

SAFE

Streaming Approaches for Europe

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Aspect (3): Streaming Environment

Module 7: Easy school requirements: Technical and organisational requirements at school and for teachers

Module 8: Easy learner requirements: Technical and organisational requirements for learners



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Aspect (3): Streaming Environment

MODULE 7: EASY SCHOOL REQUIREMENTS: TECHNICAL AND
ORGANISATIONAL REQUIREMENTS AT SCHOOL AND FOR TEACHERS

Aspect (3): Streaming Environment



Focus on Module 8:

Module 7: Easy school requirements: Technical and organisational requirements at school and for teachers

Module 8: Easy learner requirements: Technical and organisational requirements for learners



Content



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Technical Devices – In Detail

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Your Twitch Channel – Personalize Your Twitch Channel

Technisches Equipment – Additional information and professional tips





“All teachers are Twitch streamers now, thanks to the pandemic ” (Diaz, 2021)

Diaz, A. (2021): Retrieved from the Internet: [Teachers are learning from Twitch streamers to make remote class better – Polygon](#), access date: 14.10.2021).

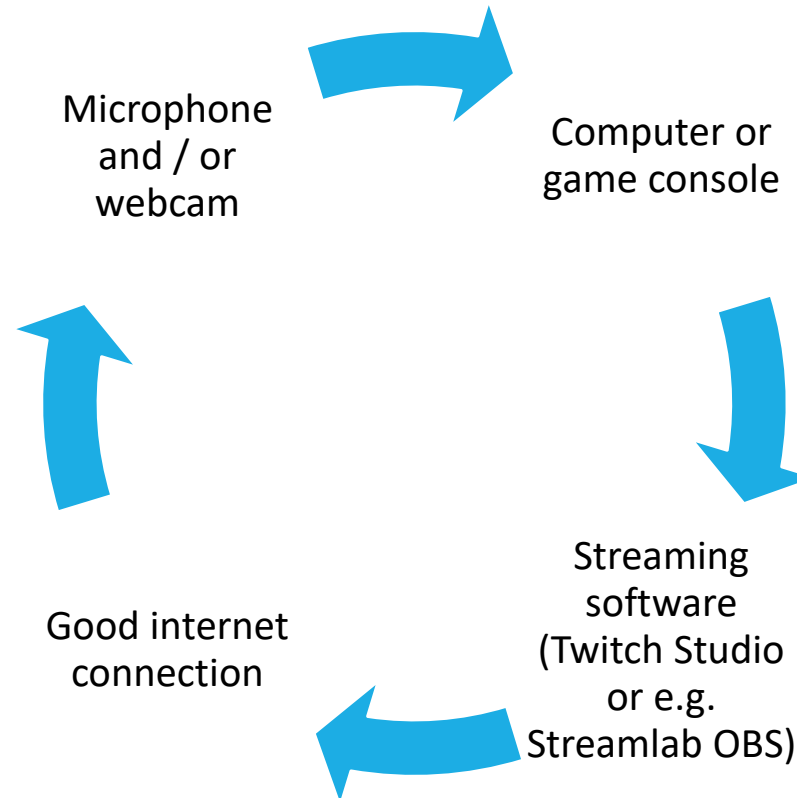


What you need to stream: Technical equipment



It doesn't take much to stream - set up hardware and software

To get started you need:



Vgl. Twitch (2021):
<https://dashboard.twitch.tv/u/jenniferupb/home>,
Zugriff. 08.11.2021.





Technical Devices

IN DETAIL!

Streaming equipment: technical devices



Tablet or touchscreen PC

- The tablet replaces the blackboard for the teachers.
- Tablets allow teachers to write and draw as they would on a blackboard, but using a pen makes this even easier than writing with chalk or markers on a whiteboard.
- In addition, tablets offer a wide range of other options, such as typing text using the keyboard, a practically unlimited number of pages that you can switch back and forth between, and the display of presentations and films.



Streaming equipment: technical devices



Projector & projection surface

- The role of the projector is to make the screen of the tablet in the classroom accessible to the students present.
- If no students are present, you can of course do without the projector. Projectors are already available in many schools.
- When selecting projectors, the light intensity is particularly crucial. It is also advantageous to use projectors that can transmit images wirelessly, so that teachers do not have to spend a lot of time setting up.

