A Tale of Two Studies:
Investigating the Impact of Interruptions on Task Performance in Older Adults

M. Brehmer\textsuperscript{1}, C. Tang\textsuperscript{1}, J. McGrenere\textsuperscript{1}, C. Jacova\textsuperscript{2}

\textsuperscript{1}The Imager Laboratory for Graphics, Visualization, and HCT
Department of Computer Science

\textsuperscript{2}UBC Brain Research Centre
Department of Medicine (Neurology)

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

What is the current month?

<table>
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<th>January</th>
<th>February</th>
<th>March</th>
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<td>May</td>
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<td>September</td>
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<td>November</td>
<td>December</td>
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Pattern 2

Shapes

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!
C-TOC: Research questions

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, interruption demand, & task
- *C-TOC* test performance

**Field Study:**
- 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
Questions & Comments

Matthew Brehmer (brehmer@cs.ubc.ca)
Charlotte Tang (scctang@cs.ubc.ca)

a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA