



# Evaluating Strategies for Questionnaire Completion of Low-Literacy Respondents

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Any views expressed are those of the author and not necessarily those of the U.S. Census Bureau.

# Background for Research

- The Program for the International Assessment of Adult Competencies (PIAAC) collects data on three different competency scales: literacy, numeracy, and problem solving. Each competency is measured in five proficiency levels (below 1 to 5).
- The primary goal of PIAAC's literacy assessment is to measure everyday literacy, which is defined as “understanding, evaluating, using and engaging with written text to participate in society, to achieve one's goals and to develop one's knowledge and potential ” (OECD 2012).
- PIAAC reports that eighteen percent of U.S. adults fall at or below level 1 of literacy (Rampey et.al, 2016).
- The impact of low-literacy varies but can be clustered around:
  - Difficulties with written and spoken communication.
  - Reluctance to disclose low-literacy rooted in stigma.



# Motivation for Research

- The challenge is to produce forms and materials that adults with low-literacy can effectively complete with little or no help.
- This is particularly important as we increase data collection in self-response and electronic formats.
- Those who are low-literacy are also those at risk of not responding to surveys, providing incorrect data, and as a result creating non-response bias.



# Research Design

- Exploratory research on how low-literacy respondents fill out forms.
- Respondents selected reported having completed less than high school.
- Two types of data
  - English focus groups.
    - If you find yourself having trouble with a form or survey, what do you do at home?
    - Do you call for help? Who tends to help you?
    - Are there other things you do when you have trouble filling out forms?
  - Spanish language cognitive interviews.
    - Respondents were asked to fill out an application for services on their own.
    - Behavior coding of audio recordings while respondents filled out the form.
- Collected between December 2016 and June 2017.



# Research Design

- Conceptual refinements of existing work + Grounded Theory approach.
- Approach combined pre-existing coping categories in the literature with emergent behavioral strategies from the interviews and focus groups.



# Findings

## Strategy #1: Ask for Help

In both focus groups and cognitive interviews respondents reported they would seek help filling out forms. The type and source of help varied.

- Smartphone
- Library
- Children
- Call number on Form
- Do more Research



# Findings

## Strategy 2: Key Words

Beyond who to ask for help low-literacy respondents need to manage HOW they will read, understand, and fill-in forms.

Use key words in the text as clues for what information is requested.

Last Four Digits of Social Security Number (SSN) of Primary Wage Earner or Other Adult Household Member	X	X	X	X	X					Check if no SSN	<input type="checkbox"/>
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*R: ... Is this the social security? ... [reads slowly] “mark if you have ... Is this talking about social security, or not? Interviewer: what do you think? R: I think that yes [reads at loud] “check if you have a social security”. I think it says that I have to check it I have a social security number.*



# Findings

## Strategy #3: Excuses

Respondents attempted to avoid filling out forms in a variety of ways. For example,

*R: [sigh] “I forgot my glasses and this font is .... [sigh] yeah look. Interviewer: Is it too small? R: yes, look it, it all starts looking all-together. I had them [glasses] by the table and I forgot them.*





# Findings

## Strategy #4: Questions

Asks questions to figure out where to input information respondent know is required in the form.

*Interviewer: I see you are thinking. What are you thinking? R: I'm thinking, how do I put every week? [pause] Interviewer: what did you write here? R: Every two weeks. I don't know, as you know I don't know much about ...*



# Discussion and Conclusions

- Low-literacy respondents use a variety of methods to navigate forms and other written materials.
- These methods allow individuals to manage day-to-day forms and materials but also limit their ability to understand information they are asked to provide.
- Further research will focus on these lowest literate respondents to explore the ways in which they successfully manage forms and utilize those to inform the design of materials.
- Given respondents' coping mechanisms, we can develop tools that low-literacy people can use and that will help them navigate self-response forms and questionnaires.



# Next Steps

- Leverage new technologies.
  - Apps
  - Computer screen readers
  - Apple’s voice over, Talkback feature
  - Video devices such as mobile video
- Explore the use of creative solutions to complex problem.

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# Thank you!

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