

3-11-2020

Don't be Satisfied: Better Surveys for Better Data

Kelley Rowan

Florida International University, krowan@fiu.edu

Follow this and additional works at: <https://digitalcommons.fiu.edu/glworks>




Part of the [Library and Information Science Commons](#), [Psychology Commons](#), and the [Sociology Commons](#)

Recommended Citation

Rowan, Kelley, "Don't be Satisfied: Better Surveys for Better Data" (2020). *Works of the FIU Libraries*. 89. <https://digitalcommons.fiu.edu/glworks/89>

This work is brought to you for free and open access by the FIU Libraries at FIU Digital Commons. It has been accepted for inclusion in Works of the FIU Libraries by an authorized administrator of FIU Digital Commons. For more information, please contact dcc@fiu.edu.

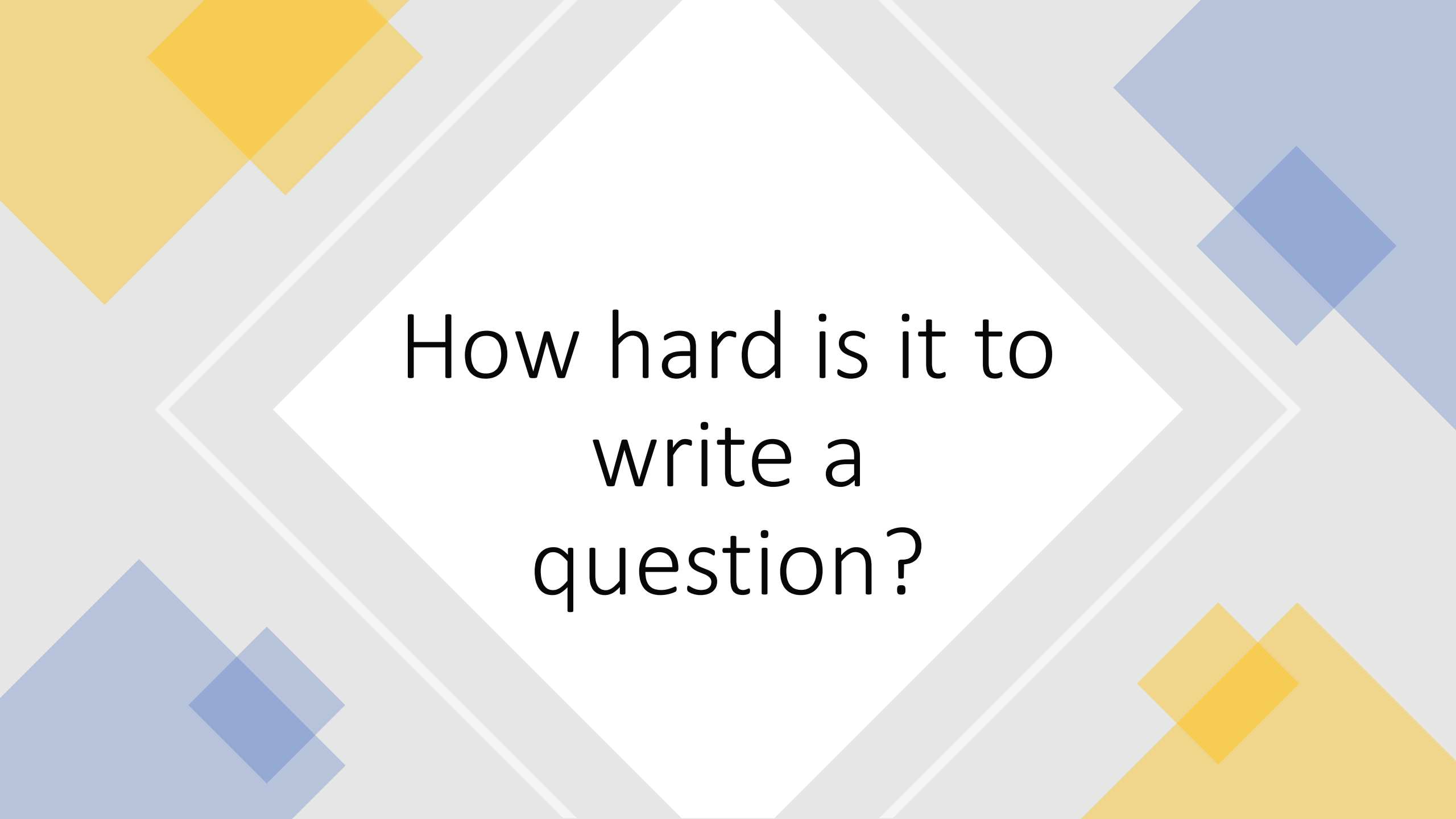


WHAT
DO YOU
MEAN
?

