

**icon**  
inverted classroom online

## Creating Educational Videos



**Erasmus+**

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## First thoughts

### Videos, according to the purpose

**Video tutorial**

- Aim: To teach something
- Also known as lecture-based (or “substitutional” video podcasts)

**Supplementary video**

- Aim: broaden or deepen student understanding
- Can be seen as “additional material”

**Worked examples**

- Aim: Provide video explanations of specific problems that students may need to solve in a particular course (often in the area of mathematics or science)

(Kay, 2012)

Example 1: A video lesson on “Probability concepts”.

Example 2: Case studies of different wounds for nurses. How would they treat them?

Example 3: Provide feedback to students concerning score on a test.

Example 4: Answer to a doubt.

## Videos in education: When?

**Just because video creation is easy, it doesn't mean we have to.**

**There are a lot of other cool resources out there.**

- Text: A PDF document
- Image: A diagram
- Audio: A podcast
- Software: A computer simulator
- ...

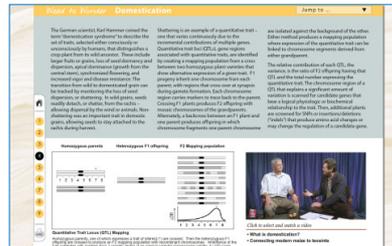
**Many factors influence my choice concerning the best resource**

- The course's content
- Student type
- ...

A video is part of something bigger.



(Ozan & Ozarslan, 2016)



Weed to wonder:  
[www.weedtowonder.org](http://www.weedtowonder.org)

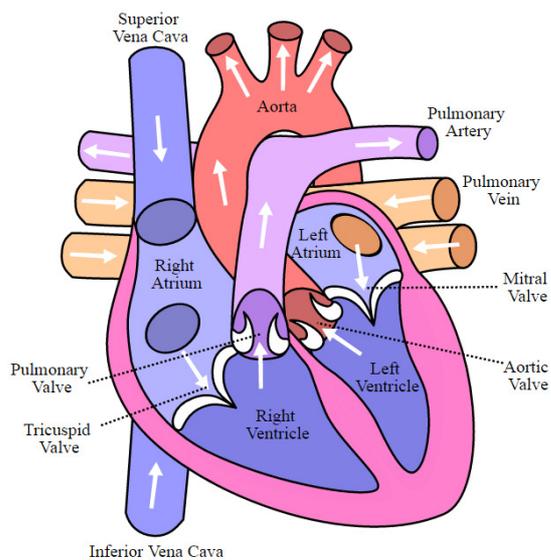
### How Video based courses tend to be organized?

MOOCs: mostly organized as sequences of instructor-produced videos interspersed with other (normal interactive) resources such as assessments and demos (Guo et al., 2014)

