

The screenshot displays the Labvanced software interface. The central workspace shows a task design with a bar chart and a dashed box. The interface includes several panels: 'TASK SETTINGS' (Fixed Size: off, Conditions: on, Style: 001), 'TRIAL SETTINGS' (Randomization: trial order, Condition Count: 4, Trial Count: 15), 'FACTORTREE' (Trial, Trialgroup 1, Trialgroup 2, Factor 1), and 'TRIAL CONDITIONS' (Trialgroup 1, Trialgroup 2). The 'TRIAL CONDITIONS' panel contains two tables:

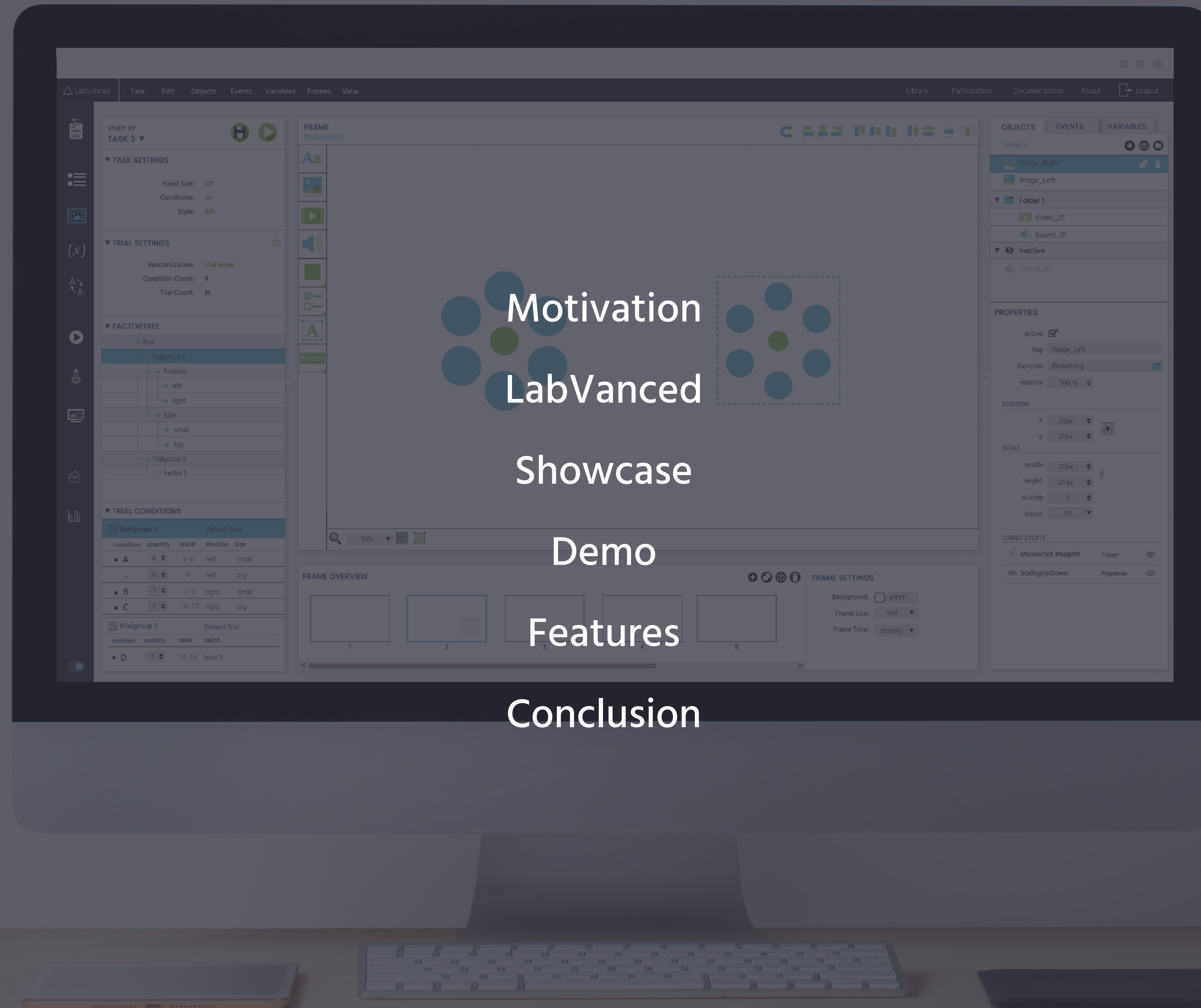
condition	quantity	trial#	Position	Size
A	6	1-6	left	small
-	0	8	left	big
B	3	7-9	right	small
C	3	10-12	right	big

condition	quantity	trial#	catch...
D	3	12-15	level 1

The 'PROPERTIES' panel on the right shows settings for 'Image_Left', including filename 'flower.png', opacity '100%', and position (x: 20px, y: 20px). The 'LINKED EVENTS' panel shows 'Mouseclick Image01' triggered by 'Trigger' and 'ScalingUpDown' triggered by 'Properties'. The 'LABVANCED' logo is overlaid on the bottom center of the screen.

Create · Record · Analyze

STRUCTURE



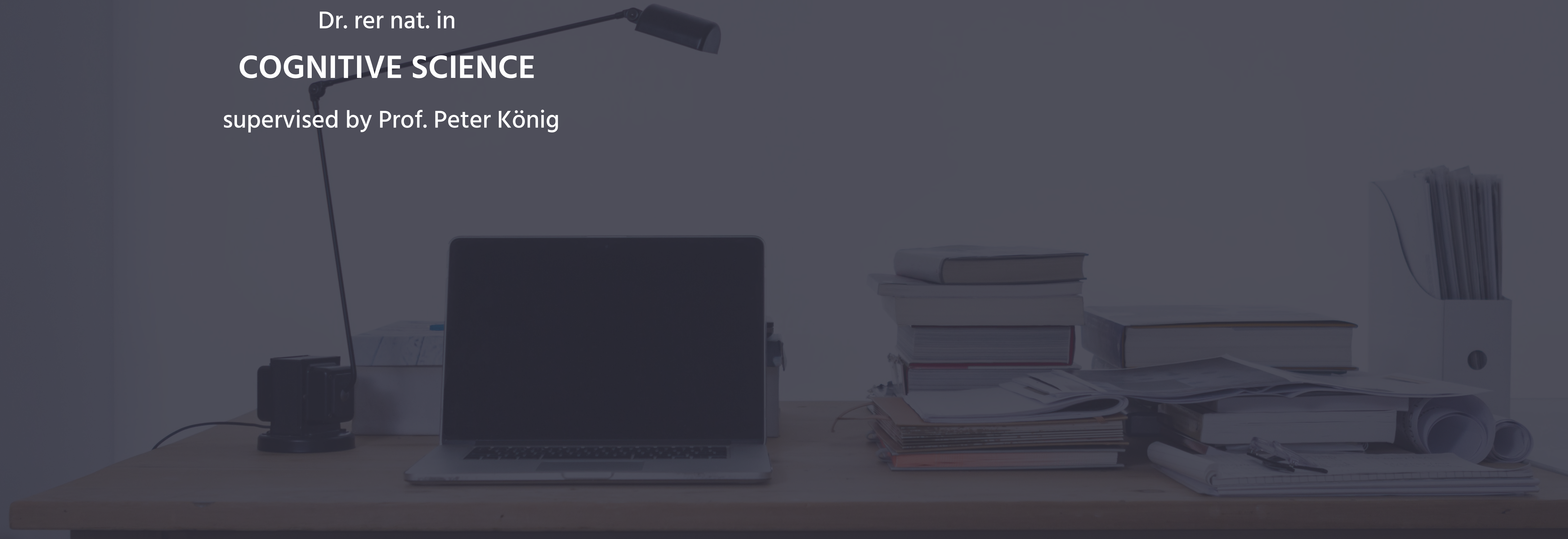
MOTIVATION

My Background

Dr. rer nat. in

COGNITIVE SCIENCE

supervised by Prof. Peter König



MOTIVATION

My Background

Dr. rer nat. in

COGNITIVE SCIENCE

supervised by Prof. Peter König

PhD thesis:

ONLINE RESEARCH



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PhD thesis:

ONLINE RESEARCH

Funded by

EXIST PROGRAM

of the BMWI



MOTIVATION

My Background

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COGNITIVE SCIENCE

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PhD thesis:

ONLINE RESEARCH

Funded by

EXIST PROGRAM

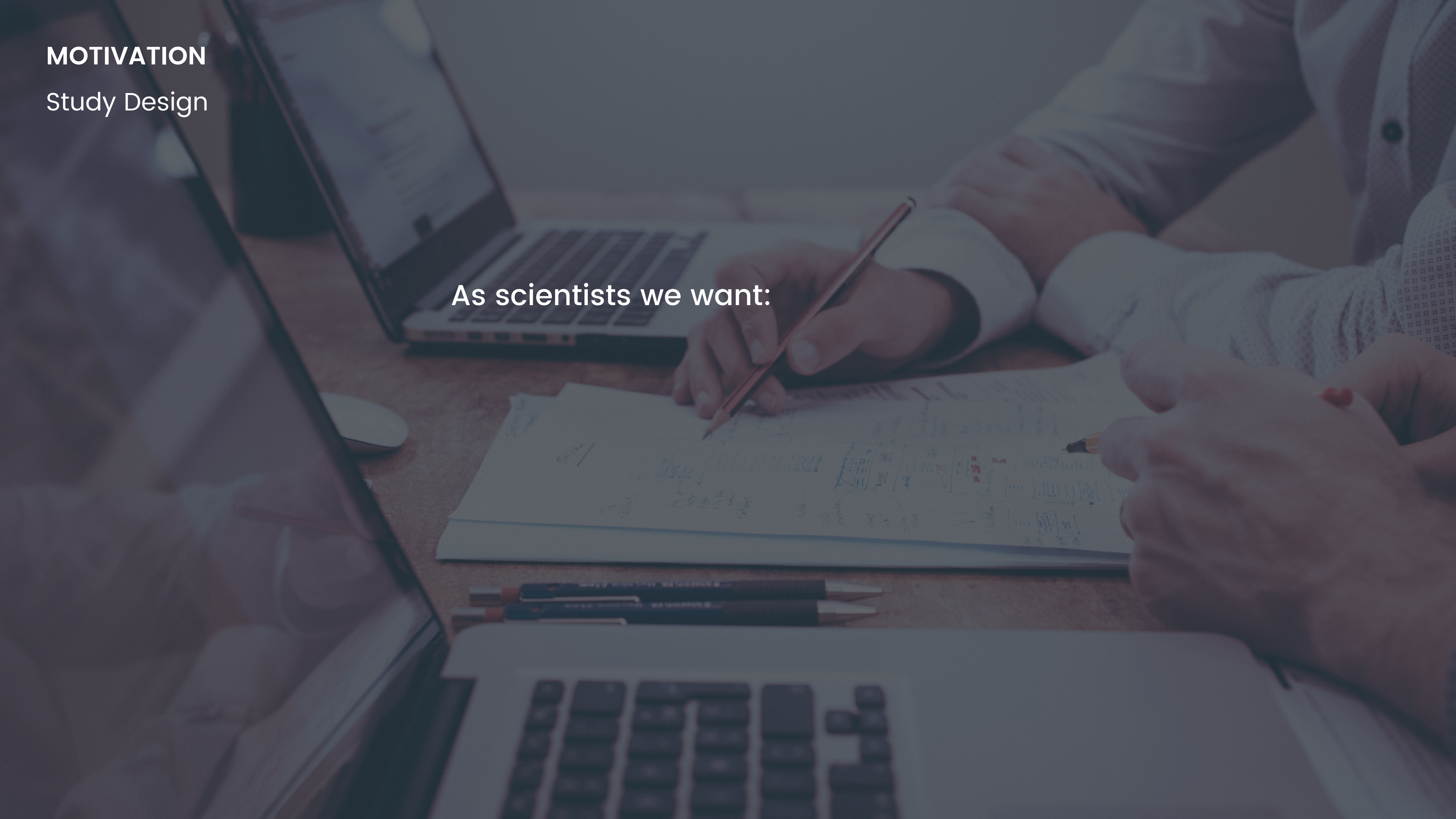
of the BMWI

My ultimate goal is to improve
scientific methodology & quality of research

MOTIVATION

Study Design

As scientists we want:



MOTIVATION

Study Design

As scientists we want:

- to **answer** big and important questions.