Better Surveys for Better Data

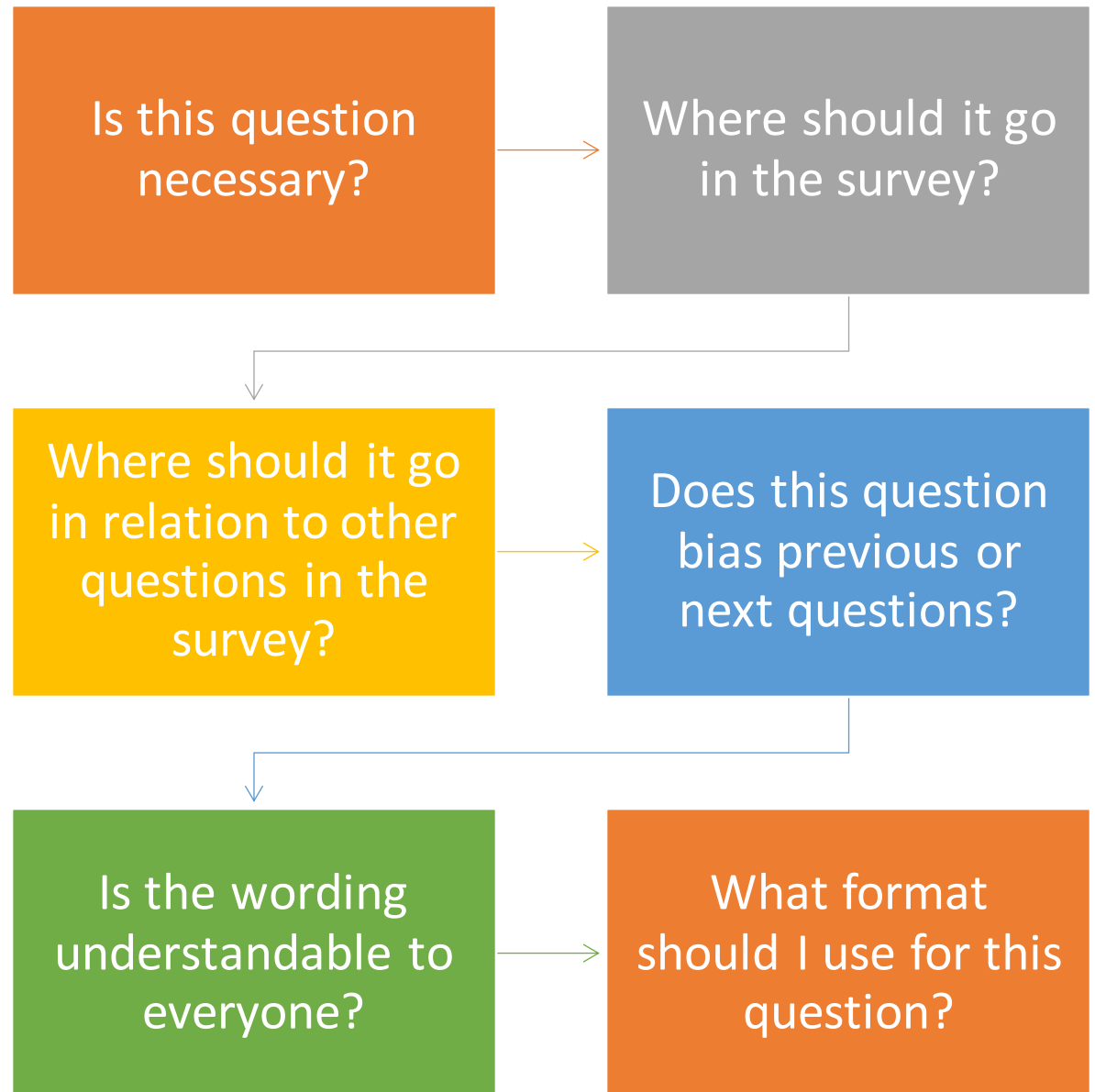
Don't be Satisfied!

