Amberscript

We make audio accessible

Record, Type, Analyze - Guide to Conducting Interviews and Transcriptions

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Preface

'This report does not advertise any transcription method or provide a standard solution for transcribing interviews. It is also not the intention to treat these topics theoretically and leave the readers with unanswered questions. On the contrary, in this book we report on our years of experience, present different methods and give practical tips and tricks around the topics of interviews and transcripts.

We guide you through the various steps relevant to recording, transcribing and analyzing your interviews. The steps involved in recording your interviews include the topics of project planning, techniques, tools and file handling.

The most important aspects of transcription are discussed below. Attention is also paid to the application areas and purposes of transcriptions. Transcripts are used not only in science, but also in media companies (e.g. publishing, film production, podcasts). That is why we also provide information on related topics such as translations and subtitle creation and which rules and procedures are appropriate in these areas.

Transcription by "artificial intelligence" (known as automatic speech recognition, ASR) has made a huge leap in recent years. We write about our own experiences and zoom in on the quality of the output.

Technical advances make it possible to simplify many interview and transcription steps and take over the entire 'transcription process' where possible. The range of technical resources is enormous. For orientation, we have therefore tested and compared useful tools (including recording, transcription and content analysis).

Also in the field of analysis, there are various programs that simplify analysis. The analysis is as targeted as that of transcription. To provide an overview, this book discusses some methods for analysis in general and the method according to Mayring (2002) in more detail.

Overall, our book covers the most interesting, relevant, and practical aspects of transcription. The book is therefore aimed at researchers and students as well as at all current and future transcribers from the media, market research and commercial companies. We've also provided some interesting reading tips and links to demo versions and guides for further reading. This and all other links are updated regularly. To keep all content up to date, we appreciate your feedback.

We wish you a lot of fun and success with recording your material and eventually transcribing and analyzing it!

Introduction

Transcription, i.e., the written reproduction of an oral document, is a necessary process in various jobs and domains. However, it is usually more complex than expected. It is therefore important to properly plan the transcription process.

This reference guide is designed to identify and facilitate the important steps before, during, and after transcription.

It starts with the planning of the interviews. Since transcripts are often made of qualitative interviews, the planning and preparation of interviews should be discussed first. This includes, for example, the selection of a suitable respondent, the location or choice of language or the questions themselves. The question of whether and when to have individual or group conversations and which data protection rules to comply with is also crucial.

Another important step before transcription is recording. For this we recommend some dictation devices and mobile phone apps and give tips on how to do this well. In addition, the advantages and disadvantages of video and audio recordings are discussed in more detail.

Before transcription begins, it may be helpful and even necessary to edit the recording. Possible editing steps are file conversion, transfer to PC and file naming. In addition, we recommend programs for editing and improving sound quality.

After recording, you can start typing. It is important to know for what purpose the transcripts are made, as this determines the transcription rules. For an overview, we present some of the most common purposes and provide recommendations to find the right transcription method.

To make typing as fast and easy as possible, we compare playback and transcription programs and also present useful transcription sets. In this context, we also report on transcription with automatic speech recognition and on empirical values in this area.

Once the transcripts are created, they are often further processed in the form of an analysis. This also depends on the purpose of the transcription. In the course of interviews, Mayring's method is often used, which is briefly presented here. A fundamental distinction can be made between a qualitative and a quantitative analysis. We recommend the use of evaluation programs in particular for the latter.

Finally, we clarify the question of when it makes sense to carry out the transcription yourself and when it makes sense to outsource it to a service provider. You can also learn more about Amberscript and about the GDPR.

But first the first step towards the transcription, the planning of the project, is taken.

Before recording: planning the project

When planning qualitative interviews, an associated lead time and buffer times are essential. This is especially important because it depends on the other person if and when the conversation can take place. For busy people, an interview for a research paper may not be a top priority, so such an appointment is often postponed or cancelled.

The following steps are recommended when planning the interviews:

Identification of interview needs

Imperative to a good study is that the respondents are knowledgeable in the area of what is being researched. So before you schedule someone, think carefully about why this person is important to your own research and what questions you want to ask.

Reaching the interviewee

Once you have defined the ideal profile of an interlocutor, you can find them via:

- Using your own network and asking if they know someone who fits the profile
- Asking people who match the profile if they know other people who match the profile ("Snowball effect")
- A simple internet search.

The best method to convince someone to participate in the interview is ***by telephone***. E-mails often lead to delayed responses, if the correct e-mail address can already be traced.

Ideally, a friendly approach over the phone leads to an immediate ***appointment*** for the interview. This can be done with the interviewee himself or through his secretariat. Even if you do not even know who is responsible for the subject or do not have an extension number, you can be transferred to the telephone exchange in a friendly manner.

You must be persistent and not give up. This can work better if you consider in advance to what extent the other person will benefit from the conversation. This could be, for example, making the results available.

Other topics to be planned are the place and time, the language, the technical equipment, the content structure and legal and data protection, which will be briefly discussed in the following paragraphs.

On site or by phone – where to interview?

With regard to the location, it should be clarified whether the interview is to be conducted in person or by telephone or video conference. If the location is further away, the tradeoff is whether it's worth spending the cost and time involved.

For appointments on location, you should always ensure that you are fully attentive and have good acoustics, so that the conversation can be recorded without interference. While these may seem attractive for casual conversation, ***crowded places*** such as cafes or restaurants are generally not suitable for good interviews, as distractions and noise interfere with conversation and recording.

The place of residence or place of work of the interviewee is a good choice, since the respondents are usually more open and relaxed in a ***familiar place and, in case of doubt, can also immediately clarify unanswered questions, for example by searching the available documents on the spot.***

For a longer conversation it is logical that drinks and snacks are provided. Please note, however, that biscuits or the like can cause interference and eating sounds and thus disrupt the recording.

The tip is always to make a ***test recording*** before the actual interview. It can always happen that ***background noises*** dominate what is being said and that the words of the interviewee are therefore not intelligible. A number of apps are recommended for recording (see chapter 1.2.).

Duration of the call/ How long does an interview take?

As a basic rule, almost any topic can ***be discussed in a well-structured and focused interview within 1 - 1.5 hours.*** A longer duration often leads to a decrease in the concentration of both the interviewee and the interviewer, leading to aspects that no longer fit with the original topic.

It is especially important that the time frame is discussed in advance, so that it is clear from the outset how much time the respondent has. Each question must then be divided into the available minutes and this schedule must be followed precisely, otherwise there may be questions left open by the time the time is up. However, this does not apply to a poorly or partially structured interview.

The interviewer must arrive on time and have prepared and tested the recording for the interview.

If there are several interviews in a row, there should be sufficient time between the individual interviews, as the actual time of the interviews is often difficult to calculate.

Material for interviews:

- Directive
- Notepad
- Information sheet with information about the background and purpose of the interview
- Writing utensils (pencil, ballpoint pen)
- Recording device
- Camera
- Visual aids (if needed)

Language: What language to interview in?

If the interviewer and the interviewee speak different languages, several factors play a role in selecting them for the interview.

For respondents it is better to speak in ***the mother tongue*** in order to be able to answer eloquently and spontaneously. Ideally, the language also corresponds to the evaluation language (e.g. the thesis). In this way, statements can be directly adopted for further processing and no longer need to be translated.

Recordings with a strong ***dialect*** potentially make subsequent transcription and analysis significantly more difficult. For such speakers it is therefore advisable to kindly point out at the beginning and also during the conversation that the answers are given in standard German if possible. If individual words are not intelligible due to dialect or pronunciation (e.g. mumbling), it is advisable ***to ask immediately***, otherwise it usually cannot be clarified later during transcription or evaluation.

Usually, participants in a conversation subconsciously imitate the behavior of the other person. If the interviewee speaks particularly quickly, mumbles, or slurred speaks, the interviewer, in turn, should speak particularly slowly, clearly, and clearly. This usually automatically improves the intelligibility of the interviewee.

If during the interview there are certain ***technical terms or foreign words*** that the interviewee may not immediately known, it is advisable to define them in advance.

Foreign language interviews require special preparation: questions, possible technical terms and ***important vocabulary*** should be researched and prepared in advance. In principle, you should honestly assess in advance whether your own language skills are sufficient to understand any subtleties and to respond to spontaneous developments in the conversation.

Group or individual interview?

When choosing between group and individual interviews, it often seems attractive at first sight that several people can be interviewed simultaneously in a group and thus save time. However, it should be noted that individual interviews are usually much more targeted, ***structured*** and therefore more suitable for evaluation. In group discussions, a ***momentum*** often arises that causes the conversation to deviate from a previously planned framework. In addition, certain people often take on larger parts of the speech at the expense of other more reserved participants.

Group discussions are always particularly appropriate when this self-dynamics and discussion between participants is desired and central to the interest in knowledge.

Group interviews are always more time consuming, which should be taken into account when planning. If there are several people, special attention should be paid to the ***shooting technique.*** A microphone or mobile phone is usually not sufficient as a recording device here, because several recording devices must be placed as close as possible to the participants.

In group discussions, it is also common for individual participants to spontaneously switch seats, sketch something on a flipchart or the like, or speak while standing. The recording technology should also be able to capture such special cases.

If speaker identification is important for later evaluation, then a ***video recording*** or a speaker log is essential if there are several speakers. The latter records in a simple table which person is speaking at what time (using personal abbreviations), so that this can be correctly assigned in the later transcription. Often, at the beginning of the interview, respondents are asked to provide their name for each message. Experience shows that this is usually not sustained until the end of the conversation.

Strict ***moderation during the conversation is*** crucial for the insights to be gained. The facilitator should structure the conversation along the lines of the guide and avoid digressions into other topics. If interesting discussions arise between the participants, the moderator should certainly be able to withdraw from time to time to prevent such a discussion from

becoming dynamic. In principle, the participants usually appreciate it if the moderator makes clear statements about the organizational cornerstones of the conversation (e.g., pauses) and does not choose a lengthy consensual search process for this.

When composing the group discussion participants, it is recommended that they represent as many different opinions and statements as possible. This results in exciting discussions, which can sharply contrast the opposing arguments.

If the participants do not know each other yet, an introductory round is recommended. For a group discussion, at least an extensive ***introduction is recommended,*** which forms the framework for the next discussion.

Pros and cons of group discussions

Advantages:

- More relaxed atmosphere, resulting in higher involvement
- Greater variety of inputs
- Longer duration (opinions and backgrounds can be captured better)
- Different opinions can be questioned in one conversation
- Cost and time savings by combining multiple respondents
- Interactions in the group provide new insights and stimulate memories

Cons:

- The transcription process takes more time – or in case of outsourcing: costs more money.
- There is only room for a limited number of questions
- Individual participants can dominate groups
- Participants can influence each other
- The dynamics of the conversation make it difficult to take notes
- Danger of digressions from the subject
- Evaluation is more complex (because, for example, speaker assignment is often not that simple)

Develop and structure questions

There is a whole range of relevant literature on the proper structure of a questionnaire (see chapter 7.3.). This reference work mainly touches on the basics.