MOTIVATION

Study Design

As scientists we want:

- to **answer** big and important questions.
- to conduct many experiments and record a lot of **data**.

MOTIVATION

Study Design

As scientists we want:

- to **answer** big and important questions.
- to conduct many experiments and record a lot of **data**.
- that our results are valid and **reproducible**.

MOTIVATION

Problems

However, we have limited **time** and **financial** resources!

Using current methodology there is no way for most researchers to fulfill all these points to a satisfactory degree.

MOTIVATION

Solution

A close-up photograph of a person's hands holding a glowing lightbulb. The lightbulb is illuminated from within, casting a warm, yellow glow. The glass base of the bulb is cracked and broken, with some of the internal filament structure visible. The person's hands are positioned around the bulb, with fingers gently gripping it. The background is dark and out of focus, emphasizing the lightbulb as the central subject.

Here I will present our solution to this problem!

WHAT'S LABVANCED?

The Main Idea



Web-App

WHAT'S LABVANCED?

The Main Idea



Web-App



Intuitive UI

WHAT'S LABVANCED?

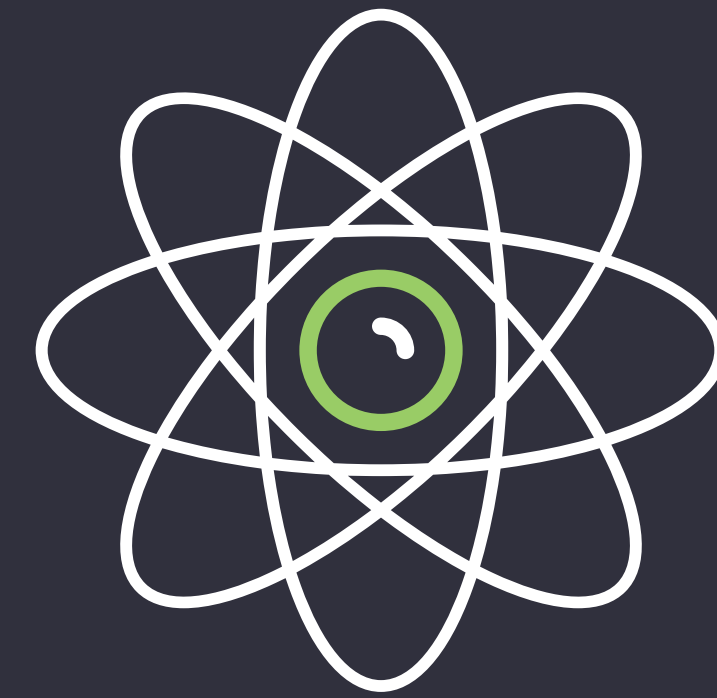
The Main Idea



Web-App



Intuitive UI



Latest Technology

WHAT'S LABVANCED?

The Main Idea



Create

WHAT'S LABVANCED?

The Main Idea



Create



Record

WHAT'S LABVANCED?

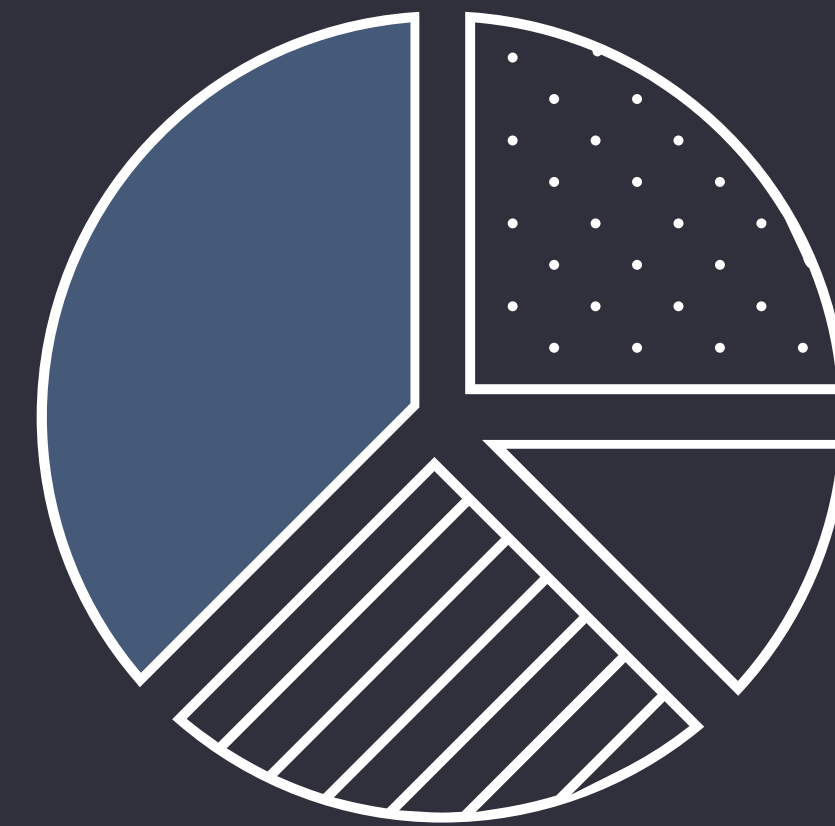
The Main Idea



Create



Record



Analyze

SHOWCASE
WEB-APP

WEB-APP Platform

My Studies

Library Participation Documentation About Logout

John Doe
Harvard University

Dashboard
My Studies
My Teams
My Files
Account Settings

NEW STUDY Import Study

FILTER

ALL STUDIES

Name	Type	Status	Date modified	Authoring	Size	Recordings
Study XY	Study	Running	03.03.16	me	500 MB	23 <small>3 new</small>
Study AB	Study	Running	03.03.16	Team XY	500 MB	10 <small>3 new</small>
Study Z	Study	Published	03.03.16	Team AB	500 MB	15 <small>6 new</small>
Study C	Study	Construction	03.03.16	*Team XY	500 MB	

Dashboard

Library Participation Documentation About Logout

John Doe
Harvard University

Dashboard
My Studies
My Teams
My Files
Account Settings

NEWS

Request: Dr. Jon Doe requests your Study XY as an Template [View](#)

New Recordings! 9 new recordings in Study XY!

RUNNING EXPERIMENTS

Study XY
100 Total Recordings
10 Recordings this week
20/100 Crowdsourcing Recordings [View Data](#) [Upgrade](#)

Study XY
100 Total Recordings
10 Recordings this week
20/100 Crowdsourcing Recordings

TEAM ACTIVITY

22.03.17 15:00 Dr. Jon Doe created Task_3 in Study XY

22.03.17 15:00 Dr. Jon Doe edited Task_2 in Study XY

22.03.17 15:00 Dr. Jon Doe edited

NEW EXPERIMENTS

Study XY
Description igni alibus moluptat maximen dandio quat plibusdam faceaquatem qui illuptatio volenem que Emotion, Eyetracking

Study XY
Description igni alibus moluptat maximen dandio quat plibusdam faceaquatem qui illuptatio volenem que Emotion, Eyetracking

NEW TEMPLATES

Profile

John Doe
Harvard University

Dashboard
My Studies
My Teams
My Files
Account Settings

John Doe
Harvard University
Master of Science

INFO

Gender: Male
Year of Birth: 1982
Nationality: Canadian
First Language: English
Other Languages: Spanish, Latin, German
Occupation: Professor

CONTACT

E-Mail: JonDoe@gmail.com
Website: www.JonDoeResearch.com
Facebook, LinkedIn, ResearchGate

RESEARCH

SEARCH: Name

CURRENT EXPERIMENTS

Experiment 1
Remam, cum in plis dolorum harlitu sdaera

Experiment 2
Remam, cum in plis dolorum harlitu sdaera

Experiment 3
Remam, cum in plis dolorum harlitu sdaera

PARTICIPATION

18 Total Participations

LAST MONTH

Experiment XY
Experiment Z

FORMER PARTICIPATIONS

Experiment A
Experiment B

RESEARCH FOKUS

Multisensory Integration
Vision
Eyetracking

TEAMS

Researchgroup 1
10 Members

Researchgroup 2
2 Members

My Studies

New Study Import Study

FILTER

Status

- Running
- Published
- Construction

Teams

- no Team
- Team Z
- Team A
- Team XY

Task Type

- Trial
- Questionnaire
- Questionnaire with Trial
- Text

ALL STUDIES

Name	Type	Status	Date modified	Authoring	Size	Recordings
Study XY	Study	● Running	03. 03. 16	me	500 MB	23 3 new
Study AB	Study	● Running	03. 03. 16	Team XY	500 MB	10 3 new
Study Z	Study	● Published	03. 03. 16	Team AB	500 MB	15 6 new
Study C	Study	● Construction	03. 03. 16	*Team XY	500 MB	
Trial A	Trial		03. 03. 16	me		
Questionnaire B	Questionnaire		01. 03. 16	Team XY		

- Dashboard
- My Studies
- My Teams
- My Files
- Account Settings

My Studies

New Study Import Study

FILTER

Status

- Running
- Published
- Construction

Teams

- no Team
- Team Z
- Team A
- Team XY

Task Type

- Trial
- Questionnaire
- Questionnaire with Trial
- Text

ALL STUDIES

Name	Size	Recordings
▶ Study XY	500 MB	23 3 new
▶ Study AB	500 MB	10
▶ Study Z	500 MB	15 6 new
▼ Study C	500 MB	
▶ Task A	100 MB	
▶ Questionnaire B	400 MB	

NEW STUDY ✕

Working Titel

Authoring

me

Team






Size	Recordings
500 MB	23 3 new
500 MB	10
500 MB	15 6 new
500 MB	
100 MB	
400 MB	

WEB-APP

Study Design

STUDY DESIGN: New Study 

TASKS

- Instruction  Edit
- Questions  Edit
- EmotionTest  Edit
- RecognitionTest_1  Edit
- RecognitionTest_2  Edit

[+ New Task](#)

[↓ Import Task](#)

BLOCKS

- ▼ block_1
 - Task 1: Instruction
 - Task 2: Questions
 - Task 3: EmotionTest
 - Task 4: RecognitionTest_1
 - [+ Add Task](#)

- ▼ block_2
 - Task 1: Questions
 - Task 2: EmotionTest
 - Task 3: RecognitionTest_2
 - [+ Add Task](#)

[+ New Block](#)

SESSIONS

- ▼ session_1 
 - Block 1: block_1
 - [+ Add Block](#)

- ▼ session_2 
 - Block 1: block_2
 - [+ Add Block](#)

[+ New Session](#)

GROUPS

- ▼ group_1 
 - Session 1: session_1 
 - Session 2: session_2 
 - [+ Add Session](#)

- ▼ group_2 
 - Session 1: session_1 
 - Session 2: session_2 
 - [+ Add Session](#)

[+ New Group](#)






- Task Editor
- Description
- Variables
- Translate
- Run
- Publish & Record
- Sharing
- Dataview & Export

