Using Blaise 5 for CAPI

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Blaise 5 has been engineered for data collection on the web (CAWI), reflecting the general trend in survey research. However, many organizations have deep, ongoing investments in CAPI fieldwork using Blaise for data collection. These organizations have made a human investment by training hundreds or thousands of field data collectors to use Blaise applications, and they may additionally have several Blaise data collection efforts underway on specific projects.

For example, in one study, there were two distinct requirements:

- A smaller sample was to be questioned by interviewers supplied by the client. These very experienced interviewers were trained in the use of the keyboard. Keyboard CAPI was a client requirement for this sample.
- A much larger sample consisted of respondents who answered the same set of questions by themselves via the web, using web browsers or (in some circumstances) mobile devices.

The CAPI sample used Blaise 4.8 and the CAWI sample used a web interviewing tool. Blaise 4.8 and the web tool used different types of database.

1. CHALLENGE: USE OF KEYBOARD IN CAPI

One key challenge facing long-term projects currently using Blaise 4 for CAPI data collection is how to address the use of the keyboard. The default Blaise 5 screen presentation relies on a pointing device: generally interviewers or respondents will use a mouse or similar device, or will touch the screen with finger or stylus in order to interact with the Blaise 5 application. Organizations may spend significant time developing the look and placement of the Next and Back buttons so interviewers and respondents can locate and use them more naturally. However, the field data collectors on CAPI projects have generally been trained to use the keyboard to record answers and move to the next screen. This is done for several reasons:

- Field data collectors on CAPI projects have generally been trained to use the keyboard to record answers and move to the next screen.
- Many field data collectors have extensive experience with keyboard-based systems
- Pointing tools may change from one laptop or tablet to another, but keyboard look and layout remain fairly standard
- Field data collectors are generally hired for their interpersonal skills and ability to collect data of the highest possible quality, rather for than their computer skills
- There is a strong sense that the higher efficiency of keyboard data collections leads to greater effectiveness, by allowing field data collectors to focus on a quality interaction with the respondent.
- There is a strong sense that keyboard data collection is more efficient for field data collectors. For example: pressing “1” and “Enter” three times on successive screens is simpler than locating and pressing the Next button on three successive screens.
- There is a strong sense that the higher efficiency of keyboard data collections leads to greater effectiveness, by allowing field data collectors to focus on a quality interaction with the respondent.
Organizations or projects deciding which version of Blaise to use for large field projects have a choice. If they use Blaise 5 and accept the default Blaise 5 screen look and feel, they will need to retrain their staff to use the new, web-oriented screens and move away from established practice. If they choose to stay with Blaise 4.8, they can preserve their investment in keyboard data collection, but they cannot move forward with new features and techniques in Blaise.

However, this does not mean that the choice is between CAPI (Blaise 4.8) and CAWI (Blaise 5) because Blaise 5 is flexible enough to accommodate both modes on the same survey. The flexibility comes courtesy of the Blaise 5 resource database (the blrd file) and other layout tools (such as the layout editor in the control centre).

It is possible to configure Blaise 5 to approximate the CAPI look and feel of Blaise 4.8 (which is what interviewers often know best). The Blaise 5 resource database has example templates that can be modified to replicate the CAPI look-and-feel until a time that experienced interviewers can embrace new approaches.

Hopefully, interviewers will soon be able to progress with the CAWI interface.

2. ONE SOLUTION: CONFIGURE BLAISE 5 TO RESEMBLE BLAISE 4 CAPI

However, it is possible to configure Blaise 5 to approximate the CAPI look and feel of Blaise 4.

- For a categorical question, the key elements not present in Blaise 5 by default are:
  - Each category needs an explicit number, usually starting with 1, such as “1. YES”.
  - The screen needs an input field to record the response, rather than pressing a radio button
- The behavior of the input field and radio buttons should mimic Blaise 4:
  - when the user enters a “1” in the input field, the system should show option 1 as selected;
  - when the user selects a category using the radio button, the value “1” should replace whatever is currently in the input field.

