**Visual Images & Spoken Word Mix Well**

**Psychology**

Our auditory threshold is unaffected whilst viewing visual images. Our visual threshold is also unaffected whilst listening to oral speech. This is why we can so easily watch and understand TV programs & films.


Similarly, our ability to memorize visual images and oral words is unaffected when performing both memorization tasks simultaneously.

**Education**

*The Modality Principle*

Students presented with auditory text accompanied by relevant images often demonstrate more rapid and more accurate learning than those presented with only auditory text.


Students presented with an image-based teaching aid (PowerPoint) during an oral lecture often display an increase in information retention and improved exam performance.

*Hamel, M., & Miall, R. (2004). Teaching with multimedia:effects and ways to adapt students' working memory* *Journal of Educational Technology* *& Society, 17(2), 141-148.*

**Neuroscience**

*This brain is looking at images*

Looking at images and listening to words utilize distinct, non-overlapping brain regions. This is why successfully doing both simultaneously is easily accomplished.


**Classroom Applications**

When utilizing PowerPoint, the chalkboard, or hand-outs during an oral lecture/lesson, include relevant visual images.

When designing a self-guided computer-based lecture/lesson, include concurrent auditory information and relevant visual images.

Allowing students access to image-based hand-outs or slides during a lecture/lesson will not negatively impact listening and/or comprehension.

**Ideas and Future Questions...**

Do moving images work as-well-as or better-than static images?

How does the emotional valence of visual images impact the comprehension and retention of concurrent oral speech?