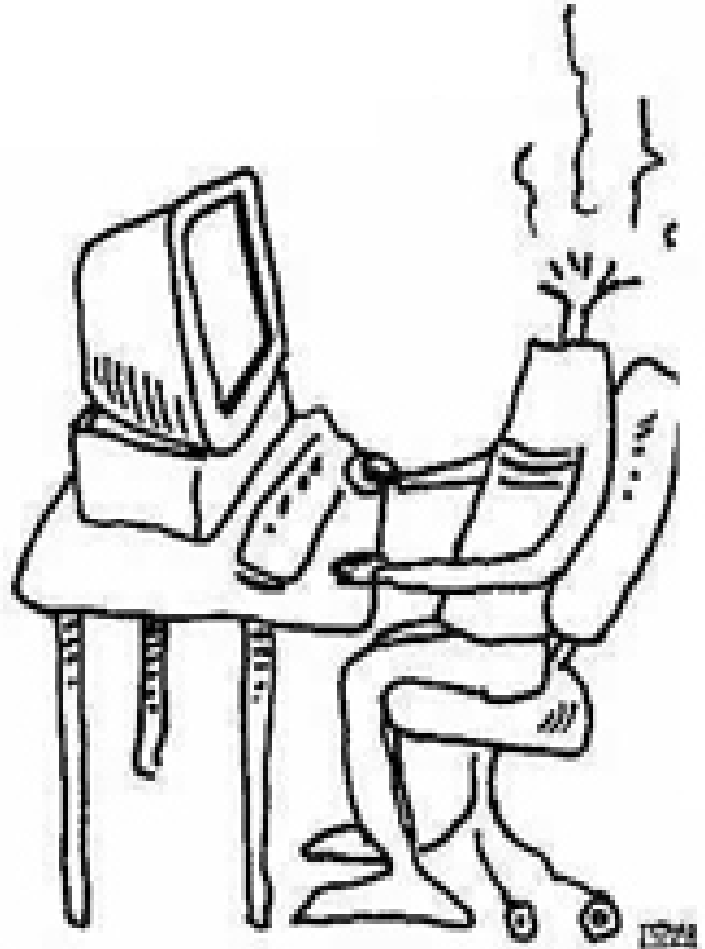
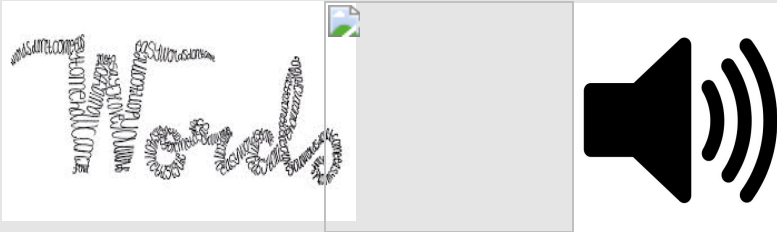


# Modality Principle

Andrea Fonseca





**There is a strong evidence that using words and audio instead of in text along with graphics can improve learning**

- In the animation-with-on-screen-text, both the pictures and the words enter the cognitive system through the eyes, causing an overload in the visual system. In the animation-with-narration, the words are off-loaded onto the verbal channel, allowing the learner to more fully process the pictures in the visual channel.

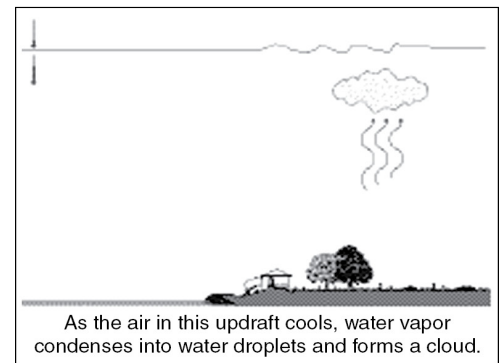
## Narrated animation

Words as Narration



"As the air in this updraft cools, water vapor condenses into water droplets and forms a cloud."

Words as On-Screen Text



## Captioned Animation

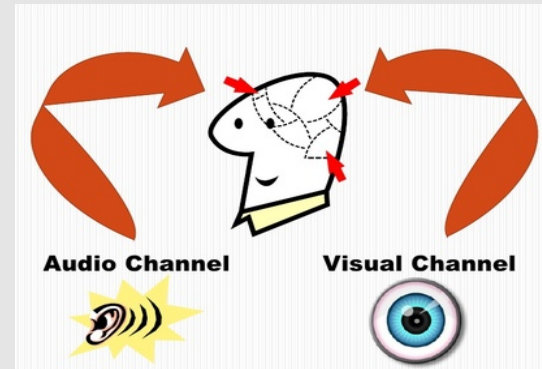


# **Modality Off- Loading Technique**

**Modality off-loading occurs when the words in a multimedia lesson are presented as spoken words, changing the lesson from a captioned animation to a narrated animation.**

Learner can experience an overload of their pictorial channel when they process graphics and printed words at the same time.

