



Giant Xmas Bauble, Nice - R. Wright (2011)

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SEASON'S GREETINGS

Teaching & Learning with Medical Animations & Videos

Continuing on our theme, **Reima Al-Jarf** provides a rationale for using video and animations in the EMP classroom before suggesting an approach for their use.

Introduction

Many students, enrolled in colleges and universities that use English as a medium of instruction, have difficulty understanding lectures delivered in English in specialized courses such as medicine, dentistry, pharmacy, biology, biochemistry, anatomy, physiology, etc. They also have difficulty learning specialized terminology. To help students majoring in health sciences promote their listening, speaking, writing and vocabulary skills in English, class lectures can be supplemented by online medical videos and animations. A review of the literature revealed numerous studies that integrated videos in second language teaching and learning such as Baker (2016), Underdown & Martin (2016), Kaur et al. (2014), Huang and Hung (2013) and others. Use of videos with ESP students proved to be effective in enhancing students' learning. Animations and videos provide a variety of themes, speakers and accents, as well as levels of difficulty, lengths and speeds. They bring courses alive and allow learners to use their visual and auditory senses to learn complex concepts and difficult procedures (Hartsell and Yuen, 2006). Subtitles help students comprehend the content.

Materials and tasks

The instructor can locate medical animations and videos on YouTube. The medical animation/video theme chosen should depend on the length, the students' proficiency in English as well as the complexity of the video language and content. Assign several videos and animations on the same topic to suit the different ability levels in the group. Students can suggest online videos and animations of interest to them and, to save time, instructors can create an online medical animations and video repository which they can use for future courses. The following are some examples:

[Biology: Cell Structure](#)
[Human Digestive System Animation \(Reading\)](#)
[The Digestive System - an animation](#)
[Circulatory System Animation](#)
[Human Circulatory System](#)
[What is cancer?](#)
[Osteoporosis](#)
[Osteoporosis Treatment](#)
[Living with Osteoporosis](#)

Instructional Strategy with Online Videos and Animations

Before watching a video, post the video title and URL on your preferred platform, discussion forum or social media. Introduce the video and provide a vocabulary overview and pre-questions. Tell the students what they need to do/focus on. The students should not watch a video/animation passively without having to carry out some comprehension tasks. They should take notes, outline the main ideas and

important details, and answer questions that require them to give examples, classify, describe structure and functions, give similarities and differences and cause-effect relationships.

After watching a video, the students could practice pronouncing medical terms, breaking them down into prefix, root and/or suffix, learning singular and plural forms. They could then discuss answers to questions, summarize or retell the video content orally or in writing. Tables, flow charts, diagrams, photos and mind maps can be used to show video information detail.

During the different phases of the lesson, the instructor serves as a facilitator, supporting inquiries, discussing students' difficulties and encouraging them to participate fully in the learning process. The students should be required to engage in, respond to and be actively involved in the activities. The instructor can give extra credit for participation and completing the tasks and can include the video/animation content on tests.

Finally, ESP trainers should always keep in mind that technology in general, and videos and animations, in particular, do not teach by themselves and their use does not guarantee the automatic learning of the content. The students' active role and the instructor's guidance are crucial in facilitating learning, practice and acquisition of English language skills, medical information and terminology.

Reima Al-Jarf

References

- Baker, A.** (2016). Active Learning with Interactive Videos: Creating student-guided learning materials. *Journal of Library & Information Services in Distance Learning*, 10(3-4), 79-87.
- Hartsell, T. & Yuen, S.** (2006). Video Streaming in Online Learning. *AACE Journal*, 14(1), 31-43.
- Huang, H. & Hung, S.** (2013). Exploring the Utility of a Video-based Online EFL Discussion Forum. *British Journal of Educational Technology*, 44(3), 90-94.
- Kaur, D., Yong, E., Zin, N. & DeWitt, D.** (2014). The Use of Videos as a Cognitive Stimulator and Instructional Tool in Tertiary ESL Classroom. *Malaysian Online Journal of Educational Technology*, 2(3), 32-41.
- Underdown, K. & Martin, J.** (2016). Engaging the Online Student: Instructor-created video content for the online classroom. *Journal of Instructional Research*, 5, 8-12.

See opposite for ideas to practice these skills based on [Circulatory System Animation](#).



Reima (PhD) taught ESL, ESP and translation at King Saud University, Saudi Arabia for 26 years. She has 600 publications and conference presentations and reviews articles for numerous journals worldwide.

THE HUMAN HEART



Fig.1

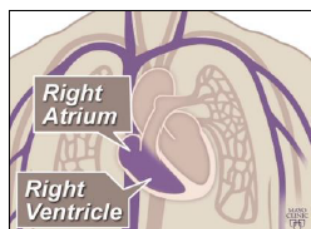


Fig. 2

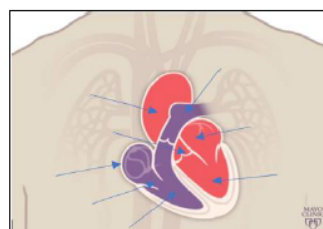


Fig. 3

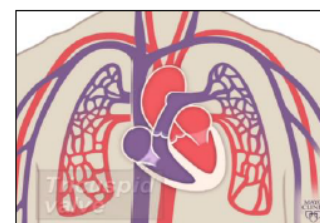


Fig. 4

Ideas for focus on medical terminology:

- Pronunciation: *aorta, atrium, diastole, pulmonary, rhythm.*
- Parts of speech: *pulmonary, systolic, atrium, aortic, tricuspid, muscular, circulate, cardiovascular, coronary.*
- Nouns & verbs: *contract, circulate, relax, pump, muscular, electrical, wiring, circulatory.*
- Affixes & roots: *pulmonary, atrium, systolic, ventricle, circulatory, tricuspid, cardiovascular, coronary, electrical, capillary.*
- Singular & plural forms: *atrium, ventricle, capillary.*

Possible comprehension tasks:

Watch and answer the questions.

- How big is your heart (Fig. 1)?
- What are the red and blue parts in Figs. 1, 3 and 4?
- What is red/blue blood in Fig. 4?
- Write the names of the parts of the heart in Fig. 3.
- Which aspects of the circulatory system were compared to a pump, electrical wiring and ketchup?
- What keeps us alive?
- What causes poor blood?
- How does blue blood become red?
- How can poor blood become useful?
- Explain how blood circulates throughout the body (Fig. 4).

Fill in the chart below with the parts of the heart and their function.

Part	Function	Part	Function
heart		valves	
ventricle		aorta	
left and right sides		veins	
atrium		arteries	

Fill in the outline below.

1. Structure of the heart:

1.1 Right chambers

- Upper right chamber: _____
i. _____ valve
- Lower right chamber: _____
i. _____ valve

1.2 _____

- Upper left chamber: _____
i. Upper left valve: _____ valve
- Lower left chamber: _____
i. lower left valve: _____ valve

2. Function of the heart and its parts:

- Left atrium: _____
- Pulmonary aorta: _____
- Mitral valve: _____
- Veins: _____
- Arteries: _____

3. General information about the heart:

- Size: _____
- Location: _____
- What connects the heart with the body: _____
- Beats: _____
- Amount of blood pumped: _____