Providing multiple means of representation for physiology students through Moodle lessons

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Some information on the module

- Biomedical engineering
- ~40 students
- 1st year
- 1 hour/week
- Human Physiology
- Structure
- Flipped classroom
- Activity-based
Students complete a Moodle lesson before class

Location and anatomy of the heart
Chambers of the heart

The heart has four chambers. There are two superior (upper) chambers called the left atrium and right atrium. These chambers receive blood into the heart. The two inferior (bottom) chambers are pumping chambers and are called the left ventricle and right ventricle.

The right atrium receives blood from three veins: the superior vena cava, inferior vena cava, and the coronary sinus. Blood passes from the right atrium into the right ventricle through a valve called the tricuspid valve (or right atrioventricular valve). The right ventricle is separated from the left ventricle by a wall known as the interventricular septum. The right ventricle pumps blood through the pulmonary valve into a large artery called the pulmonary trunk. The pulmonary trunk divides into the left and right pulmonary arteries, which take blood to the lungs.

The left atrium receives blood from the lungs through four pulmonary veins. Blood passes from the left atrium into the left ventricle through the bicuspid valve (or left atrioventricular valve). The left ventricle pumps blood

... and then answer some questions on content
Offered students a choice between reading or watching

- Guide information processing and visualisation
- Comprehension options
- Visual information alternatives
- Auditory information alternatives
- Perception options
- Multiple means of representation
- Language and symbol options
- Illustrate through multiple media
Most like reading but most also like having the choice

- I prefer reading text about a topic over watching a video about it
- I would watch a video on a topic if it was less than 10 minutes long
- I like having a choice of how to get content on a topic

**Rank** | **Options**
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1 | Reading about it
2 | Watching a video
3 | Listening to audio
Some like reading and watching

I’d like to do both! Videos are very instructive and I really liked to learn from them, but sometimes I feel that I lose some information because of my English, so have the subject summarised is very useful!

For me personally I have to read the text to able to remember it

If I’m listening to a video I find I get distracted easily so if I read the topic I will take in all the info

It is easier when you have someone showing a picture and explain actually what is happening! And when you are reading maybe you won’t actually see and understand what is actually happening. But I think is good reading about the topic and then watch a video. Because then you go to watch the video you a notion of words and the topic. Just a summary of what you already read.

I find it easier to read as I get a better understanding of the topic

videos are a lot better than slides thank you

It’s great to have both text for me is important in terms of learning the info and the video is good because it helps me in my understanding of the topic.

those videos you made were very helpful and descriptive thank you

I did both read and watched the videos as I learn by reading something but I completely understand by watching a video
Conclusions and future work

Students like having a choice when engaging

Small but consistent number view the videos

Need to embed multiple means of engagement for semester 1 topics

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