

Agenda

Introduction and icebreaker

- Arms crossed
- Circles in the air
- Learning objectives

Willem: Systems thinking and CLD basics

Living loops

Break

Group Juggle

Conclusion: check learning objectives

Ask feedback



If you can draw the problem,
you can solve it: systems
thinking made practical

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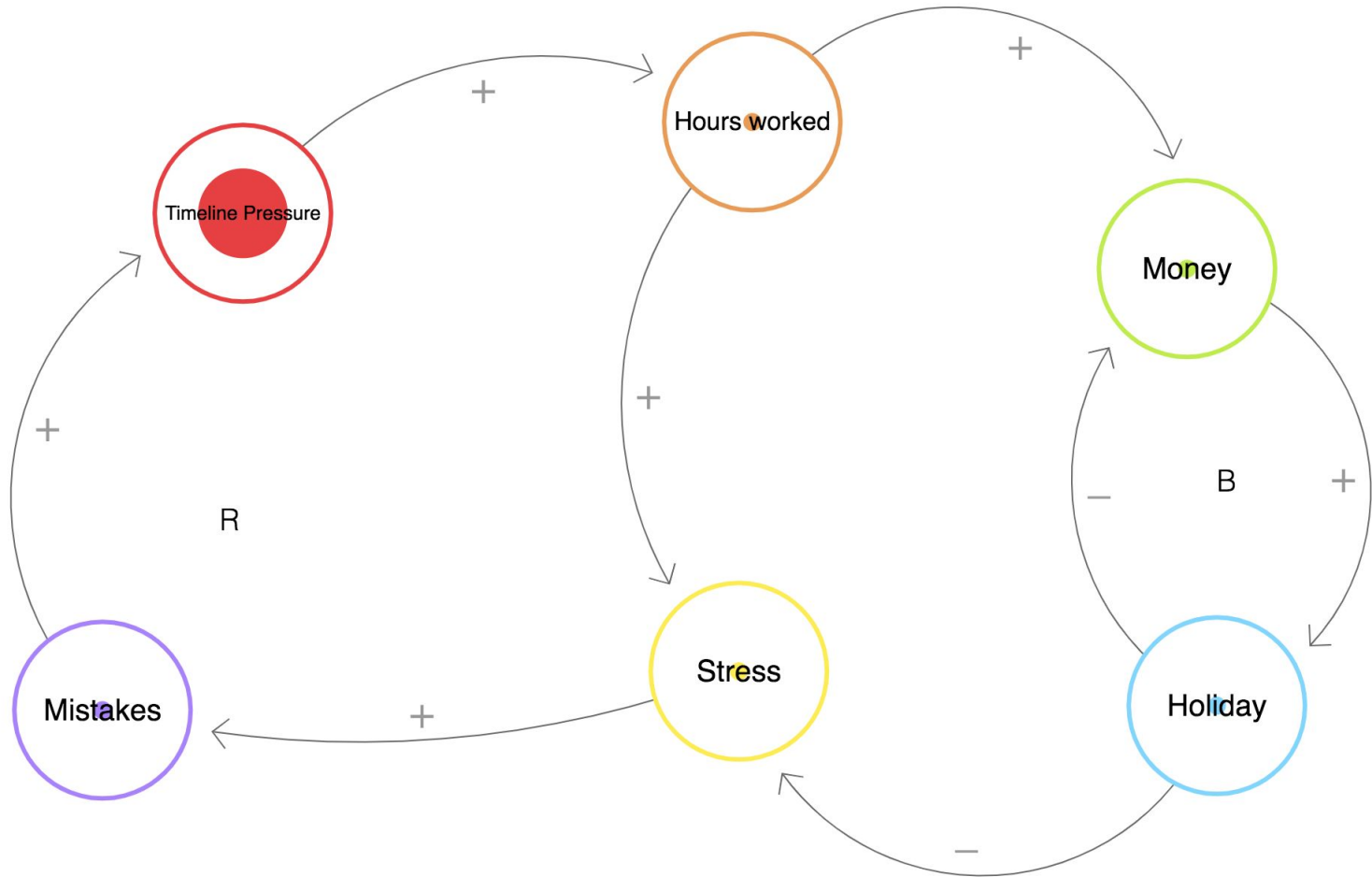
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Willem the stressed technical writer

Willem works as a freelance technical writer in a team creating software. Due to **timeline pressures**, Willem needs to work longer **hours**. The extra hours means more **money**, but working a lot also leads to more **stress**. When Willem is stressed, he makes more **mistakes** than usual and has to redo a lot of his work, which adds even more pressure to the already tight deadlines. To manage all of this stress, Willem takes regular **holidays**.





Group Juggle Game Setup

1. Form circles of 20 people max
 2. Establish throwing order
 3. Explain the rules!
 4. Test throwing order
 5. Play!
 6. Debrief
1. Team's goal is to keep as many balls in the air at the same time as possible by catching from your designated thrower and throwing to your designated catcher.
 2. When a ball is dropped on the floor, it has to be retrieved.
 3. I can throw to anyone I see. I will start slowly, but as I see you successfully keeping balls in the air I'll throw in more balls.

Group Juggle Rules

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Group Juggle Debrief

- Levels of perspective (iceberg)
- Events: ask the audience what they experienced
- Behaviour:
 - Explain how behaviour can be graphed over time by drawing first mode
 - Let participants draw second and third modes
 - Summarise with behaviour-over-time graph of three modes
 - Ask them what they could have done to perform better - explain that in order to see if these improvements makes sense, we need to look at the structure
- Structure:
 - Let participants draw system for mode 1 + summarise on board
 - Let participants draw system for mode 2 + summarise on board
 - Let participants draw system for mode 3 + summarise on board
 - Ask for suggestions to change. Usually people would suggest parameter changes (standard shape balls, rhythm, etc.). Explain that structural changes are necessary.
 - Ask for suggestions regarding structural changes.
 - Explain 2 possible structural changes:
 - Eliminate R1 by severing Perceived Competence and New balls and add - relationship between New balls and Balls in air
 - Designate dedicated catchers
- Mental models:
 - Ask what mental models can you think of that may have influenced your performance? Typical answers: thought we were trying to move the balls around as fast as we could, assumed we needed to have all members in circle

Group Juggle Models

- [Mode 1](#)
- [Mode 2](#)
- [Mode 3](#)
- [Combined](#)
- [Interventions](#)

#1 - A system can be viewed
from different points of view
(the iceberg)

#2 - Through modelling you
can come to a shared
understanding of a system's
structure

#3 - A system's behaviour
over time is a result of its
underlying structure

#4 - To get different
behaviour, you have to
change the structure

Systems thinking resources

<https://medium.com/@emilesilvis/a-curated-list-of-systems-thinking-resources-b883f1f02c7>