Streaming equipment: technical devices



WLAN router

- A fast internet connection is essential, especially the upload speed.
- If the school already has fast WiFi, no device is required.
- Otherwise it is recommended to install a powerful WLAN router.
- The function of the WLAN router is to transmit the image from the tablet to the Internet so that students can follow the lessons live.

Streaming equipment: technical devices



microphone

A simple clip-on microphone is all it takes to stream the teacher's voice over the Internet. There are a multitude of options here, ranging from wired clip-on microphones to wireless microphones or, in simple cases, standing microphones.





Your Twitch Channel

PERSONALIZE YOUR TWITCH CHANNEL



Twitch Kanal Personalisieren

Personalize the channel:

Provide information about yourself:

- Who are you?
- What makes you
- What do you want to stream over?
- What are you particularly interested in? Etc.

Complete your appearance with a personable profile photo



Promote and network Your Twitch channel



Promote your Twitch channel
and invite viewers - where
and how?

Promote your channel on
social media platforms

- facebook
- twitter
- Instagram



Promote and network Your Twitch channel



Promote your Twitch channel
and invite viewers - where
and how?

Stay live for a long time,
especially at first - we
recommend 2 hours in a row
or longer



Promote and network Your Twitch channel



Promote your Twitch channel and invite viewers - where and how?

- Do you try different times and days to stream?
- Do you notice a change in the community?
- Are there more viewers active on certain days and times?

Watch the changes and act on them!