Kelley Rowan, Digital Archives Librarian



How hard is it to
write a
question?

Some things
to think
about...



The purpose of surveys

To collect **GOOD** data!

- Get people interested in your topic
- Don't scare them away
 - Avoid personal/private questions
 - Avoid difficult questions
 - Avoid a long survey
- Question order and types matter!



*do NOT start your survey with demographic questions!

I need a
question
addressing
gender / sex

- **Sex** = biology, determined by anatomy
- **Gender** = gender identity is the internal perception of oneself

Gender

How do you describe yourself?

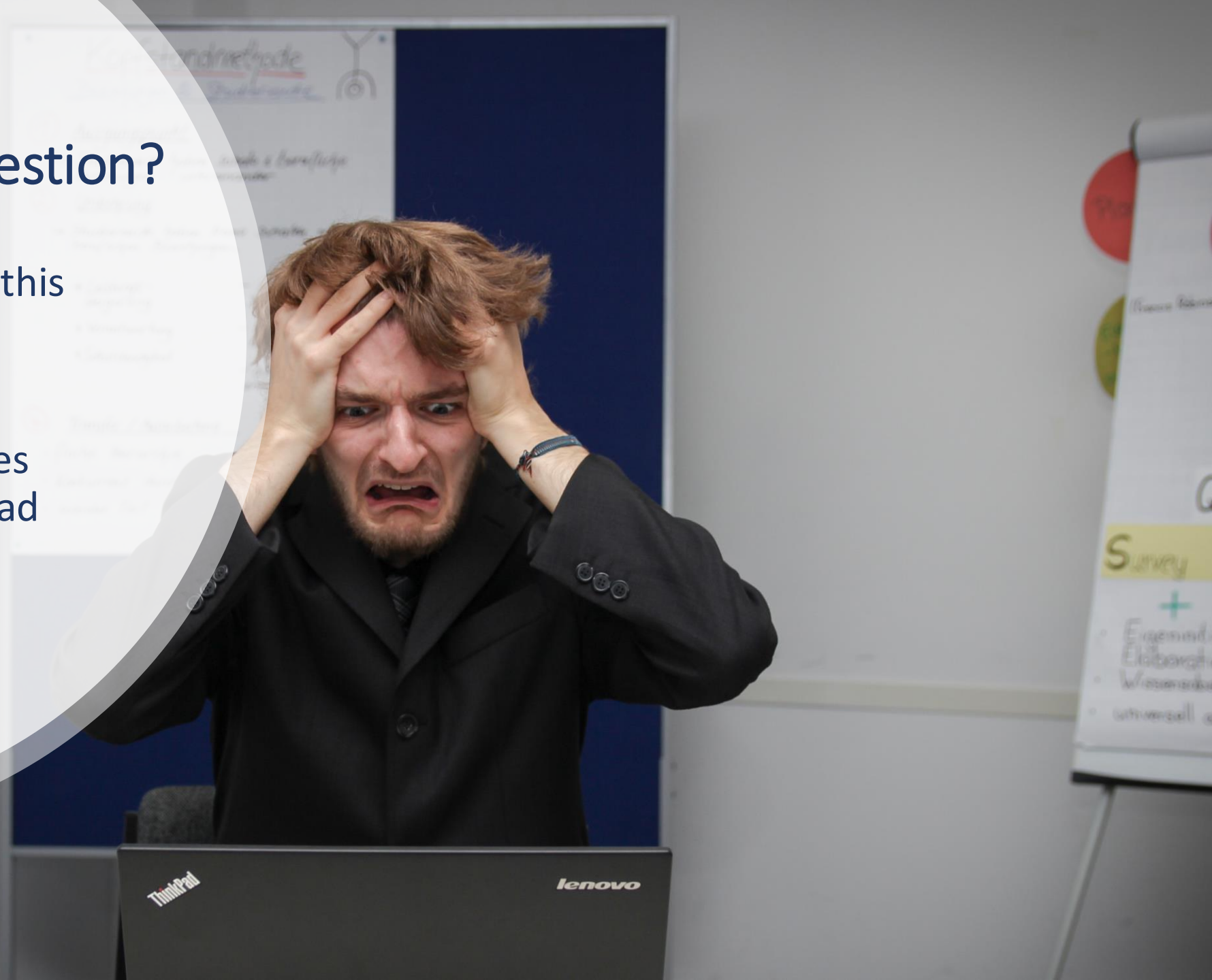
To which gender identity do you most identify?