A distinction is made between differently structured interviews

1. **Unstructured interview**

- Open questions
- Additional questions, changing the wording of a question and follow-up questions are allowed
- Mainly used at the beginning of a study to identify relationships
- Also called an in-depth or intensive interview
- Goes strong in breadth and depth, very free conversation
- Usually just a rudimentary guide and a few themed groups
- High degree of freedom for researchers, can respond individually to respondents

Advantage: Great knowledge gain, especially detailed knowledge, more room for own formulation, more in depth

Disadvantage: Interviewer must be experienced and really in control of the conversation

2. **Semi-structured interview**

- Questions are prepared and formulated, but how they are asked depends on the conversation
- Conversation guide is used
- Spontaneous questions or reactions to topics are also possible

Advantage: Results are easier to compare

Disadvantage: Here too, the interviewer must be well experienced in retrieving the respondent's knowledge correctly

3. **Fully structured interview**

- Closed questions with multiple answer options (or yes/no choice)
- The content, number, order and wording of the questions are precisely defined
- If there are several categories, no overlapping of the answers and a balance of positive and negative answer options
- Usually used in the final stage of the research
- Asymmetric communication structure, interviewer not allowed to respond to respondent's questions, very far from normal conversation
- Methodical processing of the questionnaire
- The content, number, order and wording of the questions are precisely defined

Advantages: Very good comparability of the results, the interviewer does not need to be trained, the interview can also be conducted by someone else, high standardization and therefore good comparability of the data, many people can be interviewed in a short time

Disadvantage: Answers are closed and it is not possible to ask questions to get more depth from the respondent.

Not only the content of the questions is important, but also their formulation. A distinction is made between ***open*** ("How did you feel in the situation at the time?") and ***closed*** ("Are you for or against?") questions. The interview is ideally suited as a survey method for open questions. If you are mainly looking for answers to closed questions or if you want to ask pure facts, a questionnaire will often suffice and an interview is not necessary at all.

In the case of open questions, the answers are sometimes difficult to predict, so it is necessary to follow up and clarify more often. Open questions are usually asked ***as W-questions*** (What, who, where, why, but also "how") that are intended to propel the interviewee into a longer monologue.

Open questions	**Closed questions**
The respondent must remember	The respondent must recognize something
Fewer answers	More answers
The interviewee thinks deeply about himself	Possible suggestive effect
Higher level of involvement and interest of respondents as the situation is more convivial	Higher uniformity of the answers, so better comparability
Objective: Investigation of the problem area	Objective: testing of the hypotheses

The opening of the interview is especially important, as it lays the foundation for further discussion. The introduction should be designed and practiced in advance. A good conversation starts with creating an ***open and friendly atmosphere,*** for example through small talk. At the outset, the interviewee's willingness to participate in the interview should be acknowledged and the general topic of the study should be explained. Information on data protection should also be given right at the beginning (see section 1.1.6). Facts to be queried (age, education, etc.) should be collected at the end, or not at all, or better still, outsourced to a separate questionnaire.

The decisive and potentially controversial questions should not be asked right at the beginning, but should start with unproblematic questions. This gives the interviewee the opportunity to get used to the situation. It should be borne in mind that the (theoretical) introductory considerations are not known to the interviewee. The questions should therefore ***be formulated as simply and not as complexly as possible***. This is where ***trial calls help*** where you can check how questions are received, what misunderstandings arise and to get used to the interview situation.

The questionnaire defines the structure of the interview. The interviewer is therefore advised ***to know all the questions by heart***. It is also possible for him to jump between individual questions, depending on the course of the conversation, so that the structure does not obstruct a ***natural conversation situation too much.*** Short notes on the answered questions help formulate follow-up questions. A full transcription during the conversation is usually very disruptive, time-consuming and ineffective, this is then done by the transcriptionist.

There are also the following practical tips for a good conversation:

- Don't ask leading questions ("Are you, like me, of the opinion that... ?")
- Hold back and let the interviewee talk, not afraid of pauses in the conversation
- Do not evaluate or comment on statements, but signal attention with smaller signals such as head nods or affirmative sounds
- Let the respondent finish
- Pay attention to the natural course of the conversation – sometimes it is not advisable to go through the questionnaire chronologically.

It is also useful to make the guideline or at least the questions available to the interviewee in advance so that he or she can prepare for the questions.

Typical beginner mistakes:

- Too often asked questions and therefore dominant communication style
- Too hesitant to ask
- Suggestive questions and guidelines
- Too many judgmental or commentary statements
- Difficulty getting the other person to talk and listen
- Sticking dogmatically to the discussion guide
- Questions are asked twice

Interviews and data protection

The topic of data protection has gained importance and attention at the latest due to the discussions about the European GDPR.

The most important thing here is that the respondent is transparently and fully ***informed about the meaning and purpose of the interview and about the further use of the data.*** Ideally, this information should be in writing and handed over. Prior to the interview, the ***consent*** of the interviewee must be obtained, otherwise there is a risk that the results cannot be used.

A data protection agreement must contain the following information:

- The name of the respondent
- Information about the interviewer
- Purpose of the work, intended use of the data
- Permission to use the (possibly anonymous) data for the intended purpose
- Kind of anonymization of the data and ensure data security
- Type of recording
- Type of data transfer (e.g. to university)
- Location and duration of storage

The respondent must expressly agree to the treatment of this data, either in writing by signing it, or verbally at the start of the recording.

For recording: techniques and tools

In addition to preparing and scheduling an interview, the right technical equipment is crucial to success. A recording of the conversation that is as error-free as possible is essential, especially for the later evaluation and transcription of the content. Therefore, errors in this area are particularly annoying, as they can make work already done unusable. To avoid this, this chapter explains in detail the tools for a successful interview.

It is ***not necessarily necessary*** to record an interview. Alternatively, ***notes can*** be taken during the interview, on the basis of which an analysis can be carried out later. However, a recording followed by a transcription is much more accurate. In addition, this process allows the interviewer to fully focus on the conversation ***.*** This makes for a ***more natural conversation,*** while constant note-taking can distract and upset the respondent.

Once the decision to record the call has been made, the next step is to choose a suitable recording tool. To facilitate and thus speed up subsequent transcription, the audio quality is the decisive factor in the choice.

Voice Recorder

When recording with a dictaphone, there are roughly two variants: a ***digital dictaphone*** or one with a cassette or minidisc. The first is recommended because the battery lasts much longer and transferring the recordings to the PC is easier. Alternatively, an app on the mobile phone can also be used for the recording. What to look out for and which apps are suitable will be discussed in the next chapter.

Dictaphones with cassettes or minidiscs are now a somewhat outdated method, but are still sometimes used. However, some of the older devices with this technology consume a lot of power and therefore rely on an external power supply. There is always a risk that recording will stop if the power supply is interrupted. Analogue dictation machines are no longer up-to-date and qualitatively inferior to digital dictation machines.

Each digital voice recorder has its own sound pattern and thus individual advantages and disadvantages; There is not one best device. However, you should not save money on the purchase, but opt for a high-quality dictation machine. Important are ***factors*** such as battery life (especially if there is no external power connection at the interview location), good usability,

the presence of all necessary functions and an overall high reliability. Individual devices should be compared with each other in this regard.

Another useful feature that should be available is the automatic leveling or so-called "levelling". This means that the recording volume is automatically adjusted during the call.

In addition, included accessories can also play a role in the purchase decision. For example, an external microphone is always interesting. Most current devices have built-in internal microphones that are good enough to be below par for interviews Circumstances (quiet environment, e.g. indoors) no additional microphone required. Nevertheless, an additional ***external microphone*** *can* be useful in some situations, for example if the interview takes place outside or if a particularly high sound quality is to be achieved. A 3.5mm jack is best as it is compatible with all common microphones. In addition, a ***windshield*** *is* essential for outdoor shooting to minimize wind noise.

Group interviews are another special case, because the ***requirements*** for the voice recorder are considerably higher here (see chapter 1.1.4.). To be able to distinguish and assign the individual speakers later, you need a microphone with sufficient surround sound. In addition, a clear emphasis on the high frequencies and the minimization of background noise are more important for groups, while a deeper sound is advantageous for individual speakers. When buying the dictation machine, you should have a rough idea in advance of what kind of conversation you want to have.

When purchasing a digital recording device, you should also make sure that the file is in a file format that you can continue working with. Storage capacity also plays a role with longer or many interviews that have to be conducted one after the other. To ensure that the recording ***is pleasant to listen to over a longer period of time, for example when transcribing,*** the dictation machine must deliver a clear, detailed recording with as little inherent noise and bass as possible.

In the case of particularly relevant interview partners, it is advisable to perform the recording with two devices at the same time. The backup device can also be a cheap alternative.

Digital voice recorder Olympus VN-541 PC

Price: € 58.99 (at CoolBlue, from March 2023)

Supported File formats: WMA

Battery life: 52 hours

Memory: 4 GB

The Olympus VN-541 PC is a highly appreciated voice recorder that makes good recordings. The recorder has noise reduction. As a result, the recording is affected as little as possible by disturbing ambient sounds, such as wind or music. It is very easy to activate the voice recorder and start a recording with 1 movement. The voice recorder has a memory of 4 GB - which means approximately 1570 hours of sound.

Phillips DVT4110

Price: € 137.99 (with CoolBlue from March 2023)

Supported file formats: MP3, PCM (WAV)

Battery life: 36 hours

Memory: 8GB

With the Philips DVT4110, sound can be recorded in every corner of the room. The recorder has 3 microphones, making it easy to record the sound of a group of speakers. In addition, the voice recorder can be operated with an app on the smartphone.

Record with smartphone

In principle, there is nothing wrong with using your own smartphone for the recording. This is a simple and inexpensive option, especially in the context of Bachelor's or Master's theses. In most cases, the ***quality*** *is* sufficient for a suitable interview location, as today's smartphones usually already have a high-quality microphone built in.

However, when recording the interview, keep the following in mind:

- The smartphone must be in flight mode during the interview, so that no incoming calls or messages can disturb the conversation or the recording.
- When preparing for the call, it is important to look at exactly where the microphone is located on the smartphone so that it can be aimed at the person you are speaking to.
- It should be checked whether there is still enough storage capacity on the smartphone to record the entire conversation. If the storage space is insufficient, it can be expanded with an SD memory card.

