Zurich University of Applied Sciences (ZHAW)
School of Applied Linguistics

**Bachelor’s theses in Barrier-free Communication**
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2018


The aim of this work was to test the accessibility of nine Swiss university websites. Textual content was systematically selected from each website and relevant linguistic peculiarities, LIX value and text comprehensibility were assessed using the Hamburg comprehensibility model. In four out of nine cases (i.e. KALAIÐOS, UNISG, UNIFR, ZHAW), our accessibility evaluation was in line with the Swiss Accessibility Study 2016 (SAS16). However, it was expected that our test results would partially differ from the ratings of the SAS16. This hypothesis was confirmed. In fact, five out of nine university websites, which were rated as equally accessible in the SAS16, ranked very differently in our test. These results suggest that the comprehensibility and readability of a website’s textual content should be included in the evaluation criteria of the SAS. This would allow for a more thorough and targeted approach to website accessibility evaluation.


The purpose of this work is to describe the state-of-the-art of Audio Description (AD) of football matches on Austrian and German public-service television channels. Selected excerpts from the AD scripts for the UEFA Champions League semi-final Real Madrid vs FC Bayern Munich, which was broadcast on 25 April 2018 by the Austrian Broadcasting Corporation (ORF) and the Second German Television (ZDF), will be transcribed, analysed and compared with each other. Particular attention will be devoted to examining whether the two ADs comply with the AD guidelines of the respective broadcasters. My analysis shows that the ORF AD describes people in more detail and places greater emphasis on mentioning colours. By contrast, the ZDF AD contains a significantly higher number of evaluative and interpretative statements. It can be concluded that the ORF AD adheres more closely to the respective broadcaster’s AD guidelines. These preliminary results should be further investigated in larger studies. It would be particularly interesting to explore how people with visual impairments perceive different audio descriptions of football matches.


This work aims to identify any barriers or accessibility issues that may be encountered when using screen reader software. Specifically, we seek to answer the following research questions: (1) Which screen reader requires less manual intervention in order to achieve optimum performance? (2) Do plug-ins help users to ensure accessibility when creating documents? Two screen readers (i.e. JAWS and VoiceOver) will be compared with each other and their speech output performance when reading different file formats (i.e. Word, PowerPoint and PDF) will be evaluated. The effectiveness of two ZHAW plug-ins for accessible document design will also be tested. Our study shows that JAWS runs seamlessly, delivers more advanced features than VoiceOver and, therefore, performs better. PDF files are read more easily by the two screen readers and, overall, require the least user intervention.
Furthermore, our results confirm that the ZHAW plug-ins help to achieve document accessibility. Further investigations are needed to test footnotes and diagrams against screen reader compatibility, ideally in collaboration with the target population.


The aim of this work is to analyse and compare live subtitling services of RAI - Radiotelevisione Italiana S.p.A., the national public broadcasting company of Italy, and Radiotelevisione svizzera di lingua italiana (RSI). The first part of this thesis will introduce Speech-To-Text Interpreting (STTI) and Respeaking, and will provide an overview of the use of both methods on Italian and Italian-speaking Swiss television channels. In the second part, the live subtitles (both pre-recorded and real-time) of selected excerpts from two news reports will be assessed using the NER model. The news reports were broadcast on, respectively, Rai1 and RSI LA1 on two consecutive days in May 2018 and dealt with the same news item. The results suggest that Rai1’s speech-to-text interpreting service delivered more accurate real-time live subtitles than SWISS TXT, whose respoken subtitles contained more errors and omissions. Furthermore, both channels delivered high-quality pre-recorded subtitles for the two excerpts under investigation. Further studies are desirable to validate these data.


This work addresses the question of how sensor-based assistive devices can facilitate the understanding of educational films by visually impaired recipients. Tactile aids support visually impaired people in using their superior tactile spatial acuity to compensate for their lack of sight. Tactile aids are currently being used in museums and other educational settings. However, their potential in assisting the visually impaired to understand the content of a film has hardly been investigated to date. In this study, tests were carried out with 22 participants (2 of whom were visually impaired), who were divided into two groups: the first group was provided with tactile aids (i.e. a torso model and a heart model), while the second group was not provided with any aids. All respondents listened to an educational film on the structure and function of the heart and were then asked to answer relevant comprehension questions. Our analysis showed that tactile aids facilitated the respondents’ understanding of the film content and confirmed their potential in assisting the visually impaired in any educational setting. Further investigations are needed to examine the effectiveness of tactile aids in combination with Audio Description and/or Audio Introduction.