- Female
- Male
- Transgender Female
- Transgender Male
- Gender Variant/Non-Conforming
- Not Listed
- Prefer Not to Answer

*Do you need this question?

- Why are you collecting this data?
- What significant changes might be made if you had this data?

*applies to all demographics



Keep it
short!



Satisficing

Satisfy & suffice:

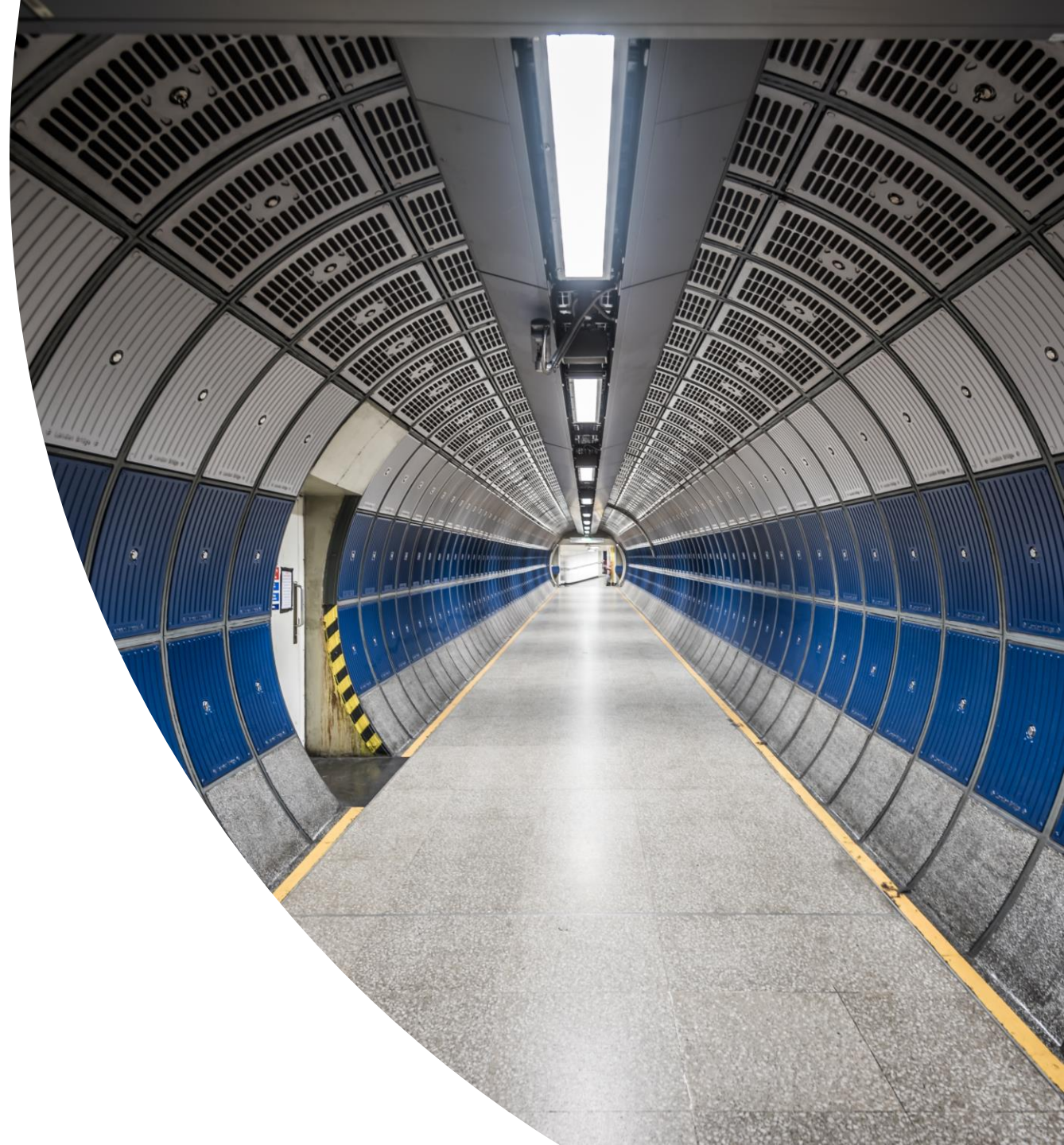
Answering without concern to
accuracy


Satisficing reduces cognitive burdens



Why people satisfice

- Survey is too long
- Survey has no numbers/progress bar
- Comprehension issues





What satisficing looks like in your results

- choosing explicitly offered no-opinion or 'don't know' response option
- choosing socially desirable responses
- non-differentiation or straight-lining when a battery of questions asks for ratings of multiple objects on the same response scale
- acquiescence response bias, which is the tendency to agree with any assertion, regardless of its content
- selecting the first reasonable looking option
- skipping items
- abandoning the survey or terminating the survey early

The image features a landscape of snow-capped mountains under a bright sky. A prominent, dark blue horizontal band stretches across the middle of the frame, serving as a background for the text. The text 'Survey Type' is centered within this band in a white, sans-serif font.

Survey Type

Cross Sectional Survey

- Collecting information and opinions at one specific point in time

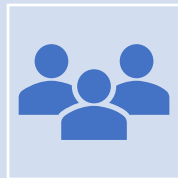
Longitudinal Surveys

Repeating a cross-sectional survey at least once in the future



Fixed-sample panel design

Re-sampling the same few people at specific point over time



Cohort study

Following people experiencing a specific event over time

The background features a landscape of snow-capped mountains under a clear sky. A prominent, dark blue horizontal band stretches across the middle of the image, serving as a backdrop for the text. The snow is bright white, and the sky is a pale, clear blue.

Question Types

Common types of questions

Close ended

Open ended

Likert scale

Vignette

Retrospective or prospective

Dichotomous



Troublesome questions

Sensitive questions

High cognitive load questions

- Recall (retrospective questions)
- Open ended
- Some Vignettes

Writing sensitive questions

- Social desirability bias
- Acquiescing
- High non-response
- Privacy concerns
- Less accurate

Sample Questions

- How often do you bring your own bags to the grocery store?
- Have you ever been admitted to a hospital with a life-threatening illness?
- Have you ever experienced sexual abuse?

Improving the response rate for sensitive questions

- Use range responses (e.g. 0-3, 4-6, etc.)
- Add a decline to answer option
- Emphasize anonymity & privacy
- Choose the delivery mode carefully (should be done in private)
- Embed in the middle
- Avoid asking more than one



Private

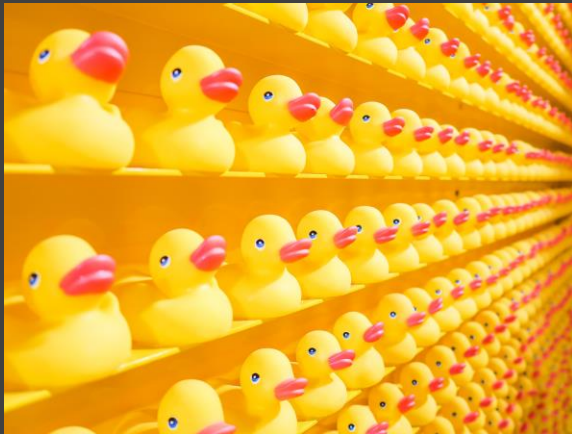
Close ended question

- Multiple choice
- Checklist
- Likert scale (e.g. strongly agree)
- Dichotomous (e.g. yes/no)
- Rating (e.g. rank in order of...)

Benefits

- Easy to quantify
- Less social desirability bias
- Higher degree of anonymity

Close ended question problems



Respondents are more likely to select answers in the

TOP THIRD

of a list of significant length

Randomize

Allow multiple answers

Switch to open ended

Decrease the number of answers

Open ended questions

What do you believe is the most beneficial approach to stress reduction?

Benefits

- Respondents not limited by your answer choices
- Does not force potentially invalid responses
- More substance than close ended
- Easy to write and straightforward

Tips

- Avoid writing a dichotomous question (yes/no)
- Avoid turning it into a rating scale
- Do not write possible answers in the question
- *High cognitive load



Vignettes

- Good for sensitive questions
- Keep it brief
- Keep the story interesting
- Be realistic
- Watch out for **bias**

Sample vignette

You receive a request for a name to be removed from a particular item in your digital library, directly from the individual in question. The requester claims that the inclusion of their name in an openly accessible digital library violates their privacy.

The name appears in print in your digital regional newspaper collection, within the student newspaper that was published in print at your institution, and later digitized for the digital collection.