Use a (pre-installed) memo or dictation app to record audio. These are easy to access and use through the app menu, but they usually don't offer any additional features. It is therefore advisable to use a separate app that can increase the quality of the recordings through various additional functions.

Since there are several dictation apps on the market, we tested several for both iOS and Android to make it easier to find the right app. We present the best below.

For iPhone/iOS we recommend:

Sound Recorder (iOS)

→ Free

→ Supported file formats: MP3

The Sound Recorder App is visually based on an old cassette recorder and offers some useful functions. A needle always indicates the volume level, so that you can check the volume at a glance during the interview. Since the volume of the microphone can also be adjusted, adjustments can be made during the interview.

In addition, the recording can be sent directly and easily by email or uploaded to one of the many different cloud providers such as Dropbox. Direct transfer to the PC is possible via Bluetooth or WLAN. Plus, notes and images can be added to the recording directly in the app if you want to capture thoughts and ideas during or after the interview. The recording can be trimmed directly in the app and edited with some effects. The playback speed can also be adjusted during playback. The only downside: the app's user interface is only available in English so far.

Transcribe voice to text from Amberscript (iOS)

→ First 10 minutes are free

→ Supported file formats: MP3, MP4, WAV, M4a, M4v, MOV, WMA, AAC, OPUS, FLAC and MPG.

Record your meetings, lectures, interviews with one tap in the app and convert them instantly to text. You can record your in-person meetings directly on your phone and skip the process

of uploading files to your computer. The recordings have good sound quality, even under poorer conditions and the app is very user friendly.

Voice Recorder dictaphone (iOS)

→ Free

→ Supported file formats: M4a, MP3, WAV, CAF and AIFF

The Record Sound Dictaphone Voice Recorder is a very simple but good voice recorder app for iPhone. It is possible to record, edit and share the audio with others.

For Android we recommend:

Voice Recorder Pro (Android)

The Voice Recorder Pro is a simple, but good quality recorder. The app can be used as a regular dictaphone for recording notes and memos, meetings, interviews, lectures and speeches. The app works well on smartphones and tablets, with and without external storage

Smart Recorder (Android)

The Smart Recorder app is easy to use and self-explanatory. However, the app only offers very limited functionality. The fact that the recordings have good sound quality speaks for the app; Even under poorer conditions, such as outdoor shots, there is only a slight noise.

Transcribe voice to text from Amberscript (Android)

Record your meetings, lectures, interviews with one tap in the app and convert them instantly to text. You can record your in-person meetings directly on your phone and skip the process of uploading files to your computer. The recordings have good sound quality, even under poorer conditions and the app is very user friendly.

Video or audio recording?

The video recording of an interview can be useful in certain situations when information about visual components such as facial expressions or gestures needs to be recorded and analyzed

in addition to what is being said . These are especially relevant in ***group discussions*** , as non-verbal cues can provide information about existing group dynamics. These include eye contact, touching lightly, or lowering your gaze. In addition, a video recording makes it easier to assign speakers. Especially in group discussions, this can become a challenge without video recording.

visual factors must be taken into account when selecting the space. Perhaps the most important factor here is ***the relief.*** With a few tips and a little preparation, good results can be achieved with simple means. For example, use ***the light that is already present in the room*** by always placing the respondent facing the light. Not only the existing lamps can be used for this, but also passive light from the sun's rays, provided there is a window. The light should not be too harsh for a good result. A cheap trick is to soften the light with parchment paper, but you have to watch out for the heat buildup. In addition, small clamp lights are a cheap alternative to improve the light.

A basic understanding of cinema lighting is often helpful. The basic rule is based on 3-point lighting with a highlight, key light and fill light.

Aside from lighting, there are other factors that are important for high-quality video recording. First of all, a tripod may be necessary to fix the camera in the correct position and at a reasonable height. In addition, an ***external microphone is*** mandatory for cameras, otherwise the sound quality will not be sufficient. Alternatively, the sound can also be recorded in parallel with a Dictaphone. In order to properly receive all non-verbal signals, the classic interview position should be chosen for the interviewee. This means that the person is placed at the intersection of two-thirds of the frame, always facing the open half of the frame. As a result, the respondent is always easy to recognize and the spoken word comes across more naturally.

Despite the advantages of video recording, there are also some disadvantages. For example, during the interview it is much more difficult to ignore a camera than a small dictaphone or smartphone casually lying on the table. The ***presence of a camera*** can impede the interviewee's openness and thus negatively influence the interview. While this effect can be mitigated somewhat by moving the camera further away and using the zoom function, this method may result in a loss of quality. It is not for nothing that many researchers share the opinion that the less conspicuous device, the dictaphone, is preferable when recording an interview situation.

Another advantage of recording only audio is that audio files are considerably less storage intensive. With video recordings, this can become a problem, especially with long interviews

or a large number of interviews. This can also make post-processing and transcription more complex.

In conclusion, it can be said that from a methodological point of view, video recordings are relevant when no formulated, concrete hypotheses are tested, but when it comes to investigating unknown relationships, where the research questions only emerge during the research . In such cases, a video offers new perspectives because of its multicodality.

The choice of recording medium thus depends on the ***research approach*** and must therefore be answered on a case-by-case basis. An audio recording is sufficient for most purposes and is more practical and recommended due to its lower effort and ease of use. However, video recording is beneficial for group discussions, especially when correct speaker assignment is required.

From recording to typing:

Preparation for transcription

After the interviews have been conducted and recorded, either as a video or audio file, a not inconsiderable intermediate step is required for subsequent evaluation: the ***transcription***. In general, this means the transfer of speech from audio or video files to written form. This step should not be underestimated, as a transcript is the prerequisite for a high-quality and detailed analysis and can be very complex and time-consuming without specialist knowledge.

Therefore, there are a few points to keep in mind when transcribing. These are explained in more detail below.

Edit files

The starting point of any transcription is always the interview recording file. It is therefore particularly important to secure this externally, preferably immediately after the conversation, and to edit the file. This includes, among other things, the conversion to a suitable format. Some transcription or analysis methods also require a special layout of the documents (see chapter 3.3.3).

File formats and conversion

To use an audio file, it is important to always pay attention to the file format. Not all programs support every format. Each format also has different advantages and disadvantages.

One of the most popular audio formats is ***MP3***. It is characterized by very high quality and at the same time low memory requirements. In addition, it can be recognized and processed by most programs and systems. Therefore, if possible, the MP3 format should always be chosen.

An alternative to this is the ***WAV*** format, which offers slightly higher quality but generally requires a lot of memory. One should only opt for WAV if the files are not allowed to be converted.

Alternatively, the ***WMA*** audio format can be used, which also offers high quality. This format has the advantage that the file size is relatively small. However, this format is usually only supported by Windows operating systems, which may limit further use.

The alternative offered by Microsoft's competitor Apple is the ***M4A*** format. This is encoded with the AAC method or with the Apple Lossless method. The former results in a conversion in which the audio quality is partly lost and the latter ensures that the original audio quality is preserved. The AAC format offers a relatively small file size with high quality. The disadvantage of Apple's formats is that many other manufacturers do not provide a support function.

If the audio files are still in this format, the info window below provides instructions for transferring to the computer:

Copy/convert CDs with Windows Media Player

Copy/ convert CDs with Windows Media Player
1. Insert the music CD into the CD drive of the PC → Copy files from the CD to the PC
2. A program (e.g. VLC Media Player, iTunes, ...) will open
3. Close the program, press the Windows key and "R" at the same time. → The "Run" window opens
4. Type "wmplayer.exe" in this window and click "ok".
5. Windows Media Player will open and display the titled CD
6. There is a check box in front of each title → Disable the titles that should not be copied
7. Click "Copy CD" in the menu bar (normal CDs can take up to ten minutes)
8. The CD with the copied songs is now in the "Music" folder.
9. The files are in WMA format → WMA format of the files can be converted if needed (see below)

Procedure for a MacBook or iMac (Apple):

File conversion via iTunes

(The audio track must be in the iTunes library)

Procedure for a Macbook or iMac (Apple)
File conversion via iTunes **(The audio track must be in the iTunes library**
Settings → General → Import settings → Import using → choose encoding format → select one or more songs → File → Convert → Create version [format]

In many conversion processes, if a greater number of functions are desired or if there are concerns about data protection (the aforementioned provider requires the files to be uploaded to the provider's server), it is recommended to use a dedicated converter.

Transfer recordings to PC

After recording, the recording must be transferred to the PC for further processing. This often raises questions and difficulties. Of course, the procedure always depends on the device with which the recording was made.

Digital recording devices:

With digital devices, the transfer of recordings is much easier:

- Connect the recorder to the PC with the USB cable
- Copy the file to the PC via plug-and-play (the voice recorder appears in the system as a normal removable medium, just like a USB stick, for example)

With some devices there is also the option to send the recording directly from the device via email or transfer it to the cloud. This also simplifies transfer.

Mobile devices (smartphone or tablet):

The procedure for mobile devices is similar to that for digital recording devices.

Simply connect the mobile device to the PC via USB

Copy the files to the PC (the mobile device appears as a removable medium, refer to the user manual of the device if necessary)

Note: if you use the Amberscript mobile app you can skip the process of uploading files to your computer.

Alternatively, the file can also be sent wirelessly. Due to the file size, it is usually not possible to send longer recordings by e-mail. Free file hosting services such as ***WeTransfer can*** be used instead. Simply install the app, which is available for both Android and iOS, on your smartphone, upload the file and finally download it again on your PC via the browser by clicking the link in the email. Privacy issues should be taken into account as the files are cached on WeTransfer's servers.

Another option is a ***cloud service*** like ***Dropbox*** , ***Google*** Using ***Drive*** or ***OneDrive .*** The corresponding apps can also be installed on the smartphone for this purpose.

If caching files on remote servers is not desirable, there are now also some apps that enable wireless file transfer between PC and smartphone via WLAN, for example ***WiFi File Transfer.*** No data is stored on third-party servers, but the PC and smartphone must be connected to the same WLAN.

In any case, it is always important to archive and save the recordings as soon as possible so that no data is lost. The file should therefore be stored as a backup in the cloud or on a CD or an external hard drive.

File naming tips

Another aspect is the correct ***naming*** of the audio files. If done incorrectly, this can lead to major problems in the further workflow, but is often neglected.

After the interviews have been conducted, they are usually given the same name (e.g. Interview 1, Interview 2, Interview 3, etc.) instinctively, or even choose the same name for all files. This makes working with the files extremely difficult - not only in the context of the transcription, but also in relation to the entire work process - if, for example, a certain passage from an interview has to be listened to later in the analysis.