WEB-APP

Study Design

STUDY DESIGN: New Study 


TASKS


- Instruction  Edit
- Questions  Edit
- EmotionTest  Edit
- RecognitionTest_1  Edit
- RecognitionTest_2  Edit

+ New Task

↓ Import Task

BLOCKS

- ▼ block_1
 - Task 1: Instruction
 - Task 2: Questions
 - Task 3: EmotionTest
 - Task 4: RecognitionTest_1
 -  Add Task

- ▼ block_2
 - Task 1: Questions
 - Task 2: EmotionTest
 - Task 3: RecognitionTest_2
 -  Add Task

 New Block

SESSIONS

- ▼ session_1 
 - Block 1: block_1
 -  Add Block

- ▼ session_2 
 - Block 1: block_2
 -  Add Block

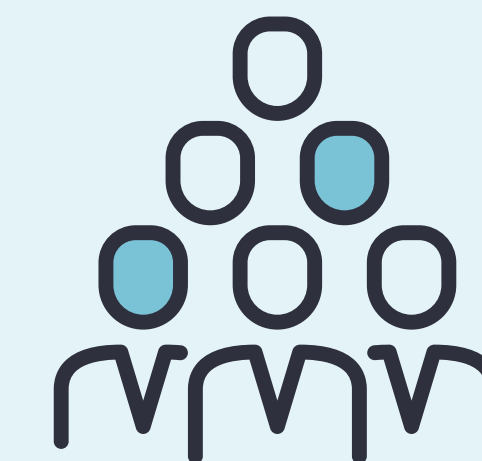
 New Session

GROUPS

- ▼ group_1 
 - Session 1: session_1 
 - Session 2: session_2 
 -  Add Session

- ▼ group_2 
 - Session 1: session_1 
 - Session 2: session_2 
 -  Add Session

 New Group








Groups

WEB-APP

Study Design

STUDY DESIGN: New Study 


TASKS


- Instruction  Edit
- Questions  Edit
- EmotionTest  Edit
- RecognitionTest_1  Edit
- RecognitionTest_2  Edit

+ New Task

↓ Import Task

BLOCKS

- ▼ block_1
 - Task 1: Instruction
 - Task 2: Questions
 - Task 3: EmotionTest
 - Task 4: RecognitionTest_1
 -  Add Task

- ▼ block_2
 - Task 1: Questions
 - Task 2: EmotionTest
 - Task 3: RecognitionTest_2
 -  Add Task

 New Block

SESSIONS

- ▼ session_1 
 - Block 1: block_1
 -  Add Block

- ▼ session_2 
 - Block 1: block_2
 -  Add Block

 New Session

GROUPS

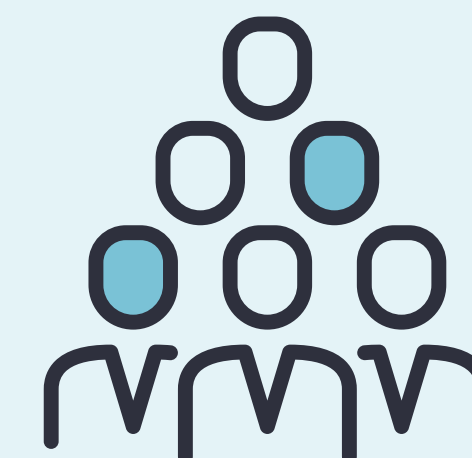
- ▼ group_1 
 - Session 1: session_1 
 - Session 2: session_2 
 -  Add Session

- ▼ group_2 
 - Session 1: session_1 
 - Session 2: session_2 
 -  Add Session

 New Group



Sessions








Groups

WEB-APP

Study Design

STUDY DESIGN: New Study 


TASKS


- Instruction  Edit
- Questions  Edit
- EmotionTest  Edit
- RecognitionTest_1  Edit
- RecognitionTest_2  Edit

+ New Task

↓ Import Task

BLOCKS

- ▼ block_1
 - Task 1: Instruction
 - Task 2: Questions
 - Task 3: EmotionTest
 - Task 4: RecognitionTest_1
 -  Add Task

- ▼ block_2
 - Task 1: Questions
 - Task 2: EmotionTest
 - Task 3: RecognitionTest_2
 -  Add Task

 New Block

SESSIONS

- ▼ session_1 
 - Block 1: block_1
 -  Add Block

- ▼ session_2 
 - Block 1: block_2
 -  Add Block

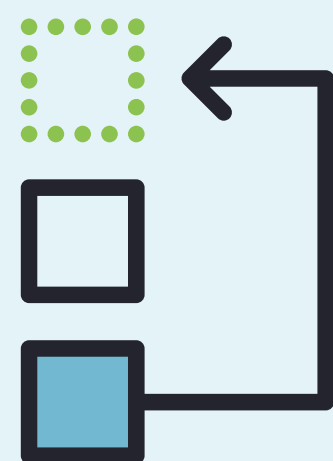
 New Session

GROUPS

- ▼ group_1 
 - Session 1: session_1
 - Session 2: session_2
 -  Add Session

- ▼ group_2 
 - Session 1: session_1
 - Session 2: session_2
 -  Add Session

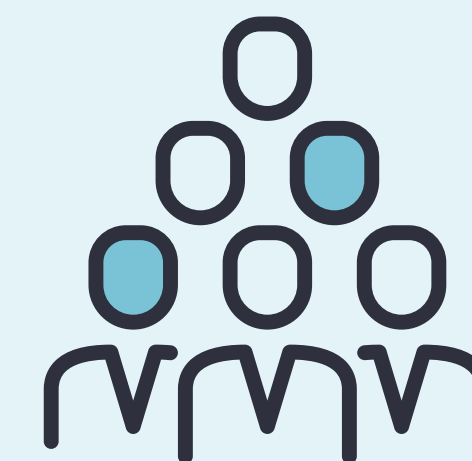
 New Group



Blocks



Sessions








Groups

WEB-APP

Study Design

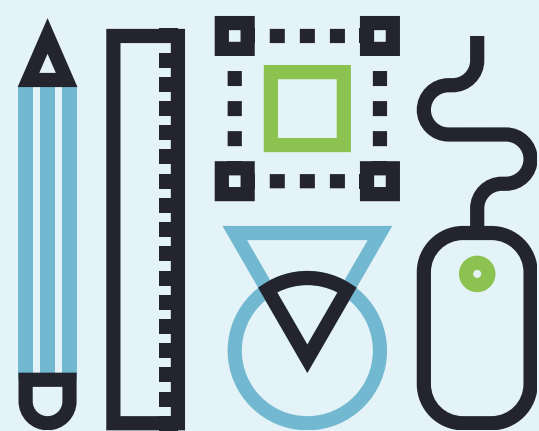
STUDY DESIGN: New Study 

TASKS

- Instruction  Edit
- Questions  Edit
- EmotionTest  Edit
- RecognitionTest_1  Edit
- RecognitionTest_2  Edit


+ New Task


↓ Import Task



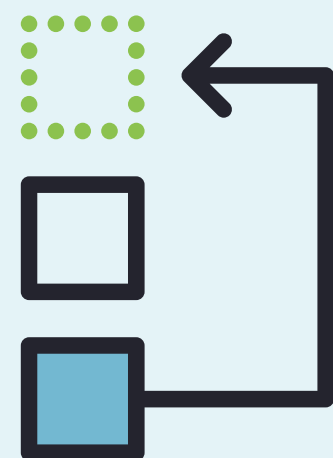
Tasks

BLOCKS

- ▼ block_1
 - Task 1: Instruction
 - Task 2: Questions
 - Task 3: EmotionTest
 - Task 4: RecognitionTest_1
 -  Add Task

- ▼ block_2
 - Task 1: Questions
 - Task 2: EmotionTest
 - Task 3: RecognitionTest_2
 -  Add Task

 New Block



Blocks

SESSIONS

- ▼ session_1 
 - Block 1: block_1
 -  Add Block

- ▼ session_2 
 - Block 1: block_2
 -  Add Block

 New Session



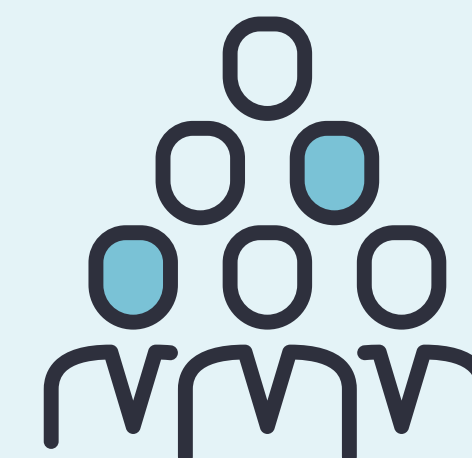
Sessions

GROUPS

- ▼ group_1 
 - Session 1: session_1
 - Session 2: session_2
 -  Add Session

- ▼ group_2 
 - Session 1: session_1
 - Session 2: session_2
 -  Add Session

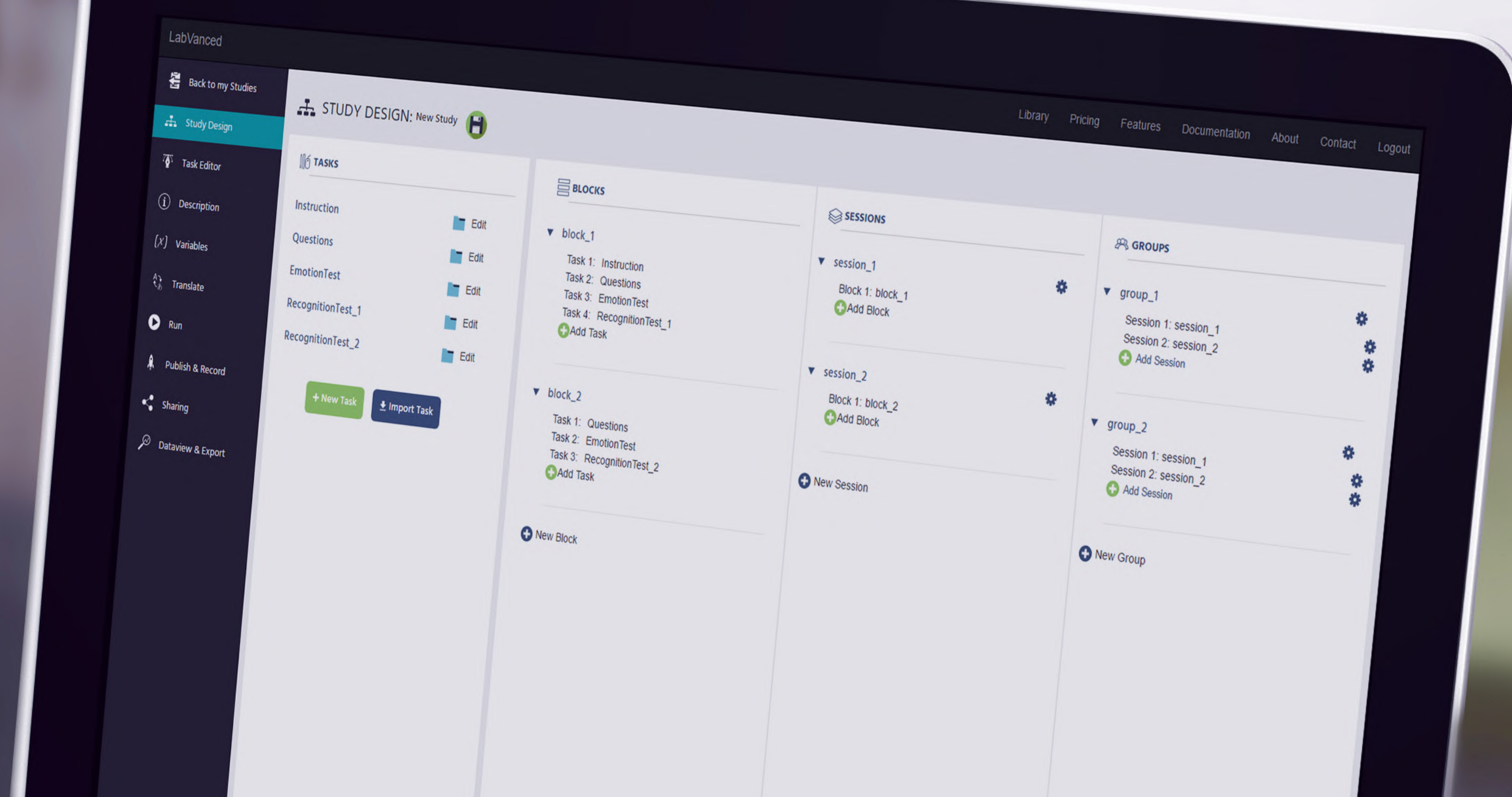
 New Group



Groups

WEB-APP

Study Design








**CREATE A COMPLEX STUDY DESIGN
WITH ONLY A FEW CLICKS!**

WEB-APP

Study Design


STUDY DESIGN: New Study 


TASKS

- Instruction  Edit
- Questions  Edit
- EmotionTest  Edit
- RecognitionTest_1  Edit
- RecognitionTest_2  Edit