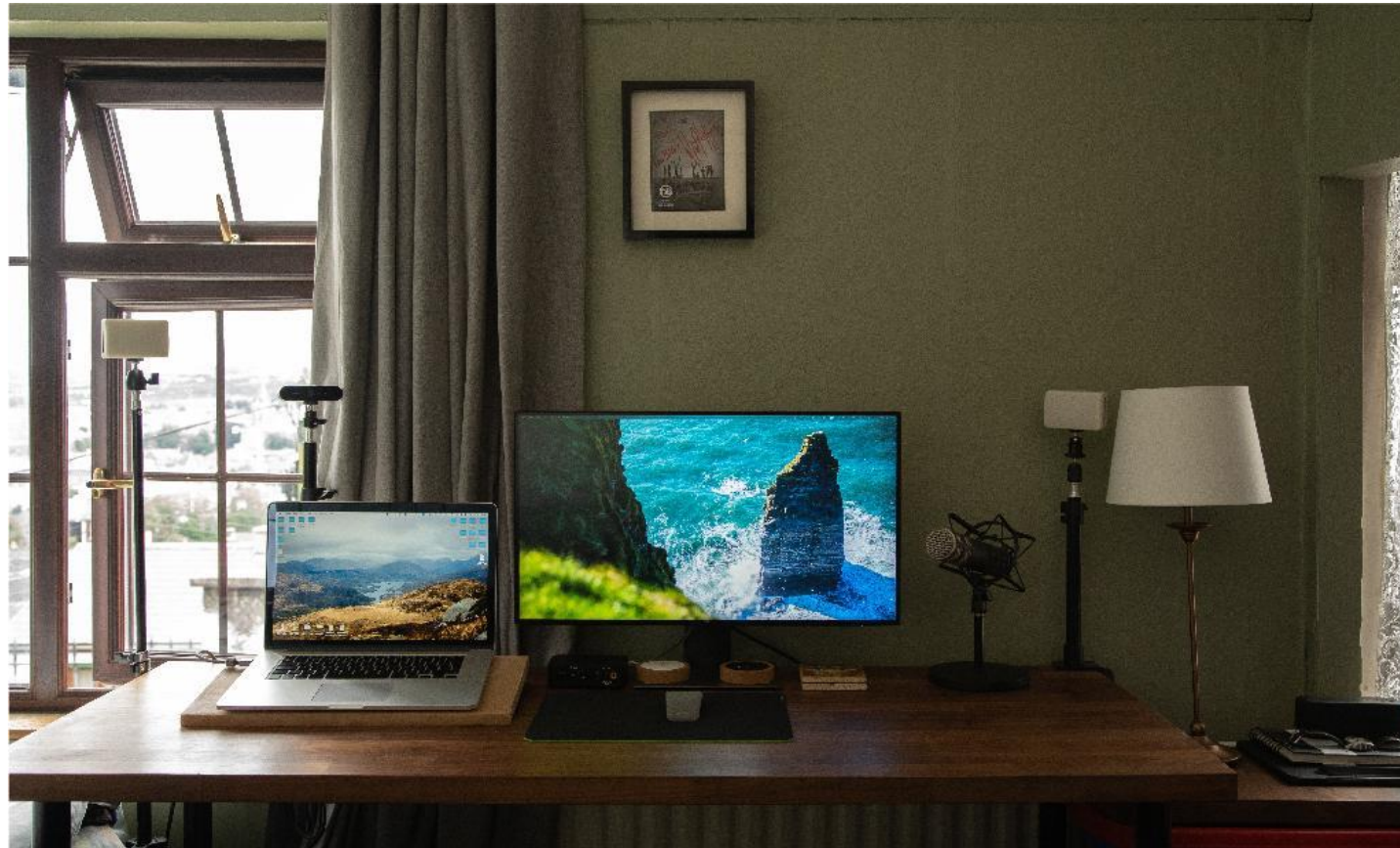




Technical Equipment

ADDITIONAL INFORMATION AND PROFESSIONAL TIPS

SETTING UP EQUIPMENT



SOUND



What can affect your audio?

There are **multiple factors** that affect the **quality** of your audio while recording a video. These include:

1. Type of Microphone

Does your microphone sound tinny or does it sound full and rich?

2. The Type of Room

An empty room with hard floors can echo, but a room with carpet, curtains and furniture will sound more natural.

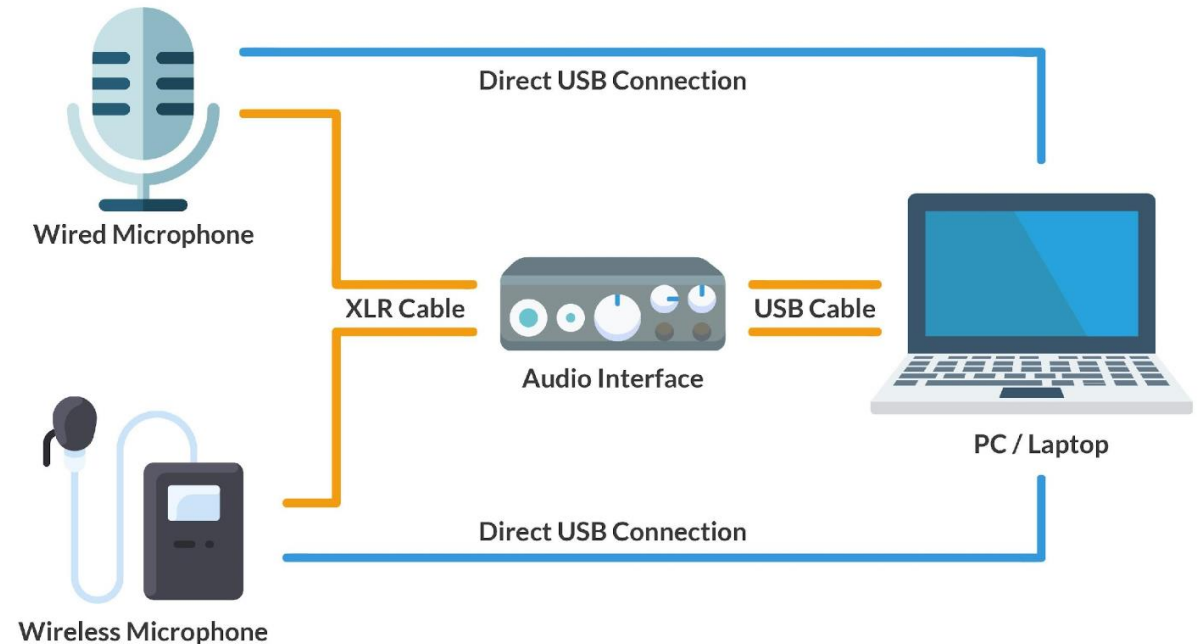


SOUND



Microphone Types

- Dynamic Microphones
- Condenser Microphones
- Lavalier Microphones
- Ribbon Microphones





DYNAMIC MICROPHONES

The **dynamic microphone** is probably the most familiar-looking type of microphone to us these days.

They are:

- Well-known
- One of the cheapest types
- Versatile
- Robust
- One of the least sensitive to “up close” sound



CONDENSER MICROPHONES



Condenser mics are generally associated with the mics you often see in **recording studios**.

They are:

- Generally more sensitive to sound
- Audio sounds richer
- Inexpensive USB option
- Greater range in price
- They require phantom power or +48v



LAVALIER MICROPHONES



Lavalier microphones, also known as lav mics and lapel mics are small **omnidirectional** microphones that are **clipped or taped** to a piece of clothing on your upper half.

