Authoring Blaise questionnaires – a task for the survey specialist or an IT programmer?

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• Organisations have their own unique approaches to authoring Blaise questionnaires.
• Broadly divided into two approaches

Survey specialist develops the Blaise questionnaire themselves

A dedicated team of Blaise programmers develops the questionnaire based on specifications produced by the survey specialist.

• We know that the second approach is the dominant one - not quite ONS and everyone else – but almost.
Aims

- Why now, hasn’t it be done before?
- Blaise has now been used in most Blaise user organisations for between 5 - 20 years
- An appropriate time for an up to date review of the approaches
  ✓ To provide summary of the models, a discussion of the advantages and disadvantages of each model.
  ✓ Explore why approaches differ between organisations.
  ✓ Have approaches changed over time?
  × Not to conclude one approach is the ideal.
- Based on data collected from Blaise user organisations
  - Short questionnaire about Blaise authoring practices
Thank you to ... 

- Statistics Canada
- Statistics Slovenia
- Hungarian Central Statistical Office for National Statistics
- Statistics Belgium
- Survey Research Center, Institute for Social Research, University of Michigan
- Australian Bureau of Statistics (ABS)
- Instituto Nazionale di Statistica (ISTAT), Italy
- WESTAT
- Statistics Germany
- Statistics Netherlands
- Office for National Statistics, UK

... for sparing the time to provide this information
Initial meeting between programmer and survey specialist

Subject matter specialists prepare specifications using software/tool or in house authoring system (inc. question wording, routing, edits, checks and signals)

Blaise programmers develop questionnaire based on these specifications.

Survey specialists test the questionnaire

Blaise programmer amends questionnaire

Survey specialist meets with Blaise development, Standards and Support (BDSS) team to discuss structure, contents of questionnaire and any new requirements

Survey specialist builds up Blaise questionnaire using the standard template, standard and harmonised blocks. Develops any survey specific blocks using programming, screen design and layout standards.

Tested in house (field staff, interviewers, researchers) and by clients

Researcher amends questionnaire

BDSS team quality assure questionnaire (checking for use of standards, harmonised questions)

Questionnaire goes live

Blaise Development, Standards and Support team provide, support and guidance as required throughout this process
Why do organisations do it the way they do?

• Limited instructions/guidance
  Blaise developers guide states….
  ‘Blaise is a tool that subject matter specialists, statisticians and programmers can become adept at authoring Blaise instruments…’

• Fitted into existing organisational structure, specifically the traditional division of labour between statisticians and computer specialists.

• Practical experience – this method worked.

• Central pool of programmers who become very experienced in Blaise programming.
Survey specialist approach

- Generalists move from project to project
- Project managers: matrix management of teams
- Role of an ONS Researcher
- Social Scientists with some statistical expertise
Key to the success of this approach

- Key elements to this approach – standards, training and support.
- **Standard** Blaise code
  - Harmonised questions
  - Standard code (e.g. SOC coding and relationship grid)
- **Standards** for writing Blaise code
  - e.g. screen layout, naming conventions.
  - Templates - define structure of questionnaire e.g. datamodel (.BLA)
  - Researchers use standards
- Case management system and Manipula code to extract data is provided by computing specialists
- **Training** for researchers
- ‘Blaise Development, Standards and **Support**’ team
  - Initial meeting with author to agree the design of the questionnaire
  - Provide support to authors
  - Review and promote the use of standards
  - Maintain standard blocks of questions
  - Development work
  - Pass on knowledge of new capabilities
Advantages of survey specialist approach

• Key advantages
  - Blaise skills are widely spread amongst staff – not dependent on a few key staff with programming skills
  - No specification stage – eliminates errors that could be introduced at this stage.
  - Researchers design the questionnaire as they program, after some initial planning. Deal with problems as they occur, no need to pass them back to programmer.
  - Awareness of the capabilities of Blaise
  - Researcher get to know questionnaire very well. Use the knowledge throughout the survey process.
  - Researcher maintains control over the design questionnaire process.
Disadvantages of survey specialist approach

• Key disadvantages
  ➢ Researchers use Blaise intermittently – relearning of skills required
  ➢ Blaise authoring can be designated to one team member
  ➢ Authoring Blaise questionnaires is perceived by some to be mundane and not to role of a researcher
  ➢ No specification to test the questionnaire against (although in practise there usually is).
  ➢ Training difficult to plan
IT programmer approach

- Majority of organisations use this model
- Usually a dedicated team of programmers who convert specifications into Blaise questionnaires
- Programmers – computer science degrees/experience of a variety of software packages
Advantages of IT programmer approach

• Key advantages
  ➢ IM staff have the programming and logic skills to program a questionnaire quickly and efficiently
  ➢ IM staff have the skills to carry out systematic testing required of the program
  ➢ Training required is minimal
  ➢ Blaise programmers are more skilled in Blaise because they work with it continuously
Disadvantages of IT programmer approach

• Key disadvantages

- Relies on close working of IT and Research members of the team
- Changes bounce back and forth – IT specialists may not have social research knowledge to make informed decisions themselves
- Specification process could result in wasted time and introduce errors.
- IM staff may not feel that Blaise programming is sufficiently ‘challenging’.
Hybrid approach

• A variation on the two approaches
  – Dedicated team of Blaise experts – who are not necessarily IT programmers but have built up an expertise.
  – Responsibility divided between survey specialists and Blaise experts.

• Division may vary according to experience within the survey team, complexity of the questionnaire

• From knowledge this model is used to some extent within Blaise user organisations.
Hybrid approach

• Organisation change within ONS is currently testing the survey specialist model.
• Factors that have brought about the change…
  – Relocation of division – resulted in almost an entire division of newly recruited staff with no previous Blaise experience.
  – Changing profile of the survey work ONS is undertaking = less opportunity to build up expertise in Blaise
  – Transition of a major ONS survey from cross section to a longitudinal survey
• During this period ONS has drifted away from survey specialists taking responsibility for authoring the entire questionnaire to this hybrid approach.
• Early days – ONS are still convinced the survey specialist model is the most appropriate for them. Move to hybrid approach a temporary change.
Advantages and disadvantages of the Hybrid approach

- **Key advantages**
  - Allows the researchers to concentrate on question construction, screen layout and testing.
  - Experts have experience of working on surveys so they do not ‘lose touch’ with reality.
  - Experts are responsive to research needs and familiar with Blaise so an ideal position to exploit new possibilities.

- **Key disadvantages**
  - Timetabling can be complex, availability of Blaise experts may be problematic as resource is shared across surveys. Work may be sporadic.
  - Relies on good communication and close working between the teams.
  - Susceptible to organisational change – reliance on expertise of a few.
Conclusion

• Organisations have developed approaches which meet their needs.
• Limited change over time – only one organisation changed their approach. Predict no further change.
• Effectiveness of any model should be evaluated regularly – especially around time of organisational change.

• Updated description of how a selection of Blaise user organisations go about authoring questionnaires.
• No optimum model
• What is important is that person authoring questionnaire has sufficient Blaise expertise, adequate support and a willingness to learn.