### Educational videos: Why now?

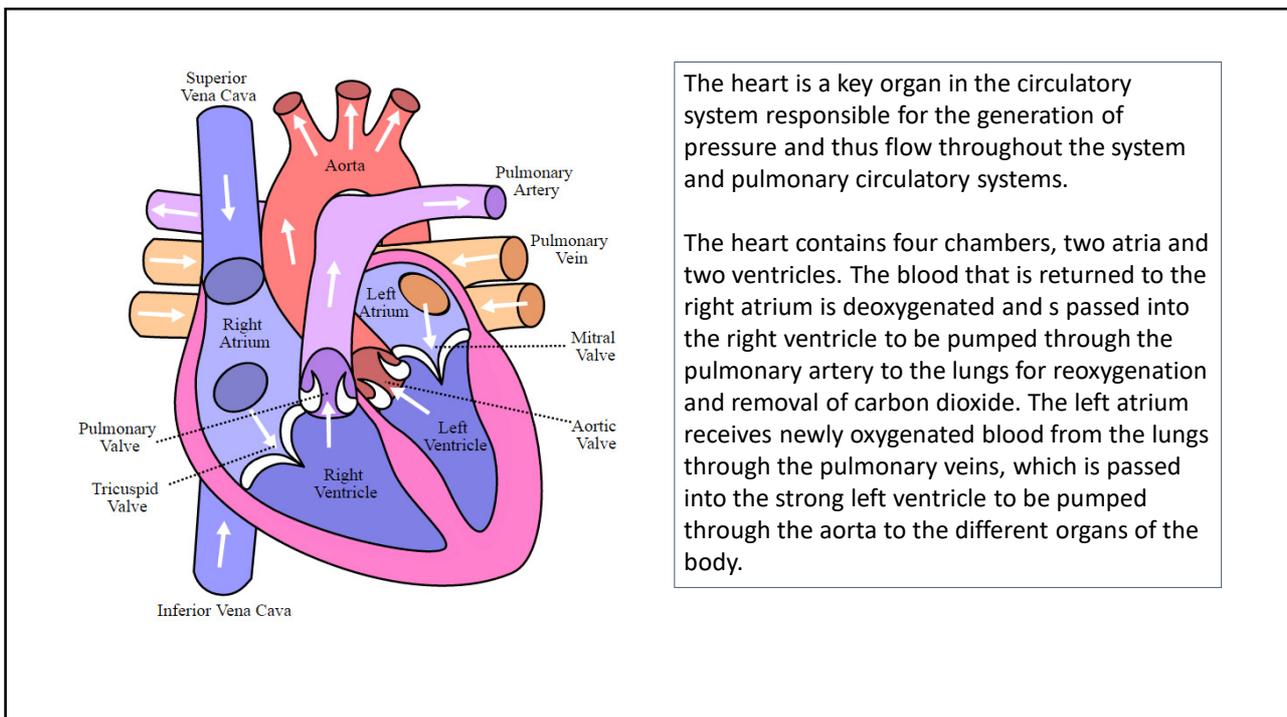
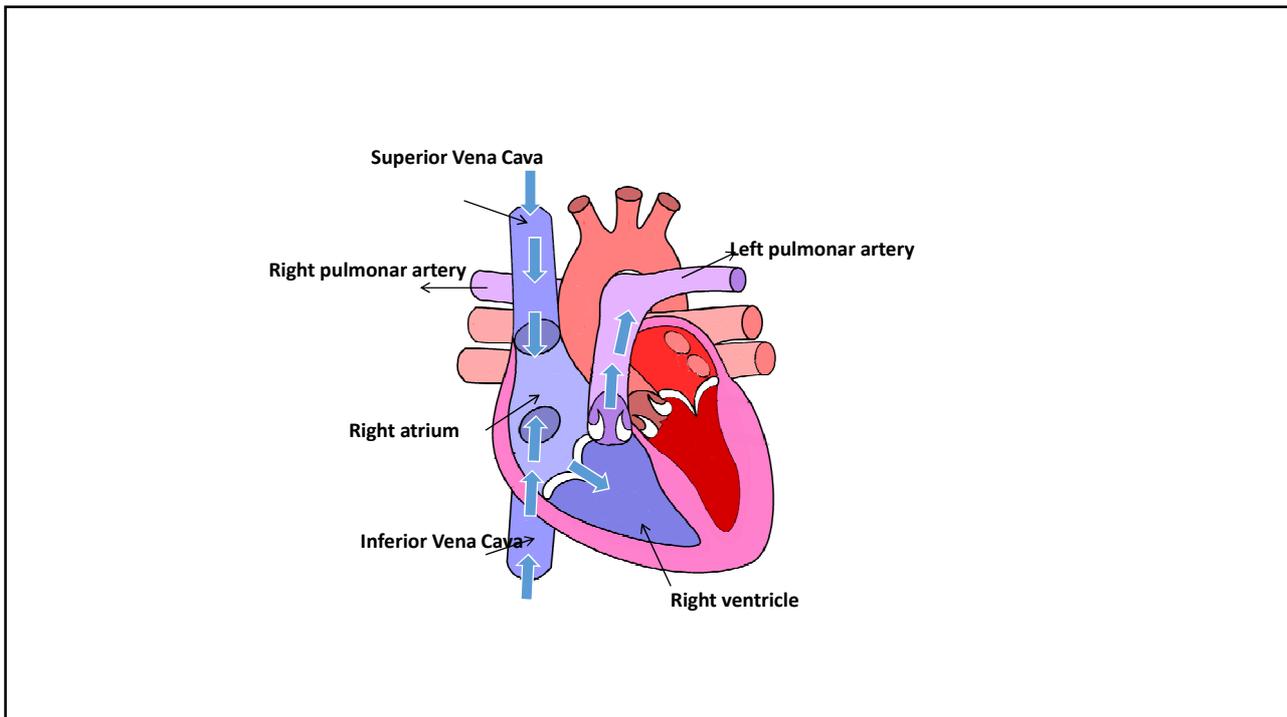
- Video acquisition equipment is becoming cheap and ubiquitous (eg: mobile phones)
- Free video hosting services (YouTube, Vimeo) allow easy dissemination
- “Explosion” of new functionalities (ex: interactive video, live video)

## Videos in education: When should we use them?



The heart is a key organ in the circulatory system responsible for the generation of pressure and thus flow throughout the system and pulmonary circulatory systems.