Lav mics are most **commonly** used and seen in **news** and television.



LAVALIER MICROPHONES



Modern lavalier microphones are usually part of a **radio microphone kit**.

These kits consist of the **microphone, connected to a transmitter**.

The transmitter then sends the audio signal to a receiver, which can be connected to a camera, pc, or audio interface using a patch cable or USB cable depending on the model.



RIBBON MICROPHONES

Generally, these mics are quite **old** in terms of technology, but their use is still required in special cases.

Ribbon microphones are the most **delicate** of all microphones and a **slight drop or bump** can disrupt the ribbon inside and render it **useless**.

Ribbon mics generally feature a figure-8 polar pattern. Meaning that audio can be picked up from the front and back, but **not the sides**.



USB-TO-PC MICROPHONES



Some key **differences** between a USB microphone and an XLR microphone include:

1. They are usually **heavier** - USB microphones have additional electronics inside.
2. They can cost up to **50% more** - due to the additional electronics inside them.
3. They usually come with a USB cable - whereas XLR microphones don't.

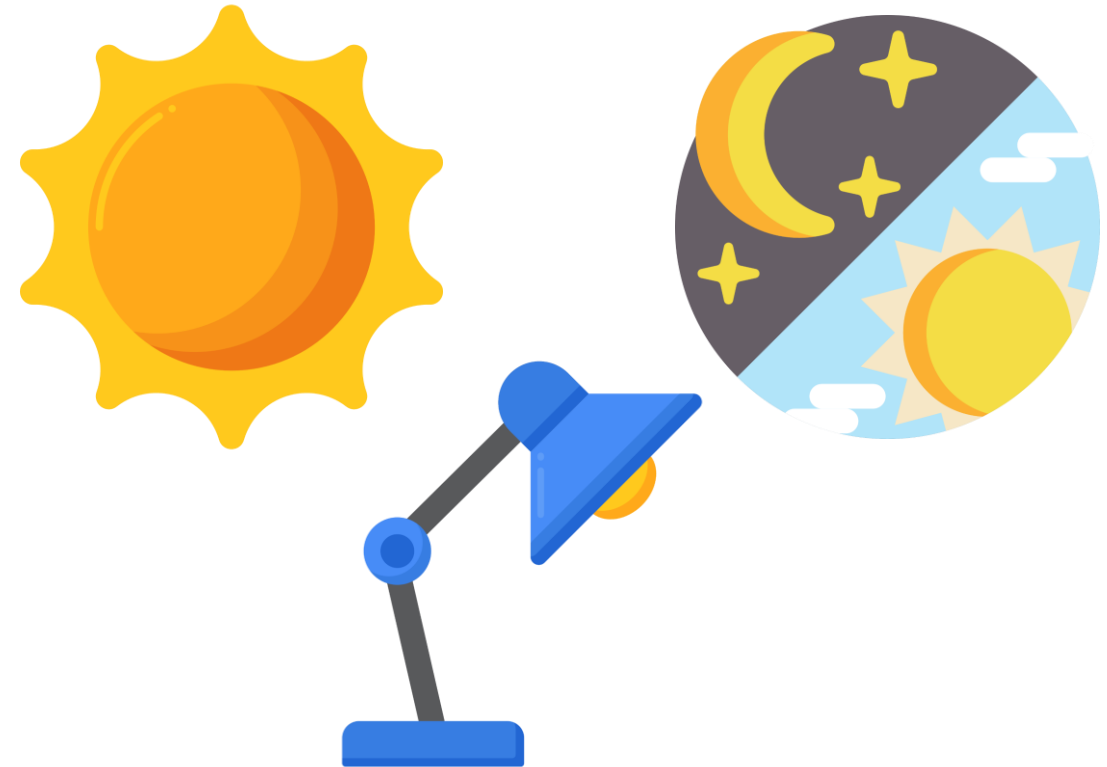


LIGHTING



Multiple factors can affect the quality of your video.
These include:

- Your source of light
- Time of day
- The Type of Light
- Your Camera's Settings.



LIGHTING

Your Sources of Light includes **windows, skylights, domestic lights and lamps.**

Just like using a shallow depth-of-field on a camera to focus on a subject, lighting can also be used to **emphasise** what you want the viewer to focus on.

