Dynamic List Building Using Blaise

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RTI International is a trade name of Research Triangle Institute
Objectives

- Define the problem
- Describe the solution
- Specific example of the problem
The Problem

- Sequence of questions within a study
  - Open ended, string data
  - Answers to vary considerably from respondent to respondent
  - Repeated answers
  - Answers varied but redundant
Objectives

- Reduce Burden
  - Interviewer burden
  - Respondent burden

- Collect “clean” data
- Collect accurate data
What kind of data is this?

- Address lists
- List of schools attended
- List of names
- List of services used
- Dates
Build a global list of the responses entered by a respondent so that the respondent’s previously-entered unique responses become available as response choices.
Specific example

RTI contracted to develop a Blaise application for the Census Bureau for the Questionnaire Design Experimental Research Survey (QDERS) project
Specific example

Use a household roster to collect all of the addresses for each household member during a given time period. Include:

- All addresses for each household member
- Addresses for children in joint custody
- Addresses for people away – military, school, second homes, jobs, etc
Considerations

- Block structure to handle task
- Blaise path re-evaluation
- Number of points at which addresses are added
- Counters and keeping them in sync
- Address list by respondent
- Global address list
- Exceptions to standard address format
Coding design

Address list for person 1

Address list for person 2

Address list for person i
  - Address 1
  - Address 2
  - Address j
  - Address m

Address list for person n

House number for address j

Street name for address j

City for address j

State for address j

Zip code for address j

Concatenated string for address j

Section for address j

Index indicating the person that address j originated from

Indicator of what section address j originated from
Block bhmemaddr {general address block}

Parameters import persnum:integer

Fields

{Address fields collected}

Aux fields

{temporary arrays to hold person’s address list}
Rules

{initialize temporary array for this person for each address block in the datamodel for this person}

{if not empty, set temporary elements corresponding to this address}

{keep only unique addresses}

{tally number of addresses on person list}

Endblock
{DEFINE FIELD BLOCK ARRAY OF ADDRESSES FOR EACH HOUSEHOLD MEMBER}

Memaddresses : array [ ] of bhhmemaddr

{DEFINE GLOBALFIELD AND ARRAYS FOR ALL UNIQUE ADDRESSES}

Numaddrrall : 0..max total addresses

Address fields: array [1..max total addresses]

{street, city, state, zip, additional fields}
Coding outline (4)

At key locations in main block to keep lists up to date
For I := 1 to number of roster members
do
  memaddresses[i](i)
  memaddresses[i].keep(i)
endo
What was your address on April 1st?

- If the respondent doesn't know the full address, probe for city, state or any other part of the address
- Do not include P.O. box address
- Press 1 if DK or REF, then enter DK or REF on next screen.
What is the address of the other place Silly Q James stayed?

- If the respondent doesn’t know the full address, probe for city, state or any other part of the address
- Do not include P.O. box address
- Press 1 for DK or REF, then enter Ctrl D or Ctrl R on next screen.

1. New address
2. 101 My Rd Hometown GA
3. 978 Oak Street Old Town FL
4. 67 Ivy Lane Old Town FL
5. 555 Sunset Way Grifton FL
taddresslist = ( newaddr "New address",
    addr1  "^address_list[1]",
    addr2  "^address_list[2]",
    addr3  "^address_list[3]",
    addr4  "^address_list[4]",
    addr5  "^address_list[5]",
    addr6  "^address_list[6]",
    addr7  "^address_list[7]",
    addr8  "^address_list[8]",
    addr9  "^address_list[9]",
    addr10 "^address_list[10]" )
Summary

- Build dynamic list
  - Reduce respondent burden
  - Reduce interviewer burden
- Increase data accuracy
  - Cleaner back end data processing
Observations from QDERS

- Address questions – different formats, military address, ship
- Special case code added to general address block
- Addresses added within the same sub-blocks didn’t appear until the rules were re-evaluated
- Interviewer backups require cleanup so that global list doesn’t retain data
- Nesting of blocks requires special consideration with respect to data processing
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Design Experimental Research Survey
Questions?

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