[+ New Task](#) [Import Task](#)

BLOCKS

- ▼ block_1
 - Task 1: Instruction
 - Task 2: Questions
 - Task 3: EmotionTest
 - Task 4: RecognitionTest_1
 -  Add Task

- ▼ block_2
 - Task 1: Questions
 - Task 2: EmotionTest
 - Task 3: RecognitionTest_2
 -  Add Task

 New Block

SESSIONS

- ▼ session_1 
 - Block 1: block_1
 -  Add Block

- ▼ session_2 
 - Block 1: block_2
 -  Add Block

 New Session

GROUPS

- ▼ group_1 
 - Session 1: session_1 
 - Session 2: session_2 
 -  Add Session

- ▼ group_2 
 - Session 1: session_1 
 - Session 2: session_2 
 -  Add Session

 New Group

Task Editor

Description

Variables

Translate

Run

Publish & Record

Sharing

Dataview & Export

Open Main Menu

WEB-APP

Task Editor

▼ TASK SETTINGS

Fixed Size: off
Conditions: on
Style: 001

▼ TRIAL SETTINGS

Randomization: trial order
Condition Count: 4
Trial Count: 15

▼ FACTORTREE



▼ TRIAL CONDITIONS

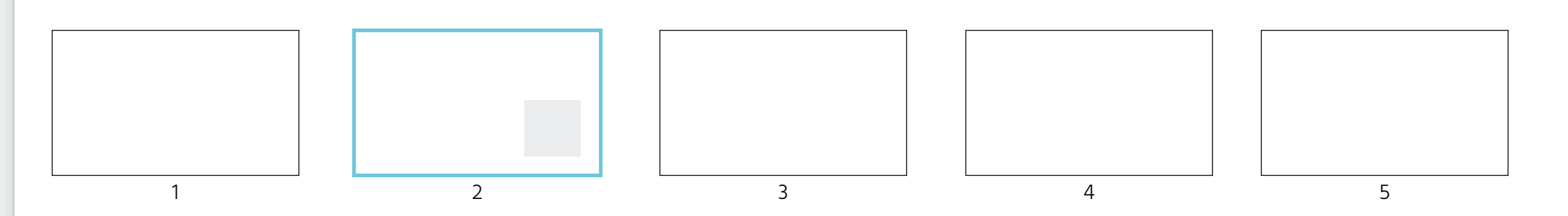
Trialgroup 1		Default Trial		
condition	quantity	trail#	Position	Size
▶ A	6	1-6	left	small
-	0	0	left	big
▶ B	3	7-9	right	small
▶ C	3	10-12	right	big

Trialgroup 2		Default Trial	
condition	quantity	trail#	catchf...
▶ D	3	12-15	level 1

FRAME TRIALGROUP 1

70%

FRAME OVERVIEW



FRAME SETTINGS

Background: #ffffff
Frame Size: 16:9
Frame Time: invinity

OBJECTS EVENTS VARIABLES

FRAME 2

- Image_Right
- Image_Left
- Folder 1
 - Video_01
 - Sound_01
- Inactive
 - Sound_01

PROPERTIES

active:
tag: Image_Left
filename: Flower.png
opacity: 100 %

POSITION

x: 20px
y: 20px

SCALE

width: 20px
height: 20px
scaling: 1
adjust: fill

LINKED EVENTS

Mouseclick Image01	Trigger	<input type="checkbox"/>
ScalingUpDown	Properties	<input type="checkbox"/>

TASK EDITOR

Events Variables Frames View

Canvas Frame

▼ TASK SETTINGS

Fixed Size: off
Conditions: on
Style: 001

▼ TRIAL SETTINGS

Randomization: trial order
Condition Count: 4
Trial Count: 15

▼ FACTORTREE

- Trial
 - Trialgroup 1
 - Position
 - left
 - right
 - Size
 - small
 - big
 - Trialgroup 2
 - Factor 1

▼ TRIAL CONDITIONS

Trialgroup 1		Default Trial		
condition	quantity	trail#	Position	Size
▶ A	6	1-6	left	small
-	0	0	left	big
▶ B	3	7-9	right	small
▶ C	3	10-12	right	big

Trialgroup 2		Default Trial	
condition	quantity	trail#	catchf...
▶ D	3	12-15	level 1

FRAME TRIALGROUP 1

The main canvas area features a white grid background. A dashed blue rectangular box is positioned on the right side, containing a solid grey rectangle. The label 'Image_Right' is placed at the bottom right corner of the dashed box. To the left of the canvas is a vertical toolbar with icons for text (Aa), image, video, sound, a green square, a text box with 'A', and a button labeled 'Button'. At the top right of the canvas area are several small icons for alignment and zoom. At the bottom left of the canvas area is a zoom control showing '70%' and a grid icon.

FRAME OVERVIEW

The frame overview consists of five small rectangular frames labeled 1 through 5. Frame 2 is highlighted with a blue border and contains a small grey square in its bottom right corner. Above the frames are icons for adding, copying, and deleting frames. A horizontal scrollbar is located below the frames.

FRAME SETTINGS

Background: #ffffff
Frame Size: 16:9
Frame Time: invinity

OBJECTS EVENTS VARIABLES

FRAME 2

- Image_Right
- Image_Left
- Folder 1
 - Video_01
 - Sound_01
- Inactive
 - Sound_01

PROPERTIES

active:
tag: Image_Left
filename: Flower.png
opacity: 100 %
POSITION
x: 20px
y: 20px
SCALE
width: 20px
height: 20px
scaling: 1
adjust: fill

LINKED EVENTS

Mouseclick Image01	Trigger	<input type="checkbox"/>
ScalingUpDown	Properties	<input type="checkbox"/>

TASK EDITOR



Events Variables Frames View

Objects

▼ TASK SETTINGS

Fixed Size: off
Conditions: on
Style: 001

▼ TRIAL SETTINGS

Randomization: 
Condition Count: 
Trial Count: 15

▼ FACTORTREE

Trial
Trialgroup 1
Position
left
right
Size
small
big
Trialgroup 2
Factor 1



▼ TRIAL CONDITIONS

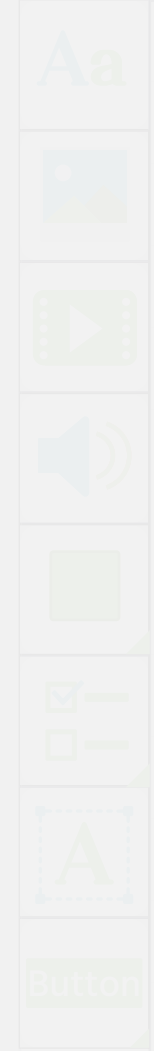
Aa

condition	quantity	trail#	Position	Size
▶ A	6	1-6	left	small
▶ B	3	7-9	right	small
▶ C	3	10-12	right	big

condition	quantity	trail#	catchf...
▶ D	3	12-15	level 1

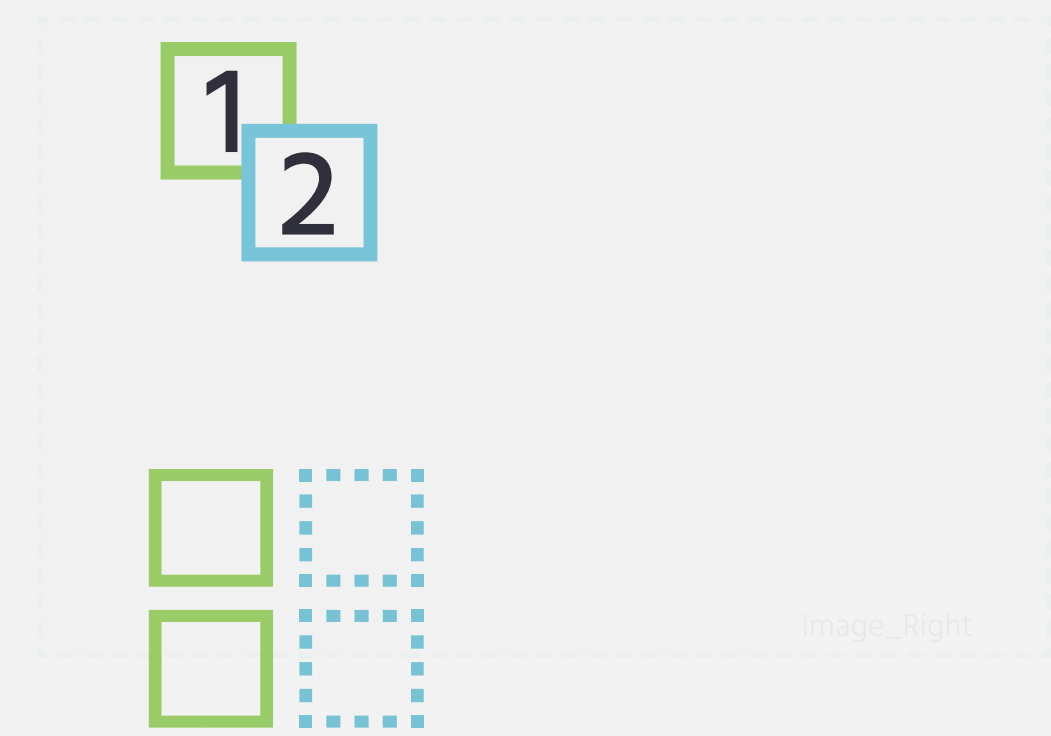
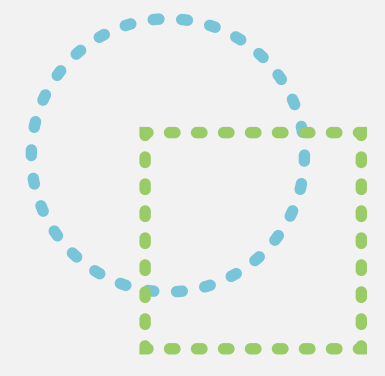
Media

FRAME TRIALGROUP 1

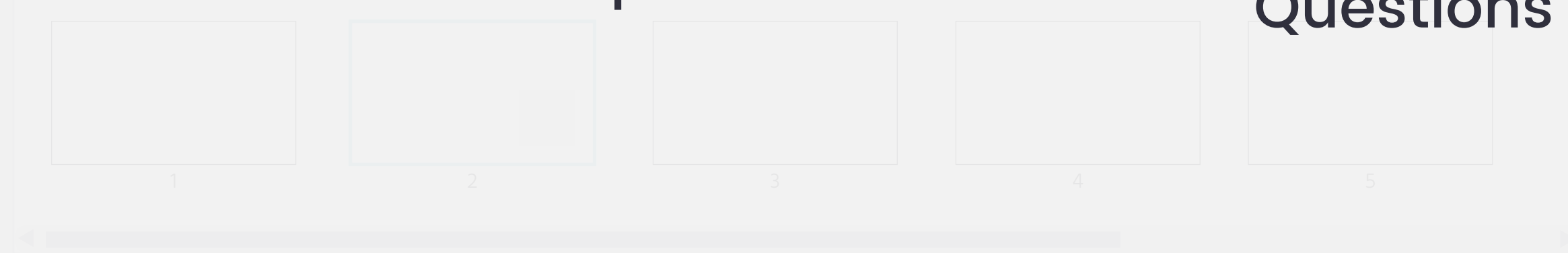


CONTENT ELEMENTS

BUTTON



FRAME OVERVIEW



Shapes

Interactive Questions

FRAME SETTINGS

Background: #ffff
Frame Size: 16:9
Frame Time: invinity

OBJECTS EVENTS VARIABLES

- FRAME 2
- Image_Right
- Image_Left
- Folder 1
- Video_01
- Sound_01

PROPERTIES

active:
tag: Image_Left
filename: Flower.png
opacity: 100 %
x: 20px
y: 20px
width: 20px
height: 20px
scaling: 1
adjust: fill

LINKED EVENTS

- Mouseclick Image01 Trigger
- ScalingUpDown Properties

Different Answer Types

WEB-APP

Trial System

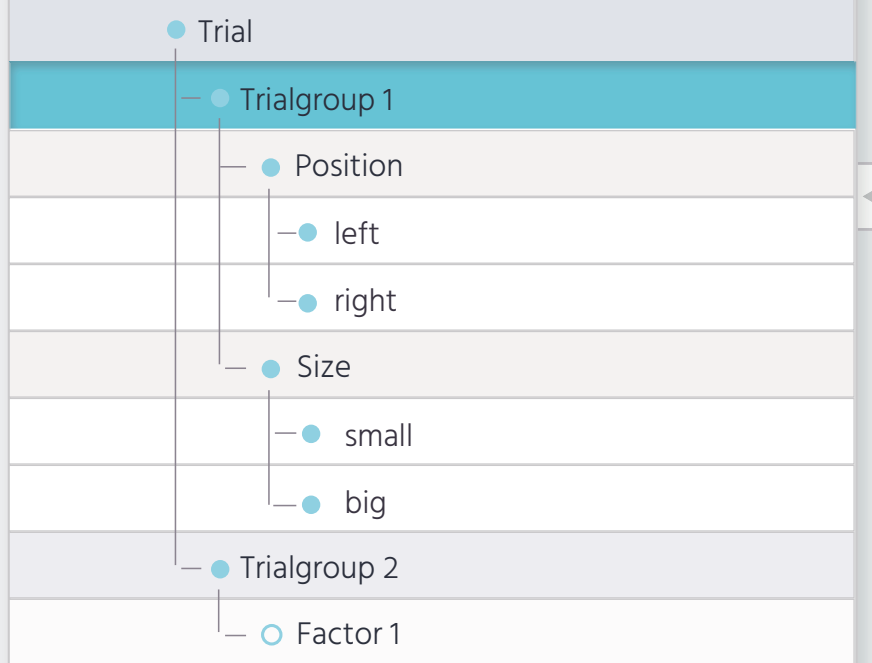
▼ TASK SETTINGS

Fixed Size: off
Conditions: on
Style: 001

▼ TRIAL SETTINGS

Randomization: trial order
Condition Count: 4
Trial Count: 15

▼ FACTORTREE



▼ TRIAL CONDITIONS

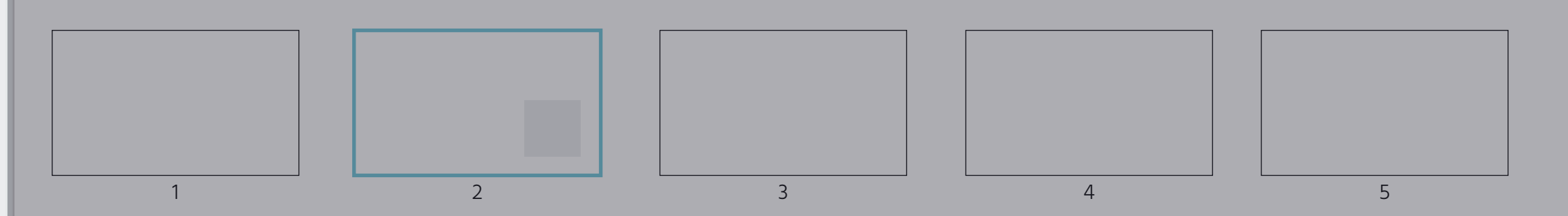
Trialgroup 1		Default Trial		
condition	quantity	trail#	Position	Size
▶ A	6	1-6	left	small
-	0	0	left	big
▶ B	3	7-9	right	small
▶ C	3	10-12	right	big

Trialgroup 2		Default Trial	
condition	quantity	trail#	catchf...
▶ D	3	12-15	level 1

FRAME TRIALGROUP 1

The main frame canvas is a large grid area. A dashed blue rectangular box is positioned on the right side of the grid, with the label 'Image_Right' centered inside it. To the left of the canvas is a vertical toolbar containing icons for text (Aa), image, video, sound, a green square, a button with 'A', and a 'Button' label. At the bottom of the canvas, there is a search icon, a zoom level of 70%, and a grid icon.

FRAME OVERVIEW



FRAME SETTINGS

Background: #ffffff
Frame Size: 16:9
Frame Time: invinity

OBJECTS EVENTS VARIABLES

- FRAME 2
 - Image_Right
 - Image_Left
 - Folder 1
 - Video_01
 - Sound_01
 - Inactive
 - Sound_01

PROPERTIES

active:
tag: Image_Left
filename: Flower.png
opacity: 100 %

POSITION

x: 20px
y: 20px

SCALE

width: 20px
height: 20px
scaling: 1
adjust: fill

LINKED EVENTS

- Mouseclick Image01 Trigger
- ScalingUpDown Properties

WEB-APP

Event System

▼ TASK SETTINGS

Fixed Size: off
Conditions: on
Style: 001

▼ TRIAL SETTINGS

Randomization: trial order
Condition Count: 4
Trial Count: 15

▼ FACTORTREE



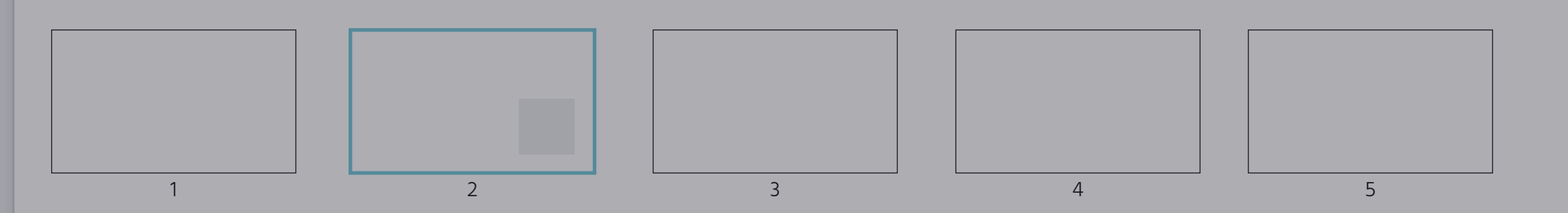
▼ TRIAL CONDITIONS

Trialgroup 1		Default Trial		
condition	quantity	trail#	Position	Size
▶ A	6	1-6	left	small
-	0	0	left	big
▶ B	3	7-9	right	small
▶ C	3	10-12	right	big

Trialgroup 2		Default Trial	
condition	quantity	trail#	catchf...
▶ D	3	12-15	level 1

FRAME TRIALGROUP 1

FRAME OVERVIEW



FRAME SETTINGS

Background: #ffffff
Frame Size: 16:9
Frame Time: invinity

OBJECTS EVENTS VARIABLES

FRAME 2

- Mouseclick Image01
- ScalingUpDown
- OnChangeEvents
 - BigImage
 - SmallImage

PROPERTIES

Tag: Mouseclick Image01

▼ TRIGGER

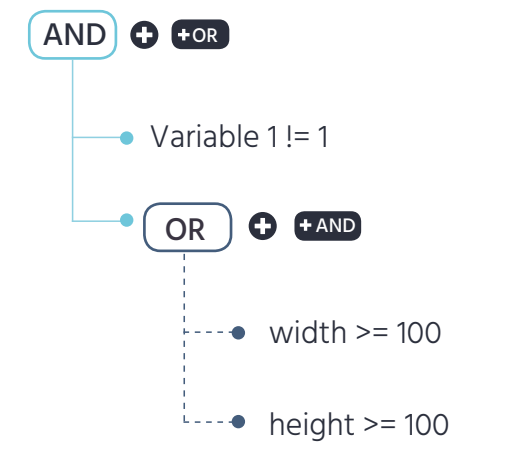
Type: Mouseclick

Targets: Image01

▼ ACTIONS

- Go to Frame
- Change Property
 - Element: Video_1
 - Property: Size
 - New Value: 105%

▼ REQUIREMENTS



WEB-APP

Event System

▼ TASK SETTINGS

Fixed Size: off
Conditions: on
Style: 001

▼ TRIAL SETTINGS

Randomization: trial order
Condition Count: 4
Trial Count: 15



▼ FACTORTREE

- Trial
 - Trialgroup 1
 - Position
 - left
 - right
 - Size
 - small
 - big
 - Trialgroup 2
 - Factor 1



▼ TRIAL CONDITIONS

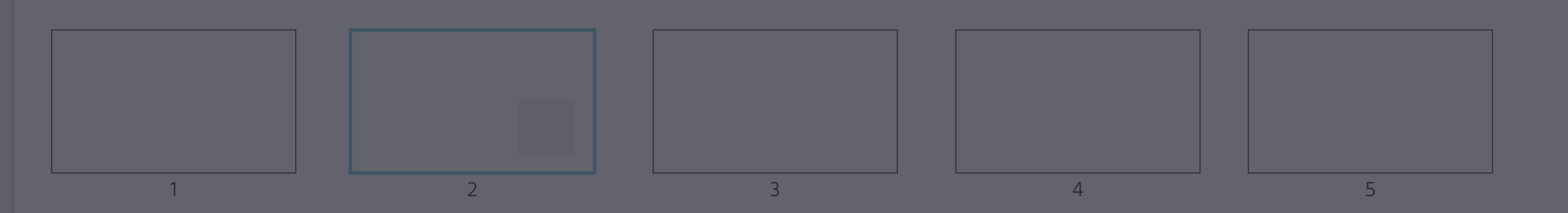
condition	quantity	trail#	Position	Size
▶ A	6	1-6	left	small
-	0	0	left	big
▶ B	3	7-9	right	small
▶ C	3	10-12	right	big

condition	quantity	trail#	catchf...
▶ D	3	12-15	level 1

Trigger

FRAME TRIALGROUP 1

FRAME OVERVIEW



FRAME SETTINGS

Background: #ffffff
Frame Size: 16:9
Frame Time: invinity

OBJECTS EVENTS VARIABLES

- FRAME 2
 - Mouseclick Image01
 - ScalingUpDown
 - ▼ OnChangeEvents
 - BigImage
 - SmallImage

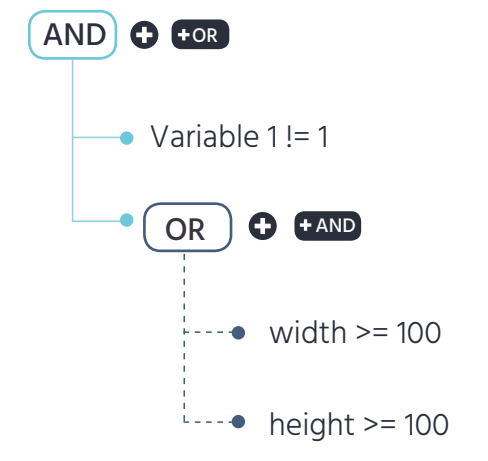
PROPERTIES

Tag: Mouseclick Image01
▼ TRIGGER
Type: Mouseclick
Targets: Image01
+ Add Target

▼ ACTIONS

▶ Go to Frame
▼ Change Property
Element: Video_1 Property: Size
New Value: 105%

▼ REQUIREMENTS



WEB-APP

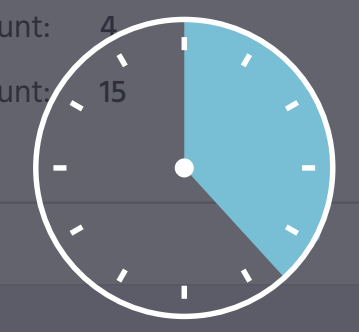
Event System

▼ TASK SETTINGS

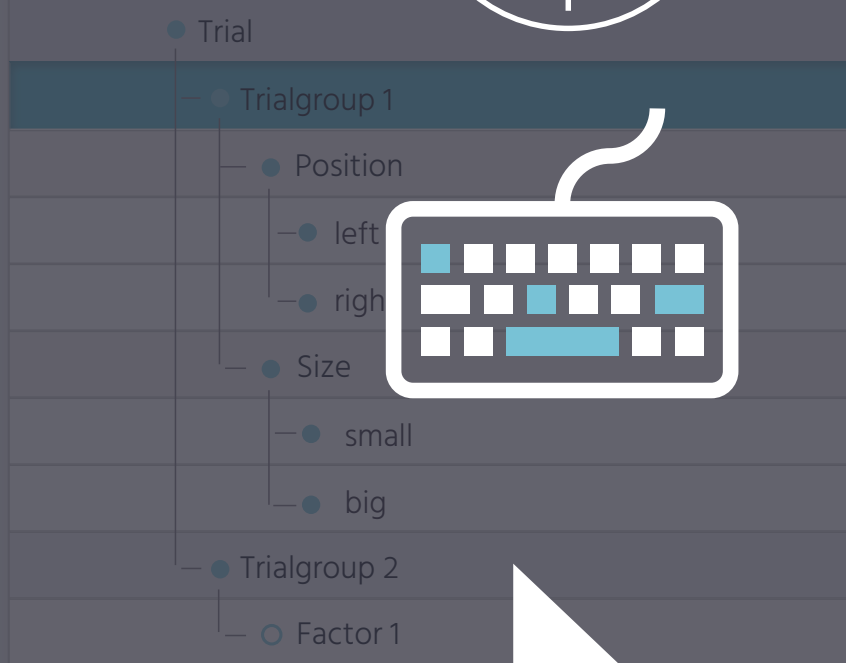
Fixed Size: off
Conditions: on
Style: 001

▼ TRIAL SETTINGS

Randomization: trial order
Condition Count: 4
Trial Count: 15



▼ FACTORTREE



▼ TRIAL CONDITIONS

condition	quantity	trail#	Position	Size
▶ A	6	1-6	left	small
-	0	0	left	big
▶ B	3	7-9	right	small
▶ C	3	10-12	right	big

condition	quantity	trail#	catchf...
▶ D	3	12-15	level 1

Trigger

FRAME TRIALGROUP 1

Record
Change Properties
Change Variables
Next Trial

Actions

FRAME OVERVIEW



FRAME SETTINGS

Background: #ffffff
Frame Size: 16:9
Frame Time: invinity

OBJECTS EVENTS VARIABLES

- FRAME 2
- Mouseclick Image01
- ScalingUpDown
- ▼ OnChangeEvents
 - BigImage
 - SmallImage

PROPERTIES

Tag: Mouseclick Image01

▼ TRIGGER

Type: Mouseclick

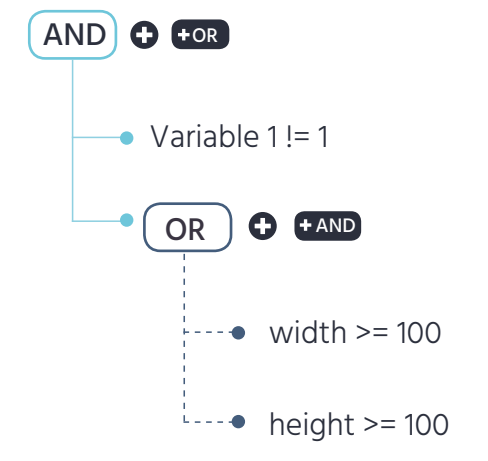
Targets: Image01

▼ ACTIONS

- Go to Frame
- Change Property

Element	Property
Video_1	Size
New Value	
105%	

▼ REQUIREMENTS



WEB-APP

Event System

▼ TASK SETTINGS

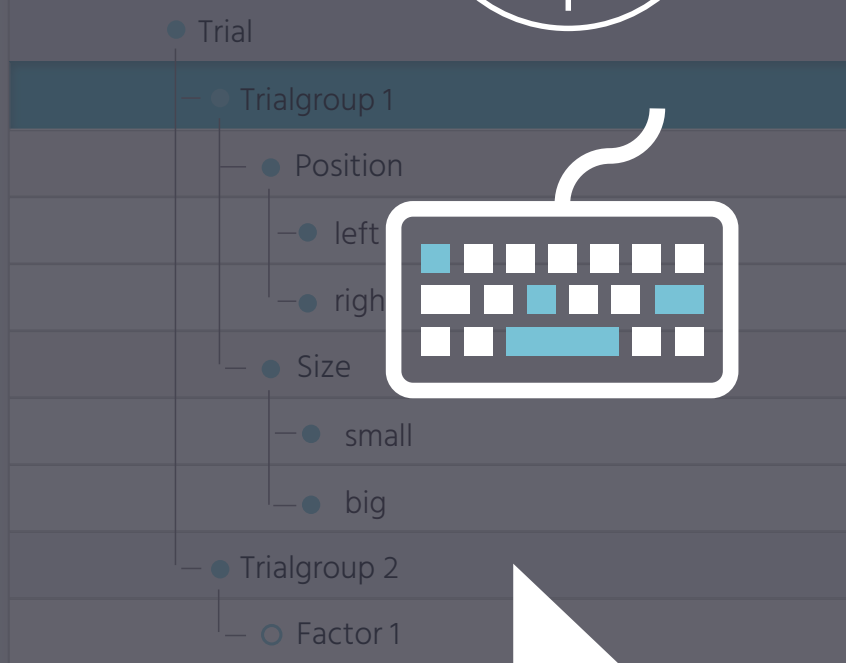
Fixed Size: off
Conditions: on
Style: 001

