

Video recording

DoBeS Training Course

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Video Camcorders

- Current situation on consumer and semi-professional camcorder market problematic for field linguist – focus on High Definition video at the cost of uncompressed sound
- Options
  - Use a traditional DV camera
  - Use a separate audio recorder
  - Use a semi-pro camera (e.g. JVC GY-HM100)
- When using a separate audio recorder, synchronization becomes an issue. Use audiovisual cues (e.g. handclap in front of the lens) before every recording session and don't make the recording sessions too long

Video Camcorders

- Types of consumer camcorders:

Type	Video Compression	Medium	HD	Linear Sound
MiniDV	DV	Tape	No	Yes
HDV	MPEG2	Tape	Yes	No (yes in DV mode)
AVCHD	H.264	Hard disk / flash card / DVD / Blu Ray	Yes	No
MPEG2 SD	MPEG2	Hard disk / flash card / DVD	No	No
MPEG2 HD	MPEG2	Hard disk / flash card	Yes	No (except some semi-pro cams)

Field trip video equipment

Equipment list:

Video:

- Camcorder with lens hood, UV-filter, lens cap and shoulder strap
- Tripod with correct plate
- Sufficient SD memory cards (or tapes)
- At least two rechargeable batteries
- Separate charger (to be able to charge the spare battery while using the camera), optionally with cigarette lighter connector
- Other batteries, for example for the remote control
- Manuals (PDF or paper)

Field trip video equipment

Equipment list:

Video:

- Fitting wide-angle lens
- Clean, well packed cleaning tissue
- Cleaning tape for tape-based camcorders
- Sheet of white paper and a pencil for the clapboard and possibly for the white balance
- Remote control
- Waterproof bags with silica gel if you go to humid area
- Power adapters for all countries you will visit

Field trip video equipment

Equipment list:

Audio:

- Several microphones with different characteristics
- Several microphone cables with different lengths
- Headphones
- Fitting batteries for the microphone
- Mono-to-stereo-adapter, if you use a mono microphone on a camera with 3.5mm mini-jack input
- Microphone stand

Recording session preparation

Before you go out:

- Completely set up your equipment and carry out a **test run**, including the sound.
- Always personally check that your equipment is **complete** and **properly packed**.
- Try to have plenty of time to set up the camera and sound **before** the actual recording starts, to avoid stress and forgetting things.
- Bring a **tripod** whenever possible, even if only a small lightweight one. If absolutely necessary you can also use a table, a chair or something similar.

Recording session preparation

Before you go out:

(if it is not possible to use a tripod, then hold the camera with both hands and as **straight** and **still** as you can, moving it slowly and calmly unless there is reason to have some movement in the picture)

- Adjust a couple of camera settings:
  - Generally switch on the **steadyshot** or similar feature (optical image stabiliser).
  - Due to the extreme loss of picture quality never use the **digital zoom**.
  - On traditional tape-based camcorders, don't use **Long Play mode** and do not use tapes that can record more than 60 minutes (e.g. 80 minutes)
  - Always record using **16-bit sound**.

Setting up

Choosing position of camera, perspective and size:

Where possible, keep the **sun behind you**, i.e. don't film directly into the sun. Don't hold the camera too far away from the object or person, but at the same time not too close, particularly when filming a shy person or a person that is not so used to modern technology (one person ⇒ circa two meters distance, switch off the red "recording" light if possible).

The perspective, that is to say the height of the camera in relation to the object, should be **at eye-level** of the person you are filming. Use the **zoom** to select the best picture size, for example a close-up of up the face (to capture the facial expression) or one arm length of space around the head (to capture the gesticulation).

Setting up

Choosing position of camera, perspective and size:

When filming a person, pay attention to the "**headroom**" in the picture. The headroom in this case is the room between the head of the person and the top of the image. The top of the person's head should be in the top 1/3 part of the image.

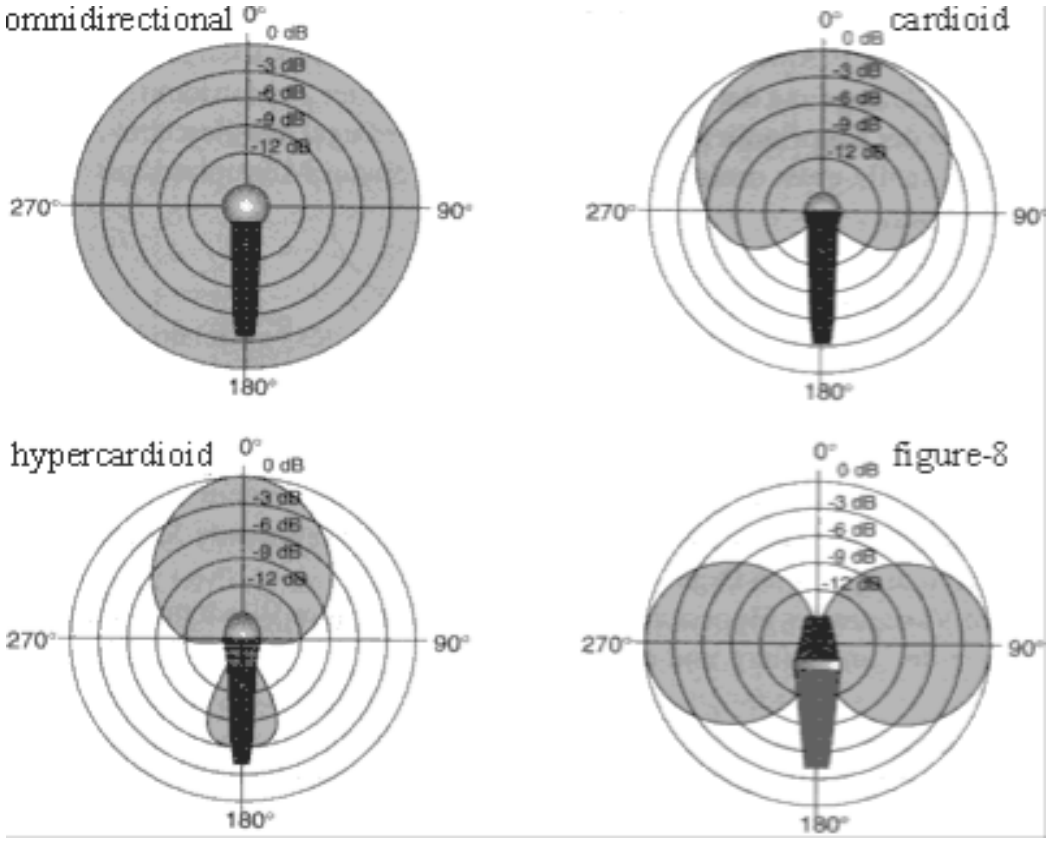
When filming an interview situation where the person is looking in a certain direction, make sure to leave somewhat more room at the side of the picture in which direction the person is looking.

Sound aspect

Sound recording:

Use **external microphones**, if possible.

Choose microphones with **characteristics** according to your requirements (see below).



Sound aspect

Sound recording:

If you need to use the built-in microphone, switch off the **zoom function** of the microphone that some cameras have.

Fix the microphone cable on the camera through a cord grip.

Most external microphones need **batteries** and have to be switched on before use. When the microphone is switched on and the battery has enough power, a little **red light** blinks on the microphone.

Use a **windshield** whenever you record outside, even the slightest wind can cause noise on the recording.

Camcorder settings: Focus

Focus:

The **most important** part of the picture must be sharp in focus. Autofocus usually works well, however it may be falsely triggered e.g. if someone walks close to the camera, if the interview partner is not in the middle of the picture or is moving or if there are moving twigs in the foreground of the image. As long as the distance between the camera and object or person remains **fixed**, for example during an interview, one can use autofocus initially to adjust the focus, and then switch it off.

Camcorder settings: Focus

Focus:

Focusing on the subject **manually**: zoom in close on the eyes and adjust the focus. Then zoom out to make the desired picture. The subject will stay in focus over the whole zoom range, as long as the distance between the camera and subject is not altered.

Quite often the automatic focus will not function correctly in the **dark**.

Camcorder settings: Exposure

Exposure:

Video cameras have a **limited exposure range** meaning that they can not cope with very bright and very dark spots in the same image. For example when filming inside a room while the sunlight is coming through the window is a difficult situation.

Generally speaking one has to decide what is most important in the image and that has to be well exposed. Some other parts of the picture will then be over- or under-expose, but that's a compromise one has to make.

Some cameras have a **backlight function** that can help making under-exposed parts of the image brighter, while over-exposing the background. On some cameras one can adjust the **exposure** manually.

Camcorder settings: Exposure

Exposure:

Professional and Semi-professional camcorders generally have two controls that influence the exposure as well: **Iris** (also called **aperture**) and **Shutter Speed**. The Iris setting determines the diameter of the hole behind the lens that lets light trough onto the imaging chip. The larger this hole (the lower the "F" value), the more light gets through. The Shutter Speed determines the duration during which each image is captured. The slower the shutter speed, the longer this duration, the brighter the image will become. A slow shutter speed can also cause motion blur though when filming fast moving objects.

Camcording settings: White balance

White balance:

What looks like white is not always the same due to differences in lighting conditions. The human eye adjusts for this automatically, the camera has an **auto white balance function** as well and this usually works quite well. Most cameras also offer some white balance presets for daylight, indoor light bulbs or indoor fluorescent light.

Some cameras also have a **white balance calibration** function. To use this, put a white sheet of paper in front of the lens near the spot where you will be filming and press the manual white balance button. The white of the camera will then be adjusted for the lighting conditions at that spot.

Start recording

When using a tape based camera, it’s important not to record any essential information during the **first 30 seconds** of the tape since it can be faulty. Instead, write some meta-information about your recording (name, date, location etc.) on a sheet of paper and film that for about 30 seconds. At the same time, speak this information into the microphone. Watch this recording straight away, to check whether the camera is recording the image and sound properly. It’s also important not to record anything essential at the beginning of the tape because most digitization software needs some seconds of “pre-roll” time, during which no video is being captured. Non-tape camcorders do not have this problem, nonetheless it is useful to record the meta-info and test the setup.

Start / end recording

Every take should be at the beginning and in the end **at least 5 seconds longer** than necessary.

Produce a **continuous time code** on tape-based camcorders: every new shot on the tape should follow the previous one without a gap (use the “end-search” button, this works only if the tape is not taken out of the camera in between, otherwise just rewind until just before the previous recording ends).

Having non-continuous time code on the tape can cause problems during the capturing process.

End recording

End of the recording:

Like the beginning of the tape, the end also can be faulty and is difficult if not impossible to capture on the computer. Therefore try not to record until the very end of the tape.

If you take out the used tape, **secure** and **label it** straight away.

On memory-based camcorders, make **backups** of your recordings for security and to free up your memory cards for new recordings. In order not to risk re-using your memory cards by accident, you can also write-protect them right after use until you've made a copy.

Practice

Record 2 situations:

- a walking person
- a person being interviewed