REDCap projects are based on webpages called data collection instruments or data entry forms. These instruments are where your project data can be added, modified, or deleted. “Data” refers to individual items of information, such as a survey participant’s last name, laboratory values from a patient’s clinic visit, or the date a contract was signed. Any piece of information that you want to collect is data.

Each item of data occupies its own line on a data collection instrument. Every line includes a question or description about your data and a corresponding field to enter the data value. The content of your forms is unique to your study. Building a REDCap project is all about customizing the contents of the data collection instruments. You will define how many instruments there are and what they are named, what data is captured where, and how your data is stored and displayed.

Modifications to your data entry forms can be made either online or through a data dictionary file. Both options are accessible from the Project Setup tab. More information can be found in the detailed instructions and video tutorials for these features.

The Online Designer allows you to build and manage your forms dynamically while in the project. The instruments displayed here directly define the structure of the webpages used for data entry. The Online Designer makes it easy to explore REDCap’s many field types. All changes are automatically saved here, and changes are immediately reflected on the forms.

The data dictionary is an alternative way to modify a project. The dictionary is a csv file, accessible through common applications like Notepad and Microsoft Excel. Dictionaries are modified and then uploaded into REDCap to execute the changes. The data dictionary is focused on being both precise and concise. It captures
your project structure in a spreadsheet format, where it displays all the same information as the more user-
friendly Online Designer. The order of fields in the dictionary corresponds exactly to the order of fields on your
instruments.

(2:50)

The language and formatting used here is also very specific. The data dictionary can be used to make all the
same types of changes as the Online Designer. Uploading a new data dictionary takes only a few moments, after
which the changes take immediate effect in the project.

(3:12)

The two methods of modifying data collection instruments can be used interchangeably. You can use just one or
use both. There is no restriction on which method of project modification you use at any point in your study. So
you may want to create most of your project online and then use the dictionary to add advanced functionality.
Both features will help you iteratively refine your project while in development mode, and both can still be used
to modify your project in production mode.

(3:46)

In development mode, all changes are made real-time. Once you are in production mode, changes are typically
submitted to a REDCap administrator to approve and execute. This is an extra layer of protection to ensure that
structural changes to the forms don’t accidentally result in data loss. Remember, creating and refining
instruments is a primary goal while in development mode. Although forms can still be modified in production
mode, it is critical to fully define and test your data collection strategy before beginning real data collection.