also taking non-propositional features into account. Within the MAGNIFICENT¹ project I had the opportunity to take a closer look at all kind of features influencing reader satisfaction.

The aim of the thesis is to develop hypotheses about features of online newspaper articles which are relevant and important to readers and influence their experience of satisfaction. In order to collect data and develop categories, qualitative experiments were carried out using the two methods thinking aloud and the problem-centered interview.

Four students took part in a pilot study to better adjust the different tasks to one another, 22 in the final experiment. All features the participants mentioned during thinking aloud and during the interview were extracted and split up into the categories 'propositional features', 'non-propositional features', 'correlations', 'personal reasons' and 'general reading behavior'. The categories thus developed are presented in this thesis, plus an additional quantitative analysis. To get a better picture of the differences between the two qualitative methods, the results of thinking aloud and the problem-centered interview are opposed.

The key findings are that for all participants content related features, personal experience as well as non-propositional features are important for reading satisfaction. Concerning non-content related features, the opinions differed. Some of the 22 participants focused more on pictures, some on structure, some on length etc. The results also show that the coherence between two features has an impact on reader satisfaction, e.g. topic interest correlates with the acceptance of the length of the article.

Some of the extracted features of the categories 'propositional features', 'non-propositional features' and 'correlations' will be integrated in a recommender system developed within the MAGNIFICENT project which will be implemented on DERSTANDARD.AT.

¹Multifaceted Analysis of News Articles for Intelligent User- and Context-Sensitive Presentation

This project is carried out by the Austrian Research Institute for Artificial Intelligence (OFAI) in collaboration with the Austrian online newspaper DERSTANDARD.AT.

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Chapter 1

Introduction

1.1 Motivation

While reading online newspapers, users perceive a lot of information that is not exclusively related to content but nevertheless influences their experience of satisfaction. A study by the Readership Institute of the Media Management Center at the Northwestern University [1] showed that the story topic only accounts for about 40% of a story's satisfaction rating. There exist only a few studies [1] [2] on influencing factors other than propositional ones.

As far as I know, all of these studies are quantitative. Readers had to fill out a standardized questionnaire with predefined categories, and no study was carried out to develop categories as a first step. As relevant factors can be very diverse and user-dependent, in this thesis a qualitative, hypotheses-developing approach is used to gain deeper insight into relevant parameters. Some of the developed features will be integrated in a recommender system developed within the MAGNIFICENT project at OFAI that will be implemented on the Austrian online newspaper website DERSTANDARD.AT.

1.2 Overview

In the following chapter the state of the art in reading research, especially concerning online newspapers, is presented. Section 2.2 deals with the decision between qualitative and quantitative methods, their advantages, drawbacks and important fields of analysis.

The two qualitative methods 'thinking aloud' and the 'problem centered interview' that were used for data acquisition are discussed in the following section. For the preparation and analysis of the data, 'qualitative content analysis' and 'inductive category development' are used and presented in 2.5.

The steps from idea to realization are explained in the following chapter. First the search for adequate methods is presented. To facilitate the decision between different experimental designs and to better adjust the different tasks of the experiment, a pilot study was carried out. The results of the pilot study and decisions concerning the design are presented in 3.1. Subsequently, the participants and the final experimental design are presented.

In the fourth chapter the data of one participant is shown in more detail to explain the procedure during data preparation and analysis step by step. Subsequently, all developed features are listed along with the number of participants verbalizing thoughts about them.

General comments on reading behavior are presented in the following section, exemplified with quotations uttered by participants. In the last section of this chapter, differences between ‘thinking aloud’ and the ‘problem-centered interview’ are discussed.

In the last chapter the results are summarized, and conclusions are drawn about the developed categories as well as the methods.

Chapter 2

Theoretical Background

2.1 Reading Newspapers and Measuring Satisfaction

Readership research is concerned with reader satisfaction, for the purpose of gaining a broader audience of a newspaper. A study by the Readership Institute of the Media Management Center at the Northwestern University [2] of 2001 on reader satisfaction focused on content and consumer preferences. In an impact study, the newspaper content, as well as the consumer reaction and the significant correlation between the two, were measured. A standardized questionnaire with predefined categories was used, such as ‘theme’, ‘origin’, ‘geographic focus’, ‘news style’, etc. It is pointed out that features other than ‘quality of writing, thoroughness of reporting, overall effect of presentation and other more subjective dimensions’ might be also crucial in terms of satisfaction.

A follow up study by the Readership Institute of the Media Management Center at the Northwestern University [1] showed that the story topic only accounts for about 40% of a story’s satisfaction rating. A quantitative method was used, focusing on the four areas ‘overall liking of the story’, ‘perception of relevance and usefulness of the story’, ‘perception of the quality of information’, and ‘the effort the reader must invest in order to read a story’. The study focused explicitly on writing and features as visual presentation, graphics etc. were left aside. The results show that story appeal is closely related to length. Appealing stories were rated as ‘should be longer’ and if readers disliked the story they mostly said ‘a shorter version would be better’.

Concerning **research on web-based newspapers** that also takes satisfaction measure into account a longitudinal experiment was carried out by Vaughan and Dillon [3]. It is about how much structure and genre matters

for users of digital information. User data was measured about comprehension, usability and navigation with a group of expert news readers and a group of novice web news readers. Satisfaction was regarded in the frame of usability and measured with a 5-item Likert-scale questionnaire. This questionnaire concerned how much the participants liked reading the newspaper, the fun, if they felt comfortable and competent and an overall evaluation of the newspaper. So the focus of satisfaction in this study was on the general attitude towards the newspaper.

In most current **news recommender systems** content-based, collaborative oder hybrid approaches are used, cf. [5]. In content-based systems items with a similar content to those the used has liked in the past are presented, collaborative systems recommend articles other users with a similar taste have liked and hybrid systems combine these two methods. In these systems, non-propositional features are not incorporated.

Pon et al [6] on the other hand aim at measuring the ‘interestingness’ of online newspaper articles to filter out uninteresting ones. Their news recommender system takes not content related features as source reputation, writing style, freshness ², subjectivity, polarity etc. into account. In this approach also no qualitative study was carried out to develop categories as a first step.

2.2 Qualitative vs. Quantitative Methods

This section deals with the decision between qualitative and quantitative methods and why the qualitative approach is more adequate in terms of the research question presented in this thesis. Both methods are frequent and common in social sciences. Atteslander [12] defines quantitative observational studies as highly structured, following specific theoretical guidelines and perception, recording and analysis are controlled. In qualitative studies he stresses the important assumption that social agents ascribe meaning to objects, do not behave strictly on norms and rules but interpret social situations and processually constitute social reality.

Mayring [8] states that the movement towards qualitative methods in the last one to two decades is a profound and important change in social sciences. In media studies Ayaß [13] claims the change from normative to interpretative paradigms in the 1980’s responsible for a qualitative turn. She further states that in media research this turn was perceived more radical as e.g. in social sciences, where it was more a return to an old, partly concealed, but nevertheless established tradition of qualitative research while it was totally

²If the article was published shortly after the event has occurred

new to media studies.

The adequate method has to be chosen depending on the research interest. Amongst others Mayring [7] names developing hypotheses and theory, pilot studies and deepening as important fields of qualitative analysis. As these three areas play an important role for the research question in this study, qualitative methods were used.

2.3 Data Acquisition

The verbal communication in qualitative research is little structured or semi-structured. Common methods for data acquisition are the problem centered interview, the narrative interview, the group discussion and the participatory observation. Other qualitative methods that aim at abolishing the union between the researcher and the participant are a diary or thinking aloud.

In the following subsections thinking aloud and the problem centered interview are introduced as well as their pros and cons.

2.3.1 Thinking Aloud

The thinking aloud method was developed by the Würzburg School at the beginning of the 20th century as an alternative to introspection. In thinking aloud the union between researcher and participant is abolished and the participants using the technique are not trained to analyse their own thinking process, but are unexperienced individuals [14]. Thinking aloud is mainly used for the development of hypotheses and ideas [11].

This technique is described in the literature under many names: *verbal protocols*, *thinking aloud*, *verbal reports*, *concurrent verbal protocols* and *retrospective verbal protocols* [9]. Haak et al. [10] mention three different thinking aloud methods: the concurrent thinking aloud protocol, the retrospective thinking aloud protocol and the constructive interaction. Concerning concurrent methods, participants verbalize their thoughts during the assignment, in retrospective methods they verbalize them afterwards and in the constructive interaction a group discussion takes place while fulfilling the task.

This qualitative method is widely used and accepted in cognitive psychology, not only because of the work by Ericsson and Simon [15] in the 80's where they emphasize this method where human subjects verbalize their thoughts and successive behavior while they are performing a cognitive task.

In human computer interaction research, thinking aloud is often referred

to as the usability method [9]. Dix et al. [16] credit this method for its simplicity and usefulness in gaining information about actually handling a system.

People participating in a thinking aloud experiment are asked to articulate all thoughts that come to their mind during a cognitive event, e.g. reading a newspaper or searching for information on a website, etc. These utterances are recorded, transcribed and analyzed. Depending on the research question, different methods of transcription and analysis are applied. During preparation of the experiment, several aspects have to be considered:

Instruction

- Participants have to be informed that they should focus on the assignment instead of explaining the process and describing what they do [11].
- Bilandzic [14] recommends an undirected instruction as instructions for special cognitive functions, e.g., problem solving strategies might provoke that in case participants do not find relevant information, they construct something out of the given information.
- Ericsson and Simon [15] suggest warm-up exercises (e.g. simple multiplications) so that participants can get acquainted to thinking aloud.

During the Thinking Aloud Process

- The necessary material has to be provided and participants have to be told how to handle them beforehand to avoid inquiries during the thinking aloud process [11].
- While Bilandzic [14] does not question the presence of the interviewer, Buber [11] stresses the importance of the decision if the interviewer is absent or present, and that this has to be solved according to the research question. If the interviewer stays in the room, Bilandzic states that only the instructions ‘Please proceed’ or ‘Please tell me what you are thinking’ are allowed, while no questions such as ‘Why?’ or ‘Can you explain that to me in more detail’, because these questions could trigger self-reflection processes.