This content has been run through optical character recognition (OCR) software and has been fully indexed by search engines such as Google.

How would you respond?



Writing a bias-free question

Problem: Do people believe legalizing recreational drugs would be beneficial for society or would it lead to further health problems within the population?

- ✓ You have two questions – DO NOT join them!
- ✓ Do you believe recreational drugs should be legalized? (Yes, No)
- ✓ Do you believe recreational drugs are healthy or unhealthy when used in moderation (specify moderation)? Use Likert scale

Bias



Nonresponse bias

When the people who refuse to answer are different from those that do.

The first group ends up underrepresented (religiosity surveys)



Questionnaire bias

Confusing layout of survey

Question order

Poor wording

Too long



Interviewer bias

Interviewer's presence (including character)

Minimizing Bias Error

Nonresponse bias

- Assure confidentiality
- Incentives
- Provide better answer options

Questionnaire bias

- Short
- Avoid technical language
- Randomize or set order to avoid bias

Environmental
bias

WHEN are you delivering
this survey?

WHAT is the current situation
(political, social, health, etc.)?

WHO is receiving this survey?

Retrospective and Prospective questions

How many
times did you
stop at the
grocery store
in the past 6
months?

- Recall requires cognitive heavy lifting
- Wording needs to be precise
- Telescoping error (remembering an event happening more recently than it did)
- Recall loss
- Prospective questions



Lessen the time
frame



Good for
longitudinal studies



Likert scale (5, 7, 9)

strongly agree

mostly agree

neutral

somewhat disagree

strongly disagree

****NEVER** change the order or
direction in your survey!



The image features a landscape background. The top portion is a clear, bright blue sky. Below the sky is a dark, dense forest of trees. The bottom portion of the image is a bright, white foreground, possibly representing snow or a sandy beach. The overall composition is simple and clean, with the word 'Reminders' centered in the middle of the image.

Reminders

Watch out!

- Length
- **Habituation** (too many similar questions causes satisficing)
- Cognitive load
- **Sensitive questions**
- Bias

As a student, what is your understanding of campus policies concerning academic misconduct (i.e. cheating, plagiarism) at FIU?

Very High

High

Medium

Low

Very Low

Do you know about the FIU Student Conduct and Honor Code?

Yes

No

I do now



Content order

Basic order of a survey

Introduction to survey

The most interesting topical questions at the beginning

Any sensitive or high cognitive load questions in the middle

End with demographics

Thank the respondent

Beginning

- Cover Letter (email, survey intro)
 - Length (# of questions)
 - Time to finish
 - Description of study
 - Intended use of results
 - Reassurance of anonymity and confidentiality
 - Consent form (question 1 & skip logic)
 - Incentives
-
- **Start with an easy and interesting question

Introduction: example 1

• Study Description

- You have been asked to participate in a research study to evaluate digital library (DL) design guidelines that address blind and visually impaired users' accessibility, usability and utility problems across different DLs. The guidelines address the help-seeking situations in BVI users' interactions with DLs and have been developed based on prior research conducted by the research team at University of XXXX and its partners.
- For this study, you will review the current guidelines associated with help-seeking situations identified from prior research. You will be asked to rate each of the guidelines and provide feedback for improving the guidelines.
- Your participation will take approximately **two to four hours to complete.**

• Study Procedures

- **Your participation will involve the following activities:**
- You will receive links to review a website housing a series of digital library design guidelines.
- You will complete a survey which consists of your demographic information and information resource uses, as well as your past experience using different types of information retrieval systems. This survey will also ask you to assess a series of DL design guidelines, including providing ratings, rationale, and suggestions for improvement (approximately 2-4 hours). The survey does not need to be completed in one sitting, and you are welcome to complete it as your schedule permits over a two-week period.

• Risks and Minimizing Risks

- There is no known risk occurring for participants in participation in the research. **The researchers will try to minimize or remove the risk by only revealing your participant number. The confidentiality of your responses will be protected at all times when the data are collected and analyzed, and when the results are reported in a published paper. No names will be attached to the survey. All data will be stored with a coded participant identification number.** Coded data will be made available for use in the analysis by the researchers. The collected coded dataset will be archived in the XXXXXX.

Benefits

- Once the survey is completed, you will be given a **\$100 Amazon electronic gift card** as a token of appreciation for your participation in the study. **If you only complete only a part of the survey, you will not receive prorated compensation.** The long term benefit of the study will be the design of better digital libraries that will help blind and visually impaired users effectively retrieve information.

