

A Tale of Two Studies:

Investigating the Impact of Interruptions on Task Performance in Older Adults

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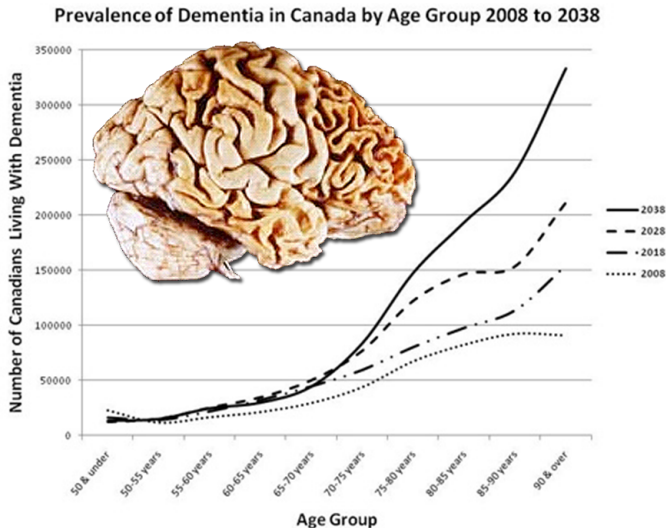
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University of British Columbia

Motivation: an ageing population



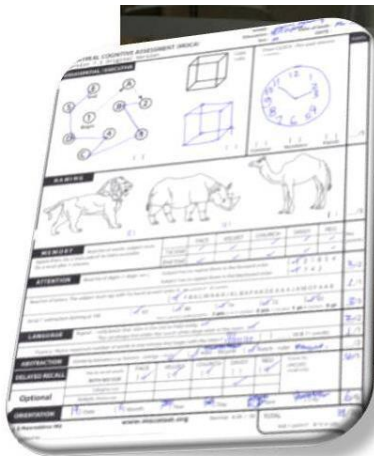
Motivation: increasing awareness of dementia



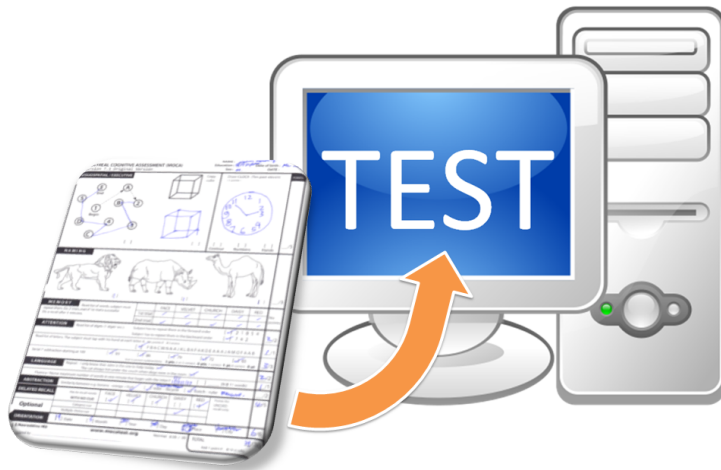
Motivation: long wait times for cognitive assessment



Cognitive assessment tests administered by a clinician



Goal: self-administered computerized cognitive testing




C-TOC: Cognitive Testing On a Computer




Click on the insect

What is the current month?

January	February	March	April
May	June	July	August
September	October	November	December



1 2 3 4 5 6 7 8 9



1 2 3 4 5 6 7 8 9

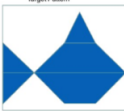
Response bar

PAPER and PEN

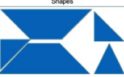
- ☐ A Both are useful in the household
- ☐ B Both are used at school
- ☐ C Both are stationery items

How are the two items above alike?
Choose the answer that best captures their similarity!

target pattern



Shapes

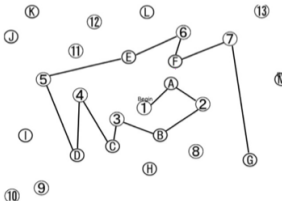


Reproduce the target pattern here by moving the shapes

Pattern 2

5

Done



Graphics, animation et nouveaux médias

cano
Graphics, Animation and New Media

Does *C-TOC* produce valid results?

Is *C-TOC* usable by older adults?

Will *C-TOC* work outside the clinic?

C-TOC: Research questions

Does *C-TOC* produce valid results?

Is *C-TOC* usable by older adults?

Will *C-TOC* work outside the clinic?

Will C-TOC work at home?



Interruptions and distractions in the home



A tale of two studies: a mixed-methods approach

Lab Study:

Age,
interruption
demand, &
task

C-TOC test performance

Field Study:

Observing interruptions and distractions in the home

Mixed qualitative methods

A tale of two studies: the lab study

Lab Study:

Age,
interruption
demand, &
task

C-TOC test
performance



A tale of two studies: the field study



Field Study:

Observing
interruptions and
distractions in the
home

Mixed qualitative
methods

A tale of two studies: data analysis currently ongoing...

Lab Study:

Age,
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demand, &
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Observing interruptions and distractions in the home

Mixed qualitative methods

Contributions of these studies

- An understanding of **how older adults are disrupted** by interruptions
- Detection and mitigation of interruptions to **preserve test validity**
- A **contribution** to several research areas:
 - Interruptions in HCI
 - Gerontechnology
 - Research methodologies involving older adults

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a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA



Ministry of
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