

Multiple Laboratory Experiment Targeting Different Experiment Designs

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Outline

- 1 Introduction
- 2 Proposed Solution
- 3 Preliminary Results
- 4 Experiment Proposal

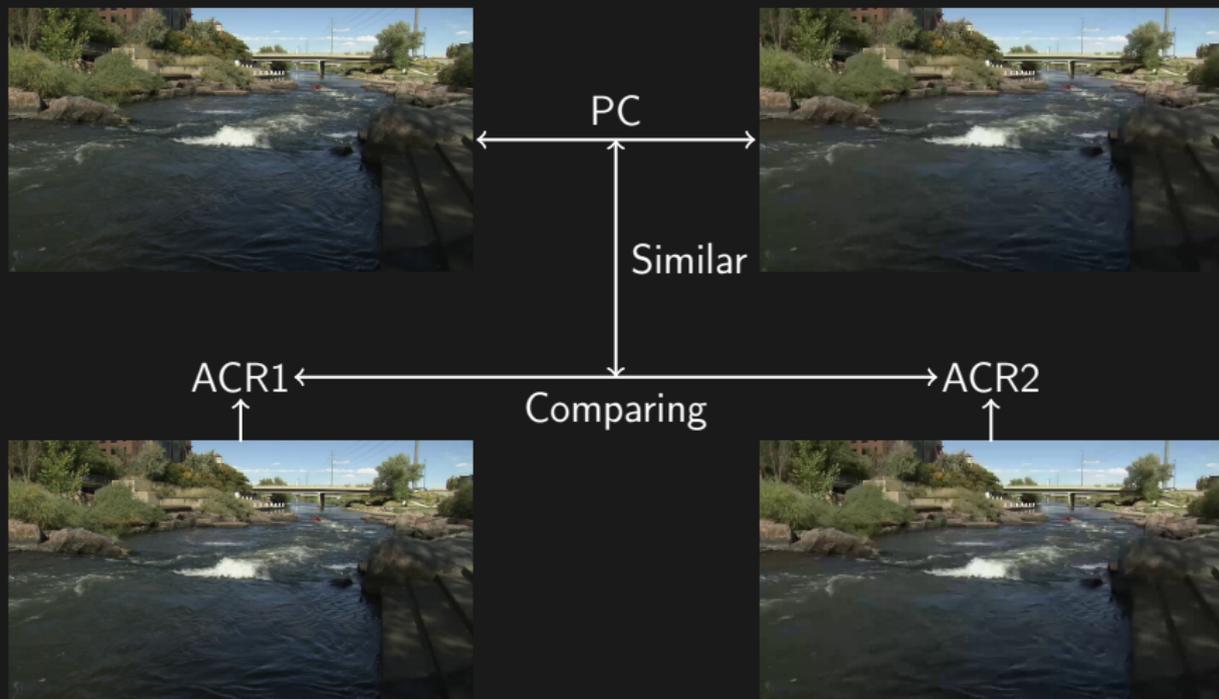
Problem Statement



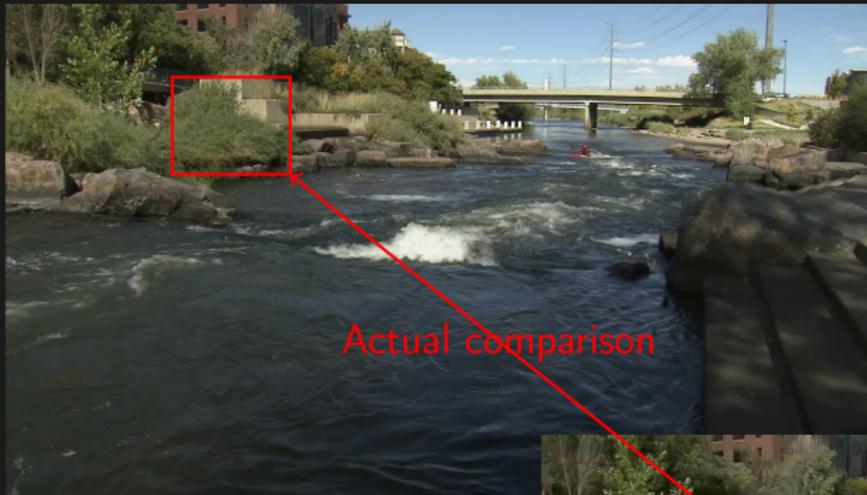
Problem Statement



ACR versus PC



Focusing on Region



Actual comparison



It



Is



Boring



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Solution

Define New Experiment Design.