Study Costs

- You will not be responsible for any of the costs from taking part in this research study. The costs refer to any cost related to the development and management of the study.

• Confidentiality

- **All information collected about me during the course of this study will be kept confidential to the extent permitted by law. The researchers may decide to present findings to others, or publish our results in scientific journals or at scientific conferences. Only the authorized research team members will have access to the information. However, the Institutional Review Board at XXXXX or appropriate federal agencies like the Office for Human Research Protections may review my records.**
- **The collected data will be confidential and will only reveal each participant's number.**
- All data, including name and associated demographic data, collected from participants will be stored and kept in a locked area by the researchers in the School of Information Studies at the XXXXX. The files will also be stored on a password protected computer by the principal investigator at the School of Information Studies. All data will be stored with a coded participant identification number. Coded data will be made available for use in the analysis by the research team.
- Coded data will also be made available for use in the analysis by the researchers. The collected coded dataset will be archived in the XXXXX, which is an institutional repository at the University of XXXXX.

• Alternatives

- There are no known alternatives available to you other than taking part in this study.

• Voluntary Participation and Withdrawal

- Your participation in this study is entirely voluntary. You may choose not to take part in this study. If you decide to take part, you can change your mind later and withdraw from the study. You are free to not answer any questions or withdraw at any time. Your decision will not change any present or future relationships with the University of XXXXX. If you are a current student taking class with the principal investigator, your refusal to take part in the study will not affect your grade or class standing. If you withdraw from the study, all information collected will be destroyed.

• Who do I contact with questions about this study?

- For more information about the study or the study procedures or treatments, or to withdraw from the study, contact:

• Who do I contact for questions about my rights or complaints towards my treatment as a research participant?

- The Institutional Review Board may ask your name, but all complaints are kept in confidence.
- Filling out the survey indicates that I am at least eighteen years old and I am giving my informed consent to be a participant in this study.

Introduction: example 2

- Welcome! Thank you for agreeing to take part in this research effort designed to evaluate work satisfaction among faculty. We know that your time is valuable and we greatly appreciate your assistance with this project.
- **Purpose of the Study**
- The Collaborative on Academic Careers in Higher Education is a study designed to understand the experiences of full-time faculty at colleges and universities. In particular, this survey assesses faculty satisfaction with a broad range of topics specific to the academic workplace.
- **Informed Consent**
- We have obtained permission to distribute this survey to adult subjects from the Committee on the Use of Human Subjects (the Harvard University Institutional Review Board of record for this study) and from your institution.
- **Data Use**
- The institutional research office at your institution has requested record level data, believing that it may help them to identify any trouble spots with regard to faculty job satisfaction and enable them to respond with constructive revisions to policies and procedures. This means that they will receive survey responses with information that may indirectly identify some respondents. Your institutional official receiving the data has signed an agreement stating that only aggregate data with no cells smaller than five respondents will be shared with broader audiences at your institution, and that no individuals in a position to make or influence individual faculty personnel decisions will have access to the data.
- Some data may be put to use by researchers at COACHE for the purposes of scholarly publication. COACHE may also share individually deidentified data with researchers from other institutions for the purposes of scholarly publication. Some aggregated, de-identified reports and presentations will be shared with institutional administrators and faculty groups seeking to improve their academic workplaces.
- If you wish further information about the institutional official assuming responsibility for the data at your institution, click here XXXX to send an email message to COACHE, whose staff will give you the name of your institution's responsible official. Any communication with COACHE is kept strictly confidential.
- **Privacy**
- Your privacy will be maintained in all published and written data resulting from the survey. We will not use your name or email address for any other purposes without your consent.
- **Security**
- Respondent data such as email address, name, institution, etc. will reside on a Structured Query Language (SQL) server behind a firewall. Survey response data will also reside, in a coded format, on a SQL server behind a firewall. To learn more about data security visit our Frequently Asked Questions Page.
- **Rights of Participants**
- Your contribution is entirely voluntary and you have the right to discontinue the survey at any time. You also have the right to refuse to answer specific questions by checking or selecting "Decline to Answer."
- **Eligibility**
- Full-time faculty at participating institutions.
- **Risks**
- There are no foreseeable risks associated with participation in this study.
- **Incentive**
- At the conclusion of this study, COACHE researchers will use the random number generator function in SPSS statistical package to identify five individuals from among all COACHE 2020 survey completers. If permitted by state law and campus policy, these five study participants will be contacted to receive an Apple Watch courtesy of COACHE. Odds of winning vary depending upon the number of completed surveys each year. However, if all faculty completed the survey in this year, the odds would be approximately 5 in 20,000. The five names will be identified by August 31 of the current year.
- **Questions or concerns about this study**
- The researchers for this study are XXXXX, who can be reached at XXXXX if you would like to talk to the research team, you think the research has harmed you, or you wish to withdraw from the study.
- This research has been reviewed by the Committee on the Use of Human Subjects in Research at Harvard University. They can be reached at XXXXX if your questions, concerns, or complaints are not being answered by the research team; if you cannot reach the research team; if you want to talk to someone besides the research team; or if you have questions about your rights as a research participant.
- **Instructions**
- The questionnaire was designed to be easy to complete. We estimate that the survey should take a approximately 25 minutes. As you finish each page and proceed to the next, your data will be submitted for processing. You can back up and change your answers on the previous page of the questionnaire by using the "Back" button on the screen. Do not to use the "Back" button in your browser.
- If you choose to suspend the survey to take a break, if your computer shuts down, or if you lose your Internet connection, you will be able to resume where you left off. Simply log back on using the link you received in the email we sent you. You will be offered a link at the top of this page that lets you resume where you left off, or you may start over by clicking the "Continue" button at the bottom of this page.