To avoid this, the naming of the audio files should be as ***simple as possible and be unique*** . In general, file names containing letters instead of numbers are easier to find. If you want to limit yourself to numbers, the tip is to always keep a consistent format such as year/month/day (yyyy:mm:dd). This automatically sorts the files chronologically.

However, one should be aware that using only numbers for file naming may be insufficient. For the best clarity, a combination of ***date*** and a ***proper noun*** or an abbreviation of the proper noun should be chosen. This abbreviation should refer to the editor, the interviewer, or the interviewee.

Editing programs

The next important point in interview processing is editing. Many interviews contain passages that are not relevant to the analysis and are therefore not transcribed (for example, small talk at the beginning or interruptions in the interview). It may also happen that the respondent asks

to remove particularly sensitive areas. They are therefore not available for evaluation and must be cut from the audio file/recording.

Cutting a file makes transcription easier on the one hand, as the audio file contains only the parts to be transcribed, on the other hand it also makes it easier to find the relevant parts of the interview.

A free program that is very suitable for this is ***Audacity,*** which is presented in the next chapter (2.1.5.). At this point, the program's functionality related to cutting audio files should only be briefly discussed.

There are three points you should always keep in mind when cutting audio:

1. It is always recommended to wear headphones so that you can better focus on individual areas
2. It should be carefully checked which passages can be removed. In addition, Audacity has the zoom function, where you can always use the wave representation of the volume as a guideline: if there are no or only very small waves, there is probably no speech on this point.
3. In general, it is always important to save the original file as a backup.

To delete the position, you just need to highlight it using the selection tool and then you can delete it using the "Delete" button.

If you just want to cut a longer bit of small pieces in the beginning and don't need any further complicated editing work, a comprehensive tool like Audacity isn't absolutely necessary. Instead, simpler programs can be used here, which can also be run directly in the browser without downloading. You can do this for example via app.amberscript.com where you upload your audio and then trim it.

Noise reduction and filtering

Another important point for good sound recording is to avoid noise during recording. To prevent disturbances such as noise, a number of measures can be taken in advance:

- Place the microphone close to the speaker. Consider using multiple microphones for group calls
- Quiet environment
- Avoid reverberation and other noise
- Turn smartphones off or on airplane mode if used for recording

Despite following these instructions, problems with sound quality or the like can always occur. In this case, the audio quality can also be improved a little later, so that all pronunciations are intelligible, background noise is reduced and transcription is thus facilitated.

Audacity can also be used as a tool here:

1. Open the audio file
2. Go to the part where the noise is located. Check this section and go to "Effect" and "Noise Reduction" and then: "Create Noise Profile"
3. Next, highlight the entire file or areas with noise, then click "Effect" and "Noise Reduction" again.
4. Listen if it helped
5. Optimize the file further using the "Noise Reduction (db.)", "Sensitivity" and "Frequency Smoothing (Bands)" controls
6. In case of hum: use the equalizer, which displays certain frequency ranges and has them removed
7. Cracks or scratches can be reduced with "Effect": "Click Filter". Various parameters can be set here that determine the volume and length at which the filters perceive something as interference

Audacity can also increase the ***volume at the right point***. To do this, select the toolbox, set a white point to the left and right of each point, and click exactly where you want to adjust the volume. This point can then be moved up or down to control the volume at that point.

Typing: the interview

There are many ways and occasions to conduct an interview these days. Interviews serve as a ***form of presentation***, for example in newspapers or as a ***research tool*** in the field of science and market research. Interviews are usually conducted verbally and may involve people, facts or opinions. Interviews are recorded using audio or video recording equipment, either face-to-face or through telephone or video conferences. For the further processing and/or analysis of interviews, writing, or transcription, is a necessary, albeit usually time-consuming step. Since transcripts can be used in many different ways and other aspects are in the foreground, the procedure depends on the ***intended use.***

What are transcripts made for?

Transcripts are especially common in the context of interviews. The transcripts are the written documentation of what has been said. On the one hand they serve as a memory aid and on the other hand they form the working basis for an analysis and further processing of the data obtained.

Transcripts can be designed and used in many ways. They therefore have a wide range of ***applications*** ranging from science, market research and film productions to various media. Thus, there are very different transcription rules, the level of detail of which varies depending on the field of application and method.

Science

Many interviews are conducted in science, especially in the field of qualitative research. For later coding it is important to transcribe interviews.

The need for transcription differs little from the specific application, whether it is a bachelor's, master's or doctoral thesis or a proprietary research project at a research institute, university or college.

For theses and/or studies at universities, the choice of transcription method depends on the academic field and focus. Transcripts are commonly used in the social sciences.

In some cases, however, they only serve as a ***tool*** to document expert or employee opinions on certain facts. The analysis/evaluation is about the content and less about the interpretation of how it is said.

Simple or more complex transcription methods are used depending on the purpose of the analysis. Simple transcription systems focus on content, while more complex methods also take into account ***linguistic aspects such as intonation, speaker overlap and other paraverbal aspects.***

If intonation is not important for interpretation, it is advisable to keep the transcription as simple as possible. Additional information that is not relevant to an evaluation, such as speech rate, pitch progression, etc., may be omitted from these transcripts. The ***complexity*** of the transcription process is reflected in ***readability***, so those transcripts can appear illegible and difficult to access for outsiders. Moreover, with the focus on linguistic aspects, other aspects such as the semantic content can be pushed into the background.

Transcriptions from the scientific field should represent as accurately as possible what has been said. Smoothing, i.e. an adjustment in favor of readability, should not be performed, as the content may be misrepresented in this way (see also chapter 3.4.3.). It can also be useful for theses to have the finished transcription ***checked by an editor in order to achieve the highest possible quality of the transcription.***

Transcription is generally not considered a core element of scientific research. Outsourcing to a service provider is therefore also permitted for theses, but must be discussed with the responsible manager in individual cases.

Marketing research

In market research, interviews are usually conducted with the aim of gathering information about the market. This usually takes the form of surveys - often in the form of a telephone interview - or focus groups in the relevant area. By evaluating the collected data, diagnoses and forecasts of future market and product developments can be made and strategic and operational marketing measures can also be planned. The focus is therefore mainly on ***the content.*** After all, the interest in the field of market research lies in optimizing services and products. That is why aspects such as para- and non-verbal communication of the interviewees rarely play a role and a transcription according to simple rules usually suffices. The data is often strictly confidential, so that persons, places or institutions are anonymized. The subject of anonymization is discussed in chapter 3.4.5. discussed.

For international studies in different languages, transcription with direct translation into a standard language (e.g. German or English) is a good idea, so that all files are uniform and can be assessed.

Film production

Films, interviews, videos and other files - usually in video format - are transcribed for film production. Since the transcripts are often intended for the public, it is important that the transcript is ***legible*** and written fluently. A transcription according to simple rules, possibly partly smoothed out, is suitable for this.

Transcriptions are made in film production for a number of reasons. On the one hand, they aid in viewing, i.e. processing of the raw material, because uninteresting and unplanned sequences can be found more quickly and easily using the transcript and, if necessary, cut. For this it is also useful to set ***timestamps to be able to trace exactly who said what at what time and at what time intervals this happened.*** Timestamps therefore help to filter the relevant material (see also chapter 3.4.4.).

Transcriptions can also be prepared first before creating subtitles. These often serve as the basis for translations into other languages.

Media

In the media sector, interviews and individual lectures, such as podcasts, are often transcribed. For example, the finished transcripts are published on websites, so the content is what counts here. These types of transcriptions are usually extra smoothed to make the text readable and to filter out irrelevant passages. Podcasts, for example on YouTube, also use transcripts for ***subtitles, among other things***. ***Timestamps*** must also be set here.

Speeches, meetings and lectures

Speeches, meetings and lectures can be recorded and transcribed under different circumstances and for different purposes. In general, there are a few points to note.

On the one hand, preliminary conversations and follow-up conversations sometimes take place, which do not always have to be transcribed. Before transcribing, it is useful to consider which part of the recording is relevant for subsequent analysis. On the other hand, it should be borne in mind that during meetings there ***are sometimes several speakers*** speak at the same time. The situation here is comparable to group interviews (see chapter 1.1.4.). Different people can also speak in lectures and speeches. The transcription process must therefore

clearly identify the speakers and account for changes in speakers and, if necessary, overlaps. However, in most cases, a simple procedure is recommended here. The transcripts are then easy to understand for anyone involved or potential readers.

Biographies

Biographies document a life or a stage of life. Biographies about the lives of famous or interesting people are often made public,

so the aspect of readability plays a decisive role. It is even recommended to flatten the biography, as stuttering or repetitive words affect readability.

At the same time, in biographical transcription it can be useful in special cases to take into account para- and non-verbal communication. This applies, for example, to a precise ***characterization*** of the person: does the person behave irritable, stupid or reserved in certain situations?

Goal

The choice of an appropriate transcription method depends on the aspects to be focused on. These can be substantive, but also linguistic aspects. Before conducting an interview, it is therefore advisable to be aware of the ***scope*** and especially the ***purpose*** of the data obtained. The ultimate readers/recipients are also important. This also includes the question of how the transcripts should be used. Are they made for internal research purposes, such as market research, or for public purposes, such as newspapers or film productions? Depending on this, further work steps can be started.

Documentation

Transcripts are often only used for pure documentation, for example of client meetings. These are not published, but usually only stored internally. Readability therefore plays a subordinate role. Para- and non-verbal aspects are also negligible, so that a simple transcription procedure is recommended.

If there is a large amount of data of the right quality, an ***automatic transcription*** can be considered***.*** However, depending on the quality of the audio recording, the results of automatic speech recognition still vary widely. For a literal transcription, the quality must be correspondingly high. Dialect and background noise in particular influence the results (see also chapter 3.6.).

Scientific content analysis

In content analysis, the focus is usually on what was actually said and less on the "how", i.e. with what emphasis and speed it was said. Content from interviews in the field of business and market research is often analyzed.

For pure content analysis, the transcription should be kept as ***simple as possible***, since additional information, such as the number of pauses in speaking, is irrelevant to the actual content. In addition, it is advisable to ***add line numbering*** or a timestamp so that the transcript can be quoted. Scientific theses must also be marked by a lecturer.

Automatic speech recognition is not yet sufficient for scientific purposes or requires a lot of post-processing.

Linguistic analysis

For scientific analyzes in which special language phenomena, such as stuttering, but also intonation is important, a literal elaboration is recommended. What matters here is the way in which what is said is expressed. However, the readability of a literal transcript is generally more impaired than with a standard transcript.