Another important issue is the validity of thinking aloud protocols. The question whether individuals are able to verbalize ongoing cognitive processes with sufficient assurance is contended, but Buber [11] states that this critique can be countered with the tight linkage between receiving the information and verbalization. She names twelve possible artifacts researchers have to deal with when using thinking aloud:

- The thinking process slows down because of talking aloud.
- People tend to verbalize negative aspects rather than positive ones.
- Previous knowledge and experience with the situation influence the process.
- Information processing gets disturbed by talking aloud.
- The question about something might change the opinion (reactive effects).
- Most experiments are carried out as laboratory experiments.
- The access to higher cognitive processes about self-report is not clear.
- The processes during thinking aloud might provoke over-reporting.
- The method is problematic, although thinking aloud serves well to gain deeper insight into cognitive processes about problem solving and decision processes.
- When do people get aware of mental processes related to the operation they carried out?
- Of what kind are cognitive processes one is aware of?
- There exist some automatic processes one can not verbalize (easily), nevertheless it can be stated that concurrent protocols are more comprehensive and accurate than retrospective ones.

Wilson [17] stresses in his review on thinking aloud three points: The thinking aloud measure is, perhaps, the 'best available measure of conscious, easily verbalizable thoughts', it serves very well for hypotheses development, but one can not assume that thinking aloud protocols are complete. Therefore thinking aloud should be amended by other methods.

2.3.2 Problem-Centered Interview

There exist several qualitative methods to carry out an interview, e.g., problem-centered, narrative, in the frame of a group discussion and a participant observation. In this thesis a problem-centered interview (PCI) is carried out to supplement thinking aloud, as it also serves very well for the development of hypotheses. Single persons are interviewed according to a guideline to determine certain individual experiences. The answers of the respondents are not predetermined but open according to their subjective experience, and the course of the process is semi-structured.

Witzel presents three basic principles of problem-centered interviews [18]:

Problem-centered orientation: The interviewer uses formerly noted objective conditions of the observed orientation and the actions of the respondent to continue the problem-centered questioning and re-questioning.

Object-orientation: Methodical flexibility adjusted to the observed objects is emphasized.

Process-orientation: Pre-interpretation takes place throughout the research process.

There are three kinds of questions asked during a problem-oriented interview [8]. ‘Probe questions’ are general questions on a topic, ‘guiding questions’ are important for the progress of the interview and ‘ad-hoc-questions’ are verbalized spontaneously by the interviewer, appropriate to the course of the interview.

Atteslander [12] names stronger requirements for and influences of the interviewer, e.g., that the respondent has to be open and has to have social and linguistic competence. Higher expenditure of time and low comparability of the results are listed as drawbacks of open questioning.

2.4 Data Preparation and Analysis

2.4.1 Qualitative Content Analysis

Content analysis was developed at the beginning of the 20th century as a quantitative method, mainly to analyse the upcoming mass media, but was criticized for not taking into account the context, latent semantics, individual cases and the text between the lines sufficiently [8]. An advantage of qualitative content analysis is the controlled analysis of texts within their context of communication [19]. Mayring suggested three basic forms of qualitative content analysis [8]:

Summarization: The material is reduced in a way that the important content is preserved. An abstract corpus is developed that is still an image of the basic material.

Explication: Additional material is used to explain and interpret certain problematic units of the text.

Structuring: Certain aspects are filtered out of the text with the help of predefined criteria to present a cross sectional area or to estimate the material according to certain criteria.

Using summarization, an inductive or a deductive development of categories is possible [7]. The deductive approach uses theoretical considerations to

develop the categories, while the inductive approach extracts the categories directly out of the material using generalizations. The inductive approach is very important for qualitative analysis, as it aims to avoid suppositions [7] and it serves very well to model hypotheses.

2.4.2 Inductive Category Development

Within the framework of qualitative research, it is of central interest where categories come from. Qualitative content analysis has developed procedures of inductive category development to develop hypotheses on a certain research question [8].

The basic principle of inductive category development is that each level of abstraction gets recorded and generalization takes place [7]. The traceability of each single step is a big advantage of this method. Concerning transcription, one possibility is to not transcribe literally as a first step, but summarize the audio file right away [8].

Chapter 3

From Idea to Realization

3.1 Search for Adequate Methods

The main purpose of this thesis is to gain deeper insights into the features of online newspapers that influence reader satisfaction. In order to develop hypotheses about these factors, qualitative methods seem to be most adequate. The choice came down to thinking aloud. Nielsen et al [9] state, it might help us ‘getting access to what goes on in people’s heads’. In some studies, e.g. by van den Haak et al. [10], additional questionnaires are used to fill the gaps of or complete the thinking aloud protocols. Therefore, I first decided to additionally use standardized questions on some non-propositional features with responses on a six-item Likert scale.

A pilot study was carried out to find answers to the following questions:

Which instructions should be given to the participants? Should they know that the focus of interest does not only concern the content?

Should the researcher be present during the accomplishment of the loud thinking or leave the room?

Concerning these questions, Buber [11] states that these are very important decisions and they depend on the research questions and experimental designs. In order to decide on these questions and to get a better impression if the experimental design is adequate, a pilot study was carried out.

3.2 Pilot Study

The pilot study consisted of two groups with two participants each. The four participants were one male and three female students between the age of 24 and 28. They were occasional to frequent readers of online newspapers and none of them had participated in an experiment, where thinking aloud

was used as a technique before.

The experiment consisted of three parts. Differences between the two participant groups only concern part two, where thinking aloud is used. The experimental design is only explained very briefly in this chapter. Instead the findings of the pilot study and explain certain decisions are stressed. The final experimental design will be explained in more detail in 3.3.2.

3.2.1 Experimental Design of the Pilot Study

In the **first part**, 80 proposals of articles (picture, title and subtitle) were presented and the participants had to evaluate whether a proposal was appealing, not appealing or neutral to them. This part was carried out to ensure that participants get both articles they would read as well as ones they usually would not read.

The **second part** lasted 40 minutes, and the verbalizations of the participants were recorded on audio files while they were reading one online article after the other in their own reading rate. They were instructed to verbalize their thoughts instantly without long pauses if possible. Buber [11] recommends the use of a multiplication (e.g. 34x36) without paper and pencil as a warm up exercise to get used to articulating ones thoughts and this warm-up exercise was integrated in the study.

Concerning additional instructions, there was a difference between the two groups:

Group 1: No additional instructions were given and I waited outside the room.

Group 2: The participants were explicitly instructed to not only look at the content, but also at other features of the article. I stayed in the room to answer upcoming questions.

In the **third part** an interview took place in which eight questions were asked concerning each article the participant read. One was an open question (Why?), the others were closed.

The last six questions were alternated and their formulation is based on the questionnaire on reader satisfaction by the Readership Institute [1]. For the questions 1 and 3-8 a six-item Likert scale was used for answering, see figure 3.1.

1. War der Artikel eher interessant oder eher langweilig?
(Was this article rather interesting or rather boring?)

2. Warum?
(Why?)
3. Ist die Länge des Artikels angemessen?
(Is the length of the article appropriate?)
4. Ist die Struktur des Artikels angemessen?
(Is the the structure of the article appropriate?)
5. Ist der Stil des Artikels angemessen?
(Is the style of the article appropriate?)
6. Ist die Information präzise?
(Is the information precise?)
7. Ist die Information relevant?
(Is the information relevant?)
8. Ist die Information verlässlich?
(Is the information reliable?)

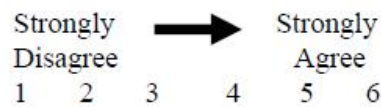


Figure 3.1: A six-point Likert scale.

The thinking aloud protocols and the interviews were transcribed and analyzed according to the qualitative content analysis by Mayring [7], cf. section 2.4.

3.2.2 Results and Conclusions of the Pilot Study

The results are now presented for each part of the experiment, so the evaluation of the article proposals, the thinking aloud experiment and the interview are discussed one after the other.

Evaluation of Article Proposals

- Nothing unexpected occurred in evaluating article proposals, so this part of the experiment was left as it was.

Thinking Aloud

- Concerning the warm-up exercise, the participants reacted a bit nervous and some had a fear of failure, although I emphasized that it does not matter if the result is correct. Therefore this exercise was left aside in the main research.
- One question was whether the participants should know that the focus of interest does not only concern the content. The results of the content analysis showed that in each group one person was mainly talking about the content while the second person touched a lot of other features as well, such as length, subtitles, sources etc. In the interview the person who was not told before to look at other features not related to content and who rarely mentioned these features during the thinking aloud process could not say anything about them. The person who was told before but rarely mention them during the thinking aloud process verbalized her thoughts on non-content related features during the interview as well as overall preferences of her reading behavior. Based on these results I decided to tell the participants only just before their thoughts got recorded to look at the article as a whole, rather than only the content.
- The thinking aloud phase lasted for 40 minutes, and since three out of four participants stated that at the end it was hard for them to concentrate, it was shortened in the experiment to 30 minutes. Atteslander [12] states that for an interview a total time of 30–60 minutes is reasonable. The interview following the thinking aloud process was planned to last about 15–20 minutes. As the four participants were reading 10, 26, 40 or 46 articles during these 40 minutes, respectively the duration of the interviews differed. The interview with the participant who read 10 articles lasted 19 minutes, the interviews of the two participants reading 26 and 40 articles lasted about 40 minutes and the interview of the one who read the largest number of articles lasted 1 hour and one minute. Because of these results, the duration of the thinking aloud part was shortened in the experiment to 30 minutes and the participants were additionally told that they would not have to rush through the articles but could take any time they needed.
- According to Buber [11] the question whether the researcher should stay in the room is difficult and has to be decided according to the experimental design and research question. In our

case, both persons I stayed in the room with asked me something, e.g. if the way they performed the task was appropriate. During one experiment at which I left the room, the participant interrupted the experiment after some time to leave the room and ask me for feedback on his performance. Because of that I decided to stay in the room during the experiments.

