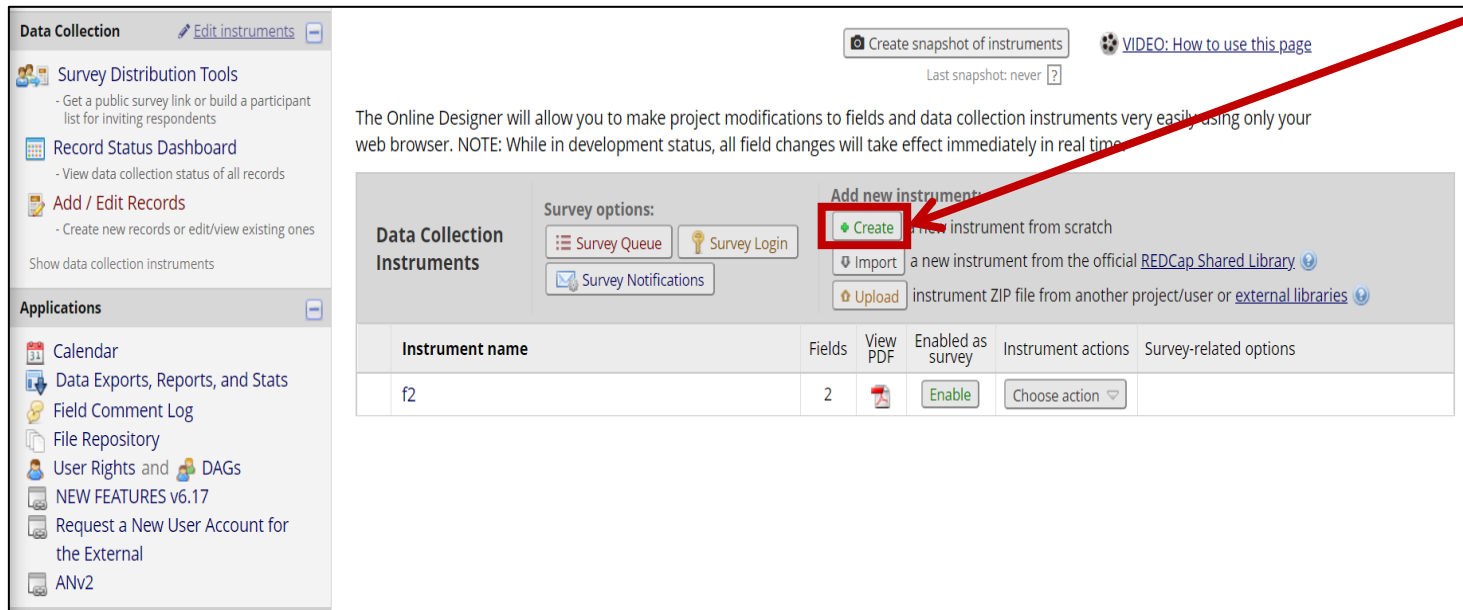


# Setting Up The CREDI Long Form in REDCap

# Create an Instrument


- Go To Project Setup > Online Designer. You should see the page below.
- Click “Create” and name your instrument “CREDI Long Form”.
  - You can change the position of the instrument by dragging and dropping it to your desired location.



The screenshot shows the REDCap Online Designer interface. On the left is a sidebar with navigation options like 'Survey Distribution Tools', 'Record Status Dashboard', and 'Add / Edit Records'. The main area contains a 'Data Collection Instruments' table and an 'Add new instrument' section. The 'Add new instrument' section has three buttons: 'Create', 'Import', and 'Upload'. The 'Create' button is highlighted with a red box, and a red arrow points from a callout box on the right to it. Below the buttons is a table with one instrument named 'f2'.

Instrument name	Fields	View PDF	Enabled as survey	Instrument actions	Survey-related options
f2	2		Enable	Choose action	

**Add new instrument:**

 a new instrument from scratch

# Add Field


- Select “Add New Field” > “Multiple Choice, Radio Buttons (Single Answer)”.
- If there is no image accompanying the question, enter the question text into “Field Label”.
- In the answer choices, code the following on different lines:
  - 0, Yes
  - 1, No
  - 9, Don’t Know
- It’s essential that you code these the same way as above. This is important for creating START and STOP rules later.