Procedures and rules for transcription

There are several transcription methods and rules, most of which come from the social sciences and linguistics. The individual methods are mainly distinguished by their ***complexity*** (verbatim/standard or literal) and their area of application. Almost every process can be refined or expanded according to your needs. Particularly within complex procedures such as GAT2, some parameters are optional (e.g. parameters related to volume or speech rate).

In a transcript, the following aspects can be considered:

These aspects can be taken into account in a transcription	
Pauses/periods of silence	receive signals
Hesitation/delays	wording corrections
interjections / interjections	Word and construction breaks
stretches	dialectal sounds
Overlap and speak at the same time	
Prosodic phenomena (e.g., accents, voice leads at the end of sentences, jumps in pitch, changes in loudness and speed of speech, rhythms)	
Non-verbal communication e.g. gestures, facial expressions, eye contact, movements in space, hand object manipulation, proxemics (talking distance between people)	

Clean Verbatim transcription

Verbatim transcription based on simple rules is the most suitable method for many purposes (see chapter 3.1.). This is especially true when ***content*** is central to the analysis, for example in interviews for the public, such as the press or film and television, but also for scientific questions outside linguistics, such as economics or market research. A transcription made with a simple procedure is also somewhat ***smoothed***, i.e. stuttering, slips of the tongue, and intermediate sounds such as "uh" and "uh" are not taken into account. Dialectical utterances are also displayed in the default language. This means that the transcript is easy to read and can be made ***public, so that for example interviews can be published on online sites or in print media.***

Clean Verbatim transcription

1. The text is accepted as it is spoken. No corrections are made, i.e. errors (e.g. grammatical errors in sentence order) are accepted. Exceptions: see points 3 to 5.
2. All statements, including seemingly unimportant filler words (e.g., "I'll tell you" or "so to speak" etc.) are included.
3. Dialect discolorations are corrected (e.g., "we wanted" instead of "we wanted").
4. All non-verbal interludes of the speaker (e.g., stuttering and, er, ne?) are omitted.
5. All irrelevant affirmations (e.g., hm-hm, yes, oh yes) are also omitted. These are only transcribed in rare cases when these words make a substantive contribution (for example, as an answer to a question).
6. Special events are placed in parentheses (e.g. (sound failure) or (telephone rings repeatedly)).
7. Abbreviations are only used if the person pronounces them in the same way (for example, a spoken "et cetera" is not abbreviated to "etc." in the transcription).
8. Only literal/direct speech is put in quotes (for example, I asked him, "Why are you doing this?").
9. Punctuation is used judiciously to avoid huge, multi-line sentences . A conjunction (for example "And") can be at the beginning of a sentence.

10. All numbers from one to twenty are written out, and from 21 numbers are written. Useful exceptions such as the date are also written as a number (i.e. "01/03/2017").

11. The interviewer is called SP1 and the interviewee SP2 **.** If there are several persons, they are indicated with a consecutive number.

12. Incomplete words are only included if they have an added value in terms of content. Otherwise they are considered stuttering and simply left out.

13. Words whose wording is not entirely clear and can only be assumed are marked with a question mark and placed in parentheses (e.g. (? unintelligible)).

14. Unintelligible passages (for example due to noise or other background noise) are marked with a time stamp in the format … # hh: mm: ss #. In the case of …#00:01:04# there would be an unintelligible passage after 1 minute 4 seconds.

Example transcript based on clean verbatim:

SP1: So, it's on. Let's start. Thank you for taking the time to do my research.

SP2 : No problem of course, it's always nice to help and the subject naturally appeals to me.

SP1: I understand that. Entrepreneurship is of course a hot topic these days, isn't it?

SP2: Yes, sure. And I like to have my opinion on things.

SP1 : Great. Oh, that's right, just to confirm, there are no right or wrong answers and your answers will be treated confidentially and anonymously in my research.

SP2 : Fine.

SP1: Well, I will have it typed out, transcribed, by Amberscript.com, unless you object to this? They transcribe interviews for me.

SP2: Fine. I wouldn't actually type it out myself.

SP1: No, indeed, I found out that it takes a little too much time. Okay, shall we start with the first question? What is the key to success for you as an entrepreneur?

SP2: Yes, if I really knew that in detail... I wish I knew! Anyway, that starts with the definition of success…

1.1.5 Full Verbatim transcription

Full Verbatim transcription is particularly suitable when a detailed analysis needs to be carried out, taking into account both linguistic and content aspects. These include special verbal aspects, such as stuttering, as well as prosodic aspects (special emphasis). This means that full verbatim transcription ***is more complex*** than clean verbatim transcription. At the same time, the readability of the transcription is made difficult for outsiders, so that the full verbatim procedure is only better suited in a few applications.

Advanced transcription rules

1. The text is accepted as it is spoken. No corrections are made, i.e. errors (e.g. grammatical errors in sentence order) are accepted.
2. All pronunciations, including seemingly unimportant filler words (e.g. "I say so" or "so to speak" etc.) and intermediate sounds of the speaker (e.g. stutter, hms, hms etc.) are adopted.
3. Dialect discolorations are corrected (e.g. "we wanted" instead of "we wanted").
4. Special events are placed in parentheses (e.g. (sound) or (phone rings multiple times)).
6. Abbreviations are only used if the person pronounces them the same way (for example, in the transcription, a spoken "e.g." is not abbreviated to "e.g. .").
7. Literal/direct speech is frequently quoted (for example, I asked him, "Why are you doing this?").
8. Punctuation is used judiciously to avoid long, multi-line sentences .
9. All numbers from one to twenty are written out and all numbers from 21 as digits.
10. The interviewer is called SP1 and the interviewee SP2 **.** If there are several persons, they are indicated with a consecutive number.
11. Incomplete words are only included if they have an added value in terms of content. Otherwise they are considered stuttering and simply left out.
12. Words whose wording is not entirely clear and can only be assumed are marked with a question mark and placed in parentheses (e.g. (? unintelligible)).
13. Unintelligible passages (for example due to noise or other background noise) are marked with a time stamp in the format … # hh: mm: ss #. In the case of …#00:01:04# there would be an unintelligible passage after 1 minute 4 seconds.

Example of a full verbatim transcript:

SP1: So, it's on, yeah let's, let's get started. Thank you so much for taking the time to do my uhm research.

SP2: No problem of course, it's always nice to help and, well, the subject naturally appeals to me [laughs].

SP1: [laughs] Yeah, I get that, I get that. Entrepreneurship is of course a hot topic these days, isn't it?

SP2 : Yes, sure. And eh, yes, I just like to have my opinion on things [laughs].

SP1: Great. Well then let me uhm oh, that's true, just to confirm, there are uhm no right or wrong answers and your answers will be treated confidentially and anonymously in my research.

SP2: Fine.

SP1 : Well, I will have it typed out... transcribe the interview or well, have the interview typed out by Amberscript.com, unless you object to this? They transcribe interviews for me.

SP2: Fine. In fact, I wouldn't do it myself.

SP1: No, indeed, I've already found out that this takes a little too much time, yes. Okay, start with the first question? What is the key to success for you, say, for an entrepreneur?

SP2: Yeah, uh [laughs] if I really knew that in detail... [laughs] I wish I knew! Anyway, uhm no, well that already starts with your definition of success, right?

Transcription options

All transcription rules can be expanded and adapted to your own wishes or requirements. The options are diverse. Simple options are adding ***timestamps*** and/or line numbering or ***smoothing*** or anonymizing the transcript. In addition, the transcription process can be

combined with ***translation*** or ***subtitling.*** The individual options are discussed in more detail below.

Anonymization

In some cases, personal data is anonymized for evaluation and publication. Roughly speaking, three methods of anonymization can be distinguished:

Formal anonymization: removal of direct identifiers such as name and address (possibly replaced by pseudonyms)
De facto anonymization: not only personal characteristics (name and address), but also personal characteristics that allow indirect identification (for example, places or institutions). In addition, specific data is replaced by more general ones (e.g. "Mercedes" by "car manufacturer")
Absolute anonymization: all direct or indirect attributes are permanently removed (by blacking or delete), which however greatly reduces the meaning

Anonymization usually takes place during the transcription of the interview.

Timestamps and line numbers

Sometimes it is necessary to be able to quote exact passages in the transcripts. There are two options for this: ***timestamp*** and a ***line numbering.***

Timestamps within the document are a good idea, especially if it's important to review certain audio passages afterwards. These are usually inserted after every ***speaker change*** or at specific times (e.g. every minute). The time of the audio file is inserted in the format # hh: mm: ss #. For some evaluation programs it is important that the timestamps have a specific format so that they can be read and further processed by the corresponding program (e.g. hh:mm:ss - ms for the evaluation with MAXQDA).

In addition, ***unintelligible parts*** are marked with timestamps. This is advantageous because you can search for the marked passages in a targeted manner without much ado and listen to them repeatedly.

Line numbering is recommended for citation. This can be inserted into common authoring programs such as Word and Open Office in just a few steps. In Word you will find this function under ***Layout.*** There are several options, where transcripts are usually numbered consecutively. With Open Office, line numbering can be enabled under ***Extras.*** If only certain areas need to be numbered, they can simply be marked and line numbering enabled.

Smoothing

Transcriptions that appear as part of journalistic articles, for example in newspapers or on blogs, are ironed out. Smoothing transcripts promotes ***reading flow*** and eases access for recipients. Thus, transcripts with smoothing are '***ready to print'*** .

Even when interviews are planned, interviews show many ***characteristics by spontaneous speech,*** such as stuttering, repetitions, (self) corrections and more. These features are corrected, among other things, when smoothing transcripts. If this has not already been done by simple transcription, dialectal utterances are also transcribed in the usual language and grammatical errors are corrected.

In addition, during smoothing, ***frequent duplications*** (e.g. words that are said double at the beginning of a sentence) in favor of the reading flow. Experience has shown that sentences in interviews often begin with "so", "so", "and then", "but" and similar formulations.

In some contexts, it makes more sense to remove repeated words altogether, especially the word "also".

In addition, smoothing removes passages that are not part of the interview. Consider, for example, interim conversations with people who are not involved in the interview (for example, a waiter in the restaurant who takes the order).

Example of a transcription <u>without</u> smoothing (clean verbatim):

I1: So yeah, how was that for you?

R: So, in terms of body sensation, the other experience was more intense.

I1: To what extent?

R: So I can't rate that 100 percent because I wasn't there 100 percent for the whole eight minutes. So, I say, it might have developed differently (I1: I see it differently.) if I-. (4 seconds)

I1: Somehow yes. (The phone is ringing.)

R: Yeah, well, it's kind of really, really weird because I don't usually fall asleep quickly. I have been to many therapies and so on and so forth, for example last year in Cologne with Mr. (? Schindlorz). He had also asked me, "How is that possible?"

