

## Session 6: Question Text and Occurrence Labels

At the end of this lesson participants will be able to:

- Add question text
- Add fills in question text
- Use occurrence labels and logic variables as fills in question text
- Set occurrence labels from logic

### Question Text

We can add text to each question in our survey by clicking on *CAPI Questions* in the toolbar. This allows to enter literal question text from the questionnaire that the interviewer as well additional interviewer instructions.

Let's start with the first few questions in section B.

For B3 enter "What is (name's) relationship to the head of the household?" For B4 enter "Is (name) a male or a female?". Run the application on Windows and then on Android to see how the question text is displayed.

In addition to the text we can add instructions to the interviewer. For example for question for B5 we can have:

How old is (name) in completed years?

Followed by the instruction:

*Enter age in completed years ("0" for children less than one year old)*

To make it clear to the interviewer that this is an instruction we use italics to distinguish it from the question. We can also use different colors and fonts as long as we use a consistent scheme throughout the questionnaire.

If you have your question text in Word or Excel you can copy and paste into CSPro and it will preserve the formatting.

### Fills in Question Text

It is possible to have the question include the values of dictionary variables. For example for B4 instead of asking "Is (name) a male or a female?" we can include the respondents name by using %B2% inside the question text. At runtime this will be replaced by the contents of the variable B2. Change the text for B3, B4 and B5 to use %B2% in place of name.

Let's add the question text for question C22: "Is %B2% an albino?". When we run this we see that the name is not set correctly. This is because B2 is in a different roster from C22 therefore we need to specify the subscript. We can try using %B2(curocc())% as a fill in the question text but it doesn't work. We will come back to this later.

## Using Occurrence Labels in Question Text

Let's add occurrence labels for the visits roster in section A: 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup>. We can use these occurrence labels in the question text for the visit date:

*Enter the date of the %getocclabel% visit:*

Anytime you use %getocclabel% in question text it is replaced by the occurrence label of the current occurrence. With the above, the question text for visit date will be displayed "Enter the date of the 1<sup>st</sup> visit" for the first occurrence, "Enter the date of the 2<sup>nd</sup> visit" for the second occurrence and "Enter the date of the 3<sup>rd</sup> visit" for the third occurrence.

We can also use occurrence label fills in the housing units (H68), rooms (H69) and livestock (H80) rosters.

## Setting Occurrence Labels in Logic

If you look at the case tree in Android you will see that the roster occurrences are displayed with the name of the roster and the occurrence number "Individual(1), Individual(2)..." which is not useful. Using logic we can set the occurrence labels to the names of the individuals instead. For that we use the command setocclabel() which takes the name of the group (roster or repeating form) and the string to set it to. For example to set the occurrence label of each row of the person roster once the name is entered we can do the following in the postproc of the name field (B2):

```
PROC B2
setocclabel (PERSON_ROSTER, strip(B2));
```

In the same proc we can also set the occurrence labels for the other rosters that use the individual record (demographics, disability, education, economic activity and fertility).

This works fine when we are adding a new case, however we open an existing case in modify mode the occurrence labels are not set until we get to the person roster even though the occurrences already exist. In modify mode while still on section A you can scroll the case tree to see Individual(1), Individual(2)... as we had before. In order to prevent this we need to set the occurrence labels for the rosters as soon as we open the case. What proc can we use? The preproc of the questionnaire of course. We will use a loop to go through each occurrence in the person roster and set the labels for the corresponding rows of the other rosters:

```
PROC LESOTHOCENSUS2016_QUEST
preproc
// Fill in occurrence labels in rosters when entering a case that
// has existing data (partial save or modify mode). If we don't this
```

```

// then the case tree will not have correct occurrence labels until
// after we pass through person roster.
numeric i;
do i = 1 while i <= totocc(PERSON_ROSTER)
    setocclabel(PERSON_ROSTER(i), strip(B2(i)));
    setocclabel(DEMOGRAPHICS_ROSTER(i), strip(B2(i)));
    setocclabel(DISABILITY_ROSTER(i), strip(B2(i)));
    setocclabel(EDUCATION_ROSTER(i), strip(B2(i)));
    setocclabel(ECONOMIC_ACTIVITY_ROSTER(i), strip(B2(i)));
enddo;