# Adding Images

- Some questions in CREDI Long Form are accompanied by images.
  - Simple Radio Button fields do not allow for you to add images.
- Create a Descriptive Field.
  - Enter the question text into the “Field Label”.
  - Attach the image in the “Upload Document” section.
  - Select the “Inline Image” option.
- Create a corresponding radio button question below. See next slide for example.

Variable: lf1image Branching logic: [childagemo] < 6

When lying on his/her back, does the child move his/her arms and legs?



Add Field Add Matrix of Fields

Variable: lf1 Branching logic: [childagemo] < 6

\* must provide value

Yes  
 No  
 Don't Know

reset

- Make sure to name the variables appropriately. E.g. LF1 on the CREDI Long Form is named lf1image and lf1 in the REDCap.

# Reverse Coding

- Note that two of the CREDI Long Form Items are reverse coded.
  - LF 9 and LF102 in the CREDI LF 2018.
- To reverse code, for the answer choices you will code the following:
  - 1, Yes
  - 0, No
  - 9, Don't Know
- You may also leave the answer choices the same as the other questions and reverse code in Excel when you pull the results from REDCap.

# Creating Start and Stop Rules

- First, make sure that each CREDI question appears on a different page in the survey.
  - To do this, create a new “Section” between every question.
  - Below the question you just created, go to “Add Field” > “Begin new Section”. A thin yellow box will then appear underneath the question.  
\*NOTE: An error message will pop up if you try to have this as the last section on the survey. Create a few questions before doing this.

## Add New Field



You may add a new project field to this data collection instrument by completing the fields below and clicking the Save button at the bottom. When you add a new field, it will be added to the form on this page. For an overview of the different field types available, you may view the [Field Types video \(4 min\)](#).





Field Type:

---- Select a Type of Field ----


- Text Box (Short Text, Number, Date/Time, ...)
- Notes Box (Paragraph Text)
- Calculated Field
- Multiple Choice - Drop-down List (Single Answer)
- Multiple Choice - Radio Buttons (Single Answer)
- Checkboxes (Multiple Answers)
- Yes - No
- True - False
- Signature (draw signature with mouse or finger)
- File Upload (for users to upload files)
- Slider / Visual Analog Scale
- Descriptive Text (with optional Image/Video/Audio/File Attachment)
- Begin New Section (with optional text)

