Abstract

Study Design: Descriptive technical write-up.

Objective: To describe the making of educational videos in 4 simple steps.

Methods: There are 4 steps in the creation of an educational video, namely theme and script, preparation and equipment, filming, and postproduction.

Results: The authors give details of each step of the video making process, with practical tips from personal experiences, product suggestions, and photo documentation.

Conclusion: A 4-step approach to make high-quality educational videos for your patients, residents, and social media platforms is presented.

Keywords
educational video, videography, editing, social media

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Introduction

Clinical and surgical photographs as well as videos form an excellent tool in the education of residents and postgraduates.1 Social media presence is increasingly influencing potential patients, and even affecting the choices of residency applicants.2-4 Increasingly, social media platforms are taking over traditional websites in the dissemination of information.5 The surgical education is recently undergoing an important transformation with the growth of technology, and the role of the teacher is changing to cater to the needs of the 21st-century medical learner.6 These are most widely used in the field of facial plastic and reconstructive surgery.

Short videos can be a great way of teaching your residents, and even educating prospective patients on social media platforms. Additionally, as technological advances change the way surgical education progresses, concepts like video-based coaching of surgical trainees are also becoming popular.7

Most international subspecialty societies encourage video competitions in their annual meetings, and several journals allow video links to surgery-based peer-reviewed articles.

An otherwise busy craniomaxillofacial surgeon could hire an expensive agency for these video shoots and to manage your social media sites. Alternatively, one could learn the art of making short videos all by yourself. In this

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write-up, we present useful do-it-yourselves tips to make excellent clinical/surgical educational videos.

Method

There are 4 phases in the creation of a short instructional video: theme and script, preparation and equipment, filming, and postproduction.

Theme and Script

Deciding the theme of the video is the first step in the process. It is essential to specify the exact objective of the video. This could either be an idea in your mind or a definite lacuna noticed by you among residents or students. It could even help to make a list of all the topics you would like to cover in your video. Once the theme of the video is finalized, it is time to write a script. This sounds exactly similar to the making of a movie, as the 2 are essentially the same. Restrict to American or British English for uniformity of pronunciations. If you are shooting in your local language, it is advisable to get the script translated by a professional translator. If the voiceover language is different from your native language, it is advisable to get inputs from and have your script reviewed by a language professional. If your video is only going to be a monologue explaining something, a “voiceover” script is all you need. If your video is going to involve the demonstration of a clinical sign or a surgical procedure, the script should also specify the setting of the footages (clinic/operation room/home). Make sure your script is simple, clear, and to the point.

Preparation and Equipment

Now that the script is ready, you need to think of the cast, location, and the equipment that would be required for the shoot.

Cast. For a monologue video, you (surgeon) are the cast. For more complex videos, it is important to specify all cast and ensure that they are willing to appear in your shoot. Special informed consent is to be taken from the patient if he/she is going to appear in it too. The purpose of the video should be explained to the patient and care should be taken to prevent violation of the privacy of patient as well as the other cast members. Ample literature has touched upon the various ethical and legal considerations surrounding video recording outlining the storage of the content, withdrawal of consent, ownership, and distribution of the video.

The cast members should be briefed beforehand about the video and their role in it.

Location. The preparation for a monologue video is simple. You only need to identify a credible location. For a surgeon, it could either be his or her office or in a quiet yet picturesque place on the campus. It is important to identify

Figure 1. A tripod with a mobile holder and a built-in Bluetooth remote control help shoot monologue videos without external help.

the setting, the surgeons or staff who would participate, and their required attire and makeup. Care must be taken to make sure that the background in any shot of the video is clutter-free and doesn’t distract the viewers from the content of the video. For more complex videos, the location may change based on the script.

Equipment. Using the right equipment is crucial to creating high-quality videos, but for short monologue videos, one does not need much investment.

A tripod with a mobile holder is a basic requirement and is easily available online (10-30 USD) (Figure 1). Personally, we recommend one with an accompanying Bluetooth remote control for ease of operation. Any smartphone mobile camera can be used for the shoot. Additionally, requirements for shooting surgical videos can be different and can pose new challenges. The equipment available for recording surgical techniques ranges from laptop and smartphone cameras to flexible tripods that can be mounted in the operating room, GoPro cameras, DSLR cameras, and even spy camera glasses. The ideal equipment can be chosen based on the needs of the surgeon, type of surgery, and product availability.

A clear audio is a prerequisite for a good video. Although it is generally not required in a quiet setting, it makes sense to invest in a separate mic, as the phone mic becomes less effective as you move away from the phone. Mics can either be wired or Bluetooth enabled (Figure 2). They range from entry-level ones (Movo MA2010) to high-end ones (Shure MV88+). A search online would provide
you enough information to choose what suits you best. Even Bluetooth headsets can be used if you are standing away from the mobile phone.

Video recording apps can provide you with many manual controls that are specific to video shoots and are not generally offered by your smart phone. It also allows you to choose the sound source (FiLMic Pro).

For outdoor shoots, the natural daylight is sufficient. For indoor shoots, it is advisable to face a well-lit window for the shoot. For indoor lighting, 2 options are available (Figure 3). Either a ring flash (with built-in mobile holder) can be used or soft box can be used just for lighting, with a separate tripod mobile holder (40-80 USD).

**Filming**

It is preferable to shoot in the morning hours, when you are fresh. A cup of coffee prior to the shoot ensures good energy levels in your voice. Speak slowly and clearly to effectively convey the content to the audience. For a monologue video, the mobile phone camera is set to video mode, and the distance as well as the frame (portrait or landscape) is adjusted. Instagram videos, for example, are preferred in portrait mode, whereas landscape mode is the default for others.

For ease of reading the script, most television newsreaders use professional prompters, but they are costly. You can choose from a variety of online prompters. The free
version of easyprompter.com is our favorite and is sufficient for personal shoots. You can copy-paste your script, adjust the scroll speed, and place your laptop just behind your camera to read the script. Use the remote to capture footages and take 2 or even 3 retakes until you are satisfied.

If you are not comfortable with reading a script off a prompter and prefer to improvise for a more natural flow of ideas, it is still advisable to have keywords and pointers to refer to while you record, to make sure you don’t miss any objectives or stray from the topic.

Postproduction

The postproduction process is the final step in making your video presentation ready! For this step, you will need a video editing software. For most Mac users, iMovie is already available, and it is a simple tool to use (Figure 4). For Windows users, there are several free downloadable softwares available (VideoPad or VSDC Free Video Editor). Most video editing softwares have similar features, where you drag your primary video clips onto a “timeline” and add content to it such as photos, captions, special effects, and music. YouTube provides useful videos on how to use this software for basic editing. Adding music to your video makes it more interesting. YouTube provides a huge library of royalty-free music (www.youtube.com/audiolibrary/). You can download a music clip to suit the theme of your video and add that MP3 file to your video. Remember to use music that is pleasant and does not divert attention from the content of your video. You can edit the videos to suit a particular social media platform or a video competition as required. Adding pictures to the video makes it more informative; however, it is important to be aware of copyright laws involving any of the pictures that you use. It is not recommended to use pictures directly downloaded from the internet. Alternatives like Creative Commons can serve to be a helpful resource. Once the product is ready, you can export the video in multiple formats and with a resolution type that you prefer.

Summary

We have provided a 4-step approach to making high-quality educational videos for your patients, residents, and social media platforms. Feel free to experiment and use your personal creativity to add more flavor to your videos and enhance the learning!

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