**2017**


This work addresses the question of how Audio Introduction can influence the understanding of a non-fiction film by visually impaired recipients. To date, Audio Introduction for documentaries and visual educational content has hardly been addressed by the academic community. This work aims to partially fill this research gap. A test was conducted with 12 participants (2 of whom were visually impaired), who listened to the audio track of *Fledermäuse*, a nature documentary film by Marc Tschudin (1997) which was broadcast in 2010 as part of the “SRF mySchool” series. One group of respondents (5 sighted persons and 1 blind) listened to an ad-hoc prepared audio introduction. Subsequently, both groups listened to the film’s audio track and were then asked to answer relevant comprehension questions. The test results suggest that Audio Introduction facilitates the understanding of the content of non-fiction films. The information which was mentioned explicitly in the audio introduction – in particular, factual information that require no interpretation, such as
numbers or numerical comparisons – is more likely to be remembered by the film recipients. Interestingly enough, our study shows that Audio Introduction is most effective in facilitating comprehension when it provides information that is neither too obvious (read general knowledge) nor too complex. Further investigations are desirable to validate these data.


This thesis investigates the structural differences between German Sign Language and Standard German as they emerge in 37 blog posts written by deaf people. The focus is placed particularly on morphological aspects, i.e. gender and article agreement, plural morphology and verbal morphology. A total of 1726 definite, indefinite and composite articles, 958 plural formations and 1220 verbal structures were analysed and assigned to “grammatically correct” or “grammatically incorrect” categories. Our analysis suggests that structures that do not exist or are different in German Sign Language are incorrectly used by L1 sign language users in Standard German as L2. By contrast, structures that exist in both languages are correctly used by L1 sign language users in Standard German as L2. Further corpus-based investigations are desirable to validate these results.


This work aims to determine the potential information loss occurring in pregnancy guidebooks in Plain Language (PL). Nine pregnancy guidebooks, which were freely available on the internet, were examined and compared with a parallel text in Standard Language. Grice's conversational maxims (1975) served as the linguistic basis for identifying and categorising the missing information. Our study showed that the Gricean maxims were violated in almost all PL booklets (49 violations in total). Whether and to what extent the addressees may be affected by such loss of information depends on the impairment of each individual person. Some of these violations could be avoided if PL texts were revised and proofread by people with different impairments. Furthermore, this work suggests that it would be beneficial to adhere to the Gricean maxims when writing, translating and/or revising PL texts.


The purpose of this work was to compare the respoken subtitles of “ESC 2017 – Entscheidungsshow” (SRF, 2017) and its francophone counterpart “Eurosong Finale Suisse” (RTS, 2017). Selected subtitles from both programmes were analysed against reduction, addition and variation categories. The collected data were processed according to Dresing’s and Pehl's (2015) transcription system. The analysis was then carried out using the software application NERstar. Our study identified some of the peculiarities that arise when translating Swiss-German original sound into Standard German subtitles and, on the other hand, French original sound into French subtitles. Based on our analysis, we concluded that the French subtitles did not differ significantly from the German subtitles and that similar strategies for reduction, addition and variation were generally applied. In both programmes, the most recurrent inconsistencies between the original sound and the subtitles were omissions. Often, broken sentences, reformulations, redundant statements or utterance particles were omitted. Additions accounted for the same proportion in both languages. In contrast to other editing categories, however, they were rather rare. Further investigations are desirable to validate these conclusions.
The aim of this work was to examine whether a selection of family and social affairs brochures bearing the Inclusion Europe (IE) logo actually comply with the European Easy-to-Read rules. It was questioned whether and how these rules were implemented in each individual booklet. Our study showed that 44 of 73 rules were not adhered to in our sample texts. Break of rules emerged in lexicon, morphology, semantics and syntax. It was found that some rules could not be successfully implemented without breaking another rule. In such cases, rewording of rules would be recommended. It was also noticed that vague formulations led to a particularly large number of rule breaks. However, there were also rule breaks which, apparently, could not be justified. These results suggest that the IE logo does not guarantee that European Easy-to-Read standards are fully met. They also illustrate how challenging it is to design a set of Easy-to-Read rules that meet the heterogeneous needs of the target population. Future investigations might examine whether the rule breaks have a negative effect – or perhaps even a positive effect – on the target groups' understanding of a simplified text.