View equation

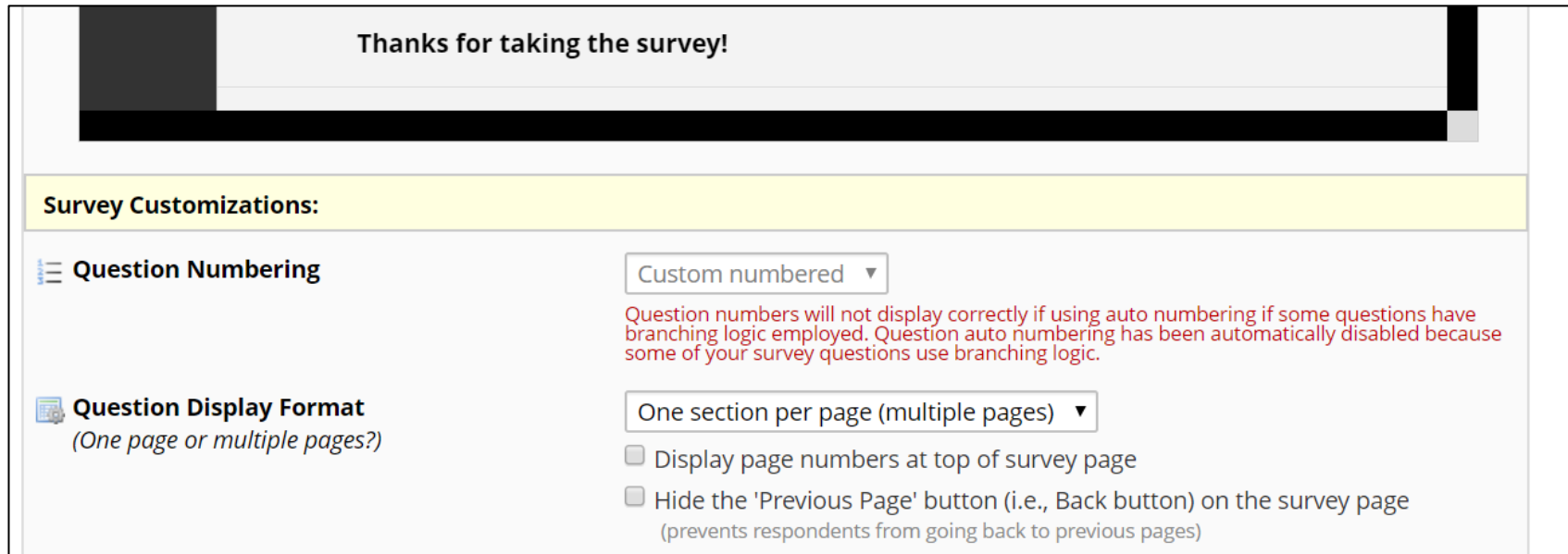
 

    Variable: lf2image Branching logic: [childagemo] < 6

**Does the child bring his/her hand to his/her mouth?**



- The next step is to enable your measure as a survey and edit the survey settings.
- To do this, return to your list of instruments in the Online Designer.
- Click the “Enable” button.
  - This will take you to a Survey Settings page.
  - Under “Survey Customizations” > “Question Display Format”, select “One Section per Page (Multiple Pages)”.
- Save Changes at the bottom of the page.



Thanks for taking the survey!

**Survey Customizations:**

**Question Numbering**

Question numbers will not display correctly if using auto numbering if some questions have branching logic employed. Question auto numbering has been automatically disabled because some of your survey questions use branching logic.

**Question Display Format**  
*(One page or multiple pages?)*

Display page numbers at top of survey page

Hide the 'Previous Page' button (i.e., Back button) on the survey page  
(prevents respondents from going back to previous pages)

# Adding Calculated Fields

- To enable START and STOP rules, we will need to create calculated fields using REDCap.
- Add a new field under the radio button response question and choose “Calculated Field” from the drop-down.
  - Name the calculated field according to the question before it, e.g. lf1\_calc.
- Assuming you’re using the lf1, lf2 naming conventions, your first calculated field calculated equation should be:  $\text{if}([\text{lf1}] = 1, 1, 0)$ .
  - If you’ve named your fields something else, place the name of that variable into the square brackets and keep everything else the same.
- In the “Action Tags” field, select “@HIDDEN-SURVEY”. This will prevent the calculated field from being shown to participants.



Add Field

Add Matrix of Fields



Variable: If1 Branching logic: [childagemo] < 6

\* must provide value

- Yes  
 No  
 Don't Know

Add Field

Add Matrix of Fields



Variable: If1\_calc

View equation

### Edit Field

Displayed only on the survey page

#### Field Label

#### Calculation Equation [How do I format the equation?](#)

if ([If1] = 1, 1, 0)

[Clear calculation](#)

Test calculation with a record: -- select record --

#### Action Tags / Field Annotation (optional)

@HIDDEN-SURVEY

Learn about [@ Action Tags](#) or [using Field Annotation](#)

variable name (utilized in logic, calcs, and exports)

If1\_calc

Enable auto naming of variable based upon its Field Label?

ONLY letters, numbers, and

How to use [Smart Variables](#) [Piping](#)

Required?\*  No  Yes

\* Prompt if field is blank

Identifier?  No  Yes

Does the field contain identifying information (e.g., name, SSN, address)?

Custom Alignment Right / Vertical (RV)

Align the position of the field on the page

Field Note (optional)