▼ TRIAL SETTINGS

Randomization: trial order
Condition Count: 4
Trial Count: 15



▼ FACTORTREE

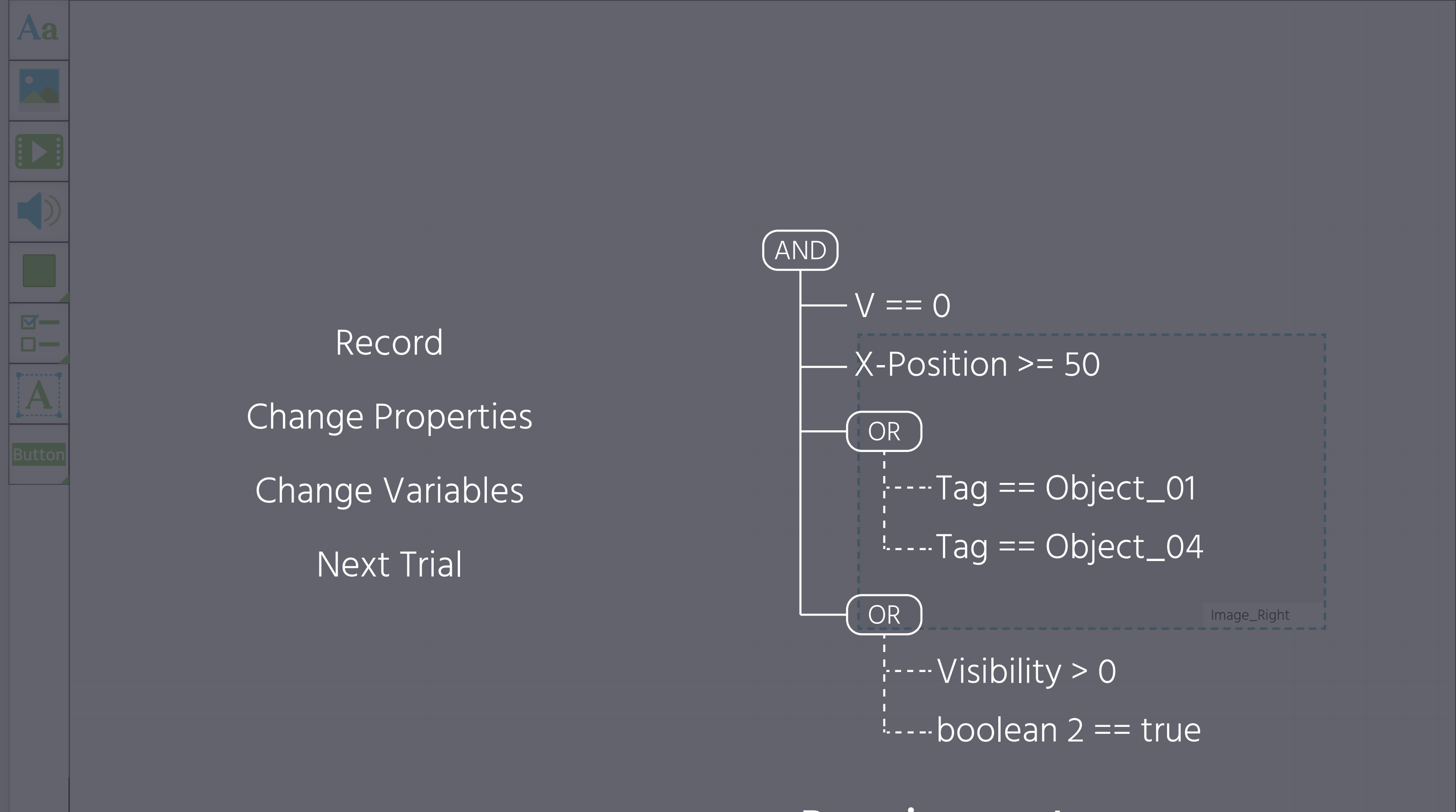


▼ TRIAL CONDITIONS

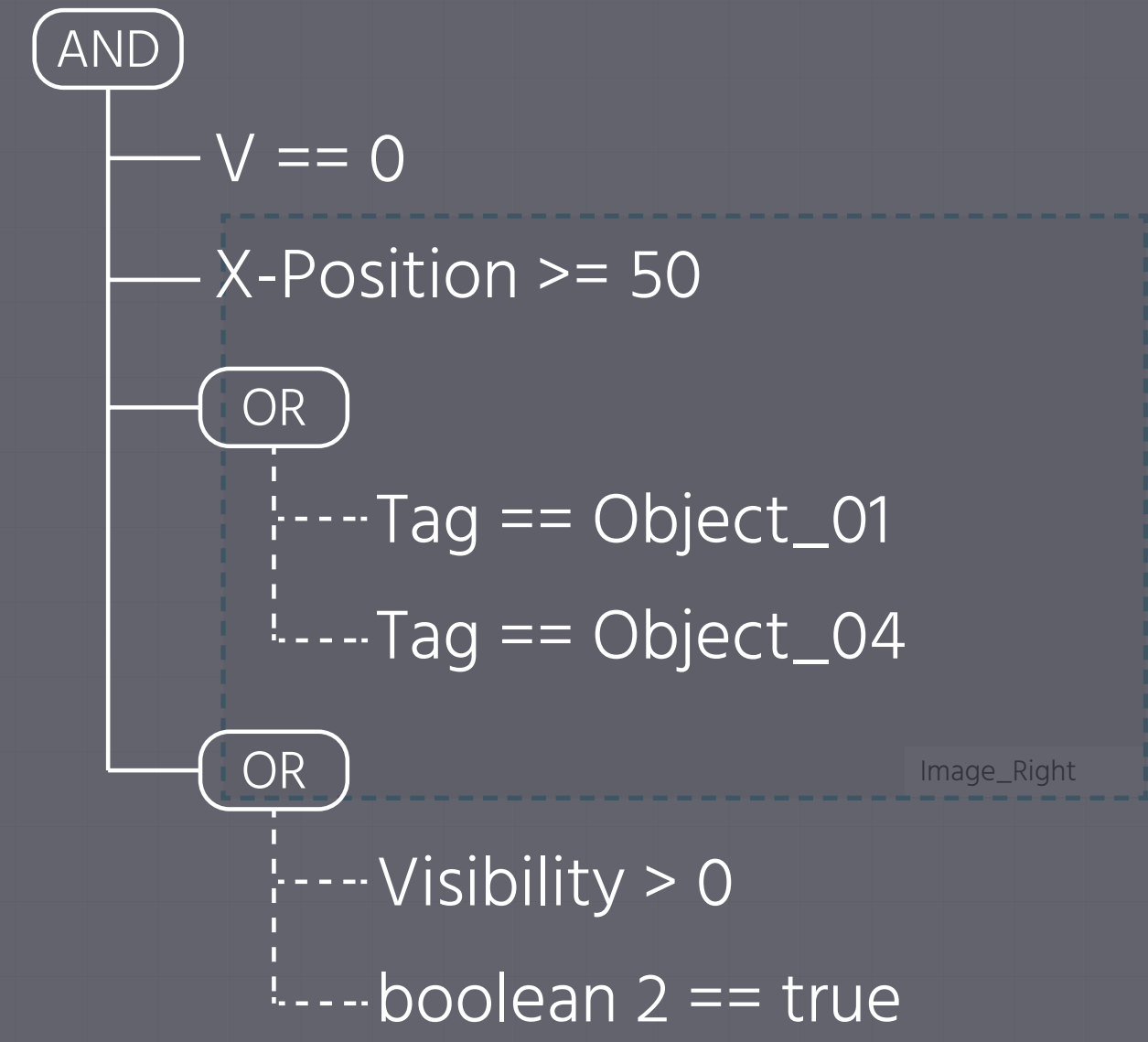
condition	quantity	trail#	catchf...
▶ A	6	1-6	left small
-	0	0	left big
▶ B	3	7-9	right small
▶ C	3	10-12	right big
▼ Trialgroup 2			
▶ D	3	12-15	level 1

Trigger

FRAME



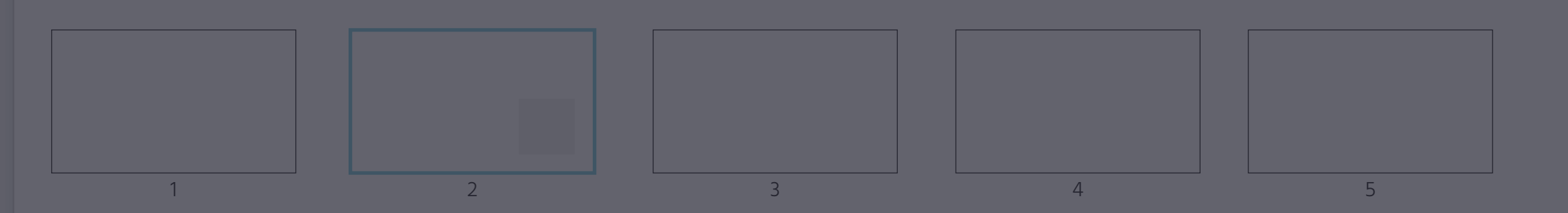
Record
Change Properties
Change Variables
Next Trial



Requirements

Actions

FRAME OVERVIEW



FRAME SETTINGS

Background: #ffffff
Frame Size: 16:9
Frame Time: invinity

OBJECTS EVENTS VARIABLES

- FRAME 2
- Mouseclick Image01
- ScalingUpDown
- ▼ OnChangeEvents
 - BigImage
 - SmallImage

PROPERTIES

Tag: Mouseclick Image01

▼ TRIGGER

Type: Mouseclick

Targets: Image01

▼ ACTIONS

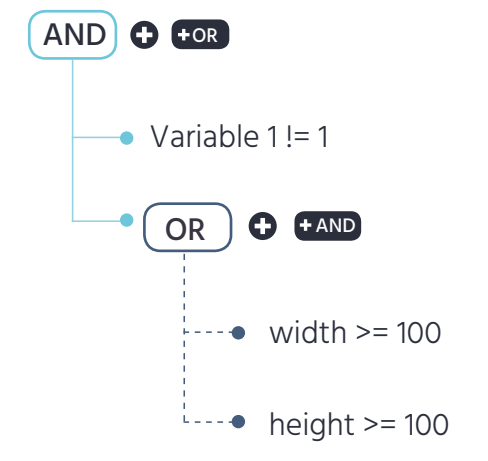
▶ Go to Frame

▼ Change Property

Element: Video_1 Property: Size

New Value: 105%

▼ REQUIREMENTS



WEB-APP Task Editor

The screenshot shows the LabVanced Task Editor web application. The interface is divided into several sections:

- MY STUDY:** Includes an 'EDIT TASK' dropdown set to 'First Task', 'TASK SETTINGS' (Zoom Modus: Fullscreen, Display Initial Countdown checked), and 'TRIAL SETTINGS' (Randomization: reshuffle, Trial Count: 5, Trials per subject: 5, Between subject Design: unchecked).
- FACTOR TREE:** A hierarchical tree structure showing 'All Trial Groups' containing 'trial_group_1', which has a 'factor_1' with 'level_1' and 'level_2', and a 'Level'.
- FRAME:** The main canvas area with a grid background. It contains a text box with 'Create your own Study!', the LabVanced logo, and a survey question 'Do you like working with LabVanced?' with a Likert scale from 'I don't like it.' to 'I love it!'.
- OBJECTS, EVENTS, VARIABLES:** A right-hand sidebar for managing UI elements. 'DisplayText_3' is selected, showing its properties: Tag, Visibility (1), Position (X: 40,6, Y: 152,17), Anchor, and Scale (Width: 269,94, Height: 121,74).
- FRAME SETTINGS:** A bottom-right panel with options for Duration (5000 ms), Color, and Width (800).

PROFESSIONAL EXPERIMENTS MADE EASY

Create your own study with a graphical interface instead of writing complex code!

DEMO

Web-App
FEATURES

FEATURES

Collaborate & Share



Share

Be transparent and show leadership in the area of your expertise by sharing your study design or recorded data.

FEATURES

Collaborate & Share



Share

Be transparent and show leadership in the area of your expertise by sharing your study design or recorded data.



Import

Use LabVanced templates and shared content from other researchers to speed up your own study creation process.

FEATURES

Collaborate & Share



Share

Be transparent and show leadership in the area of your expertise by sharing your study design or recorded data.



Import

Use LabVanced templates and shared content from other researchers to speed up your own study creation process.



Work in Teams

Create and manage a study collaboratively in teams.

FEATURES

Hosting & Participant Recruitment



Hosting

Study hosting in our labvanced library.

FEATURES

Hosting & Participant Recruitment



Hosting

Study hosting in our labvanced library.



Invitation

Integrated option to share the link via email, facebook, and twitter.

FEATURES

Hosting & Participant Recruitment



Hosting

Study hosting in our labvanced library.



Password Protection

Private hosting and password protection for restricted access.



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Integrated option to share the link via email, facebook, and twitter.

FEATURES

Hosting & Participant Recruitment



Hosting

Study hosting in our labvanced library.



Password Protection

Private hosting and password protection for restricted access.



Invitation

Integrated option to share the link via email, facebook, and twitter.



Data Export

Data inspection and export into CSV, EXCEL & SPSS.

FEATURES

Crowdsourcing

PARTICIPANT RECRUITMENT VIA CROWDSOURCING

How it works

We will post your study on crowdsourcing platforms, which have millions of active users.

For this you will have to pay each participant a small amount of money (starting from 10 cents).

Advantages



Cheap



Fast



More Data & Global Reach

FEATURES

Upcoming Features



Translation

Automated text translation both,
machine based and by human experts.

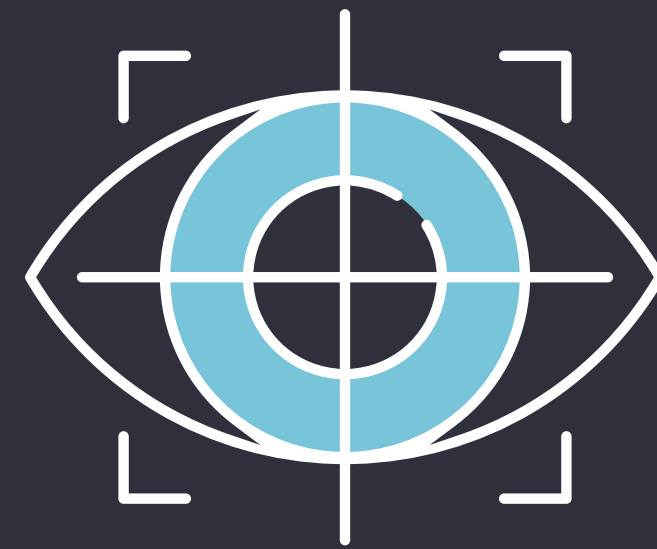
FEATURES

Upcoming Features



Translation

Automated text translation both, machine based and by human experts.



Eytracking

Webcam based eyetracking and emotion detection based on face recognition.

FEATURES

Upcoming Features



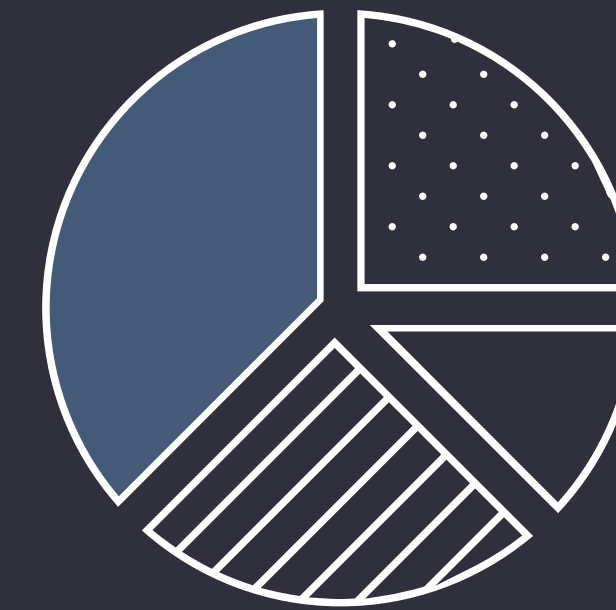
Translation

Automated text translation both, machine based and by human experts.