Interview

- The three questions on precise, relevant and reliable information (6-8) were not asked in the experiment, as the participants in the pilot study had difficulties to giving answers to these questions. The interview was scheduled directly following the thinking aloud phase. Answering closed questions after a phase of trying to explain ones thoughts in detail turned out to be not adequate. All participants had difficulties with answers on a Likert scale, therefore I changed the questions about length, structure and style from

- Ist ... des Artikels angemessen? into
(Is the ... of the article appropriate?)
- Was sagst du zu ... des Artikels?
(What do you think about ...?).

In the final experiment, all questions except for the first one ‘Was this article rather interesting or rather boring?’ were changed to open questions and to this one a ‘Why?’ is added anyway.

Fortunately the pilot study shed light on some questions concerning the experimental design and the tasks could be better adjusted to one another. Also the fact that the participants commented on a lot of different factors and not only content related ones showed that the thinking aloud method is appropriate for development of hypotheses on factors of online newspapers that influence reader satisfaction.

3.3 Data Collection

3.3.1 Participants

22 Austrian and German students between the age of 19 and 31 participated in the experiment. The criteria for selection were that they should be students and occasional to frequent readers of online newspapers. 16 of them were female, six were male, and all of them were students, either at the University of Vienna, the Technical University of Vienna, the University of Economics and Business or the University of Natural Resources and Life Sciences in Vienna.

13 of them answered the advertisement I put on the website of the students council (all 13 were female), the other nine were found with the help of friends. None of them had participated in an experiment before, where thinking aloud was used as a method before.

3.3.2 Experimental Design

In this part of the thesis the user interface are explained in detail as well as the course of the experiment. The experiment took place in a room at the Austrian Research Institute for Artificial Intelligence (OFAI). Jeremy Jancsary (a colleague at OFAI) had programmed a user interface. We were working on a joint project with an Austrian online newspaper website and have access to their repertoire of articles. Therefore, ‘real’ articles could be integrated in the program.

The first part consisted of 80 proposals of articles (picture, title and subtitle). In the second part, entire articles were presented. In the third part, the same articles were presented again for discussion in the same order.

Before the experiment started, each participant was briefly introduced to the three parts of the experiment and that he or she should let me know before starting the second part of the experiment.

In the **first part**, the 80 proposals were automatically generated from randomly chosen articles of the previous two months and were presented on a single page. The topics were of various kinds, and each of the chosen articles contained a picture. Beneath each article proposal, the participant had to click on ‘spricht mich an’ (is appealing to me), ‘neutral’ (neutral) or ‘spricht mich nicht an’ (is not appealing to me), see figure 3.2. This task was used to get a first impression of user preferences and to assure that articles of all three groups were presented to the participant, more or less equally distributed.

Before the **second part** started, the participant got a short introduction to thinking aloud. He or she was told to

- verbalize his or her thoughts on the articles, or whatever comes to his or her mind, while reading for the upcoming 30 minutes.
- not only to comment on the content, but the article as a whole.
- give uninteresting articles a chance.
- take any time he or she wants.
- ask whenever questions occur.



Figure 3.2: An example of an article proposal.

The participant had to put on a headset, and the audio software *Audacity* [20] was used to record the verbalizations. Clicking on the ‘weiter’ (next)–button started the second part. The articles corresponding to the proposals of the first part were queued such that neutral, appealing and unappealing articles were more or less equally distributed no matter how many articles the participants read during the 30 minutes. The design of the articles was very close to how they are presented on the newspaper website, just without advertisements, topic-related article proposals or comments. At the bottom of each page a ‘next’–button was located that triggered a sound to facilitate the transcription process.

I stayed in the room with the participant in case questions occur, but in a way that he or she could see that my face was turned away to ensure that the participant did not feel monitored while thinking aloud.

After 30 minutes I brought the article presentation to an end. The same articles were presented again in the same order and an interview took place. The participant was again wearing a headset, and *Audacity* was used again. We talked about the articles one after the other and I asked several guiding questions according to a problem-centered interview. For the formulation of the questions, the rules of thumb by Atteslander [12] were taken into account (the question should contain simple words, be short, concrete, at least formally balanced, leading questions should be avoided, etc.). Before the interview started, the participant was told that in case he or she did not have an answer to a question, that would not be a problem at all. The first question was (according to Mayring [8]) a probe question.

War der Artikel eher interessant oder eher langweilig? Warum?
(Was this article rather interesting or rather boring? Why?)

The guiding questions concerned three non-propositional features of an article that could be important for user satisfaction. The order of these questions was alternated.

Was sagst du zur Länge des Artikels?
(What do you think about the length of the article?)

Was sagst du zur Struktur des Artikels?
(What do you think about the structure of the article?)

Was sagst du zum Stil des Artikels?
(What do you think about the style of the article?)

Ad hoc questions were for example asked if some statements were not clearly formulated, e.g. ‘Das ist lustig.’ (This is funny), to clarify exactly what the participant referred to.

Chapter 4

Results

In this chapter, the results of the experiments are presented. An advantage of this study was that spontaneous and also emotional reactions could be captured immediately. There was a difference concerning the amount of verbalizations between the participants, nevertheless categories could be extracted out of each single verbal protocol. All participants were very cooperative, although the unusual situation of verbalizing one's thoughts affected some more strongly than others. After each thinking aloud session the participants were asked which impressions they got. While some enjoyed it and tended to forget that they were verbalizing their thoughts, some reported that it was a bit strange for them to think aloud while reading. The audio recordings from thinking aloud and the interviews were transcribed and analyzed using inductive content analysis.

Thinking aloud lasted about 30 minutes for all participants while the duration of the interviews differed depending on the amount of articles they had read and how much they wanted to talk about them. The participants read between 18 and 33 articles; the shortest interview lasted 07:50 minutes and the longest lasted 39:34 minutes.

According to Mayring [8], the results of a summarizing qualitative content analysis is the set of developed categories, and the whole categorical system can be analyzed in terms of the research question. As presenting all categories of all participants for each article would go beyond the scope of this thesis, parts of the results are presented in four ways to give an overview of the results.

First, one example is presented in detail to show the different steps of transcription and analysis.

In the second section, categories extracted with inductive category devel-

opment are presented. An additional quantitative analysis is used to outline the frequency, i.e., how many participants verbalized something about this category.

Subsequently, comments on the general reading behavior are discussed and compared.

As the difference in the results between thinking aloud and the problem-centered interview were left aside until now, it is discussed in the last section of this chapter.

4.1 A Closer Look at One Example

One particular example is presented in detail in this section, to describe the different steps of data preparation and analysis. The participant was chosen because she had no difficulties verbalizing her thoughts and read an average amount of 18 articles. She also talked about her general reading preferences and the thinking aloud experiment and the interview complemented one another very well. Other examples can be found in the appendix.

First, the transcription of three articles is presented according to the qualitative content analysis. The verbalizations during the thinking aloud and the interview concerning one article are opposed, and it contains three steps of transcription and analysis.

As a second step, the developed categories of these three articles are presented, one article following the other. The categories obtained from thinking aloud and from the problem-centered interview are opposed.

Subsequently, the developed categories of all articles the participant read are presented, contrasting again the categories verbalized during thinking aloud with the ones during the problem-centered interview.

On the following page, the transcription of verbalizations of three articles are presented. These are the first three articles the participant got during talking aloud. In the transcription three light gray and three dark gray lines can be found. The light gray line separates the verbalizations during thinking aloud from the verbalizations during the interview. Although the participants thought aloud for 30 minutes and after that all articles were discussed, in the transcript the verbalizations of thinking aloud and the interview concerning one article are opposed. Therefore the dark gray line separates the articles.

The first column contains the article-ID as well as the evaluation of the proposal of the article, given during the first part of the experiment (+ ... is appealing to me, o ... neutral, - ... is not appealing to me). The data of each participant contains two audio files, as thinking aloud and the interview were recorded separately. The second column indicates the time stamp in the audio files.

In the third column, the paraphrases are enumerated.

The fourth, the fifth and the sixth column show the different levels of abstraction during the qualitative content analysis. The different steps were conducted according to Mayrings guidelines (cf. [7]). As a first step, the utterances on the audio file were paraphrased. All embellishing and repetitive verbalizations were not taken into account, and a consistent level of language as well as a grammatical short form were used.

As a next step, the paraphrases were generalized up to a certain level of abstraction; duplicates and paraphrases, that were not important for the developed categories, were discarded. The discarded paraphrases were marked dark gray in the transcription.

The last column contains paraphrases at the desired level of abstraction, and the developed categories. The four main categories are:

K1 - Propositional Features

K2 - Non-propositional Features

K3 - Personal Reasons

K4 - Correlations

Comments on the content were for example not taken into account, as they are not relevant for the research question. Paraphrases about an overall attitude towards the article are the only ones not belonging to one of the four categories in the reduced column.

Artikel-ID	Zeit	Nr.	Paraphrase	Generalisierung	Reduktion
1277338083025 Bewertung: 0	Zeit 0:20	1	das verstehe ich nicht ganz	Verwirrung zu Beginn	ein sehr langweiliger Artikel
		2	interessant, da ein aktuelles Thema	interessant, da ein aktuelles Thema	K1 – propositionale Charakteristika
		3	jetzt verstehe ich es schon	Verwirrung klärt sich auf	uninteressanter als erwartet
		4	ich habe angeklickt, dass es mich interessiert, aber jetzt interessiert es mich nicht mehr	uninteressanter als erwartet	aktuelles Thema
		5	für mich ein ziemlich langweiliger Artikel	ein sehr langweiliger Artikel	
Interview	Zeit 0:00	1	zuerst habe ich wegen dem Titel gedacht, dass es interessant ist	dachte auf Grund des Titels, dass es sich um ein interessantes Thema handelt	K1 – propositionale Charakteristika
		2	habe den Artikel nicht ganz verstanden	habe den Artikel nicht ganz verstanden	uninteressanter als erwartet K2 – nicht-propositionale Charakteristika der Titel hat mich angesprochen K3 – persönliche Gründe habe den Artikel nicht ganz verstanden
1277337462249 Bewertung: +	Zeit 1:17	1	das ist interessanter	interessanter Artikel	interessanter Artikel
		2	klar verständlich, kurz und präzise	klar verständlich, kurz und präzise	K2 – nicht-propositionale Charakteristika klar verständlich, kurz und präzise
Interview	Zeit 0:58	1	interessantes Thema	interessantes Thema	K1 – propositionale Charakteristika
		2	finde gut, dass er kurz gehalten wurde	finde gut, dass er kurz ist	interessantes Thema
		3	mehr braucht man auch nicht wissen	ausreichend Information	K2 – nicht-propositionale Charakteristika gefällt, dass er kurz ist
1277339298609 Bewertung: -	Zeit 1:51	1	ein etwas längerer Artikel	längerer Artikel	K1 – propositionale Charakteristika
		2	für mich ein uninteressant Thema	kein Interesse am Thema	kein Interesse am Thema
		3	ein erzählender Charakter, was den Artikel interessant gestaltet	der erzählende Charakter hat gut gefallen	K2 – nicht-propositionale Charakteristika
		4	ich mag es, wenn Fragen in einem Artikel auftauchen	Fragen in einem Artikel gefallen	längerer Artikel
		5	war für mich nicht so interessant	kein Interesse am Thema	erzählende Charakter gefällt Fragen in einem Artikel gefallen
Interview	Zeit 1:56	1	langweiliger Artikel	langweiliger Artikel	uninteressanter Artikel
		2	sehr uninteressant	sehr uninteressanter Artikel	K3 – persönliche Gründe
		3	betrifft mich nicht	betrifft mich nicht	betrifft mich nicht
		4	Artikel war nicht interessant	uninteressanter Artikel	