The purpose of this work is to illustrate how gender-neutral writing is implemented in Plain Language texts and, secondly, to investigate whether gender-neutral writing may affect the comprehensibility of Plain Language texts. An ad-hoc corpus of texts bearing the Inclusion Europe logo was created. This corpus allowed us to conduct both a qualitative and a quantitative investigation. Furthermore, a test was carried out with 4 cognitively impaired respondents (2 male and 2 female). The test aimed to investigate the respondents’ subjective perception of the comprehensibility of gender-specific designations in two sample texts. Overall, our study suggests that there is no clear difference in the way respondents perceive the comprehensibility of gender-fair texts vs gender-neutral texts. Our results are in line with Braun et al. (2007), who argue that gender-fair texts can be processed as successfully as texts with masculine generics. This work provides preliminary data and indications for further studies in this field of research.


The aim of this thesis is to examine the audio descriptions of seven James Bond films with a focus on product placement. The James Bond film series is particularly suitable for such an investigation, since it allows for a diachronic analysis over 70 years. In addition, the most recent James Bond films are well known for a striking number of product placements (Kaimer 2012). Our objective is to lay a foundation for research on product placement in Audio Description, since this is a completely unexplored area of study. It was assumed that product placements would increase considerably over the years along with film budgets. This assumption was not confirmed, as the 7 films under investigation provide a comparable number of product placements. Our corpus analysis revealed both explicit and implicit product placements. The products placed are mainly vehicles, small firearms, beverages, electronic products and watches. In both movies and audio descriptions, product placement is the most commonly used way to place products. Overall, however, the number of products placed in the movies is much higher. In the audio descriptions, a hyperonym (e.g. the car) is often preferred to the brand name (e.g. Aston Martin). To further increase the reliability of these data, studies on other James Bond films are needed.
In this thesis, the Swiss Radio and Television (SRF) programme “Die grössten Schweizer Talente” (DGST) was analysed to investigate how music can be made accessible to people with a hearing impairment. The following key research questions were asked: how is music subtitled? Were SWISS TXT’s subtitling guidelines successfully implemented? An ad-hoc corpus comprising SWISS TXT’s pre-recorded as well as live subtitles for the entire 4th season of DGST allowed us to analyse content-related, linguistic, optical and technical aspects. The results show that SWISS TXT’s subtitling guidelines were largely implemented. The methods employed for lyrics subtitling and descriptive music subtitling are used in both pre-recorded and live broadcasts. How detailed and extensive the music subtitling is depends primarily on the production approach. It is desirable that this corpus be used in further investigations on music subtitling. Interviews with the target groups would also be needed to assess users’ preferences and satisfaction.

2015


The purpose of this thesis is to examine Ofcom’s ITC Guidance on Standards for Audio Description, ADLAB’s Audio Description Guidelines and Benecke’s rules for Audio Description (AD), and investigate whether and how these guidelines differ from each other. Selected excerpts from the AD scripts of “Harry Potter and the Sorcerer’s Stone” (2001) and “Harry Potter and the Half-Blood Prince” (2009) will be considered. The film selection is based on the fact that Harry Potter films are extremely popular and have been dubbed and audio-described into many different languages. Our study shows that all three sets of guidelines were applied in the audio descriptions under investigation. Changes in the guidelines implementation can be observed in the introduction of film characters and in character fixations. In these areas, the two films differ markedly. While in “Harry Potter and the Sorcerer’s Stone” characters are only named in the AD when they are actually named in the film sound, in “Harry Potter and the Half-Blood Prince” characters are named in the AD from the very beginning. This can be either interpreted as an evolution of Benecke’s guidelines towards Ofcom/ADLAB or, alternatively, it has to be assumed that all characters of the more recent movie are already known. Further studies are desirable to add to the data gathered in this work.


