



# ***Xmuqane could not stop laughing at Jun B'atz' and Jun Chowen: Why not?***



The cognitive science behind the adventures of  
**Jun Ajpu' & Xb'alamke'**

## **Part 1.2**

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# Outline

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1. A story from the *Popol Wuj*
2. Cognitive psychology
3. Discussion time
4. Challenge yourself!

# (1) *Popol Wuj*

**Do not laugh when you see them, or they will never return...**



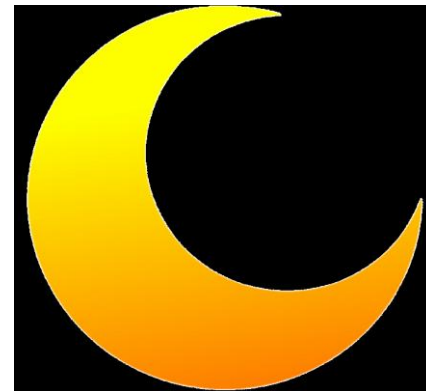
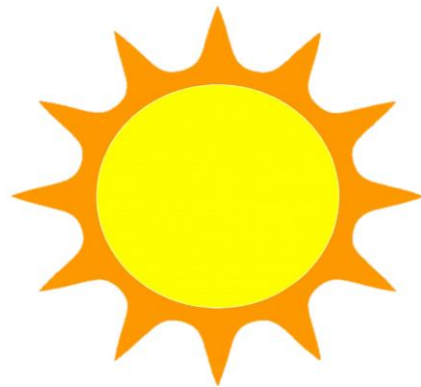
# The destiny of Jun B'atz' and Jun Chowen

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1. Jun B'atz and Jun Chowen were turned into monkeys
2. They came back dancing – and their grandmother laughed
3. Again – and again – and again
4. Four attempts – and they were lost forever as monkeys

# Day-night Stroop task

- How successful we are in controlling our behaviour depends on our executive function.
- Tap on the sun when Lara the alien says “night” and tap on the moon when she says “day”.





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## **(2) Cognitive Science**

**Cognitive psychology: Executive function**

# What is executive function?

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- The ability to control our behaviour according to the present situation
- 3 components
  - Working memory: Temporarily remember and manipulate information
  - Cognitive flexibility: Successfully switch between tasks or rules
  - Inhibitory control: Stop a habitual response

# What is executive function?

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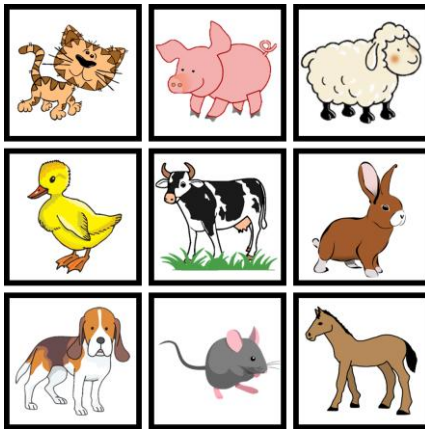
- Which part of the brain? (Hint: one of the four lobes)
- EF in our daily life:
  - Create a plan for a goal
  - Work according to the plan
  - Change behaviour if the situation changes



# Testing for EF

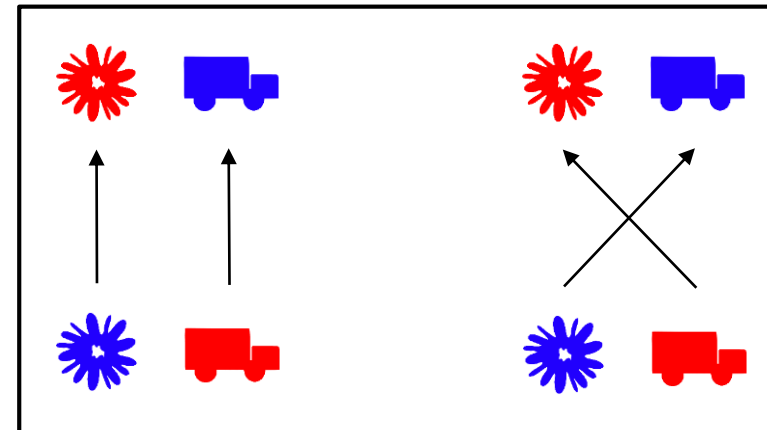
## Task: Spatial memory

Instructions: Bobby is flashing a light on his animal friends. Can you remember the order of the light?



## Task: Dimensional change card sort (DCCS)

Instructions: Here are some cards. Sort these cards either by shape or by colour.





## (3) Discussion time

**How can we apply research findings to our daily life?**

# Connecting researchers and educators

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These are the findings:

- Scaffolding aids learning
- Curiosity and interest enhances learning

How would you apply them?



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# **(4) Are you up for the challenge?**

**Make DN Stroop more culturally relatable**

# The challenge:

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- To what extent do you find DN Stroop to be culturally alienated?
- How would you change the task to make it more relatable to the children of your community?