The developed categories are now listed one after the other:

Thinking Aloud	Problem-centered Interview
FIRST ARTICLE K1 – Propositional Features Other Topic than expected K2 – Non-propositional Features Recency <i>the topic is up to date</i>	FIRST ARTICLE K1 – Propositional Features Other Topic than expected K2 – Non-propositional Features Heading <i>is very appealing</i> K3 – Personal Reasons <i>Did not fully understand the article</i>
SECOND ARTICLE K2 – Non-propositional Features Style writing style <i>clear</i> Length <i>short</i>	SECOND ARTICLE K1 – Propositional Features Topic <i>interesting</i> Information <i>sufficient information</i> K2 – Non-propositional Features Length <i>short</i>
THIRD ARTICLE K1 – Propositional Features Topic <i>uninteresting</i> K2 – Non-propositional Features Style writing style <i>the narrative writing style was appealing to me</i> <i>I like questions in an article</i> Length <i>a bit longer</i>	THIRD ARTICLE K3 – Personal Reasons Personal connection to the topic <i>does not concern me</i>

Thinking Aloud**K1 – Propositional Features**

Topic

interesting
frequent topic in the media
frightening topic
uninteresting
not interesting at all

Information

very informative

Details

too many details

Other Topic than expected

K2 – Non-propositional Features

Structure

well structured
easy to skim over

cross heading

helps to skim over

Style

heading

is appealing

writing style

clear

the narrative writing style was appealing to me

I like questions in an article

formulated precisely

Numbers

are appealing, but unfortunately not meaningful

Picture

is appealing to me

Length

short

a bit longer

Recency

Novelty

K3 – Personal Reasons

Background knowledge

have background knowledge

do not have background knowledge

Personal connection to the topic

concerns me

does not concern me

K4 – Correlations

Picture and the topic

Problem-centered Interview**K1 – Propositional Features**

Topic

very interesting
interesting
frequent topic in the media
local topics are more interesting
too specific
uninteresting
not interesting at all

Information

sufficient information

Details

too many (technical) details

Other Topic than expected

K2 – Non-propositional Features

Structure

well structured
easy to skim over

cross heading

is missing

separation in paragraphs

is appealing

Style

heading

is very appealing

is not appealing at all

writing style

clear

clear, except the many names

numbers

too many numbers

Picture

it usually transports a lot of meaning

Length

short (is appealing)

adequate

long, but still ok

a bit too long

Recency

K3 – Personal Reasons

Background knowledge

have background knowledge

do not have background knowledge

Personal connection to the topic

concerns me (more interesting)

does not concern me

K4 – Correlations

Topic interest and length of article

Topic interest and structure

The other list of categories is about all features the participant mentioned concerning all articles. She touched on a substantial number of features during thinking aloud as well as during the problem centered interview. The attributes of the features are emphasized.

During the interview she made general comments on her reading behavior:

- As she is reading newspapers in the morning, she prefers short articles.
- Information retrieval is very important for her.
- Too many details are boring.
- She likes pictures, as they usually transport a lot of meaning.

4.2 Extracted Categories

In the following, the inductive category development is combined with quantitative analysis, cf. [8]. The developed categories of all participants are listed with the number of participants talking about this feature. The features are split up in the four categories *propositional features*, *non-propositional features*, *personal reasons* and *correlations* and are listed according to their frequencies.

A participant was counted if he or she mentioned the feature either during thinking aloud, during the interview or during both. Differences between thinking aloud and the problem-centered interview are not taken into account and will be discussed in the section ‘Thinking Aloud vs. Guided Interview’.

K1 - Propositional Features (22)

- Topic (22)
very interesting, not interesting, funny, old, ...
- Information (21)
too much, too little, interesting, ...
- Details (16)
too many, too few, sufficient, ...
- Background information (14)
too much, too few, sufficient, ...
- Other topic than expected (14)
more interesting, less interesting topic than expected, ...
- Validity (3)
not sure, if the content of the article is true

K2 - Non-propositional Features (22)**Structure (21)**

the end is missing, well structured, ...

- Cross heading (14)
is appealing, helps to navigate, ...
- Skim over (9)
easy to skim over because of length, cross headings, ...
- Paragraph (6)
too many paragraphs are confusing, the amount of paragraphs is appealing, ...
- Visual impression (2)
the articles is visually appealing, emphasized words are visually appealing, ...

Style (22)

is appealing, sounds like an advertisement, ...

- Writing style (21)
narrative style, formulated precisely, ...
- Heading (17)
sounds interesting, do not know what it means, ...
- Introduction (15)
is arousing my interest, was missing, ...
- Technical term / foreign word (11)
too many technical terms scare me off, fortunately they are explained, ...
- Link (7)
is appealing, additional links would be nice, ...
- Number (7)
too many numbers on the first sight are scaring me off, unfortunately not significant, ...
- Subheading (6)
is arousing my interest, very creative, ...
- Spelling mistake (5)
the article seems unreliable, should not happen, ...
- Question (5)
is appealing, helps remembering the topic, ...
- Quotation (3)
lightens up the article, are discussed as if the statement would be true, ...
- Video (3)
introduction with a video is appealing, fits well to the topic, ...
- Abbreviation (2)
an unknown abbreviation is scaring me off, many unknown abbreviations, ...
- Dialog (1)
is a good eye catcher

- Enumeration (1)
is not interesting to me

Pictures (21)*very appealing, not appealing, funny, blurry, ...*

- Caption (2)
is missing, ...

Length (22)*too long, too short, appropriate, ...***Recency** (9)*up to date, out of date, ...***Novelty** (8)*new information, not new to me, ...***Different perspectives** (5)*are appealing, are missing, ...***Source** (3)*is appealing, the author is important, ...***K3 - Personal Reasons** (22)*I do not want to read that because it is too unimportant, ...*

- Background Knowledge (19)
have background knowledge, do not have background knowledge
- Personal connection to the topic (16)
concerns me, does not concern me

K4 - Correlations (21)

- Topic interest and length of the article (16)
as I do not have much interest in the topic, the article is too long to me
- Picture and topic (13)
the picture goes/does not go with the topic
- Heading and topic (10)
the heading goes/does not go with the topic
- Topic and style (4)
the topic goes/does not go with the style
- Topic interest and structure (4)
the article is easy to skim over which is important as I am not really interested in the topic
- Topic and the amount of pictures (1)
the topic goes/does not go with the amount of pictures
- Picture and heading (3)
the picture goes/does not go with the heading
- Topic and length of the article (3)
the topic goes/does not go with the length of the article

- Length of the article and information content (2)
the length of the article goes/does not go with the information content
- Length of the article and amount of pictures (1)
the length of the article goes/does not go with the amount of pictures
- Length of the article and structure (1)
the length of the article goes/does not go with the structure
- Length of the article and writing style (1)
the length of the article goes/does not go with the writing style
- Topic interest and amount of details (1)
there are too many details as I am not really interested in the topic

This list of developed categories shows some tendencies of participants to focus on certain features that might be relevant for their reading satisfaction of online newspaper articles. Although it does not mean that the features are equally important to all those who mention them.

The six features mentioned by the largest number of participants are topic, information, structure, writing style, picture and length. Although more than 20 of the 22 participants mentioned these features, they were not equally important to them, see figure 4.1. The picture for example was mentioned by participant 2 while reading and/or discussing each of the articles, i.e. 100%. Five participants (10, 12, 15, 17 and 20) on the other hand have only mentioned it once. The picture is the only feature that was mentioned while reading and/or discussing each of the articles except the topic. Figure 4.1 also shows the difference in the number of verbalizations. Participant 8 for example has made the fewest number of verbalizations concerning these six features. She was also the only one mentioning the topic more often than the other five features all together.

It has to be considered that certain features do not occur in a lot of articles. As recency was taken into account, the participants read different articles and therefore not all of them had the occasion to deal with some of them, e.g. videos, links or quotations. Also people tend to verbalize negative aspects rather than positive ones, cf. [11]. One might notice something important only when it deviates from what one expects.

In the interview, questions on structure, style and length were asked. Nevertheless one person did not mention anything about structure in any of the articles he read, or it was not important to him. The differences in thinking aloud and the interview and the comments on general reading behavior will shed some light on the question on how much these questions influenced the focus of the participants. Moreover they demonstrate that it does not have to be over-reporting if something is mentioned in the interview but not while thinking aloud.