R2: Do you want to order something else?

I1: Yes, another cappuccino, please.

Example transcript with smoothing (clean read):

I1: How was that for you?

R: The other experience was more intense in terms of body sensation.

I1: To what extent?

R: I can't rate that 100 percent because I wasn't there 100 percent for the whole eight minutes. Therefore it could be that it would have developed differently (I1: I see it differently.) if I-. (4 seconds)

I1: Somehow yes. (The phone is ringing.)

R: It's kind of really, really weird because I don't usually fall asleep quickly. I have been to many therapies, for example last year in Cologne with Mr. (? Schindlorz). He had also asked me, "How is that possible?"

Transcription and/or translation?

In an international research context or with special interview partners, the interview may also be conducted in a foreign language. It is always advisable to conduct the interview in the native language of the respondent to avoid language barriers and create a relaxed atmosphere for the respondent.

This usually means that a translation of the transcript is needed to make the transcript accessible to people without proper language skills.

The ***translation process*** usually takes place in two steps: First, the transcript for the audio or video file is created in the source language. This is then translated into the target language.

To save time and money, the translation can also ***be performed immediately***, without the intermediate step of transcription. This method is preferable, especially if only translation and not transcription in the source language is required.

Another option is to create a transcript in the original language, translating only the individual parts that are important for further use, but also inserting timestamps.

Translations can also be made according to specific specifications, which depend on the purpose of the translation. When it comes to translations that are going to be published, for example for advertising or market research purposes, it is especially important that the content is quick and easy to understand. A word-for-word translation may limit readability. That is why Amberscript as the so-called ***simple translation in interpreter quality,*** in which the language style has been slightly adapted to achieve good readability. However, for the translation of scientific subjects, such as professional lectures, a full ***verbatim translation is recommended***. These have a correspondingly high quality, which is associated with higher costs and in some cases is not absolutely necessary.

Subtitles

Subtitles are used in films, series, online videos (for example on YouTube) or in recorded lectures at universities. On the one hand, subtitles are intended for hearing impaired people who can follow the written language, on the other hand they are used for translations. In addition, subtitles make it possible to play and watch videos on the go without sound from mobile devices. Depending on the purpose of subtitles, there are different creation requirements. In general, good ***readability is*** paramount. When creating subtitles, it is important that they are not too long so that the reader can read them **quickly *and capture them.*** The subtitles are usually placed in the middle; A sans-serif typeface, such as Arial or Calibri, is recommended as the font.

A speaker assignment is useful in many cases. It is important for the hearing impaired, as the allocation cannot be done through voting. The ***speaker assignment*** can be done by means of a ***color*** **marking**, where the color red is unsuitable due to poor legibility ***.***

Other options for displaying a speaker switch are the ***placement,*** where the individual contributions are placed not in the middle, but by the speaker, marked with one ***coat of paint*** or represented with ***three points:***

Placement:

How are you?

Fine, and you?

Coloring:

How are you? - Fine, and you?

Three points:

How are you? … Fine, and you?

In order to create tension and ***atmosphere***, it may be necessary to transcribe sounds***.*** Which sounds are transcribed is up to the subtitlers to decide; there are no general rules. Scenes in which something unintelligible (in the background) is muttered or whispered should be marked accordingly (e.g. with "whisper" or "inaudible"). This does not give the impression that information is being withheld from viewers. One possibility of representation is to put the sounds in brackets (for example: (cough)).

Music can also be included in subtitles. Lyrics in particular can help you understand the action. In this case, a transcript makes sense. On the other hand, musical interludes that are part of the background scenery and do not affect what happens in the movie can be provided with a short note (example: "Music"). A pound sign or musical note is often used to indicate lyrics in subtitles:

#All my ducklings ♪All my ducklings

Special programs are used to create and edit subtitles. A free program is the ***Aegisub or Subtitle Edit***. The files are usually created in SRT-format. The programs also make it easier to set up timestamps. These are mandatory for subtitles.

The automatic creation of subtitles is now also possible. Among other things***, YouTube offers*** automated subtitles for videos using speech recognition. However, it should be noted that the automatic speaker assignment is still very imprecise. That is why a correction or post-processing is always recommended.

Layout

While the transcription rules to be followed are usually described very precisely, the statements about formatting (for example font, font size, text alignment) are usually rather vague or not available at all. However, this is very important for good readability and an overall ***uniform*** and professional appearance of the transcripts.
All transcripts should be formatted the same without exception and graphic gimmicks (e.g. colored fonts) should be avoided.

1. All transcripts are in Arial font, 11 point size, 1 inch top/bottom/left/right margin, 1.5 line spacing, and 12 point spacing before paragraphs.

2. All text is justified.

3. Paragraphs are only set if there is a change of speaker. No paragraphs are placed in an individual's statement.

4. The speaker designations are SP1 and SP2 for speaker 1 and 2

The file must be saved in a ***Word format (e.g.*** doc or docx). If an alternative word processing program is used, saving in ***rtf*** format is a good idea as it can be opened without error by all standard programs. Saving in different formats is usually possible in word processing programs with one click ("Save As").

The 10 most common transcription errors

There are many mistakes that can be made during transcription. The table below lists the 10 most common transcription mistakes:

Wrong	Incorrect	Correct
Informal wording has not been smoothened	**SP1:** No, you ain't seen nothing	**SP1:** No, you haven't seen anything
Missing punctuation	**SP1:** We have been waiting for a long time no service no information nothing	**SP1:** We have been waiting for a long time, no service, no information, nothing.
Stuttering and insertions that do not contribute to the content will be transcribed anyway	**SP1:** I do-, do-, not know why, **SP2:** Hmm. **SP1:** why tha-, why that is, **SP2:** Hmm hmm. **SP1:** so, please, please, please, stop asking me.	**SP1:** I do not know why that is, so please, please, please, stop asking me
Incorrect marking of unclear and incomprehensible places	**SP1:** That was important for Mr. (Javier?) in the …… #03:02# project.	**SP1:** That was important for Mr. (Javier) in the … #00:03:02# project.
Use of incorrect punctuation marks	**SP1:** He told me.. – just to stay between us.. – that it was Otto, Helmuth and Elli.	**SP1:** He told me, just to stay between us, that is was Otto, Helmuth and Elli.
No segregation of long sentences	**SP1:** We went to Berlin and opened a company, or rather we bought it and it was very successful	**SP1:** We went to Berlin, opened a company, or rather we bought it. It was very successful.
Use of abbreviations	**SP1:** He went to Eric, Marc etc.	**SP1:** He went to Eric, Marc, et cetera.
Typos and spelling errors	**SP1:** She pobably wants a house to herself.	**SP1:** She probably wants a house to herself.

Useful tools for transcription

If, on the other hand, you choose to have the transcription performed by an external service provider, you can of course also make the transcription yourself. Despite the low cost factor, the ***time required should not be underestimated.*** Because the duration of transcription ***is usually at least four to six times as long as the length of the audio file***, an inexperienced typist needs a multiple of this time.

No special tools or programs are required to perform the transcription yourself. A word processing program such as ***Microsoft Word*** and a ***program to play audio files*** are sufficient for a simple transcription. However, the transcription takes time without a ***special one program*** much longer. Word has some useful settings for this, such as macros or pre-adjusting the layout.

While most users should have a word processing program, the requirements for the audio player are much higher. The reason for this is that factors other than playing music, for example, are relevant to transcription. To make it easier to choose the right program, a brief overview is given in the next chapter.

Audio players

With the large number ***of audio players available,*** the choice is difficult at first. Therefore, here we present some of the best programs that are well suited for transcription work. A paid program is usually not necessary, because the ***free programs are presented here Programs*** also control all important functions.

Windows Media Player

The Windows Media Player is preinstalled with the Windows programs. This can be used to play common audio and video files, create playlists and burn CDs (see chapter 2.1.1). In addition, the player only offers a few functions. To create a transcript, it makes sense to purchase one of the following programs with the appropriate functions.

The latest version 12 supports the following formats:

WMA, MP2, MP3, WAV, M4A, AAC, AVI, WMV, MPG, MPEG, MOV, MP4, M4V, MP4V, 3G2, 3GP2, 3GP, 3GPP, ASF, WMA, WMV, WM, WMD, WMZ, WMS, ASX, WAX, WVX, WMX, WPL, M1V, DVR-MS, IVF, M2TS, MID, MIDI, RMI, AIF, AIFC, AIFF, CDA, ADT, ADTS, MPA, MPE, M3U

VLC player

The VLC Player is a free, open-source tool developed and maintained by the VideoLan team since 1996. It consists of French students and developers from more than 20 countries.

The program can be downloaded directly from the VLC website for free. The special thing about the VLC player is its compatibility with almost all file formats. These include the following:

AAC, AC3, ASF, ANNODEX, AVI, CREATIVE VOICE, DTS, DVB, FLAC, FLV, MIDI, MKV, MOV, MPG, MPEG (ES, MP3, MP4, PS, PVA, TS), MXF, MIDI, NUT, OGG, OGM, Real (RAM, RM, RMVB, RV), RAW DV, SVCD, WAV, WMA, WMV, 3GP.

However, the program is not limited only to these formats, but can also independently download and install the necessary codecs for other formats. So it does not depend on the fact that these are already present in Windows.

In addition, physical formats such as CD and DVD are also supported and even incomplete or damaged files can be partially played.

The VLC player is compatible with Windows 7, 8 and 10, as well as Linux and MacOS and can also be used on mobile devices (Android, iOS, Windows Phone). Due to the wide distribution of the program, there is extensive support and new features. In addition, the range of functions can be expanded with numerous add-ons and plug-ins. Since the player uses only a few system resources, it can be used in parallel with other programs without any problems and is therefore ideally suited for transcriptions.

There are also many other useful features for transcription. The playlist can be displayed with the "L" key or the "View" menu, which is very convenient when there are several files. In addition, the volume can be increased above 100%, which is useful in quiet parts of the interview. By default an increase to 200% is possible, but the volume can be increased to 400% with a simple trick:

Tools → Settings → Interface → Main Interfaces → Qt → Allow checkbox "Set the volume to 400%".

In addition, the playback speed can be adjusted, which makes transcription much easier and helps interpret incomprehensible passages. The setting options range from 0.25x to 4x speed. In addition, the VLC player can be placed in the foreground of the programs. For example, a video can always be viewed when writing in Word. Other useful features include setting loops and bookmarks.