# Dual-channel processing



## Modality Principle

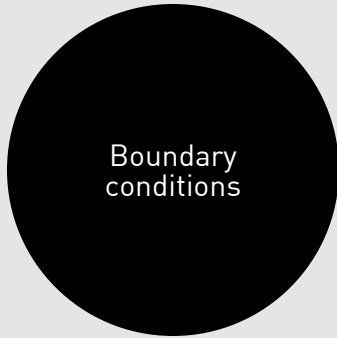
Use spoken word rather than written text if presenting both words and images simultaneously



**Auditory Channel**

**Visual Channel**

Visual/Pictorial processing and Auditory/Verbal processing



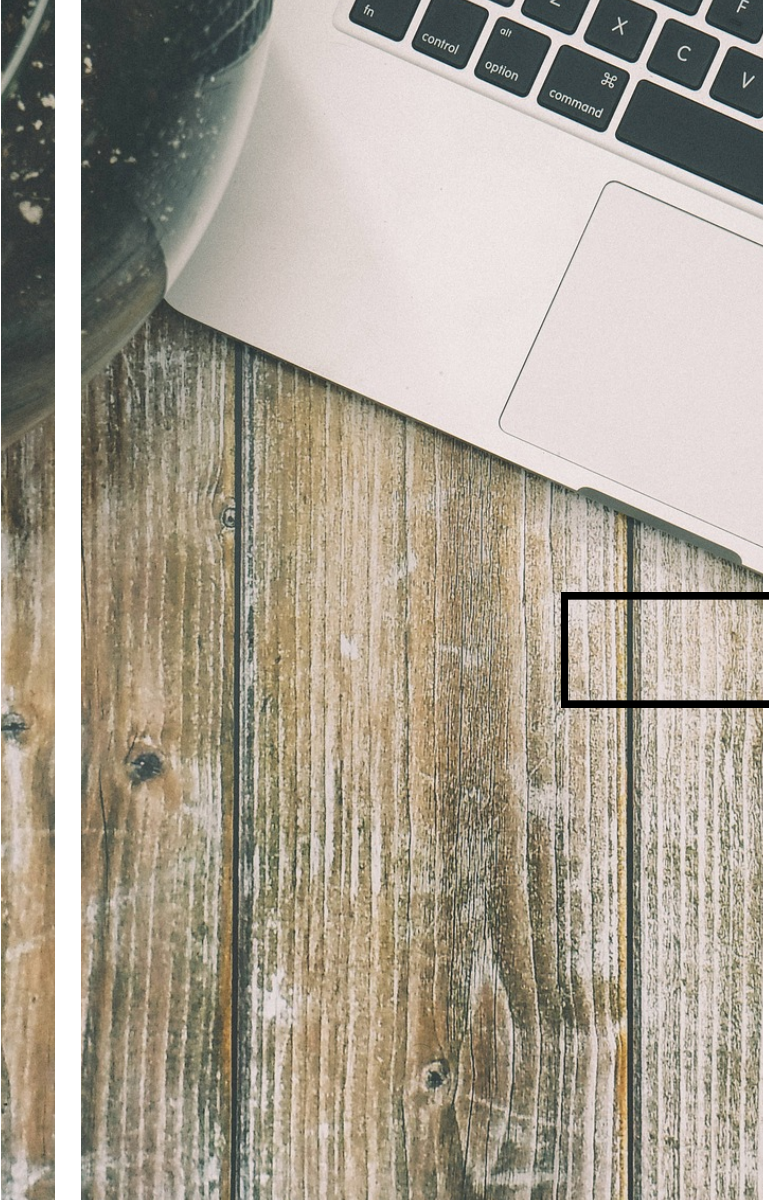
## **Modality principle does not apply when ...**

- The material is simple  
there may not be a need  
to free up cognitive  
capacity.
- The lesson is slow-paced  
or under learner control.

**Important Design  
Principle: when  
making a multimedia  
presentation  
consisting of  
animation and words,  
present the words as  
narration rather than  
as on-screen text.**

## References

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**Thank**

**You**