The heart contains four chambers, two atria and two ventricles. The blood that is returned to the right atrium is deoxygenated and is passed into the right ventricle to be pumped through the pulmonary artery to the lungs for reoxygenation and removal of carbon dioxide. The left atrium receives newly oxygenated blood from the lungs through the pulmonary veins, which is passed into the strong left ventricle to be pumped through the aorta to the different organs of the body.



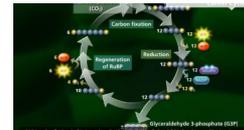
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## Videos in education: When?

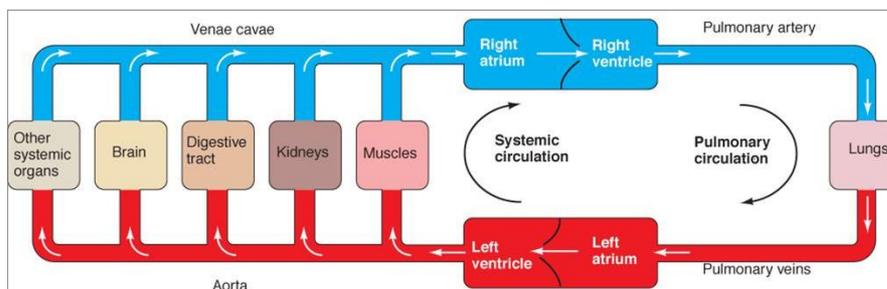
Frequently, videos in education are used to:

1. Improve the comprehension of phenomena that change in space and time, such as complex processes and abstract concepts (Ploetzner & Lowe, 2012);
2. Acquire procedural knowledge.

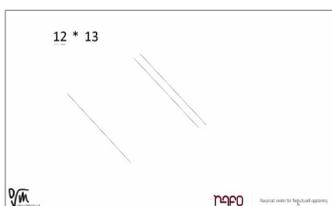


### 1. Improve the comprehension of phenomena that change in space and time, such as complex processes and abstract concepts

- Animations allow powerful, visual metaphors.
- Diagrams!

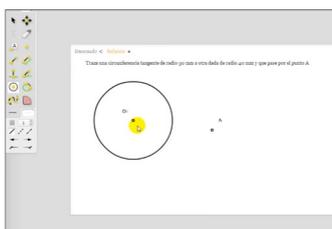


## 2. Videos are also useful in acquiring procedural knowledge (tutorials: “How to...”)



### Technique for multiplying two large numbers

Author: Sanaa Ezzat  
 Project: “Flexible Learning”  
 The National Centre for Multicultural Education (NAFO)  
<http://pilotfo.iktsenteret.no/?lang=so>



### Circunferencia tangente a otra dada y que pase un punto

Author: Jose M<sup>a</sup> Reyes  
 Site: <http://www.lanubeartistica.es/>



How to tie a Windsor knot  
<https://www.youtube.com/watch?v=TONPYZyI7V8>

## Example 1

Fonética: Los sonidos del español

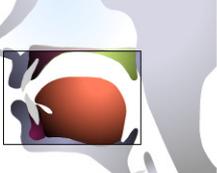
consonantes      vocoides

modo   lugar   voz   vocales   semi-consonantes   semi-vocales   diptongos

anterior   posterior

**Posterior**

[w]



[w] Es un sonido no prolongable de articulación momentánea.

animation with sound   step-by-step description

IPA/Hispanic Linguistics equivalences   anatomy feedback

[w]   Play All

[kwén.ta] cuenta

[bwé.no] bueno

[ú.ru.ywái] Uruguay

[gwá.po] guapo

<http://soundsofspeech.uiowa.edu/spanish/spanish.html>

## Example 2



IKM ITALIA ITALIAN NATIONAL KRAV MAGA 33 minuti