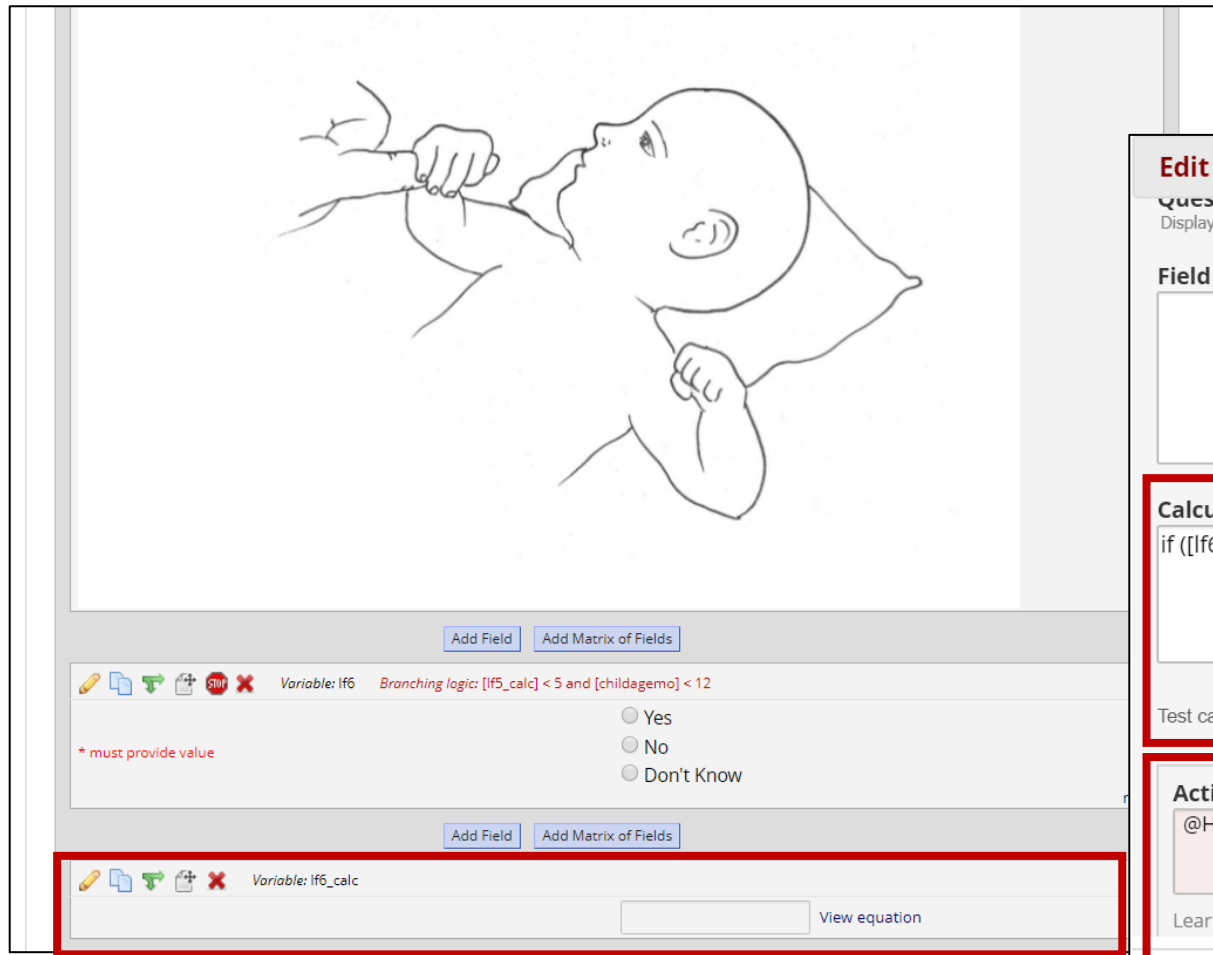
Small reminder text displayed underneath field

Save

Cancel

# Calculated Fields cont.

- For all of the following questions, we will create calculated fields using the following equation:
  - $\text{if}([\text{lf2}] = 0, 0, \text{if}([\text{lf2}] = 1, [\text{lf1\_calc}] + 1, [\text{lf1\_calc}]))$
  - Every time you create a new calculated field, you will need to edit the values in the square brackets. The equation above is for the lf2\_calc field that comes after CREDI question lf2. Below is an example of how we would edit this for the field lf\_5 calc, which follows CREDI question lf5.
  - $\text{if}([\text{lf5}] = 0, 0, \text{if}([\text{lf5}] = 1, [\text{lf4\_calc}] + 1, [\text{lf4\_calc}]))$
  - The first two sets of square brackets must contain the variable name of the question the calculated field is being created for. In this case, lf5.
  - The second set of square brackets will contain the “calc” variable name of the previous question.
- See the next page for a screenshotted example of what this would look like for lf6\_calc.