Our thesis set out to answer the following research questions: how do recognition and edition errors affect the quality of live subtitles? What are the strengths of the NER model? What are the weaknesses of the NER model? An ad-hoc corpus comprising 23 subtitled weather reports was created. Weather forecast programmes were selected for four reasons: prime time, high market share, live subtitling, Swiss German. From our pool of reports, 20 live subtitles with seemingly interesting recognition or edition errors were examined using the NER model. The results showed that 11 live subtitles had an insufficient accuracy value, 4 had a sufficient accuracy value, and 5 had a maximum accuracy value of 100%. The recognition errors were thus particularly striking, made the subtitles difficult to understand or were even exhilarating in the weather forecast context. Our analysis let us conclude that recognition and edition errors usually have a negative impact on the accuracy value of live subtitles. The strengths of the NER model lay in its ease of use and its consideration of the original text. On the other hand, the weaknesses of the NER model lay on too subjective an evaluation and the strong dependence of the accuracy value on N (= Number of words).
The aim of this work is to examine how objectively gestures and facial expressions are described in the English and German ADs of Grand Budapest Hotel (2014) and Die Bücherdiebin (2013). The four audio descriptions will be juxtaposed and examined for similarities and differences at both intralingual and interlingual levels. The ADs will be analysed quantitatively, i.e. in terms of number of words used, and qualitatively, i.e. in terms of type of words used. Considering that the US apply stricter guidelines for AD, the hypothesis underlying this work is that the US descriptions of gestures and facial expressions present a higher degree of objectivity than the German ones. The results do not confirm this hypothesis and, in fact, suggest that the US guidelines’ emphasis on objectivity is not equally reflected in the AD of the films under investigation. Although the German AD presents more interpretative elements (e.g. adverbs), my analysis shows that both English and German ADs contain interpretations. In addition, the English ADs include more (and longer) descriptions, which are also more detailed and vivid than the German ADs. The latter adhere to objectivity criteria in that they do not provide more than one piece of information per sentence and present a more neutral choice of words.

This work set out to answer the following research question: to what extent can Benecke's Audio Description (AD) guidelines be applied to animated films, whose main target audience is children? Firstly, three key scenes from "Der König der Löwen" (1994) – the first animated film to be audio described in German – were selected and the relevant AD was transcribed. Secondly, matches and deviations from Benecke’s guidelines were identified and preliminary insights were gained for addressing a target audience of children. Our investigation showed that Benecke’s guidelines were often adhered to. It can thus be concluded that Benecke’s guidelines can largely be applied to an animated film, even though our analysis suggests that facial expressions and gestures, Intended Hyper Description and the use of technical terms should be given greater consideration. However, deviations were also noticed. An impressive interplay of sound, especially music, and audio description could be observed. In addition, our study showed how heterogeneous the audience of an animated film can be, including children, families and Disney fans in general, as well as visually impaired people with different profiles (congenitally blind, partially sighted, etc.). Finally, it should be mentioned that none of the authors is visually impaired and therefore conclusions had to be drawn on a theoretical and subjective basis.

2014


This work aims to examine how text and visual content of magazines are made accessible to blind and visually impaired people. To date, Audio Description (AD) of magazines has hardly been addressed by the academic community. This work sets out to partially fill this research gap. Three print editions and the corresponding audio versions of the women’s magazine Brigitte Woman, as well as one edition of the audio magazine Rita, will be analysed. First, the structure and user guidance of the audio versions of Brigitte Woman and Rita will be examined and compared with each other. Second, the AD of the “Fashion” section of the three Brigitte Woman issues will be analysed, focusing on lexicon and syntax. Our study reveals considerable inconsistencies in the samples under investigation. For instance, significant variations between the amount of text in the AD and that in the print editions (values between 20.3% and 95.0%) are observed. In addition, our analysis shows that


80% of the sentences examined contain more than one piece of information each and, therefore, do not comply with Benecke’s guidelines for AD. Such inconsistencies may have a negative impact on the recognition value of the audio magazines and hinder the user’s orientation. The insights gained in this work pave the way to the development of AD guidelines for magazines. These guidelines should consider the needs of the visually impaired people with different profiles.