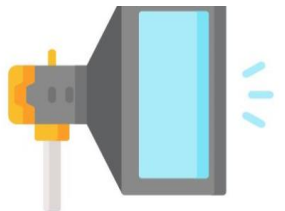
Lighting can also help give **shape** to a subject's face and make them look more **visually pleasing.**



Natural Lighting



Artificial(Domestic) Lighting

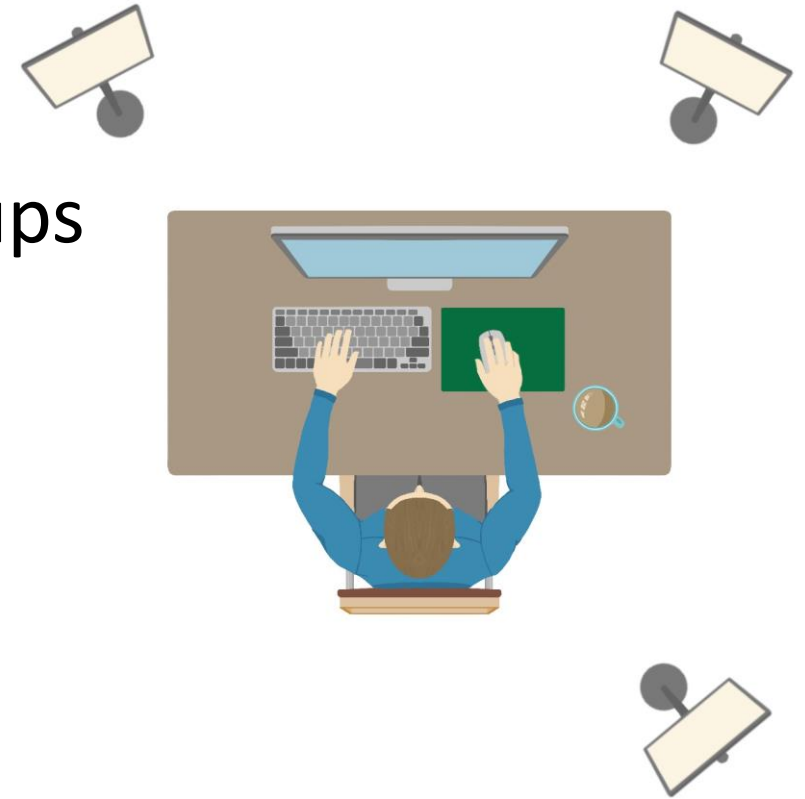


Professional Lighting

LIGHTING

One, Two & Three-Point Lighting

These are some of the most used setups in both natural (outdoor and/or daytime) and artificial (indoor and/or nighttime) lighting conditions.

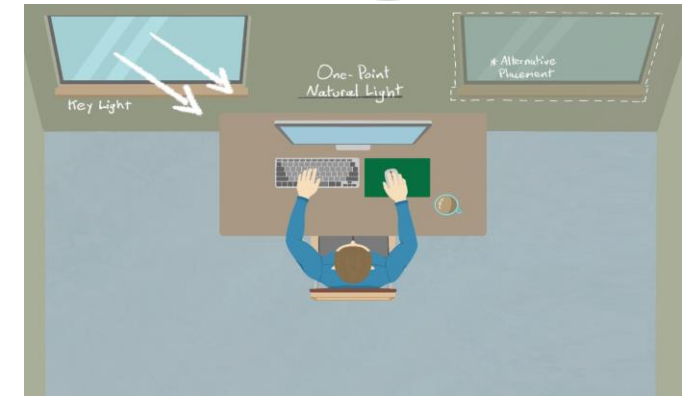


LIGHTING

One-Point Lighting

The most **simple** lighting setup you could adopt is one point lighting. This will consist solely of one light, also known as a **key light**.

A key light can be anything from the **daylight** coming in your window during the day, to a **lamp**, or a more professional option when there are no natural sources of light.