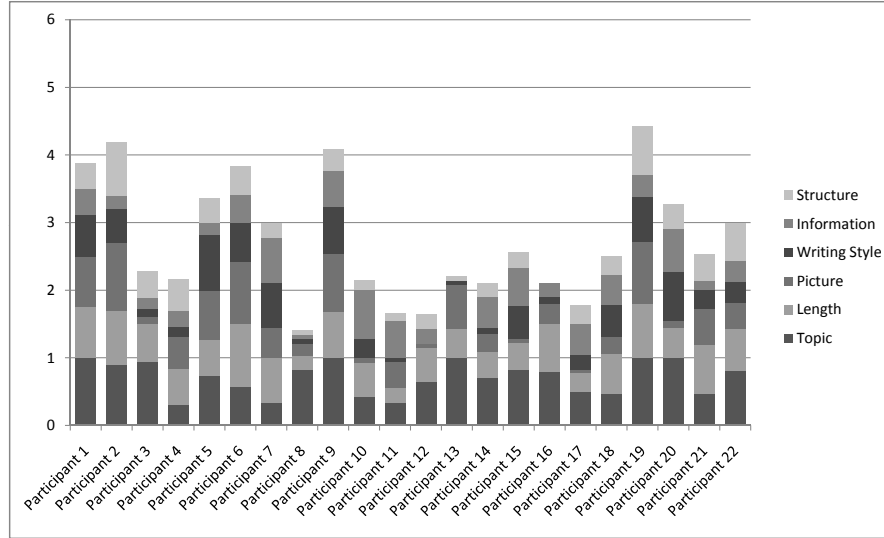


Figure 4.1: The aggregation of the relative frequencies of the six features mentioned by the largest number of participants (21 or 22). If a features is of height one, the participant has mentioned it while reading and/or discussing each of the articles.

The features of the fourth category show that the topic interest correlates with the acceptance of the length of the article for two-thirds of the participants. This finding is also supported by the results of the Readership Institute [1], where readers who disliked the story mostly said ‘a shorter version would be better’ and appealing stories mostly ‘should be longer’. The correlations between the topic and the heading or the picture and personal experiences were important to many participants as well.

Some features that are important to many participants could be developed. In the next sections individual preferences are discussed in more detail.

4.3 Reading Behavior

Readers of online newspaper articles have different individual preferences and requirements. To some, the length of an article is not important because they take their time to yet fully read it; some just stop when their need for information is satisfied, while others are deterred by long articles and lose interest.

In the following, general comments on reading behavior verbalized by the

participants of the experiment are presented. They are ordered according to the category they belong to, and the characters in brackets following the quote indicates if the verbalization took place while thinking aloud (TA) or during the problem-centered interview (PCI). Participants made many general statements on non-propositional features. To differentiate between their frequency, the amount of general statements can be found in brackets next to the feature. If participants talked about a certain feature unusually often without verbalizing a general attitude, they are also added on.

4.3.1 K1 - Propositional Features

Only two participants explicitly verbalized their overall attitude to information gathering and topic. One stated that her main interest when reading a newspaper is information retrieval, while the other does not think that topic interest can develop, if it does not exist beforehand.

Bei der Zeitung geht es mir eher um die Informationsgewinnung. Also geht es mir nicht um die Sprache, um die stilistischen Mittel, um die Aufmachung. [...] Wenn ich die Zeitung lese, dann habe ich gerne, dass es informativ ist.

(When I read a newspaper, acquisition of information is important to me. Thus I do not mind the language, the style or the format. [...] When I read the newspaper, I like it to be informative.) (PCI)

Wenn man schon von vornherein irgendwie wenig Interesse für das Thema hat, kann sich das auch schwer entwickeln, finde ich.

(I think when you are not really interested in the topic beforehand, it is improbable that interest develops.) (PCI)

For both propositional features are very important in general.

4.3.2 K2 - Non-propositional Features

Different Types of Texts (11)

Of all the eleven verbalizations about an overall attitude to a certain type of text, seven concerned an interview. Two of the seven participants had a negative attitude towards interviews, the attitude of the other five was positive. In the first quotation the participant explains her negative attitude with the uncomfortable feeling of eavesdropping when reading an interview, while the other two state why they like them.

Ok, es handelt sich um ein Interview. Ich muss zugeben, dass ich Interviews grundsätzlich nicht so gerne lese. Der Grund dafür ist eigentlich meistens, dass es mir unangenehm ist, bei so einem Gespräch da mitzulauschen oder so. Schauen wir mal, wie es da ist. – Genau, es fängt gleich mit einer provokanten Frage an.

Naja, provokant ist vielleicht zu viel gesagt.

(Ok, this is about an interview. I have to admit that I do not really like to read interviews in general. The reason is that it is unpleasant to me, to eavesdrop a conversation, or so. Lets see, how this one is. – Exactly, already at the beginning is a provoking question. Mh, maybe provoking is an exaggeration.) (TA)

Ich finde Interviews generell eher ein bisschen ansprechender.

(In general, interviews are a bit appealing to me.) (TA)

Ich finde so Interviews immer spannender noch als Artikel, weil es das Ganze ein bisschen auflockert und auch so persönliche Meinungen pointiert wiedergibt irgendwie. Und wenn jemand gescheiter wie ein Professor darüber spricht ist das auch nicht uninteressant.

(I think interviews are more interesting than articles, because they lighten up the whole thing and personal opinions are somehow pointedly reflected. And if someone like a clever professor talks about that, it is interesting to me.) (PCI)

Four other attitudes were verbalized about two particular types of text. One concerned an individual fate / a personal field report and both statements on that were negative. The other type of text is called ‘Kopf des Tages’ (Head of the day) and describe the life and success story of an individual who is present in media at that time. One verbalization is positive, as the participant is more interested in an article about a certain person if it is presented as a ‘Kopf des Tages’ while the other is only interested, if he knows the person beforehand.

‘Kopf des Tages’. Das lese ich immer wieder mal, aber meistens nur, wenn ich die Person kenne. In diesem Fall kenne ich sie vom Namen her, hätte sie aber sicher nicht zuordnen können. – Ok, der Artikel ist jetzt nicht so herausragend meiner Meinung nach. Wie gesagt, wenn ich die Person jetzt nicht so wirklich kenne und sie mich nicht so wirklich interessiert, würde ich es eigentlich vielleicht anlesen, aber sicher nicht fertig.

(‘Head of the Day’. I read that from time to time, but mostly only when I know the person. In this case the name sounds familiar, but I would not know why. – Ok, the article is not very outstanding in my opinion. As I said before, if I do not really know the person and I do not really have interest, I would maybe start reading it, but I would not finish it for sure.) (TA)

Structure (6)

Structure was very important to some participants, while others did not mention it at all, or only very rarely. The same holds for length, style and

the picture. For two participants the structure was very important. One was a student of political science with a focus on journalism, therefore she had a less intuitive approach. The other one (a student of chemistry) stated:

Die Struktur war ja eben auch so – ich bin mir da nie sicher weil mir das eben oft unterkommt, dass ich immer denke, das hätte ich einfach anders gemacht. [...] Also der zweite Absatz geht schon um einen anderen. Das verstehe ich irgendwie nicht. Warum nicht zuerst über ihn [...], so eher chronologisch. Also das wäre logischer. Und das hat mich da am Anfang eigentlich gewundert und ich finde es nicht so gut.

(The structure was as – I am never sure about that, because it occurs often that I think that I would have done it another way. [...] The second paragraph already deals with somebody else. I somehow do not get that. Why is it not first about him [...], more chronological. That would be more logical. And this was surprising me at the beginning and I do not really like it.) (PCI)

After this statement she said it might be on purpose but she is not able to judge that because she is no journalist.

Other comments on general reading behavior and structure concerned the importance of cross headings, but also the disadvantage of too many of them. Also the importance to see what the article is about at first sight was mentioned.

Length (6)

The attitudes towards the length of the article differs as well. The acceptance for longer articles also depends on the reasons or circumstances. For some it is important to get much information in short time, while others take more time for reading a newspaper.

The first quotation was the first utterance of the participant at the beginning of the interview.

Also ich muss sagen, ich schaue schon immer auf die Länge der Artikel und der war mir etwas zu lange, auch wenn er strukturiert ist.

(I have to say that I always look at the length of the articles and this one was a bit too long to me, even if it was structured.) (PCI)

The second verbalization is about an appropriate length for online newspaper articles, while in the third one the participant states that length is not an important criterion to him.

Es gibt ja verschiedene Längen von Artikeln in Online Zeitungen und ganz kurz kann es nicht immer sein. Aber ich finde,

wenn du schon zwei mal runterscrollen musst, dann finde ich es wirklich schon einen sehr langen Artikel [...] Ich hätte es gerne öfter prägnanter und kürzer, nur die wesentlichen Informationen irgendwie auf einer Seite zusammengefasst.

(There exist of course different lengths of articles of online newspapers and it can not always be very short. But I think if you have to scroll down twice, than I think it is a very long article. I would like them to be conciser and shorter more often, only the essential information summarized on one page.) (PCI)

Es ist einer von den längeren Artikel und einer von den anstrengenderen, wobei ich prinzipiell finde, Länge ist jetzt kein Kriterium. Beim manchen merkt man, dass es zu wenig Inhalt für zu viel Länge ist, aber in diesem Fall war er gut gemacht.

(This is one of the longer and more exhausting articles, although I do not think that length is a criterion. Concerning some articles there is too less content for too much length, but in this case it was well done.) (PCI)

Picture (6)

Concerning two participants, the picture influenced their first impression of the article very much.

Vielleicht hätten die ein anderes Foto nehmen können. Also ich schaue auch die Fotos an ob mich das interessiert, also der Inhalt.

(They could have chosen another picture. I always look at the picture as well to see, if it could be of interest to me, I mean the content.) (PCI)

Bildliche Unterstützung finde ich ganz wichtig, und das finde ich da eigentlich ganz gut gelöst, vor allem viele Alternativen, die man sich alle anschauen kann.

(Visual support is very important to me, and I think this is solved here very well, especially the amount of alternatives, and one can take a look at all of them.) (PCI)

One participant often assessed an article as more interesting than it actually was because of the picture. Another participant verbalized her overall attitude on the importance of visual support, which is emphasized by her tendency to comment on the picture very often.

Technical Terms / Foreign Words / Numbers (5)

Five general statements on technical terms, foreign words and numbers were made. These features are combined, because in the statements they have a

deterrent effect as they are unknown. All five attitudes (uttered by four people) were negative.

Mit den Zahlen, das würde mich auf den erste Blick gleich abschrecken, weil ich mir denke Zahlen merke ich mir nicht besonders gut. Und da steige ich dann auch aus bei dem Artikel, wenn er einen Fakt nach dem anderen bringt.

(With the numbers, that would deter me at first sight, because I think that I can not remember numbers very well. And I can not follow an article, if one fact follows the other.) (PCI)

Statistiken finde ich schon mal prinzipiell sehr abschreckend und bei dem Artikel fand ich auch die Zwischenüberschriften ganz furchtbar, weil die mir gar nichts gesagt haben. [...] Da waren zu viele Sachen die ich nicht verstehe, also zu spezifisch für Leute, die sich damit auskennen und darum fand ich es anstrengend den zu lesen.

(Statistics are very deterrent to me in general and concerning this article the cross headings were terrible as well, because I did not understand them. [...] There were too many things that I did not understand, which means it was too specific and written for people who know this field and because of that, it was exhausting to read this article.) (PCI)

Style (6)

All three participants who gave overall comments on style uttered that it is not important to them. The other verbalizations concerned spelling mistakes, gender-neutral formulations and the preference of serious articles.

Bei einer Zeitung ist mir der Stil eher egal. [...] Verständlich soll es sein und wenn da ganz viele Fremdwörter drinnen stehen wird es mir auch oft zu heikel, zu speziell.

(When I read a newspaper, I do not really mind the style. [...] It should be comprehensible and if there are too many foreign words, it becomes awkward and too detailed to me.) (PCI)

Hach, noch immer keine geschlechtsneutralen Bezeichnungen.

(Unfortunately there are still no gender-neutral formulations.) (TA)

Although in all overall comments on style the participant stated it is not important to him or her it does not mean it was not important to any participant, but that the opinions differ. This concerns especially non-propositional articles. The topic and personal reasons were important to all participants, concerning structure, length, picture and style, there was a big difference. These non-propositional features are very important to some, to others sometimes important, and to yet others no important criterion at all.

4.3.3 K3 - Personal Reasons

No general comments on the importance of personal reasons were made, although too much or too less background knowledge or diverse connections of the participants to the topic often influenced the overall liking of the article.

4.3.4 K4 - Correlations

Correlations between different features turned out to be relevant to many participants, especially between topic interest and length. Two general statements were verbalized concerning correlations, both containing topic interest as one of the two features.

Das Thema interessiert mich einfach nicht. Das kann man gar nicht so gut schreiben, dass ich mir das durchlesen würde.

(I am not at all interested in this topic. One could never write about that in such a good style so that I would read that.) (TA)

Also es ist schon so, wenn einen ein Artikel nicht interessiert, finde ich persönlich, und es sind Zwischenüberschriften drinnen, dann liest es sich leichter. Wenn da nur ein Text bis ganz runter ist, dann werde ich den sicher nicht ganz lesen.

(I think, if one is not interested in an article, under my personal impression, and there are many cross-headings, it is easier to read it. If it would be just text until the end, I would not read it for sure.) (PCI)

4.3.5 Features of Online Articles

Three participants also commented on the differences between online and print media and that it is more difficult to get the whole picture of an online article.

Bei einem Zeitungsartikel würde ich das auf einen Blick sehen, aber bei einem Internetartikel muss ich erst runterscrollen um das auf einen Blick erfassen zu können.

(In a printed newspaper I would see that immediately, but in an online article I have to scroll down first to get the whole picture.) (PCI)

Das ist ja eigentlich ein schnelles Medium und kaum interessiert dich ein Satz nicht mehr, klickt man eigentlich schon wieder weg [...] In der Zeitung ist das nicht so. Da lese ich oft auch Sachen, wo ich weiß, das interessiert mich jetzt nicht so. Das lese ich eher zu Ende wie online.

(Actually, it is a fast media and if a sentence occurs one is not interested in, one already clicks at something else. It is not like that in printed newspapers. There I often read articles, although I know that

they are not really of interest to me. I rather finish them than online.)
(PCI)

This quotation is supported by a study by Holmqvist et al [22] which shows that online newspaper readers scan more and read less than printed newspaper readers.

4.4 Thinking Aloud vs. Guided Interview

In this chapter the differences between thinking aloud and the problem-centered interview are discussed. In section 4.2 all extracted features are presented along with the number of participants mentioning that feature. In the following, all features are listed that are only mentioned either during thinking aloud or during the interview. The first number next to the feature indicates how many participants verbalized something about this feature only during thinking aloud and did not mention it during the interview. The second number indicates the inverse situation. As thinking aloud takes place before the problem-centered interview in the experiment, its number is presented first.

If one considers for example ‘length’, no one verbalized something about this feature while thinking aloud if he or she did not also mention it during the interview. Five participants on the other hand talked about length during the interview who did not mention it during thinking aloud. To summarize, 22 participants verbalized something about length (cf. 4.2), 17 during thinking aloud and 22 during the interview.

K1 - Propositional Features (22)

- Information (21) 0 : 2
- Details (16) 1 : 6
- Background information (14) 1 : 4

K2 - Non-propositional Features (22)**Structure (21) 0 : 3**

- Cross heading (14) 0 : 4
- Paragraph (6) 2 : 0

Style (22) 0 : 0

- Writing style (21) 0 : 1
- Heading (17) 1 : 0
- Introduction (15) 6 : 4
- Technical terms / foreign words (11) 0 : 4
- Link (7) 2 : 3
- Numbers (7) 1 : 2
- Subheading (6) 3 : 2
- Quotation (3) 1 : 1

Pictures (21) 4 : 0**Length (22) 0 : 5****K3 - Personal Reasons (22)**

- Background Knowledge (19) 2 : 1
- Personal connection to the topic (16) 4 : 4

K4 - Correlations (21) 2 : 2

Topic, style, and length are the only features that are mentioned by all 22 participants (cf. 4.1). Each participant talked about topic and style while thinking aloud *and* during the interview, while 5 persons did only talk about length when they were asked to. One of these five participants mentioned in the interview that she generally prefers short articles. This verbalization shows that if someone mentioned a feature only during the interview when asked about it, it does not have to be over-reporting.

There is also a difference between features one can see at first sight (such as length) and those, where one has to take a closer look at (such as the intro). Participants have fewer difficulties commenting on features that are easily detected during the interview. For the other ones, thinking aloud is more appropriate. These results show that the two methods complement one another very well.

Kapitel 5

Discussion

This study has been carried out to investigate features of online newspaper articles that influence reader satisfaction. Towards this end, two qualitative methods ‘thinking aloud’ and the ‘problem-centered interview’, were applied. The findings show that propositional features, non-propositional features, personal reasons and correlations between features strongly influence reader satisfaction. Some of the stated observations may have resulted from the particular situation the participants were subject to. Nevertheless the results clearly reflect certain tendencies and individual preferences.

5.1 Thinking Aloud

Thinking aloud is an important as well as a controversial method, as there are several possible artifacts which might occur. In subsection 2.3.1 twelve of them are listed (cf. Buber [11]). Nine of them remain as possible artifacts, but three of them can be avoided or are not relevant in the present work because of the experimental design and the research question:

- The thinking process slows down because of talking aloud.

Time is not measured while the participants think aloud as the aspect of time is not relevant for the research question.

- People tend to verbalize rather negative aspects than positive ones.

To develop features which influence reader satisfaction it is more important to avoid negative aspects, therefore it is not a drawback if they are mentioned more often. The participants were also reading different articles, so they had some chance to get articles where different aspects of the features occurred.

- Previous knowledge and experience with the situation influence the process.

The participants were occasional to frequent readers of online newspapers, and the research questions concern people who have at least some experience with the situation. Previous knowledge about the topic also influences reader satisfaction, therefore this was one of the extracted categories. The comparison between features mentioned by participants while thinking aloud, versus during the interview (see section 4.4), also shows that the two methods complement one another quite well.

5.2 Developed Hypotheses

The four main categories developed out of the results are ‘propositional features’, ‘non-propositional features’, ‘personal reasons’ and ‘correlations’ between two features. Correlations were mentioned by 21 participants, the other three groups were mentioned by all 22 participants, which indicates the importance of these features.

The results presented in this thesis also show (as expected) that the topic is a very important feature for all participants. Non-propositional features vary most strongly in their importance to participants. But at least one of the features *length*, *picture*, *style* and *structure* was very important to each of the participants, although there were big differences in degree.

5.3 Outlook

The results of my study on reader satisfaction regarding online newspaper articles have practical applications in recommender systems. Balabanovic and Shoham [21] differentiate between three types of current recommender systems for online newspapers: content-based, collaborative and hybrid recommendations. For collaborative recommendations users with a similar taste are identified and items they have previously liked are suggested.

My results about non-propositional features and correlations between several features could serve to enhance such systems.

These results would also be a good starting point for quantitative studies using a questionnaire based on the developed categories.

Anhang A

German Abstract

LeserInnen von Online-Zeitungsartikeln nehmen eine Menge an Information wahr, die ihre Lesezufriedenheit beeinflusst. Eine Studie des Readership Institutes der Northwestern University in Chicago hat gezeigt, dass das Thema eines Artikels nur 40% der Lesezufriedenheit ausmacht. Es wurden nur wenige Studien durchgeführt, in denen auch nicht-propositionale Charakteristika berücksichtigt wurden. Im Rahmen des Projektes MAGNIFICENT hatte ich die Möglichkeit, mich näher mit Faktoren aller Art auseinanderzusetzen, die die Lesezufriedenheit beeinflussen. Das Projekt wird am Österreichischen Forschungsinstitut für Artificial Intelligence (OFAI) durchgeführt, in Zusammenarbeit mit der österreichischen Online-Zeitung derStandard.at.

Ziel dieser Arbeit ist es Hypothesen über Charakteristika zu entwickeln, die wichtig und relevant für das Empfinden von Zufriedenheit beim Lesen von Online-Zeitungsartikeln sind. Qualitative Experimente mit den Methoden des lauten Denkens und des problemzentrierten Interviews wurden durchgeführt um Daten zu sammeln und Kategorien zu entwickeln.