### Edit Field

Question number (optional)   
Displayed only on the survey page

Field Label

**Variable Name** (utilized in logic, calcs, and exports)  
lf6\_calc   Enable auto naming of variable based upon its Field Label?  
ONLY letters, numbers, and underscores

How to use [Smart Variables](#) [Piping](#)

**Required?\***  No  Yes  
\* Prompt if field is blank

**Identifier?**  No  Yes  
Does the field contain identifying information (e.g., name, SSN, address)?

**Custom Alignment** Right / Vertical (RV)

**Field Note** (optional)   
Small reminder text displayed underneath field

**Calculation Equation** [How do I format the equation?](#)  
if ([lf6] = 0, 0, if ([lf6] = 1, [lf5\_calc] + 1, [lf5\_calc]))  
[Clear calculation](#)

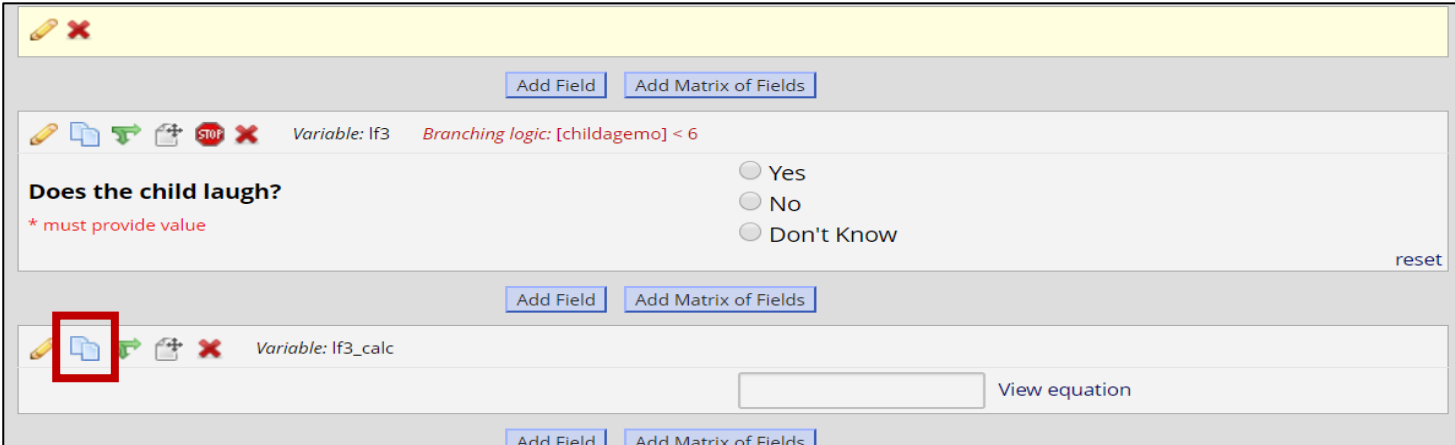
Test calculation with a record: -- select record --

**Action Tags / Field Annotation** (optional)  
@HIDDEN-SURVEY  
[Learn about @ Action Tags](#) or [using Field Annotation](#)

- Make sure to add the “@HIDDEN-SURVEY” tag to *every calculated field*, otherwise they will be visible to participants.

# Copying Calculated Fields

- The easiest way to create the rest of the calculated fields is to “Copy Field” and then edit the equations.
  - This way, the “@HIDDEN-SURVEY” tag will already exist, and the format of the calculation will already be in place.
  - You will also need to change the *name* of the variable to match the CREDI questions that came before it. E.g. lf18\_calc.