Traditional Experiment Design (SRC)

SRC1

SRC2

SRC3

HRC1



HRC2



HRC3



Related Sequence Design (RSRC)

RSRC1

RSRC2

RSRC3

HRC1



HRC2



HRC3



Coding Difficulty Sequence Design (CD-SRC)

CD-SRC1

CD-SRC2

CD-SRC3

HRC1



HRC2



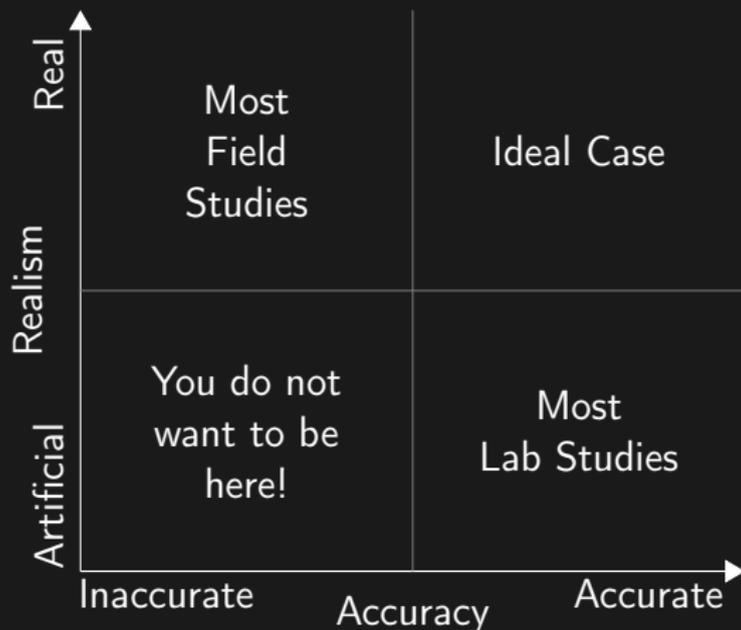
HRC3



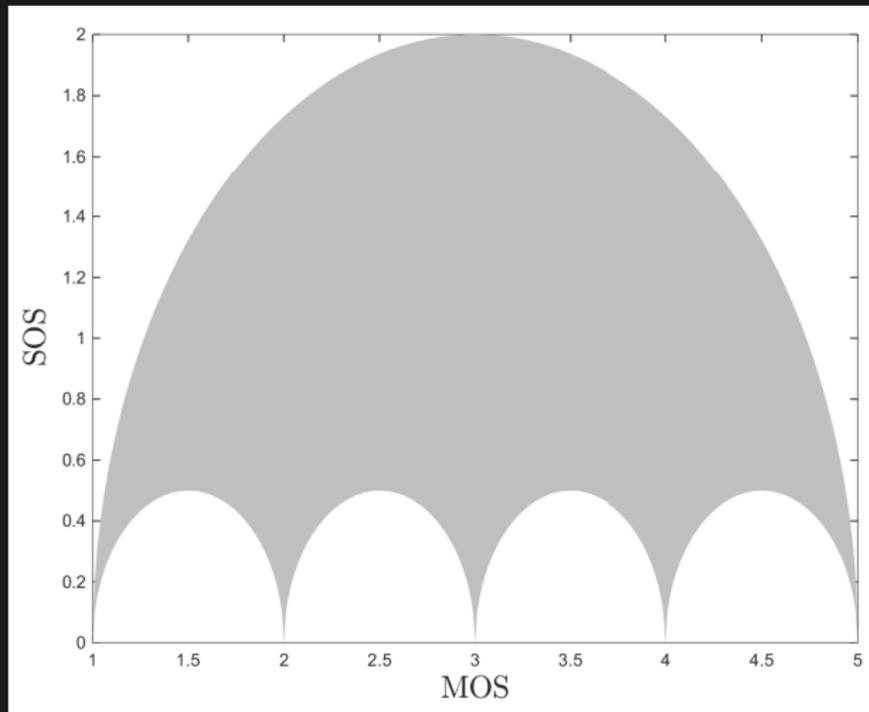
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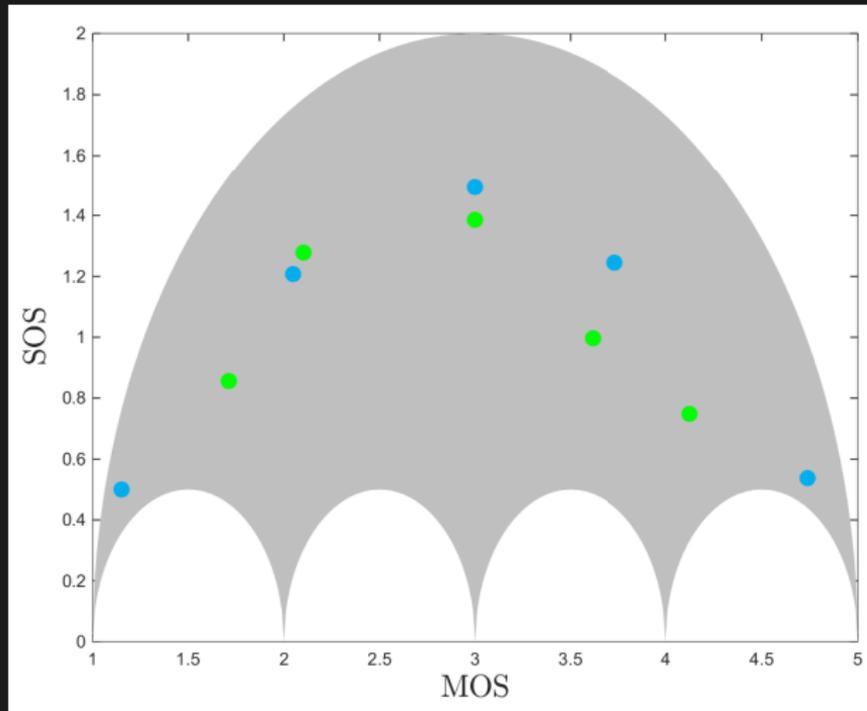
New Experiment Design Validation



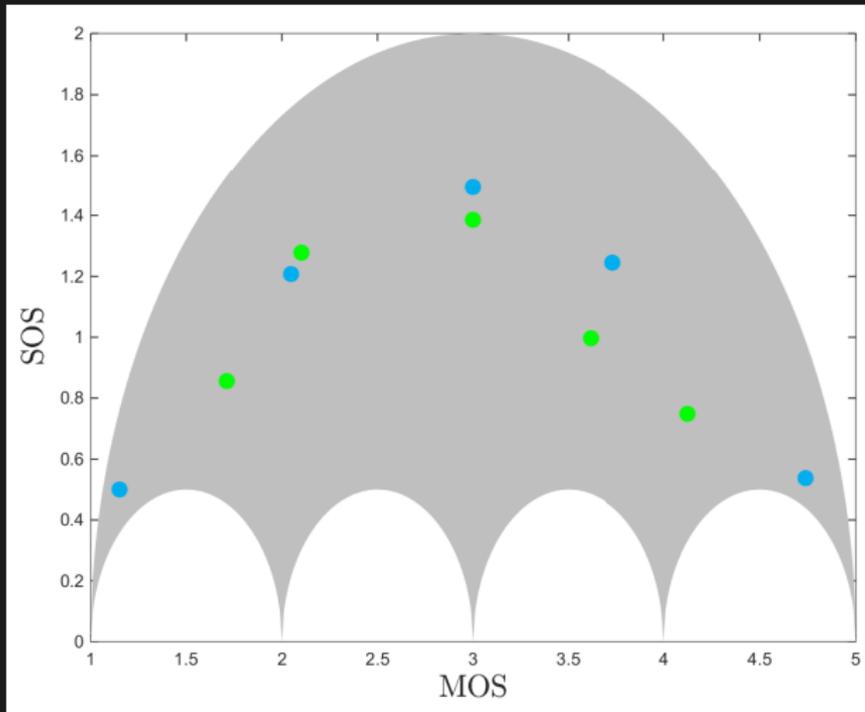
SOS(MOS)