A special feature of the VLC player is the ability to set global hotkeys. This means that the player can also be controlled from other programs, for example while Word is open. This means you can quickly and easily stop and start playback or jump back and forth in the audio file. Usually only professional and paid transcription programs offer this feature. Instructions for setting up keyboard shortcuts can be found in the following info box:

- Launch VLC Player, click "Tools - Settings".
- Show "all" settings at the bottom left of the next window
- In the left menu under "Interface", click on "Hotkey Settings".
- In the list to the right of the "Play/Pause" line, double-click "Unset" in the [Global] column
- Press any key and click the Set button
- The previously selected key appears in the [Global] column (see image above).
- At the bottom of the list are the entries "Very Short Jump Back" and "Very Short Jump Forward".
- Assign a button to each of the two jumps
- → You can now fast forward and rewind in the VLC player regardless of the program you are currently using
- The length of the fast forward or rewind (in seconds) is set in the field 'Fast Forward Very Short' – Length
- Apply settings with the "Save" button.

Download here: https://www.videolan.org/vlc/index.nl.html

Finally, all the advantages and disadvantages of the VLC player are listed again:

Advantages	Cons
Free	No automatic updates, only manual by users
Compatible with almost all file formats and operating systems	Short training period necessary due to the wide range of functions
Wide range of functions (special settings for transcription possible)	Organization of many files not possible (no graphical media library with file browser or similar)

Global keyboard shortcuts File format conversion possible Reliability, low consumption of system resources	No cloud connection Editing of the audio file is not possible

Audacity:

Audacity is a free audio editor and recorder. The program was published in 2000 as an open source project and can be downloaded and used for free from its website.

Audacity is available from Windows XP, for macOS and Linux and can handle the most common audio formats. These include MPEG and MP3s, MP3, WAV, AIFF, WMA, Ogg Vorbis, Sun Au/NeXT and IRCAM. Audio files with these formats can be played and converted. As already explained in chapter 2.1.5, Audacity can also be used for editing and to improve sound quality. With its many features, Audacity stands out from the other two audio players presented.

Accordingly, the following advantages and disadvantages arise:

Advantages	**Cons**
It is possible to edit the audio file, which can eliminate any glitches and errors during recording, especially suitable for poor sound quality	Supports fewer file formats than the other two
can be run even from a USB stick (without installation)	Not as extensive editing options as with paid (professional) software
Compared to other audio editing programs, it is very clear and the training period is short	Compared with pure music players (such as VLC player or Winamp) not so easy to use and longer training

Audacity is therefore particularly suitable when the audio quality is moderate or there is a lot of interference and noise, for example. In this case, the program can be used to improve the quality. If you want to do the transcription yourself and don't want to buy a transcription kit right away, the ***VLC Player*** is the more suitable program as it is easy to use with a large number

of functions and allows setting of global hotkeys. Under no circumstances is the use of paid software necessary or recommended.

However, it is always important that not only the correct playback program is used for the transcription, but also the correct ***equipment.*** This also includes comfortable ***headphones*** with an appropriate sound quality. It should also be possible to wear it for a longer period of time without discomfort.

However, for long transcription projects, the use of a special transcription program is recommended. This makes the transcription much faster and the costs are amortized from a certain number of transcripts. Some selected programs are presented in the next chapter.

Transcription programs

Transcription programs make this task much easier thanks to their features designed specifically for transcription. Although simple transcriptions can also be made using Word and a suitable audio file player (see above), this procedure is ***included much or long Transcripts*** not helpful.

The special thing about the transcription programs is the combination of ***audio reproduction program and text editor.*** This results in the following benefits:

- Automatic jump back after pressing the pause button
- Playback speed control without pitch distortion
- Comment/memo function for each transcript
- Measure and insert pause lengths
- Automatic timestamps
- Speaker marker in waveform of the audio and in the text
- Text modules for recurring elements
- Foot switch operation possible

Transcription program "Amberscript"

Amberscript developed their own transcription program using Artificial intelligence to create a draft of your transcript in the audio's language. A team of professionals can create up to 100% accurate transcripts if requested.

To get an impression of Amberscripts' functions and operations, there is a free trial version that allows you to transcribe up to 10 minutes for free. Amberscript supports 39 languages and is very user friendly. If you want to learn more, go to www.amberscript.com.

Transcription program "f4transkript"

The f4 software was developed by Dr. Dresing & Pehl GmbH developed. Two different programs are offered, one for transcription (f4trankript) and one for analysis (f4analysis). The latter is discussed in chapter 4.3. presented as part of the qualitative content analysis. The current versions are available for Windows computers from Windows XP onwards and as f5tranSkript and f5analysis programs for Mac.

To get an impression of f4tranSkript's functions and operation, there is a demo version that limits the playback time to 5 minutes, but otherwise offers the full range of functions. The full version is available in the form of various licenses, including a discount for undergraduates or doctoral students.

The program supports almost all popular audio formats, including: MP3, OGG, WMA, WAV, MPG and AVI

In addition, special accessories such as a foot pedal are also supported. This is useful for controlling the playback of audio files without interrupting the writing process and calling up a separate program. In addition, f4 is compatible with other programs such as Audacity, so that previously edited recordings can also be processed.

f4transcript offers the following additional features:

- Variable playback speed control. After a pause, the program automatically jumps back a few seconds.
- Speakers are highlighted in color and speaker changes are automatically displayed
- Accurate timekeeping
- loop function
- Waveform to visualize volume
- Automatic time marking
- Insert comments
- Text modules for recurring formulations
- Back function to correct errors

All in all, f4tranSkript offers sufficient functionality in combination with a relatively low price.

Transcription program "Express Scribe"

Express Scribe is an effective transcription program designed especially for professional typists and transcribers. Because of this, it has all the options and features needed when transcribing audio. Express Scribe is a combination of a word processor and a media player, so it can be transcribed and played/paused in one screen. Express Scribe offers additional features that make transcription easier. It is possible to program hotkeys for pausing, rewinding and speeding up/slowing down the recording. In addition, it is possible to customize the Express Scribe interface to better suit a different working style.

Express Scribe supports the following files:

WAV, MP3, AU, AIF, VOX, DCT, Windows Media, VoiceIt (SRI), RealAudio (RA y RM), Olympus, Lanier & Grundig (DSS), Sony Recorder formats (MSV, DVF), Philips Digital Recorder, Sanyo Digital Recorder, DSP TrueSpeech*, GSM 6.10, MP2, PCM, uLaw, ALaw, ADPCM, CE

The Future of Transcription: Speech Recognition!?

Speech recognition software refers to special computer programs or apps that recognize spoken language and automatically convert it into written text. The language is analyzed for spoken words, meaning and speaker characteristics in order to arrive at the most accurate result possible. This should not be confused with speech recognition, which is a biometric method of identifying people based on their voice.

Meanwhile, the PC can be controlled with the help of speech recognition, you can use it to write e-mails or surf the Internet. Numerous speakers with integrated voice control, such as Amazon's Alexa or Google Home, also use this technology. Moreover, it is now standard in most smartphones.

A distinction is made between two types of speech recognition:

- **Speaker-independent voice recognition:** Any voice can be recognized and processed, so the device can be operated by anyone. Although this type of application is aimed at a broad audience, the existing vocabulary here is limited.
- **Speaker-dependent language recognition:** In this variant, the program is trained for the individual language of the respective user, which means that specific abbreviations and phrases can be learned. The vocabulary is therefore much larger.

From a technical point of view, there are two possible ways to handle this process. Either it takes place directly on the relevant device of the user, where the result is almost immediately available (frontend), or the implementation takes place on a separate server, independent of the device of the user (backend).

Quality of the sound recording plays a major role in this process. ***A large number of speakers***, ***background noise*** or being too far from the microphone will have a negative effect on the result. Due to these limitations and other difficulties, such as individual speaker behavior or dialect, fully automated transcription is not (yet) error-free and therefore qualitatively inferior to human manual transcription. In any case, a ***human correction is therefore*** necessary to achieve the best quality level. However, under optimal conditions and with prior training with the user's voice, the results are already good. There are already countless users, especially among professional groups such as doctors or lawyers.

Analyzing

Depending on the purpose of the transcripts, they can be used in different ways after they are created. On the one hand, the most important statements can be extracted and embedded in the context of the research or question, for example in the form of quotations. Another type of use is content analysis.

A fundamental distinction can be made between a ***qualitative*** and a ***quantitative content analysis.*** The Mayring method is often used for qualitative analysis. This is aimed at researchers from educational science, psychology, sociology, communication science and the like.

Qualitative content analysis according to Mayring

In qualitative content analysis, texts, such as interviews, are interpreted and assessed on the basis of a question (cf. Mayring 2015). According to Mayring, so-called ***category systems*** form the basis for a qualitative content analysis. The categories with their subcategories and associated definitions form a central part of the analysis. In general, the category system should consist of categories that ***are clearly distinguishable from each other.***

According to Mayring, there are three different techniques for transcription. The phonetic transcription with IPA (see chapter 3.2.4) to represent dialect and language coloring, the literary transliteration in which the dialect is preserved (in the usual alphabet, not in IPA) and the translation into normal written German. According to Mayring, the latter variant is most suitable when substantive aspects are in the foreground. Dialect is cleaned up, sentence construction errors are corrected and style is smoothed out. This variant corresponds to the clean transcription of Amberscript (see chapter 3.3.1).
Mayring's method of qualitative content analysis consists of nine steps (see Figure 7). A number of central aspects of the procedure are briefly described below.

In a first step, the ***source material must*** be determined more precisely. Central questions are:

What is being analyzed? (Just a fragment of the text or all?)
Who produced the material? (Who is the author and what is his/her background?)
How is the material available? (Usually as a transcript.)

Then follows the ***formulation of a question.*** This determines the focus of the interpretation. These can be, for example, emotional reactions, opinions or intentions.

Central to the process is the **" *flow model* " *and*** a distinction **is made between three techniques:**

1. **Explicit content analysis**
   Additional data, such as background information, are used for the explanatory content analysis. In particular, unclear passages in the text should be made easier to understand. The relevant data should be collected systematically and made transparent in the research process.

2. **Structuring content analysis**
   Central to the structuring content analysis is the filtering out of criteria that represent the text as a whole. A category system is being developed for this purpose, which is mainly based on predefined criteria. This means that the structuring content analysis is a "deductive" procedure, i.e. there are precise theoretical assumptions. Also, with the structuring content analysis it is possible that new content appears and thus new categories can be formed. This process is called "inductive" category formation.

3. **Summary content analysis**
   In the summary content analysis, the texts are reduced to their essential content. This creates a short text that serves as the basis for the interpretation. The categories are formed inductively, i.e. the categories develop based on the substance. The means and rules of the procedure include paraphrasing, generalization, and forms of diminution.

After you create a category system, the categories need to be defined and separated from each other. For this, examples from the text for the relevant category must be collected. This is followed by the ***interpretation of the results*** with regard to the previous question.