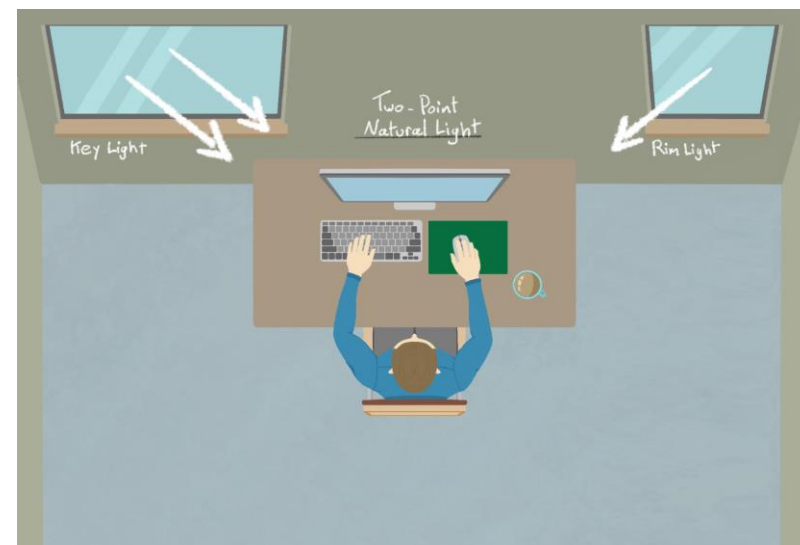
LIGHTING



Two-Point Lighting

A two-point lighting system consists of using one light as a **primary/key light** and the other as a **secondary/fill light**.

Unlike a one-point lighting system, a two-point system allows you to **fill in the shadow** that's created by your key-light with the second fill light.



LIGHTING



When trying to use a two-point lighting system:

1. Start by placing both lights at 45 degrees from where you sit.
2. Select what light you want to be your key light and fill light.
3. Set the intensity of your key light.
4. Set the intensity of your fill light to a fraction, or even to the key light's value.

