LEARNING FIRST AID ONLINE

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STUDY 1: OFFLINE VS. ONLINE

- Experiment: 80 participants (40: online, 40: offline) performing first aid procedures on a Lotus and answering questions

- Status: 75% of the data collected
INTRODUCTION

- Accidents happen; applying first aid reduces severity of injuries and improves survival chances
PRIVATE PARTNER

- The Orange Cross: increasing first aid knowledge
  - 2013: 350,000 certified people
  - 2015: 700,000 certified people

- Traditional ‘offline’ course

- Online first aid course: [mijnehbo.nl](http://mijnehbo.nl)

- Research questions:
  1. How effective are both courses?
  2. How can we optimize the online first aid course?
STUDY 2: OPTIMIZING E-LEARNING

- Cognitive theory of multimedia learning (Mayer, 2005)

- Assumptions:
  - Dual channels
  - Limited capacity
  - Active processing
STUDY 2: OPTIMIZING E-LEARNING

- Modality principle
  - People learn better when graphics are explained with narration.
STUDY 2: OPTIMIZING E-LEARNING

- Research questions:
  - When is it helpful to put printed words on the screen with a concurrent animation?
  - Is helpful to put concise labels for key components on the screen as printed words?

- Four conditions:
  1. animation with written text
  2. animation with spoken text
  3. animation with written and spoken text
  4. animation with spoken text and written labels of key components

- Experiment with 60 participants performing a first aid procedure on a Lotus and answering questions

- Status: material construction, experiment planned in April
THE FUTURE

Contributions:
- Scientific support for the effectiveness of first aid course offline and online
- Scientific support for the effectiveness of different information presentations in e-learning
- Recommendations for improvements

Future research
- Tailoring multimodal information for different target audiences (e.g., people with prior knowledge, children at the scouting)