```

There is still one problem. After entering a case and starting a new case (without exiting CSEntry), the occurrence labels from the last case are still around until we replace them by entering new household members. This is a bug in CSPro that will hopefully be fixed soon. In the meantime we can use *setocclabel()* to reset the occurrence labels for occurrences that we are not using to their default values. We can do this in the preproc of the level at the point we are initializing the occurrence labels for existing occurrences. For any occurrence greater than totocc(PERSON\_ROSTER) we use the row number as the occurrence label.

```

PROC LESOTHOCENSUS2016_QUEST
preproc
// Fill in occurrence labels in rosters when entering a case that
// has existing data (partial save or modify mode). If we don't this
// then the case tree will not have correct occurrence labels until
// after we pass through person roster.
numeric i;
do i = 1 while i <= maxocc(PERSON_ROSTER)
    if i <= totocc(PERSON_ROSTER) then
        setocclabel(PERSON_ROSTER(i), strip(B2(i)));
        setocclabel(DEMOGRAPHICS_ROSTER(i), strip(B2(i)));
        setocclabel(DISABILITY_ROSTER(i), strip(B2(i)));
        setocclabel(EDUCATION_ROSTER(i), strip(B2(i)));
        setocclabel(ECONOMIC_ACTIVITY_ROSTER(i), strip(B2(i)));
    else
        // Workaround fact that CSPro doesn't clear occurrence labels
        // between cases.
        setocclabel(PERSON_ROSTER(i), maketext("%d", i));
        setocclabel(DEMOGRAPHICS_ROSTER(i), maketext("%d", i));
        setocclabel(DISABILITY_ROSTER(i), maketext("%d", i));
        setocclabel(EDUCATION_ROSTER(i), maketext("%d", i));
        setocclabel(ECONOMIC_ACTIVITY_ROSTER(i), maketext("%d", i));
    endif;
enddo;

```

Now that we have occurrence labels set in the individual rosters we can use %getocclabel% in the question text to fill in the names. This avoids the problem of not being able to *curocc()* in the question text for section C.

## Using Logic Variables in Question Text

In addition to dictionary variables, and occurrence labels it is also possible to use logic variables in question text. For H69, number of rooms, it might be useful to include the number of housing units for that type in the question text. Instead of asking how many rooms are in the *rontabole* units we could ask how many rooms are in the 3 *rontabole* units. This would remind the interviewer the number of units reported of each type. The question text might look something like this:

How many rooms are available in the %H68(curocc())% **%getocclabel%** housing units of the dwelling of the household?

Unfortunately we cannot use *curocc()* inside question text but we can instead introduce a logic variable named *numHousingUnitsForCurrentRooms* and use it in the question text.

How many rooms are available in the %numHousingUnitsForCurrentRooms% **%getocclabel%** housing units of the dwelling of the household?

We need to declare the logic variable *numHousingUnitsForCurrentRooms*. We will declare it in the PROC global section so that it is available everywhere. Up to now we have always declared our logic variables inside the PROC of a dictionary variable or group in which case it is only available inside that PROC. Anything in the PROC global is available in all the PROCs and in the question text.

To view the proc GLOBAL, in the logic view, click on the first item in the form tree. This shows all of the program logic at once: the proc GLOBAL plus all the other procs. Clicking on any other item in the form tree shows just the procs for that item.

We need to assign a value to *numHousingUnitsForCurrentRooms*. Which proc do we do that in? We do that in the onfocus of H69 since we need to use it when we are in that field. Note that we cannot do this in the preproc since the preproc does is not triggered when moving backwards through the questions.

```
PROC H69
onfocus
numHousingUnitsForCurrentRooms = H68(curocc());
```

## Exercises

In your teams add the question text for all the questions in your section(s). Remember that you can copy and paste from the Word document containing the questionnaire. Make sure that you use the same font, colors and style as the rest of the group so that all sections are consistent. Use occurrence label fills as appropriate.