Vier StudentInnen nahmen an einer Pilot-Studie teil, mithilfe derer das experimentelle Design noch verbessert werden konnte. Am darauffolgenden Experiment nahmen 22 StudentInnen teil. Alle Charakteristika, die von den TeilnehmerInnen während des lauten Denkens und während des Interviews erwähnt wurden, wurden extrahiert und in die Kategorien 'propositionale Charakteristika', 'nicht-propositionale Charakteristika', 'Korrelationen', 'persönliche Gründe und Erfahrungen' und 'generelles Leseverhalten' unterteilt. Die in dieser Arbeit präsentierten Kategorien werden sowohl qualitativ als auch quantitativ analysiert. Ebenso werden die Ergebnisse des lauten Denkens und des problemzentrierten Interviews gegenübergestellt.

Die Ergebnisse zeigen, dass für alle PartizipantInnen ‘inhaltsbezogene Charakteristika’, ‘persönliche Gründe und Erfahrungen’ als auch ‘nicht-propositionale Charakteristika’ der Artikel die Lesezufriedenheit beeinflussen. Bezüglich nicht-inhaltsbezogener Charakteristika gingen die Präferenzen der PartizipantInnen auseinander. Einigen der 22 TeilnehmerInnen waren Bilder sehr wichtig, anderen die Struktur, wieder anderen die Länge usw. Die Ergebnisse zeigen auch, dass Zusammenhänge zwischen zwei Charakteristika eine Rolle spielen, beispielsweise die Akzeptanz für längere Artikel und das Interesse am Thema.

Einige der entwickelten propositionalen Charakteristika, der nicht-propositionalen Charakteristika und der Korrelationen werden in ein Vorschläge-System integriert, das am OFAI entwickelt wird. Die Ergebnisse können auch als Basis für breitere, qualitative Studien verwendet werden.

Anhang B

Examples

Lautes Denken**K1 – propositionale Charakteristika**

Thema

interessant
uninteressant

Information

zu viele Fakten
nicht sehr viel Informationsgehalt

Details

zu viele Details
nicht zu viele Details

K2 – nicht-propositionale Charakteristika

Struktur

Zwischenüberschriften
fassen die Absätze gut zusammen
fassen die Absätze nicht gut zusammen
sind nicht aussagekräftig
gefallen

Stil

Überschrift

gefällt
interessant
lustige Überschrift weckt mein Interesse
angenehm
unbekannte Fachtermini in der Überschrift
schrecken ab => würde nicht weiterlesen
gefällt nicht

Schreibweise

gut geschrieben

zu viele Fachtermini durchbrechen den Lesefluss
nicht gut geschrieben

Einstieg

zu abrupter Einstieg in den Artikel
gefällt

Zahlen

zu viele Zahlen
wenn man weiss worum es geht, stören mich die Zahlen nicht

Fachtermini

zu viele Fachtermini

Bilder

gefallen
mittelmässig
nicht sehr aussagekräftig
gefällt nicht
gefallen überhaupt nicht

K3 – persönliche Gründe

Hintergrundwissen

habe zu wenig Hintergrundwissen
nicht viel Hintergrundwissen notwendig

Persönlicher Bezug

betrifft mich

Problemzentriertes Interview**K1 – propositionale Charakteristika**

Thema

interessant
uninteressant

Information

zu viele Fakten
nicht sehr viel Informationsgehalt

Details

zu viele Details

K2 – nicht-propositionale Charakteristika

Struktur

gefällt
Zwischenüberschriften
fassen die Absätze gut zusammen
fassen die Absätze nicht gut zusammen
sind nicht aussagekräftig
gliedern den Artikel sehr gut

Stil

Überschrift

gefällt
weckt mein Interesse
lustige Überschrift
angenehm
unbekannte Fachtermini in der Überschrift
schrecken ab => würde nicht weiterlesen
gefällt nicht

Schreibweise

gut geschrieben

zu viele Fachtermini durchbrechen den Lesefluss
nicht einfach geschrieben
sehr anstrengend zu lesen

Zahlen

zu viele Zahlen
wenn man weiss worum es geht, stören mich die Zahlen nicht

Fachtermini

zu viele Fachtermini

Bilder

gefällt
sehr langweilig
gefallen überhaupt nicht

Länge

war ok, hätte aber nicht länger sein dürfen
angemessen
angenehm
angemessen, obwohl relativ lange
viel zu lange
etwas zu lange

K3 – persönliche Gründe

Hintergrundwissen

habe zu wenig Hintergrundwissen

Lautes Denken**K1 – propositionale Charakteristika**

Thema

interessant
uninteressant
sehr uninteressant

Information

nicht sehr informativ
ausreichend informativ

Details

zu viele Details

Hintergrundinformation

wird geliefert, das finde ich gut
wird vorausgesetzt

es geht um ein anderes Thema als erwartet

K2 – nicht-propositionale Charakteristika

Struktur

etwas chaotisch strukturiert

Absätze

Aufteilung in kleine Absätze gefällt
der letzte Absatz ist nicht gut strukturiert

Stil

gefällt

gefällt nicht

Überschrift

sagt überhaupt nicht aus worum es geht
hat mich neugierig gemacht
gefällt nicht

Unterüberschrift

macht mich neugierig

wirkt unsachlich

gefällt nicht

Schreibweise

gut zu lesen

sehr objektiv

anstrengend zu lesen

sehr subjektiv => ist mir negativ aufgefallen, weil

es meine Meinung nicht trifft

plakativ und pathetisch

unsachlich

wirkt nicht sehr verlässlich

tagebuchartig => gefällt nicht

unvollständig und reduziert => gefällt nicht

überflüssig ausgeschmückt

keine vernünftigen Sätze

Einstieg

in der Einleitung wird gut auf das Thema

hingeführt

episodenhafte Einleitung gefällt nicht

provokierende Frage am Anfang gefällt nicht

(Interview)

Problemzentriertes Interview**K1 – propositionale Charakteristika**

Thema

sehr interessant
interessant
emotional behaftet
mittelmässig
uninteressant
sehr uninteressant

Information

nicht sehr informativ

Details

zu viele Details

Hintergrundinformation

wird geliefert, das finde ich gut
wird vorausgesetzt

es geht um ein anderes Thema als erwartet

K2 – nicht-propositionale Charakteristika

Struktur

etwas chaotisch strukturiert

chronologisch strukturiert hätte mir besser gefallen

Stil

gefällt nicht

Überschrift

sagt überhaupt nicht aus worum es geht

hat mich angesprochen

hat mich neugierig gemacht

ist geistreich formuliert

zusammengewürfelte Gedanken in der

Überschrift gefallen mir nicht

Zitate

werden als wahr hingestellt

Schreibweise

gut zu lesen

kurzweilig zu lesen

anstrengend zu lesen

sehr subjektiv => ist mir negativ aufgefallen, weil

es meine Meinung nicht trifft

plakativ und pathetisch

Einstieg

provokierende Frage am Anfang gefällt nicht

(Interview)

Zahlen

viele Zahlen, aber nachdem er kurz ist, ist das ok

Art
Interview

Fachtermini
zu viele Fachtermini

Länge
kurz

K3 – persönliche Gründe

Hintergrundwissen
habe zu wenig Hintergrundwissen

K4 – Zusammenhänge

ob Überschrift und Text zusammenpassen
ob Bild und Text zusammenpassen
Interesse am Thema und Länge des Artikels
ob Stil und Thema zusammenpassen

Art
Interview
Kopf des Tages

Länge
sehr kurz
zu kurz
etwas lange für den präsentierten Inhalt

K3 – persönliche Gründe

Persönlicher Bezug
betrifft mich überhaupt nicht
es betrifft mich nicht und auch wenn es mich
betreffen würde, würde ich es wahrscheinlich nicht
lesen

K4 – Zusammenhänge

ob Stil und Thema zusammenpassen
ob Thema und Länge zusammenpassen

Lautes Denken**K1 – propositionale Charakteristika**

Thema
interessant
sehr lustig
uninteressant

Hintergrundinformation
etwas zu wenig Hintergrundinformation

K2 – nicht-propositionale Charakteristika

Struktur
gut aufgebaut
optisch ansprechend

Stil

Überschrift
beschreibt den Artikel gut

Schreibweise
lustig geschrieben
verständlich geschrieben

Bild
gefällt sehr
gefällt
sympathisch
erschreckend
gefällt nicht besonders

K3 – persönliche Gründe

Hintergrundwissen
habe Hintergrundwissen
habe zu wenig Hintergrundwissen
 persönlicher Bezug
habe persönlichen Bezug

K4 – Zusammenhänge

ob Bild und Artikel zusammenpassen

Problemzentriertes Interview**K1 – propositionale Charakteristika**

Thema
sehr interessant
interessant
innovativ
neu
lustig
uninteressant
 Information
informativ
 Details
zu viele Details
 verschiedene Sichtweisen gefallen

K2 – nicht-propositionale Charakteristika

Struktur
ok
gut aufgebaut
übersichtlich
 Zwischenüberschriften
es stört mich nicht, dass es keine
Zwischenüberschriften gibt
fehlen

Stil

Stil gefällt nicht
 Überschrift
gefällt
verstehe ich nicht
unbekannte Wörter in der Überschrift
 Schreibweise
lustig geschrieben

Bild
gefällt sehr gut
gefällt
sympathisch
erschreckend
unpassend
verstehe ich nicht

Länge
angenehm kurz
angemessen
könnte noch länger sein
für das Thema etwas zu lange
etwas zu lange
 verschiedene Sichtweisen gefallen

K3 – persönliche Gründe

Hintergrundwissen
habe Hintergrundwissen

K4 – Zusammenhänge

ob Bild und Artikel zusammenpassen
 Thema und Länge
 Interesse am Thema und Struktur

Lautes Denken**K1 – propositionale Charakteristika**

Thema

sehr interessant
witzig
uninteressant

Information

sehr informativ
neue Information

K2 – nicht-propositionale Charakteristika

Struktur

gut strukturiert
schlecht strukturiert => wichtige Information wird
viel zu spät präsentiert

Stil

wirkt sehr wie Werbung
der Artikel hat eher das Niveau einer U-Bahn
Zeitung
ein Rechtschreibfehler – so etwas sollte nicht
vorkommen

