

# Online Experiments Online Tools

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# JavaScript

JavaScript is a programming language which is extremely popular for building web applications.

There are numerous libraries, packages, and web resources for a variety of uses, many are open source and free to use and fork.

In this section I will introduce some of tools that are relevant for people building experiments.

I will present no-programming user interface tools to build experiments and surveys.

# Tools for data collection

Surveys:

SurveyJS <https://surveyjs.io/>

Card-deck experiments:

JSPsych <https://www.jspsych.org/>

Gorilla.sc <https://gorilla.sc/>

Lab.js <https://lab.js.org/>

Game engine:

Phaser <https://phaser.io/>

Multiplayer experiments (Node.js):

<http://nodegame.org/>

<https://lioness-lab.org/>

# No-programming tools

A number of websites allow one to build and deploy online experiments without any background in programming.

They have a user interface where one can build surveys/experiments, some are very sophisticated.

You can use these tools and then download the code they create to deploy on your own.

However,

It is not always easy to learn these tools either (but you can start with an example and adapt it).

You may need to add your own scripts if you want to add some functionality.

# SurveyJS

- <https://surveyjs.io/create-survey>
- A versatile tool to build surveys, deploy them, and analyse the results.
- You can build a short, one page questionnaire, or a long multipage survey.
- You can download the code and run it on your own website, or use their facilities.

# Survey JS

I usually use this tool to build short questionnaires, and embed these in my experiment.

For example – demographics page.

<https://surveyjs.io/published?id=da352f34-562f-4d9f-b7d4-c1b6792e7b6c>

<https://surveyjs.io/Service/EditSurvey/da352f34-562f-4d9f-b7d4-c1b6792e7b6c>

## Demographic Information

Please fill some demographic details.

1. What is your age? \*

2. What is your gender? \*

☐ Female

☐ Male

☐ Other

3. What country do you currently live in? \*

4. If you live in the USA, which state do you live in? \*

5. What is the highest level of education you completed? \*

☐ Basic

☐ High school degree or equivalent (e.g., GED)

☐ College

☐ Graduate degree

# Graphic user interface

Survey Designer

Test Survey

Survey Logic

JSON Editor

Embed Survey

Translation

TOOLBOX

T

Single Input

☒

Checkbox

☰

Radiogroup

☰

Dropdown

💬

Comment

183

Rating

🖼️

Image picker

📄

Boolean

🖼️

Image

< >

Html

🖋️

Signature pad

📄

Expression (read...

📄

File

☰

Matrix (single ch...

☰

Matrix (multiple ...

☰

Matrix (dynamic ...

☰

Multiple Text

Undo

Redo

Survey Settings

Options

Run Survey

page1

page1

Add New Page

Demographic Information

Please fill some demographic details.

Input page title here

Enter a page description

1. What is your age? \*

2. What is your gender? \*

☐ Female

☐ Male

☐ Other

PROPERTIES

Survey

General

Title

Demographic Information

Description

Please fill some demographic details.

☒ Show/hide title

Default language

Default (english)

Mode (edit/read only)

edit

Cookie name (to disable run survey two times locally)

# And export to your own site

Export the json and embed in your website/experiment.

Survey Designer   Test Survey   Survey Logic   **JSON Editor**   Embed Survey   Translation

```
1 {
2   title: "Demographic Information",
3   description: "Please fill some demographic details.",
4   pages: [
5     {
6       name: "page1",
7       elements: [
8         {
9           type: "text",
10          name: "question1",
11          title: "What is your age? ",
12          isRequired: true,
13          validators: [
14            {
15              type: "numeric",
16              minValue: 18,
17              maxValue: 99
18            }
19          ]
20        },
21        {
22          type: "checkbox",
23          name: "question2",
24          title: "What is your gender?",
25          isRequired: true,
26          choices: [
27            {
28              value: "item1",
29              text: "Female "
30            },
31            {
32              value: "item2",
33              text: "Male"
34            },
35            {
36              value: "item3",
37              text: "Other "
38            }
39          ]
40        },
41      ]
42    }
43  ],
44 }
```



# Lab.js/ Gorilla.sc

These are tools designed for building psychology (card-deck) experiments.

Lab.js is leaner – less options and less complications.

Gorilla.sc is more comprehensive and allows the user to build complicated experiments.

They both have tutorials and examples, and allow you to build tasks without any scripting.

<https://gorilla.sc/admin/task/75590/editor?>

<https://labjs.felixhenninger.com/>

# Lab.js/ Gorilla.sc

There is a learning curve – you need to get to know the logic of the platform, and follow some tutorials and examples.

Both allow export to combine with other platforms, and deployment of the experiment in different hosts.

Both could save a lot of time if you don't want to learn JS, and have a classic experimental design which can be easily adapted from their examples.