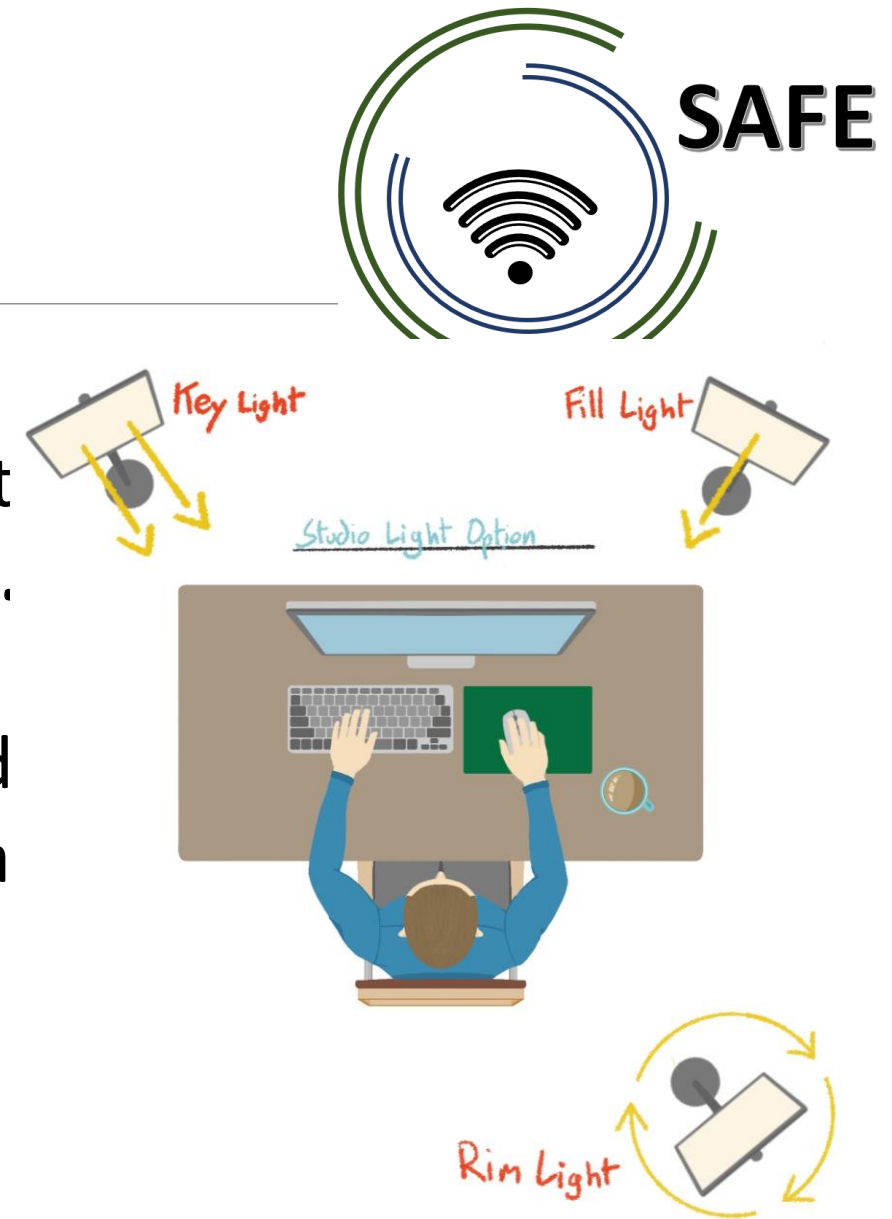


LIGHTING

Three-Point Lighting

The most sophisticated lighting setup that could use is a **three-point lighting system**.

This setup consists of the aforementioned point lighting setup with the **addition** of a light known as a backlight or rim light.

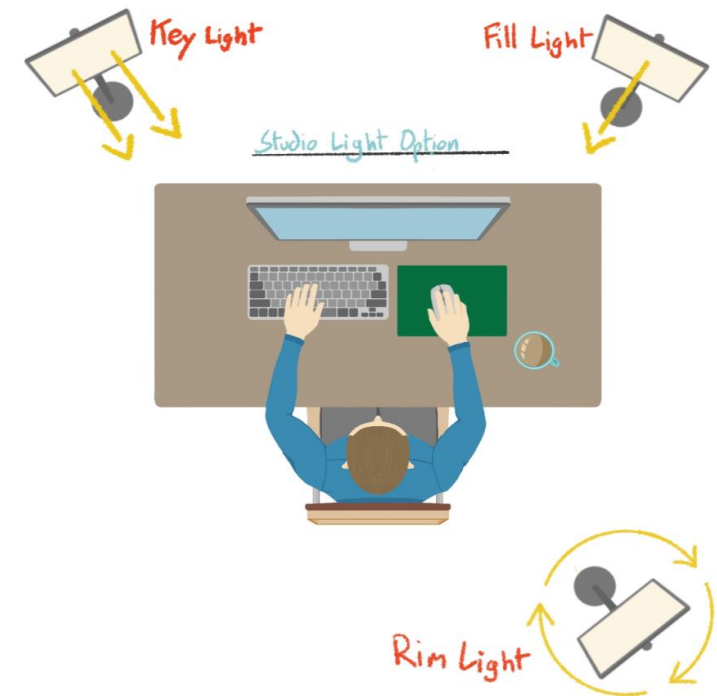


LIGHTING

Three-Point Lighting

The rim light is used to **separate** the subject/person from the background behind them.

This can be achieved by pointing a light **directly at the subject** from behind to create a **halo or rim** effect. It is also acceptable to point the light in the background to use as a backlight.



LIGHTING



Natural Lighting

It is also possible to use the **natural light** that comes through your windows during the day.

Just like using artificial points of light, one, two-point lighting can be used depending on the **number of windows** that are in the room.



LIGHTING



What to avoid

Just like some natural light conditions can be used to your advantage, other lighting conditions and arrangements can cause an opposite effect, creating unflattering images.

Things to avoid include:

- Sitting too close to windows
- Skylights and overhead lighting
- Using a window as a rim light

LIGHTING



Using Professional Lighting

Choosing to use professional lighting will give you the **most flexibility** and control over the light in your room. There are a range of lighting options available that are **compact**, and **inexpensive**.

An example of Professional Lights include: LED Panels

- Small panels
- large panels
- mounted to desk
- mounted to camera
- can be controlled by apps on your phone



LIGHTING



Reflector and diffuser panels

If you are **short a fill light** or even a rim light, a good suitable **alternative** would be to use a **reflector panel**.

Reflector panels have **three interchangeable sides** consisting of a **warm reflector(gold)**, a **cool reflector(silver)** and a **white reflector** that can be used to **bounce light** in whichever direction you point it.



OVERALL TIPS FOR RECORDING



- Record in a well-lit room
- Film for sound
- Keep your background simple
- Clean up the clutter
- Keep it steady
- Shoot horizontal
- Keep key players in the video space when recording
- Don't be afraid to re-shoot



References



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Beutner, M. / Pechuel, R. (2020): Basiskonzept für die Gestaltung von Online-Unterricht mit neuen Medien durch Lehrkräfte an Schulen - Einfache Umsetzungsmöglichkeiten im Rahmen von Corona.

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