SOS(MOS)



SOS(MOS)

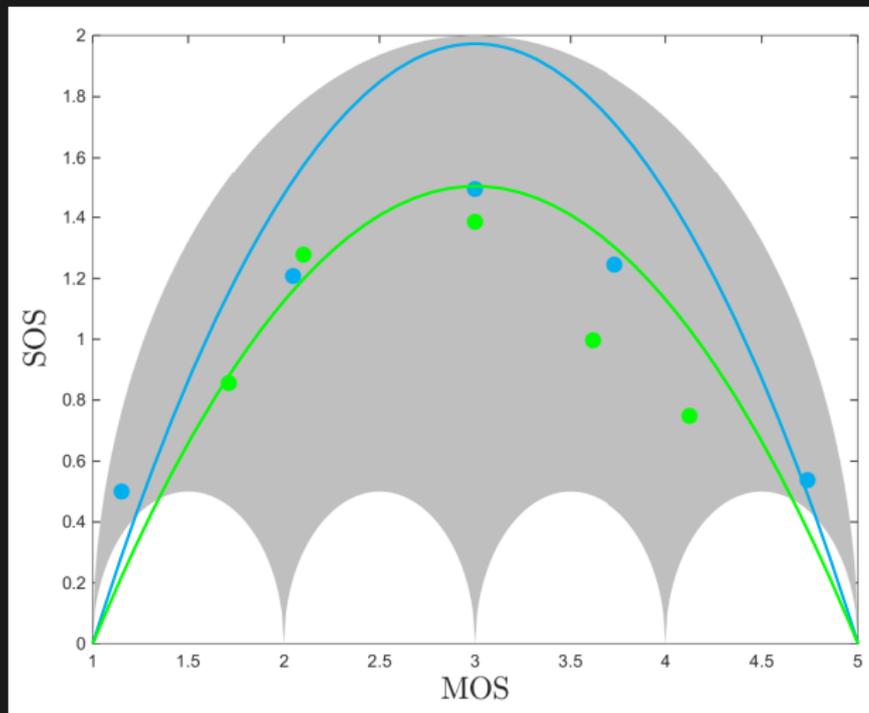


Mean SOS:

Green = 1.06

Blue = 1.00

Hoßfeld, Schatz and Egger (HSE) Coefficient



Mean SOS:

Green = 1.06

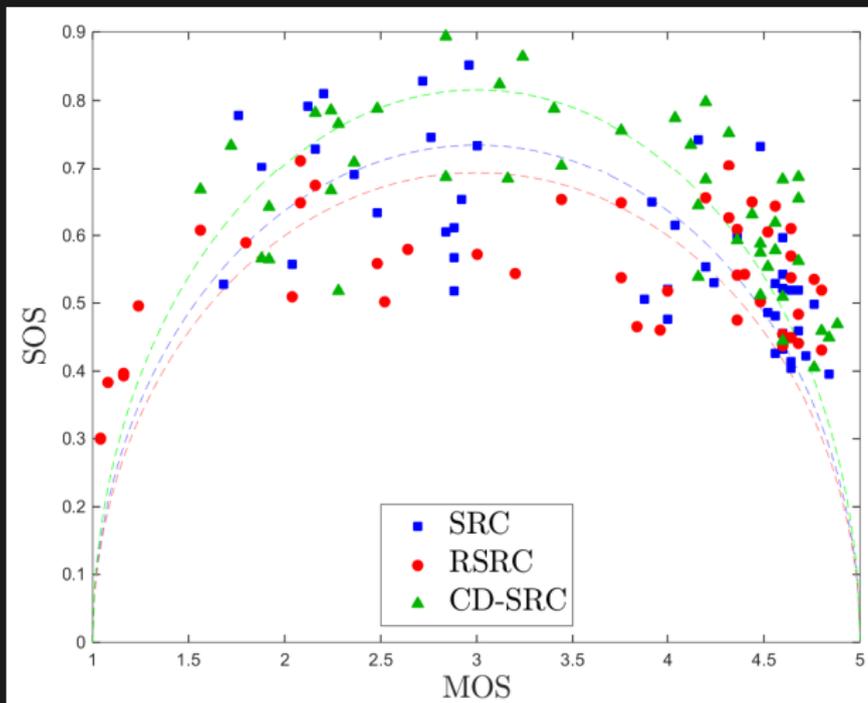
Blue = 1.00

HSE:

