

1

Speedy Incentives from Blaise 5 Instruments

International Blaise Users Conference, October 2023

Emily Caron, Jerry Copperthwaite, and Rhymney Weidner - RTI International



RTI International is a registered trademark and a trade name of Research Triangle Institute.

Speedy Incentives

- Acknowledgements
- Introduction and Blaise Specifics
- Process overview
- Blaise Implementation
- Challenges and Lessons Learned
- Future Uses & Potential Enhancements
- Conclusions



Introduction and Blaise Specifics

Incentives

- Past RTI use and timing
- RTI initiative to implement speedy incentives for Blaise
 - Expansion of backend processes
 - Allow this to work for multiple data collection systems
 - Add texting capability

Blaise Instruments

- Household Screener and Selected R Survey
 - Both offered incentives
 - English and Spanish
- CAWI and CATI modes
 - Additionally, PAPI mode for Screener
- Blaise version 5.12.8



Process Overview

- Collect survey data using Blaise
 - Data stored in secure FIPS Moderate database ("FIPS Mod", multi-factor authentication)



FIPS Mod

- Trigger writing incentive metadata to SQL table
- Listener application with timer
 - Queries SQL table for new records
- New record is found: call webservice

FIPS Low

- Webservice does insert in SQL table
- Listener application with timer
 - Queries SQL table for new records
- New record is found: call incentive API to purchase new incentive
 - Resulting link is saved

Process Overview, cont.



Process Overview, cont.

- Build and send incentives
 - Emails: Simple Mail Transfer
 Protocol (SMTP)
 - Texts: ARTEMIS (in-house application)
- Incentives are handled through Tango®



Implementation Questions

First, some important questions.

- 1. When do we want the incentives triggered?
 - Only for digital incentives



- Send as soon as incentive-related questions are answered
 - 1. Collect email address or phone number
 - 2. Confirm delivery mode along with address or number entered
 - Consent provided
- Placement was <u>near</u> the end of the surveys, not necessarily <u>at</u> the end
- 2. How do we prevent duplicates?
 - Remove "back" button after process is triggered
 - Fail-safe: backend processes also prevent duplicates

Special Template \rightarrow Actions Setup function \rightarrow PowerShell Script

- Active for email address/phone number confirmation screens
 - Applied to fields with "SPEEDYINCENTIVE" in Templates role



- Includes OnTryLeavePageForward event
 - Triggers after positive confirmation of email address or phone number

° OnTryLeavePageForward □ >						
						/ents
		Dropertie				Femplate
		Condition	-	F 1		
		Conditio	n	False	× 🐺	
		ThenBranch		ProcedureCall({Expression SpeedyIncentive()})	🕺	
		ElseBranch			🕺	gerorv (
				Condition: Boolean		
*			Page.Errors.IsUnsolved = False		Functions	
	*			*		~ +

Blaise Implementation, cont.

Special Template \rightarrow Actions Setup function \rightarrow PowerShell Script

- "SpeedyIncentive" procedure is coded into an Actions Setup manipula
 - Specified in Project Properties
- Procedure is mapped in Mappings
 Management → Function declarations
- Relevant information is pulled from the active survey using SURVEYRECORD file definition
- Information is used to generate PowerShell scripts



```
RULES
GUID := DepSession.GETINTERVIEWSTATE('InstrumentId')
CaseId := DepSession.GETVALUE('Main_Case.zrid')
//Add a letter to indicate language A=ENG, B=SPA
IF (DepSession.GETVALUE('main_case.SurveyLanguage') = 'SPA') THEN
CaseId := CaseId + 'B'
ELSE
CaseId := CaseId + 'A'
ENDIF
```



Special Template \rightarrow Actions Setup function \rightarrow PowerShell Script

- The PowerShell script calls a stored procedure
 - Numerous parameters passed through from the Actions Setup:
 - CaseID with language indicator
 - Confirmed email or cell phone number
 - Full name place holder
 - Blaise GUID
 - Incentive amount
- Stored procedure inserts row into SQL table
 - Listener application picks things up from there (see process overview)



Challenges and Lessons Learned

Error received when transitioning to FIPS Mod

PS C:\InstallBlaise\...\testl.ps1 WARNING: A network-related or instance-specific error occurred while establishing a connection to SQL Server. The server was not found or was not accessible. Verify that the instance name is correct and that SQL Server is configured to allow remote connections. (provider: Named Pipes Provider, error: 40 - Could not open a connection to SQL Server) PS C:\InstallBlaise\...

- * Solution: open proper ports
- Blaise Mappings wouldn't "stick"



* No permanent solution, just kept checking on these and re-mapping when needed



Challenges and Lessons Learned, cont.

- Full process testing in production environment
 - In general: Don't allow test cases to receive real \$
 - Allow some test cases to go through

* Solution:

- PowerShell script update
- Carefully controlled testing



```
IF (($caseid -like "999*") -And ($caseid -notlike "9990462*") -And ($caseid -notlike "9990469*") -And ($
{
    $SqlCmd.CommandText = "EXEC CaseInsertTextTestBlaise '$caseid','$phone','$fullname', '$blaiseid', $amo
}
ELSE
{
    $SqlCmd.CommandText = "EXEC CaseInsertTextBlaise '$caseid','$phone','$fullname', '$blaiseid', $amount"
}
```

Challenges and Lessons Learned, cont.

Thoroughly test all layout sets

- Template hierarchy initially incorrect for small layout
- Early test efforts focused heavily on large screen layout (508)
- Revealed the large percentage using small devices to complete the survey (over 50% at the time of review)



Challenges and Lessons Learned, cont.

Carefully evaluate when events are executed

- OnTryLeavePageForward triggers as soon as the respondent *attempts* to leave the page
- When errors occurred on the page, the Speedy Incentives process was called twice
 - Duplicate entries in the db
 - Note: back-end processes prevented duplicate rewards sent
- Conditional statement was added to factor in unresolved errors

OnTryLeavePageForward						
			/ents			
Properties:			Femplate			
+ Condition	False	× 🙀				
× ThenBranch	ProcedureCall({Expression SpeedyIncentive()})	🕺				
♦ ElseBranch		🕺	geForv (
	Condition: Boolean					
Page.Errors.IsUnsolved = False	Î	Function	s			



Flexibility: The Speedy Incentives process can now handle multiple survey data collection systems

- Can serve a wide array of projects



Future projects can consider this option to reward respondents with a form of immediate gratification, whether via text or email, to encourage participation



Processes involved may one day be utilized to send other digital communications in a timely fashion Possible examples:

Timely reminders to the respondent or others in the household

Handing a portion of a survey off to a co-worker as part of a business survey



Speedy incentives expansion provides us more options to encourage respondent participation



The results of this first implementation of Blaise and texting capabilities will be analyzed Interesting comparison:

Survey component participation rates where screener R chose digital incentives vs. mailed or no incentive



Continuing to monitor... lessons learned will be shared and applied

More Information



delivering the promise of science for global good



Emily Caron

ecaron@rti.org

Jerry Copperthwaite gcopperthwaite@rti.org

Rhymney Weidner rweidner@rti.org