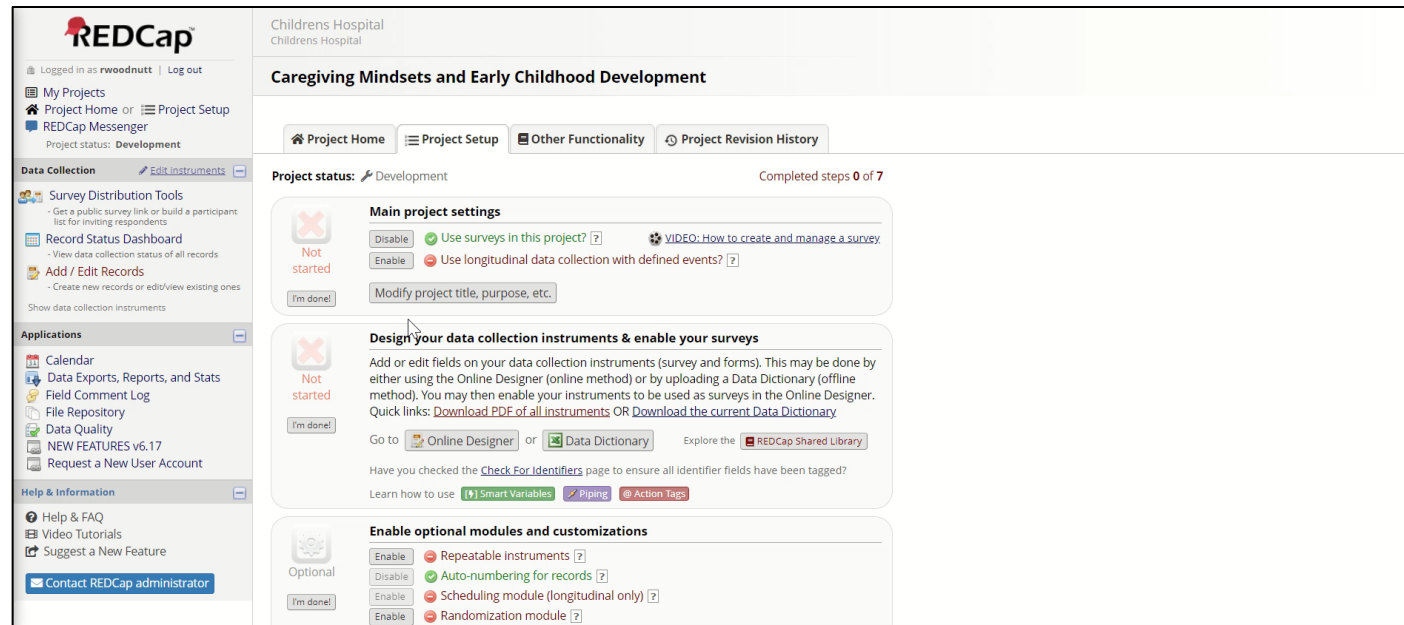


The screenshot shows a survey editor interface with two question cards. The top card is titled "Does the child laugh?" and has three radio button options: "Yes", "No", and "Don't Know". Below the question, it says "\* must provide value". The bottom card is for a calculated field, titled "Variable: lf3\_calc". A red box highlights the "Copy Field" icon (two overlapping blue squares) in the top-left corner of the calculated field card. The interface includes various icons for editing, adding fields, and branching logic, as well as buttons for "Add Field" and "Add Matrix of Fields".

# Test Field Equations

- To test the field equations while the survey is still in development, go to “Add/Edit Records” > “Add New Record”.
- If you created a separate instrument to collect the child’s age, you should enter this information first so the CREDI START rules will take effect. For this presentation, the child is 13 months old.
- Now select your CREDI Long Form Instrument for data entry.
- You will notice that the form will start with lf11, and when we select five “No”s in a row, the rest of the questions disappear.
- The “equation” next to the lf\_calc fields will increase by 1 each time you select “No” (and “Yes” for the reverse-coded fields). Ensure this works for each question.