The aim of this paper is to describe the differences between spoken subtitles in Swiss German and written subtitles in Standard German. It will be pointed out that Respeaking from Swiss German into Standard German is an interlingual process and is, therefore, at least as complex as simultaneous interpreting. Three live subtitles episodes of the SRF programmes “Puls” and “Kassensturz” were transcribed and analysed using the QIT model. The categories considered were variation (lexical, syntactical and morphological), reduction (total and partial), addition and contradiction. Overall, considerable differences were observed, the most frequent being variations and reductions. Additions and contradictions were not often found. It is desirable that interlingual Respeaking be further investigated, as there are hardly any studies in this field. In particular, Respeaking from Swiss German into Standard German could be studied on a larger scale and with a larger amount of data.


The present study focuses on Audio Description (AD) of operating manuals for the blind and visually impaired. To date, AD has not yet been investigated in connection with operating manuals. This work therefore aims to provide initial insights into how AD of an operating manual is produced and what target groups’ needs are to be considered. My analysis will look at a pocket calculator manual. A corpus will be assembled to include the following documents: AD of the manual, transcript of the AD, manual in HTML format and the original manual by Canon. The analysis shows how complex AD of operating manuals can be, in that not only images have to be translated into words and inserted into the text, but also the device’s acoustic signals have to be described. Since the visual information has to be integrated into the text, the AD text itself becomes larger. Furthermore, not only general comprehensibility factors have to be considered, but also the comprehensibility of output speech. It emerges that there is a lack of clear guidelines for AD of operating manuals. Further investigations are needed to develop relevant standards in the future.

2013


This study is based on the bachelor’s thesis “Happy Go Lucky – der Hörfilm. Eine exemplarische Analyse der Wirkung auf die Zielgruppe” by Eichenberger et al. (2012), who investigate the impact of Audio Description (AD) on the target groups. The present work concentrates on spatial perception. It is questioned whether and to what extent the perception of space differs between visually impaired and sighted persons. We concentrate our attention on the AD of two rooms from Der Vorleser (2008). Our aim is to determine whether AD can convey the same perception of cinematic space to both visually impaired and sighted people. The results show that the respondents’ spatial perception is very similar. Both Hanna’s apartment and prison cell were similarly perceived by the sighted and visually impaired respondents. It has to be highlighted that the AD of Der Vorleser is qualitatively remarkable and was awarded with the “Deutscher Hörfilmpreis”. The feedback received from the
visually impaired respondents confirms that the descriptions were very detailed. This enabled them to construct a very good mental picture of the rooms.


There is currently a lack of training opportunities for respeakers. This work set out to answer the following research questions: is the quality of live subtitles related to the professional background of the respeaker? Do respeakers with interpreter training make different mistakes than trained translators? Do respeakers with interpreter training have different skills and character traits than trained translators? Fourteen SWISS TXT respeakers answered a questionnaire and provided samples of their own work. The questionnaires were aimed at gathering professional information, while the respeaked subtitles allowed me to examine interpreters’ and translators’ different skills. My analysis included a comparison between questionnaire answers and respeaked subtitles, a quality assessment of the subtitles based on specific criteria and an accuracy analysis using the NER model. The NER analysis suggested that the quality of the respeaked subtitles under investigation was not related to the respeakers’ professional background. Furthermore, the question as to whether translators use different strategies in Respeaking and make different mistakes than interpreters could not be resolved, as only partial tendencies were apparent. Finally, the assumption that translators are more reserved than interpreters was confirmed by the questionnaires.


The Audio Description (AD) of the children’s movie *Der Fuchs und das Mädchen* (France, 2007) is the object of this investigation. The quality of the AD script will be examined and tested against Nord’s text analytical approach. This work aims to answer the following main research question: are the basic thematic elements of *Der Fuchs und das Mädchen* transferred in the audio film in a comprehensible way? Furthermore, what world knowledge is required on the part of the children? Is the choice of words adapted to children’s needs? Are sentence length and syntactical structures adapted to the movie’s content? The analysis showed that the elements “nature” and “ferocity and domestication” were successfully transferred from visual content into text. Thanks to the simple and short sentence structures, the spoken text becomes comprehensible and easier for children to understand. However, some presuppositions assume a world knowledge that children may not yet have. As a result of this work, four guidelines for AD of children’s movies were developed.