Work steps of the qualitative content analysis (according to Mayring 2015)
1. Definition of the material
2. Analysis of the origin situation
3. Formal characteristics of the material

4. Determine the analysis direction
5. Theoretical differentiation of the question
6. Determination of the analysis techniques, determination of the specific process model
7. Definition of units of analysis
8. Analysis steps using the category system, summary, explanation, structuring, assessment of the category system on theory and material
9. Interpretation of the results in the direction of the research question, application of the quality criteria of the content analysis

(Fig. 7: Working steps of the qualitative content analysis (according to Mayring 2015))

Quantitative Content Analysis

The quantitative content analysis is the ***systematic analysis*** *of* ***large amounts of text***, which is done as ***objectively and systematically as possible***. Here too, the formation of a category system is essential for the assessment. In principle, quantification is always required, i.e. all categories are counted by frequency.

The central step in quantitative methods is the subsequent ***statistical evaluation of the results*** by frequency and in relation to demand.

Tools for Evaluating Transcripts

Another method especially useful for quantitative content analysis is computer-aided data analysis. Data can be analyzed with special software. Especially with larger amounts of data, the use of special software offers easier handling in terms of ***structuring and organizing*** the data. The most common transcription software packages are ***MAXQDA*** and ***f4analysis*** (see also chapter 3.5.2.). MAXQDA offers significantly more features beyond text analysis:

- Read, edit and encrypt data
- Paraphrases
- Create memos
- Visualization options (e.g. number of codes in different documents)
- Group comparisons

- Analyze the combination of codes and the scope of the coding
- Import and export demographic data (variables) from and to SPSS and Excel
- Import survey results from Survey Monkey
- Importing websites or parts of a website
- Search function
- Transcribe audio and video material
- Integrated media player
- Geo references
- Code with emoticons and symbols
- Export to Text, Excel, HTML, XML
- Create frequency tables and graphs
- Descriptive and inferential statistical analyses
- Folder creation possible
- Coding of audio/video data with no existing transcript
- Variables for selecting specific text or code groups
- Compare the number of codes for different text groups
- Using multiple user groups in one project
- Arrange texts, codes, memos, coded text passages and free objects on a white surface and connect them with arrows
- Display text as an image
- Count word frequency list and dictionaries for counting word frequencies for text, text groups or codes. (additional module with costs)
- Performing statistical evaluations (StatsPro module)

In addition, MAXQDA is compatible with significantly more file formats than ***f4analysis.*** Not only all common audio formats can be processed, but also numerous other sources such as PDF, XLSX, JPG, video data or tweets.

Software such as ***f4analysis*** is limited to a few ***basic functions.*** F4analysis is offered in a package with f4tranSkript. The price varies between 50 euros and 500 euros. This software is particularly suitable ***for small amounts of data*** (up to 30 interviews). In addition to those of f4tranSkript (see chapter 3.5.2.), its features include:

- Helps read RTF files
- Structuring the references, exciting passages can be filtered
- Findings can be noted
- Results can be clearly exported to Word and processed as a result report
- Save annotations as memos
- Comment on text and on codes
- Memos can be encrypted
- Develop codes and match text and memo
- Clear display of the code system, display with different colors
- Encrypted text passages can be easily filtered and compared

compare the two programs ***f4*** and MAXQDA , you will see that ***f4 is*** more ***suitable for beginners there,*** because it offers simplified operation. ***MAXQDA*** is especially suitable for ***large projects*** with many requirements or when using a special file format that f4 cannot handle.

Assistance

Transcribe yourself or outsource?

Interviews can generally only be used and evaluated properly if they are transcribed. The usually ***considerable amount of time*** required for this step should not be underestimated. In any case, there must ***be enough time*** to do the transcription yourself or enough ***money*** to outsource it to a service provider. If both are missing, the interviews may have to be omitted altogether.

The right time management

For an inexperienced person, the careful transcription of an interview can ***take many times the recording time*** and therefore take a very long time. Therefore, in any case, have a ***test*** carried out in advance to be able to decide whether you can take over the production of the transcripts yourself or whether you outsource this to a service provider.

The transcription method also determines the duration of the transcription

Transcription costs

Transcription service providers usually calculate the costs incurred in ***euros per minute of audio or video.*** This makes it easy to calculate the total costs in advance.

A standard verbatim transcription costs approximately EUR 2.00 per audio minute (incl. VAT) and a literal transcription including editing costs EUR 2.40 per audio minute (incl. VAT).

Legal and data protection for service providers

In order to use a transcription service provider, the interview data must be passed on to them. This includes a ***secure upload*** of the files and that the transcription takes place under a ***high***

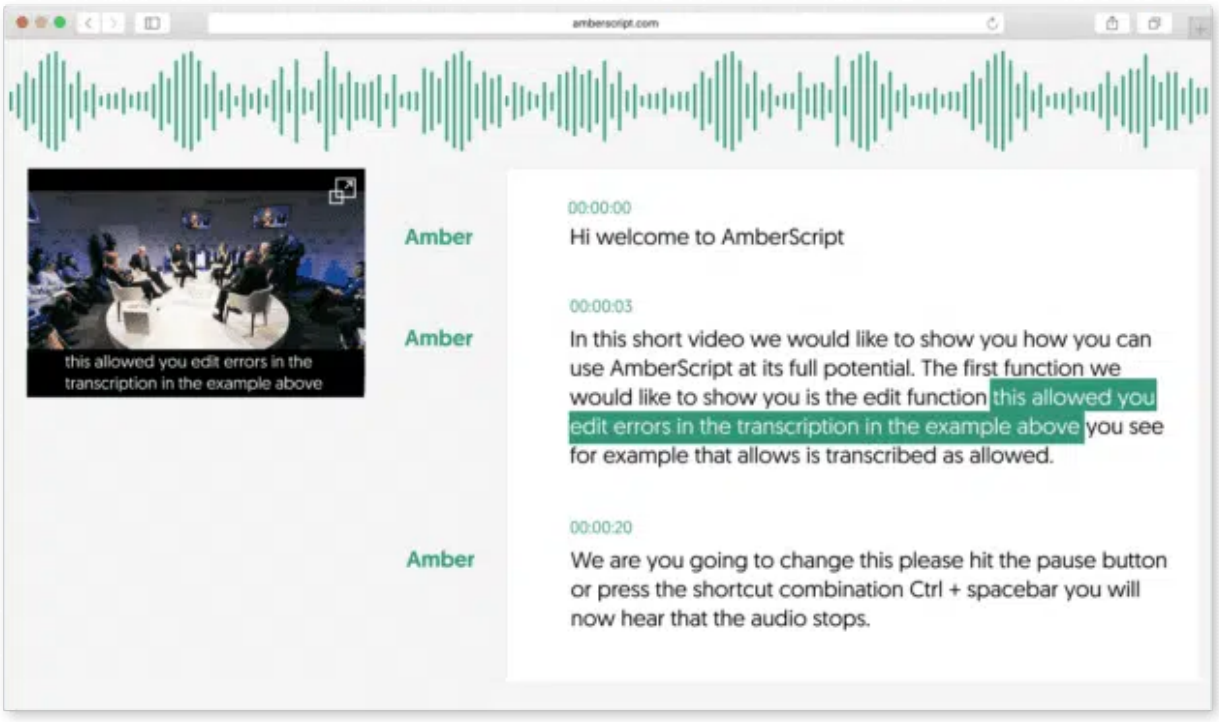
standard of data protection . It is also important that the files are deleted after completion of the order or a reasonable short period of time after delivery.

It is important that the interviewee agrees to the transfer of the files. This can be done orally at the beginning of the interview (see chapter 1.1.6.).

To Amberscript.com

Amberscript.com is ***the leading Dutch provider*** for transcription of audio and video recordings. We can produce speech-to-text up to 100% accuracy. Add to that a lightning-fast service. Giving you a solution to count on when it matters most.

We've been around ***for 5 years and have*** **experience** transcribing millions of minutes. ***Large volume orders*** in tight time frames are our specialty.



Tips

Giving the files a specific and logical name makes later analysis much easier. For a better overview, it is advisable to name the files clearly. A common mistake here: copying the file name as it is (automatically) included in the recording tool (especially often as “Interview 1”, “Recording 1” or similar).

In most cases, mobile phone apps are sufficient for recording interviews, so that the purchase of a Dictaphone is not necessarily necessary.

Video recording is recommended for recording group interviews. This simplifies the transcription, especially the speaker assignment and also the subsequent evaluation.

Leading questions should be avoided as much as possible in an interview.

If many technical terms are used, it makes sense to create a glossary - especially if the transcription is done by an outsider or service provider.

The time factor should not be underestimated - approximately 3 - 10 times the number of audio minutes should be planned for a transcription. Inexperienced typists should therefore plan more time.

Purchasing special transcription software is especially useful if many or long interviews need to be transcribed.

Have Amberscript.com make a trial transcript.

Useful Links

Manuals and tutorials:

For MAXQDA:

https://www.maxqda.de/download/Online-Manual-Complete-Deutsch.pdf

For transcription after HIAT with EXMARALDA:

https://exmaralda.org/en/manuals-tutorials/

For transcription to GAT2:

http://www.gespraechsforschung-ozs.de/heft2009/px-gat2.pdf

Introduction to TALK:

https://docs.wixstatic.com/ugd/7c0460_330e1fb8889d4d388aa2073f9ccdc19f.pdf

or:

http://praatpfanne.lingphon.net/downloads/praat_manual.pdf

For subtitles:

https://www.zhb.tu-dortmund.de/zhb/dobus/Medienpool/downloads/Anleitung-Untertitelung.pdf

Demo versions:

https://www.maxqda.de/demo

https://www.audiotranscription.de/f4

https://voicedocs.com/en/transcriber

Read further:

Berger-Grabner, Doris: Scientific work in economics and social sciences. 3. Edition. Jumper 2016

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Early, Werner: content analysis. Theory and practice. 7th edition. Constance: UVK Verlagsgesellschaft 2011

(At Amazon at https://amzn.to/2QEBgyV for 24.99 euros)

Gläser, Jochen/ Laudel, Grit: expert interviews and qualitative content analysis. 2nd edition. Wiesbaden: VS Verlag 2006

(At Amazon at https://amzn.to/37PtVSL for 29.99 euros)

Hansen, Gyde: Successful translation. Discover and eliminate sources of interference. Tubingen: Gunter Narr Verlag 2006

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Jüngst, Heike E.: Audiovisual translation. A textbook and workbook. Tubingen: Narr Verlag 2010

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(On Amazon at https://amzn.to/2R2CH9g for 22.99 euros as a book or for 4.99 euros as an e-book)

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