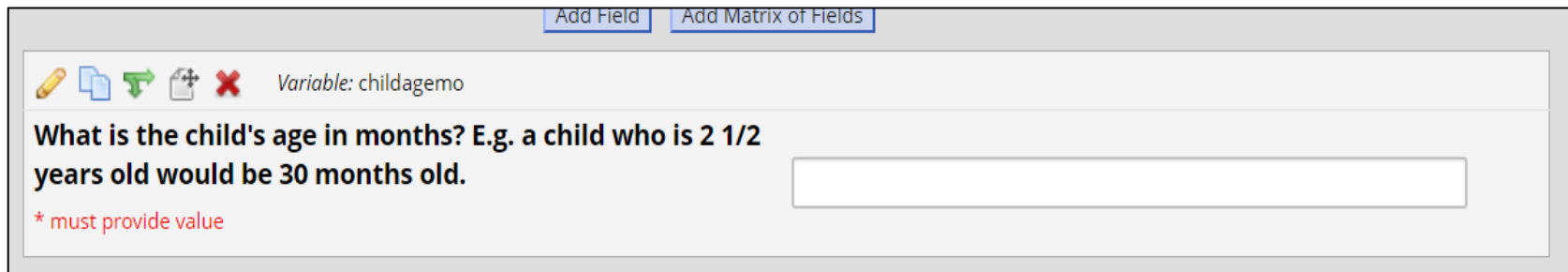
# Screen Recording of Testing Field Equations



- Note that, if the participant selects four “No’s” and then a “Yes”, the counter in the calculated field should reset to 0. If it does not, please check your calculation equations.

# Adding Branching Logic

- This is the last step before testing our CREDI Long Form.
- Branching logic is essential to START rules.
- To start, you will want to ensure that you ask participants for the child's age, either at the start of the CREDI or in a different instrument altogether.
- Name the variable something like “childagemo”. That is the variable name used in this presentation.



The screenshot shows a form editor interface. At the top, there are two buttons: "Add Field" and "Add Matrix of Fields". Below these buttons is a toolbar with icons for editing (pencil), copying (two overlapping pages), undo (curved arrow), redo (curved arrow), and deleting (red X). To the right of the toolbar, the text "Variable: childagemo" is displayed. The main area of the form contains the question: "What is the child's age in months? E.g. a child who is 2 1/2 years old would be 30 months old." Below the question is a text input field. At the bottom left of the form, there is a red asterisk followed by the text "\* must provide value".

# Branching Logic Cont.

- Select the two green arrows on the top left of each question.
- For the first **five** questions, the branching logic will simply say this:
  - $[childagemo] < 6$ . This is the upper limit of the age range for the first set of questions in the CREDI, plus one on the upper limit (i.e. 0-5 months, plus one).
- You should apply the branching logic to both the images and the questions, when relevant. You do not need to add it to calculated fields.

Variable: If1image Branching logic:  $[childagemo] < 6$

When lying on his/her back, does the child move his/her arms and legs?

Add Field Add Matrix of Fields

Variable: If1 Branching logic:  $[childagemo] < 6$

\* must provide value

Yes  
 No  
 Don't Know

### Add/Edit Branching Logic

Branching Logic may be employed when fields/questions need to be hidden under certain conditions. If branching logic is defined, the field will only be visible if the conditions provided are true (i.e. show the field only if...). You may specify those conditions in the text box below for the Advanced Branching Logic Syntax or by choosing the Drag-N-Drop Logic Builder method, which allows you to build your logic in a much easier fashion by simply dragging over the options you want. You may switch back and forth between each method if you wish, but please be aware that since the advanced logic allows for greater complexity, it may not be able to be switched over to the Drag-N-Drop method if it becomes too complex.

Choose method below for the following field: **lf1image** - *When lying on his/her back, does the chi...*

**Advanced Branching Logic Syntax** How to use [Branching Logic](#) [Smart Variables](#)

Show the field ONLY if..

$[childagemo] < 6$

Valid

Test logic with a record: -- select record --

[Clear logic](#)

# Branching Logic Cont.

- For all of the following branching logic, the logic will look like this:
  - $[lf5\_calc] < 5$  and  $[childagemo] < 12$
- The equation above is for lf6. Each time you add branching logic to a question you will need to change the lf\_calc in the square brackets and the upper age limit denoted by “childagemo”.
  - For example, if we were creating branching logic for lf11, it would be:  $[lf10\_calc] < 5$  and  $[childagemo] < 18$ .
  - This is telling REDCap that if there are 5 “No” responses before this question, to not display the question and close the survey (STOP rule).
  - It is also telling REDCap that, if the child is less than 18 months old (but above 12 months old, as denoted by the lf\_5 calc branching logic) , then the survey should begin with question 11 (the age range for starting at question 11 is 12-17 months, so this is the upper limit, plus one). You should always observe the age range listed on the CREDI Long Form when creating branching logic.