Green = 0.61

Blue = 0.70

Obtained HSEs



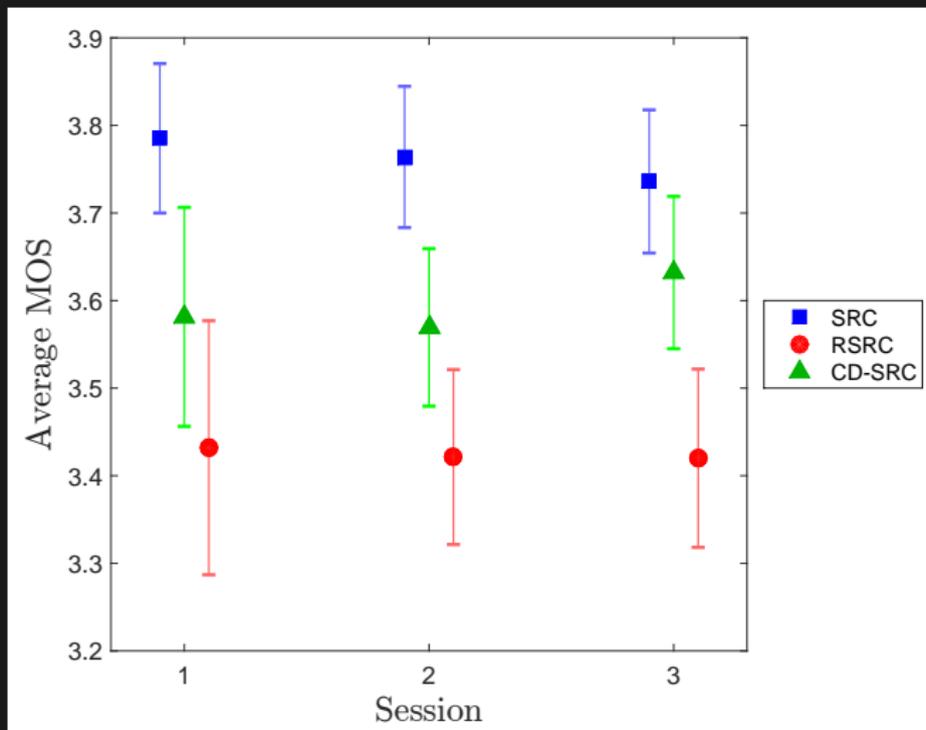
HSE for:

SRC = 0.143

RSRC = 0.138

CD-SRC = 0.161

Trends



Final Questionnaire

Difficult attention: repeated content

Difficult attention: disliked content

Difficult attention: test progress

Repeated sequences: focusing on small part

Liked repeated SRC

Repeated sequences: compared to memory

Like new SRC and/or
Dislike repeated SRC

Repeated sequences: more accurate
New content: easier to decide

New content: rated higher

Easy attention: like content

Easy attention: new content

New content: more difficult to decide
New content: no impact
New content: more attention

Like/dislike some content

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Collect more evidence about differences and similarities of proposed experiment designs.

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Support adaptive streaming experiment design.

Experiment Design

- Three different sessions, each with one experiment design
- Each session contains 40 PVSs, each 8 seconds
- Whole experiment duration 30-40 minutes
- Each session ends with a short questionnaire

We Provide

- PVSs
- The software to run the experiment. It can be run on a normal PC
- The questionnaire in English or other language if needed

We Need

- Laboratories which run subjective experiment

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Nice to have:

- Translation of the questionnaire
- Translation of the questionnaire answers
- Person who helps us generate packet losses
- Help with questionnaire design

Questions and Suggestions