To demonstrate how various question types might look in a Blaise 5 CAPI application that retains the ability to use the keyboard, we developed an example application – CapiCawi – for a variety of question types. DK/RF responses are triggered by the F5/F6 keys which are defined in the resource database.

- CapiCawi uses several questions from the Commercial Building Energy Consumption Study (CBECS), chosen to represent different question types.
- CBECS collects energy consumption and expenditures data from US commercial buildings.
To allow us to move between CAPI and web modes, for the same question, CAPI and CAWI buttons are on every screen in CapiCawi. When using CapiCawi, even in CAPI mode, it is easier to select the CAWI button using a pointer than trying to navigate using the keyboard.

3. AN EXAMPLE SCREEN

We will give some CAWI and CAPI screens to compare functionality, remembering that in CapiCawi the Blaise 5 codebase is the same. We start with a Yes/No question.

Yes/No question in CAWI

The CAWI version has little information on the screen: just the question, responses and navigation buttons.
Yes/No question in CAPI

In the CAPI mode there is a radio button and a number next to each response, an instruction at the bottom of the “Info” pane, and an input field with label in the “Answer” pane.

The interviewer can see answers to other questions.

IN CAPI, the Info and Answer panes were simulated using settings in the resource database to resemble these screen areas in Blaise 4.

If the user presses a radio button, the corresponding response category number appears in the input field at the bottom.

Conversely, when the user enters a value in the input field, the appropriate radio button becomes selected.

Using the F5/F6 function keys toggles a Don’tKnow/Refusal indicator to the right of the question answer in CAPI mode. The treatment of special answers (DK/RF, etc) in CAWI is usually by means of buttons or check boxes.

4. FURTHER SCREENS

The following screens show the same question in both modes, where the differences are controlled by the resource database and layout tools in the control centre.
This is a familiar style of Blaise 5 screen.

There are many categories, arranged in 2 columns.
If the interviewer types in a number outside the code limits, an automatic message is generated:

![Select a value](image)

Categorical question with images in CAWI

![Categorical question with images](image)

In face-to-face interviews we can use “show cards” but in web interviews we have to show images.
Categorical question with images in CAPI

If we use show cards, we can still have visual reminders of what is on a card, so that it is easier for interviewers to interpret content.¹

The three questions listed in the input area are all image questions.

Select-all question in CAWI

Select-all (code-all-that-apply, or SET) are standard questions in CAWI, as shown here.

¹ See “Some uses of Roles in Blaise 5” (G J Boris Allan, IBUC 2018) on changing question texts to reflect differences between interviewer-administered and self-administered questionnaires.
Select-all question in CAPI

Notice the standard Blaise 4.8 notation for multiple selections from a select-all list of categories “1-9-12”.

Continuous number question with explicit DK in CAWI

This shows a standard number text box, with a “units” specifier, and an explicit DK. Normally all non-response values are hidden when a question appears for the first time, or it has a response value. The requirement is that, for this question, the DK is always shown.
Continuous number question with DK in CAPI

With CAPI we have an interviewer who can probe, and so there is no need to show the explicit DK. If the answer is truly DK, then we need some way to show this clearly. Using the F5 function key (project-dependent) shows a clear indication of “Don’t Know”.

A large enumeration question as a drop-down list in CAWI

Collecting state information can be performed in many ways. It was decided that, for the envisaged web audience, selecting from a list of states was best accomplished using the DropDownList template for an enumerated type.
Selecting a state from an alphabetical list shown on a laptop, is much simpler and quicker than using a drop-down list. In CAWI, we cannot control the user device, and so a long alphabetical list would probably involve scrolling.

5. CONCLUSIONS

For legacy projects currently using Blaise 4 for data collection, there is no single correct answer about whether and when to make the transition to Blaise 5.

Every project context is different and may need to evaluate specific factors, such as the duration of the data collection, whether there are multiple modes, etc.

Eventually existing projects will migrate to Blaise 5, and new CAPI projects may wish to start in Blaise 5. However, by use of the resource database and control-centre layout tools, it is possible to preserve the ability to use the keyboard as the primary data entry mechanism in Blaise 5 – if desired - and that may be of paramount importance for some studies.