# Screen Recording of CREDI Branching Logic

Applications

- Calendar
- Data Exports, Reports, and Stats
- Field Comment Log
- File Repository
- Data Quality
- NEW FEATURES v6.17
- Request a New User Account

Help & Information

- Help & FAQ
- Video Tutorials
- Suggest a New Feature

Contact REDCap administrator

Current instrument: **CREDI Long Form** Preview instrument

Add Field Add Matrix of Fields

Variable: If1Image Branching logic: [childagemo] < 6

When lying on his/her back, does the child move his/her arms and legs?



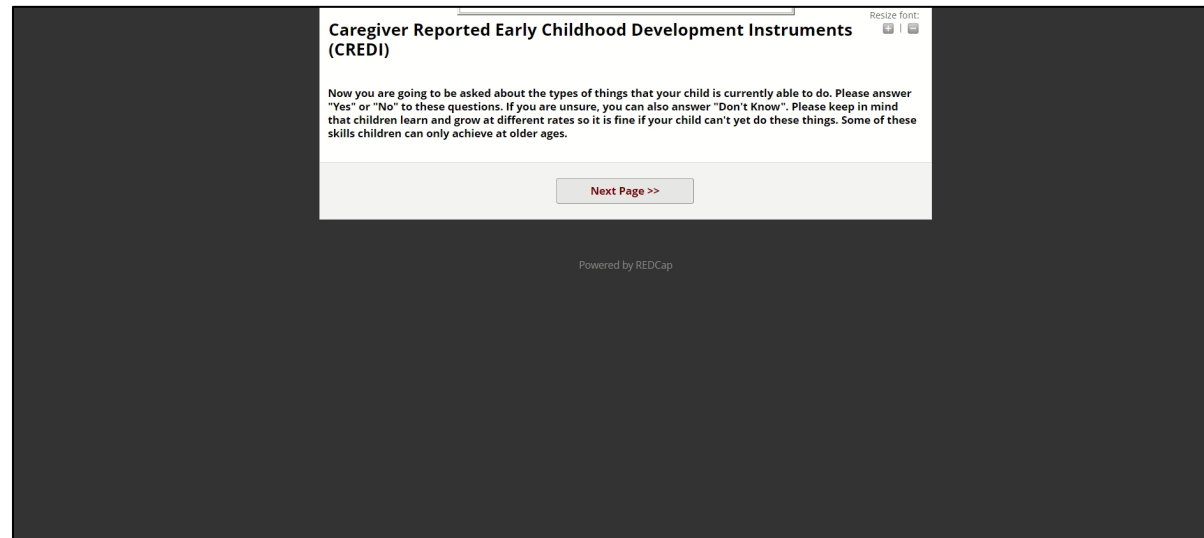
Add Field Add Matrix of Fields

Variable: If1 Branching logic: [childagemo] < 6

The screenshot shows the REDCap interface for editing a form. On the left is a sidebar with 'Applications' and 'Help & Information' sections. The main area displays the 'CREDI Long Form' instrument. A question is being edited: 'When lying on his/her back, does the child move his/her arms and legs?'. Below the question is a line drawing of a baby lying on their back, with curved arrows pointing to the arms and legs to indicate movement. The interface includes buttons for 'Add Field' and 'Add Matrix of Fields' at the top and bottom of the question area. A status bar at the bottom shows 'Variable: If1' and 'Branching logic: [childagemo] < 6'. A 'Preview instrument' button is located in the top right corner.

# Test the START and STOP Rules Thoroughly

- To do this, go to “Survey Distribution Tools” on the left side of REDCap and then click “Open Survey”. This will show you what the survey will look like to a participant.
- Below is a screen recording of the START and STOP rules working for a child who is 13 months old (i.e. the CREDI starts at lf11).



# Important Notes

- Do not include attention checks in the CREDI. This will interfere with our calculated fields as well as the START and STOP rules.
- Test the CREDI multiple times using every age range up to 36 months old.
- Bear in mind that reverse coded items will also contribute to STOP rules, in that if the participant checks “No” four times before If9 or If102 and then checks “Yes” on one of these items, REDCap will count it as a “No” response and the survey will stop.
- For any other questions, contact your REDCap Resource Team.