Überschrift

unbekanntes Wort in der Überschrift schreckt
mich nicht ab

Schreibweise

gut geschrieben
gut gemacht, weil man weiss worum es geht,
auch wenn man wenig Vorwissen hat
sehr literarischer Stil
sehr objektiv

Einstieg

sehr gute Einleitung

Fachtermini

am Ende steht ein Satz der etwas übertrieben
fachspezifisch ist

Problemzentriertes Interview**K1 – propositionale Charakteristika**

Thema

interessant
sehr witzig
originell
uninteressant

Information

sehr informativ
informativ
neue Information
zu wenig neue Information
andere Information wäre mir lieber gewesen
keine neue Information

K2 – nicht-propositionale Charakteristika

Struktur

gut strukturiert
schlecht strukturiert => wichtige Information wird
viel zu spät präsentiert

Stil

wirkt wie Werbung
der Artikel hat eher das Niveau einer U-Bahn
Zeitung

Unterüberschrift

sehr originell

Schreibweise

gut geschrieben
gut gemacht, weil man weiss worum es geht,
auch wenn man wenig Vorwissen hat
sprachlich sehr gut
sehr präzise analysiert
verständlich geschrieben
präzise formuliert
objektiv
ein bisschen kompliziert geschrieben, aber für
dieses Thema sehr ok
die Collage an Zitaten gefällt
Beispiele gefallen
nicht sehr ernst geschrieben => das gefällt
es werden hauptsächlich Fakten präsentiert
nicht zu schwierig
ein bisschen subjektiv
etwas zähflüssig geschrieben
kompliziert geschrieben

Fachtermini

am Ende steht ein Satz der etwas übertrieben
fachspezifisch ist

Quelle
kein großes Interesse an APA Meldungen

Quelle
kein großes Interesse an APA Meldungen

Länge
unauffällig
nicht zu lange, obwohl er lange ist
etwas länger
sehr lange
viel zu lange

Aktualität
nicht mehr aktuell
verschiedene Standpunkte werden präsentiert =>
gefällt

verschiedene Standpunkte werden präsentiert =>
gefällt

K3 – persönliche Gründe
persönlicher Bezug
habe persönlichen Bezug
Hintergrundwissen
habe zu wenig Hintergrundwissen

K3 – persönliche Gründe
persönlicher Bezug
habe persönlichen Bezug

K4 – Zusammenhänge
Interesse am Thema und Länge

Artikel-ID	Zeit	Nr.	Paraphrase	Generalisierung	Reduktion
1271377978436. Bewertung: -	Zeit 0:32	1	auf den ersten Blick spricht mich der Artikel nicht an	Artikel spricht mich auf den ersten Blick nicht an das Bild finde ich nicht ansprechend den Titel finde ich nicht ansprechend	K1 – propositionale Charakteristika kein Interesse am Thema
		2	das Bild finde ich nicht ansprechend		
		3	den Titel finde ich nicht ansprechend		
		4	beim ersten Drüberfliegen bleibt der Eindruck, dass es mir nicht gefällt	Eindruck, dass es mir nicht gefällt, bleibt kein Interesse am Thema zu viele Zahlen nicht gut lesbar kein Interesse am Thema	K2 – nicht-propositionale Charakteristika Bild und Titel finde ich nicht ansprechend zu viele Zahlen nicht gut lesbar
		5	das Thema interessiert mich nicht		
		6	der Artikel hat zu viele Zahlen		
		7	er ist nicht schön zu lesen		
		8	das Thema interessiert mich nicht		
Interview 1277338501621. Bewertung: o	Zeit 0:09 Zeit 1:51	1	der Artikel war langweilig	langweiliger Artikel den Titel finde ich nicht ansprechend habe zu wenig Hintergrundwissen zu viele Zahlen	K2 – nicht-propositionale Charakteristika den Titel finde ich nicht ansprechend zu viele Zahlen K3 – persönliche Gründe habe zu wenig Hintergrundwissen
		2	die Überschrift hat mich schon nicht angesprochen		
		3	mir sagen die Namen überhaupt nichts		
		4	da waren auch zu viele Zahlen		
		1	der Titel spricht mich an	der Titel spricht mich an das Bild ist mittelmässig der Titel spricht mich an das Interesse bleibt nach dem 1. Absatz interessantes Thema	K1 – propositionale Charakteristika interessantes Thema K2 – nicht-propositionale Charakteristika der Titel spricht mich an das Bild ist mittelmässig
		2	das Bild ist mittelmässig		
		3	die Überschrift ist interessant		
		4	nach dem ersten Absatz will ich noch weiterlesen		
5	das Thema interessiert mich				
Interview 1281829292728.	Zeit 0:43 Zeit 3:51	1	interessantes Thema	interessantes Thema gut geschrieben Zwischenüberschriften haben den Inhalt gut zusammengefasst	K1 – propositionale Charakteristika interessantes Thema K2 – nicht-propositionale Charakteristika gut geschrieben Zwischenüberschriften haben den Inhalt gut zusammengefasst die Länge war ok, aber er hätte nicht länger sein dürfen
		2	gut geschrieben		
		3	man konnte sich vorstellen, worum es geht		
		4	die Struktur hat gefallen, weil man sich von den Zwischenüberschriften ein Bild machen kann, worum es geht	Zwischenüberschriften haben den Inhalt gut zusammengefasst die Länge ist grenzwertig ok er hätte nicht länger sein dürfen	K1 – propositionale Charakteristika interessantes Thema K2 – nicht-propositionale Charakteristika gut geschrieben Zwischenüberschriften haben den Inhalt gut zusammengefasst die Länge war ok, aber er hätte nicht länger sein dürfen
		5	die Länge ist grenzwertig ok		
		6	er hätte nicht länger sein dürfen		
		1	interessantes Thema	interessantes Thema	K1 – propositionale Charakteristika

Bewertung: +	2	das Wort Wettbewerb lädt dazu ein, dass man weiterliest	Titel spricht den Leser direkt an	interessantes Thema	interessantes Thema
	3	interessant, weil es ein Wettbewerb von IKEA ist		interessantes Thema	K2 – nicht-propositionale Charakteristika
	4	Inhalt, wie der Artikel geschrieben ist und worum es geht	Artikel ist gut geschrieben	Titel spricht den Leser direkt an	Titel spricht den Leser direkt an
	5	finde ich interessant	es ist etwas Neues	es ist etwas Neues	gut geschrieben
	6	es spricht den Leser direkt an, mitzumachen	Titel spricht den Leser direkt an		es ist etwas Neues
	Interview	Zeit 1:45	interessantes Thema	interessantes Thema	K1 – propositionale Charakteristika
	1	interessant, da ein Wettbewerb	der Leser wird direkt angesprochen	interessantes Thema	interessantes Thema
	2	man überlegt, ob man mitmachen kann	interessantes Thema	finde es interessant zu lesen	K2 – nicht-propositionale Charakteristika
	3	interessant, weil es ein Wettbewerb von IKEA ist	finde es interessant zu lesen	Länge ist angemessen	der Leser wird direkt angesprochen
	4	ich würde nicht mitmachen, fand es aber interessant zu lesen	Länge ist angemessen	Länge ist angemessen	Länge ist angemessen
	5	die Länge ist angemessen	Länge ist angemessen	Länge ist angemessen	Länge ist angemessen
	6	für Wettbewerb ist angemessen, dass er knapp und kurz ist	Länge ist angemessen	Länge ist angemessen	Länge ist angemessen
	7	war gut geschrieben und man hat sich die wichtigsten Sachen gemerkt	gut geschrieben	gut geschrieben	gut geschrieben
	Zeit 5:12				
1277338240414.	1	diesen Artikel finde ich überhaupt nicht ansprechend	Artikel spricht mich gar nicht an	Bild und Überschrift sprechen mich nicht an	K1 – propositionale Charakteristika
	2	Bild und Überschrift sprechen mich nicht an	Bild und Überschrift sprechen mich nicht an	kein Interesse am Thema	kein Interesse am Thema
	3	da muss man sich richtig durchkämpfen, wenn einen das Thema nicht interessiert	Thema nicht interessiert	Thema nicht interessiert	K2 – nicht-propositionale Charakteristika
	4	die Zwischenüberschriften sagen nicht aus, worum es im Absatz geht	die Zwischenüberschriften sagen nicht aus, worum es im Absatz geht	Bild und Überschrift sprechen mich nicht an	Bild und Überschrift sprechen mich nicht an
	5	die Zwischenüberschriften sind schlecht gewählt mit vielen Fachtermini	zu viele Fachtermini	man muss sich richtig durchkämpfen, wenn einen das Thema nicht interessiert	man muss sich richtig durchkämpfen, wenn einen das Thema nicht interessiert
	6	das Thema interessiert mich nicht	kein Interesse am Thema	die Zwischenüberschriften sagen nicht aus, worum es im Absatz geht	die Zwischenüberschriften sagen nicht aus, worum es im Absatz geht
				zu viele Fachtermini	zu viele Fachtermini
Interview	Zeit 3:10				
	1	fand die Überschrift problematisch, weil ich Wörter in der Überschrift nicht kannte	unbekannte Fachtermini in der Überschrift sind problematisch	unbekannte Fachtermini in der Überschrift sind problematisch	K2 – nicht-propositionale Charakteristika
	2	das Bild ist sehr langweilig	sehr langweiliges Bild	sehr langweiliges Bild	unbekannte Fachtermini in der Überschrift sind problematisch
	3	Statistiken finde ich abschreckend	sehr langweiliges Bild	sehr langweiliges Bild	problematisch
	4	die Zwischenüberschriften fand ich schrecklich, weil sie mir nichts gesagt haben	die Zwischenüberschriften sagen nicht aus, worum es im Absatz geht	die Zwischenüberschriften sagen nicht aus, worum es im Absatz geht	sehr langweiliges Bild
	5	zu viele Fachtermini	zu viele Fachtermini	zu viele Fachtermini	die Zwischenüberschriften sagen nicht aus, worum es im Absatz geht
	6	sehr anstrengend zu lesen	sehr anstrengend zu lesen	sehr anstrengend zu lesen	zu viele Fachtermini

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