Eyetracking

Webcam based eyetracking and emotion detection based on face recognition.



Data Visualization

Online data visualization and statistical analysis with our graphical interface.

CONCLUSION

Advantages

The LabVanced framework makes research:

CONCLUSION

Advantages

The LabVanced framework makes research:

- Faster

CONCLUSION

Advantages

The LabVanced framework makes research:

- Faster
- Cheaper

CONCLUSION

Advantages

The LabVanced framework makes research:

- Faster
- Cheaper
- More valid and reproducible

CONCLUSION

Advantages

The LabVanced framework makes research:

- Faster
- Cheaper
- More valid and reproducible
- Transparent and interconnected

CONCLUSION

Advantages

The LabVanced framework makes research:

- Faster
- Cheaper
- More valid and reproducible
- Transparent and interconnected
- Bigger, global, and more professional.

CONCLUSION

Question

Who of you thinks that such a platform could be
useful for **your research?**

CONCLUSION

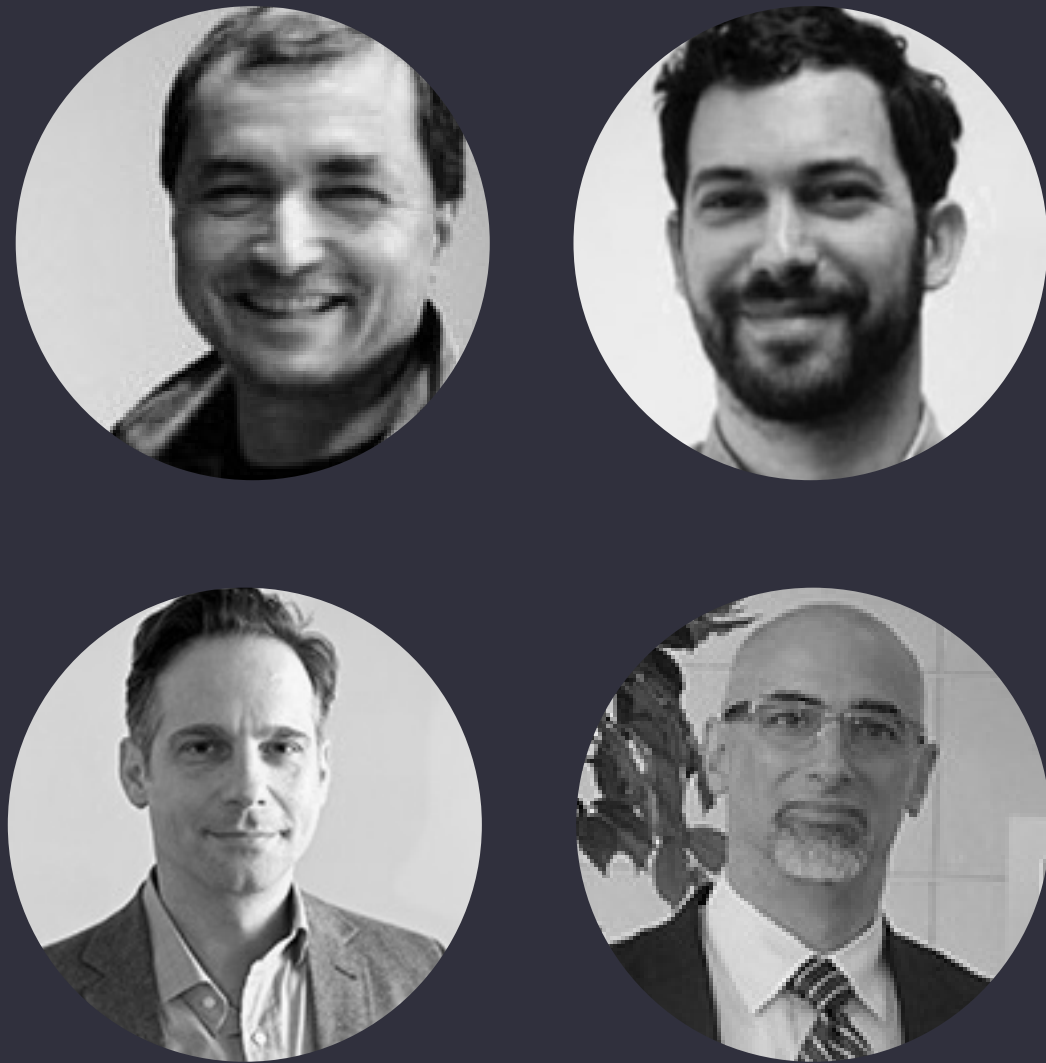
More Information

Visit our Website and register for free!

www.labvanced.com

Come and talk to me if you are interested!

THANK YOU!



Advisory Board



Our Team

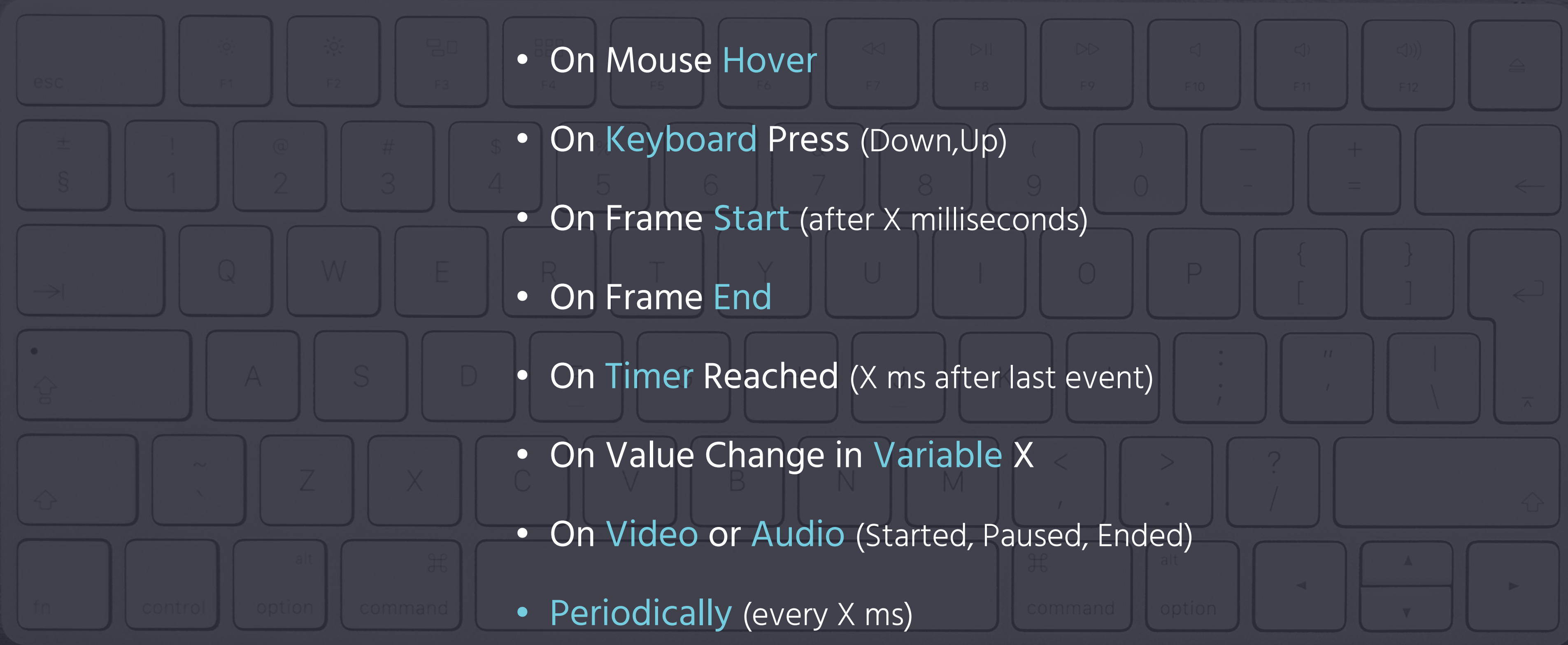


Support

MORE INFORMATION

List of Triggers

- On Mouse **Click** (Left, Right)
- On Mouse **Hover**
- On **Keyboard** Press (Down,Up)
- On Frame **Start** (after X milliseconds)
- On Frame **End**
- On **Timer** Reached (X ms after last event)
- On Value Change in **Variable X**
- On **Video** or **Audio** (Started, Paused, Ended)
- **Periodically** (every X ms)



MORE INFORMATION

List of Actions

- **Record Data** (Time From Frame Onset, Object Property, Mouse Position, etc.)
- **Jump To** (Next Frame, Previous Frame, Next Trial, Next Task, Specific Frame)
- **Set Element Property** (Width, Height, X, Y, Visibility etc.)
- **Set Variable Value** (VariableX = VariableY+VariableZ+5)
- **Get Random Number** (Distribution, Params, e.g. 'Gaussian', mu=5, sigma=0.8)
- **Control Video or Audio** (Start, Pause, End)
- **Control Timer** (Start, Stop)

MORE INFORMATION

Payment Model

Will our service be completely for free?

We would love to do that but it would be a bad idea, since

- 3 people working full time working on this project.
- There are server and administration costs.
- Without people (support, active development, security etc.) each software project dies soon.

So we need to generate some income to keep the project running.

We are NOT focusing on commercialization of our platform.

The goal is that the project will be self sustainable.

MORE INFORMATION

Payment Model

- Service model (quarterly or yearly charge)
- Lab licenses, with administrative options
- Price structure is still in development
- Free version with some limitations
- Student discounts

MORE INFORMATION

Exist

»EXIST is a support programme of the German Federal Ministry for Economic Affairs and Energy (BMWi). This programme aims at improving the **entrepreneurial environment at universities and research institutes**. It also aims at increasing the number and **success of technology and knowledge based business start-ups.**«

MORE INFORMATION

Planned Schedule



MORE INFORMATION

Unique Benefits

- Studies can be implemented about 10 times **faster** compared to programming it yourself.
- Direct integration of **crowdsourcing** platforms, no own account needed.
- **Share** and import study designs, collaborative data collection, creating studies in a team
- Various options for study **hosting**
- Upcoming integration of **external devices** (Eyetracking, Facetracking & Emotion Detection, Microphone Recordings, VR integration, Smartphone App)

MORE INFORMATION

Interconnecting data

Interconnecting data between experiments

- Linking participants across different experiment offers huge possibilities.
- Imagine:
 - 1000 experiments
 - Millions of recordings
 - Reference to subjects
- Meta research: analyzing 10 or more experiments including the same subjects.
- This might reveal very interesting correlations across experiments, and thereby can provide a more complete understanding of human behavior.

MORE INFORMATION

Alternatives & Competitors

Millisecond.com

- Old, elaborated software
- programming in their script language
- plug-in required
- not visible as a testing platform
- very expensive (\$3000-\$5000)

Taotesting.com

- Innovative relatively new competitor
- No crowdsourcing integration
- No study hosting
- Made mostly for questionnaires

Psytoolkit.org

- Free & open source
- Many example studies
- Complete new scripting language
- No real support
- Examples seem semi-professional

Surveymonkey, Limesurvey, Qualtrics

- Great survey options
- Limited free versions
- Limited to questionnaires
- Not very intuitive interfaces