2012

**Eichenberger, Lucia, Rahel Oppliger, and Rebecca Saltalamacchia.** “Happy Go Lucky – der Hörfilm. Eine exemplarische Analyse der Wirkung auf die Zielgruppe.” Bachelor’s thesis, Zurich University of Applied Sciences (ZHAW), 2012. [Co-Supervisor: Dr. Martin Kappus]

The purpose of this thesis is to compare the German version of *Happy Go Lucky* (UK, 2008) with the relevant audio film. The focus will be placed on the impact that the two main characters, namely Poppy and Scott, have on both a sighted and a visually impaired audience. A semantic differential with opposite pairs of adjectives allowed us to measure the audiences’ perception of the two characters. The evaluations of both sighted and visually impaired respondents were compared and analysed from a linguistic perspective. The results showed that *Happy Go Lucky* was perceived very similarly by the sighted and visually impaired respondents. The impact of the film was thus similar for both groups of respondents. This result suggests that Audio Description may enable visually impaired recipients to live the same cinematic experience as sighted viewers.
Our work sets out to find out what degree of information loss is experienced by visually impaired recipients of an audio-described film. In order to answer this question, we will first illustrate the state-of-the-art of research on Audio Description (AD) in Germany and Switzerland. In addition, we will highlight the key language features of AD scripts. We will also present the film genres and film scenes selected for this study, i.e. *Der ewige Gärtners*, an English thriller (2005), *Keinohrhäsien*, a German comedy (2007), *Zerrissene Umarmungen*, a Spanish drama (2009). Selected scenes from these films will be first transcribed. We will then describe each scene with our own words and then compare our descriptions with the corresponding AD. The potential loss of information will be assessed against linguistic, narratological and semiotic criteria. Finally, we will conduct an interview with a blind participant to partially validate our assessment. Our analysis shows that AD allows the visually impaired recipients to follow the plot without experiencing any loss of information. AD succeeds in providing essential information even in our sample fast-paced thriller film. However, semiotic aspects are neglected in all three ADs. Time is too short to describe non-verbal elements, for instance. Our conversation with the blind test participant confirmed that non-verbal aspects are often neglected in AD. Although this does not normally lead to loss of essential information, s/he would nonetheless appreciate a more detailed description of facial expressions and gestures in AD.

This work focuses on information transfer during the Respeaking process. The analytical categories considered are variation, reduction, addition and contradiction. It is examined whether these categories are more strongly pronounced in news reports, which have a high density of information, or in entertainment programmes, which present a lower density of information. First, the history and development of Respeaking in Great Britain and Switzerland will be presented. Second, the four analytical categories will be discussed in more detail. Furthermore, the genres “news reports” and “entertainment programmes” will be defined. In the empirical part of this work, excerpts from news and entertainment programmes will be examined. Selected scenes will be transcribed and compared with the corresponding respoken subtitles. The deviations will be categorised and their occurrences evaluated quantitatively. The results show that while the number of additions and contradictions observed in the two genres under investigation is not at all or only slightly different, the number of variations and reductions differs greatly. Contrary to our assumption, variations and reductions are about three times more frequent in the entertainment programmes than in the news reports. This can be explained by the fact that the interviewees talk to their host in Swiss dialect.

This thesis addresses the question of how pre-school children with profound hearing loss (with or without Cochlear implants) can best be supported to acquire age-appropriate competency in their first language. Profoundly hearing-impaired children are normally educated in spoken language only. Health professionals advise against sign language learning because it supposedly discourages profoundly hearing-impaired children from speaking. However, several studies (cf. Wisch 1990 among others) prove in fact the opposite. This work aims to examine current practices in German-speaking
Switzerland. I will illustrate various methods of language teaching for profoundly hearing-impaired pre-school children and their impact on the children's linguistic and cognitive development. Furthermore, I will also challenge the assumption that sign language as L1 can have a negative impact on spoken language development. Overall, Prillwitz et al. (1988; 1991) and my analysis of questionnaire answers by parents who participated in this study, confirm that sign language learning does not pose any obstacle to spoken language acquisition by profoundly hearing-impaired children.