Introduction: example 2 - continued



collaborative on academic
careers in higher education

WELCOME

Welcome! Thank you for agreeing to take part in this research effort designed to evaluate work satisfaction among faculty. We know that your time is valuable and we greatly appreciate your assistance with this project.

Purpose of the Study

The Collaborative on Academic Careers in Higher Education is a study designed to understand the experiences of full-time faculty at colleges and universities. In particular, this survey assesses faculty satisfaction with a broad range of topics specific to the academic workplace.

Informed Consent

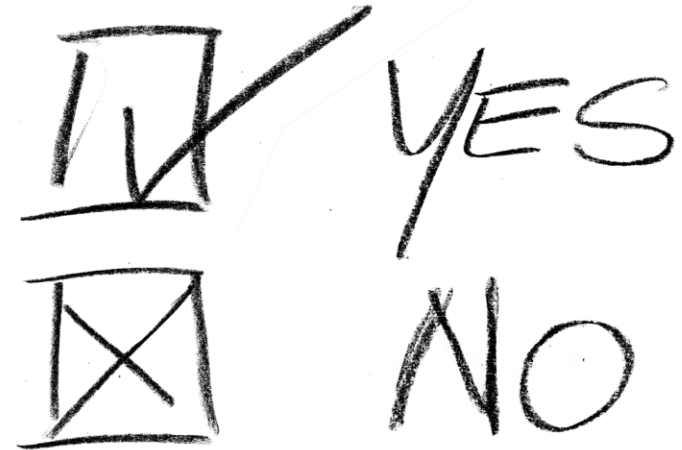
We have obtained permission to distribute this survey to adult subjects from the Committee on the Use of Human Subjects (the Harvard University Institutional Review Board of record for this study) and from your institution.

Data Use

The institutional research office at your institution has requested record level data, believing that it may help them to identify any trouble spots with regard to faculty job satisfaction and enable them to

Introduction: example 3

- **Thank you for your participation in our survey!**
- You must be 18 years of age to take this survey.
- The survey includes 14 questions and should take 10-15 minutes to complete.
- There are 10 multiple-choice and 4 qualitative text-entry questions.
- You will be asked to include a link to your institutions privacy policy (if one exists).
- After completion, you will be able to submit an email address (not linked to the survey answers) in order to receive an Amazon gift card.
- The answers provided in this survey will be collected anonymously, and the software will not collect any personal or identifying information.
- **What will this survey be used for?**
- The information gathered will be used to write an article, with all identifying information removed and/or anonymized.
- In the event of inclusion in a publication all identifying information will be securely deleted at the end of the project.
- **The Fine Print**
- The Institutional Review Board (IRB) at XXX University has approved this study (Ref #XXXX).
- Your participation is completely voluntary.
- The investigators listed below will be the only persons with direct access to the information provided in the Qualtrics survey software.
- Please feel free to contact one of the investigators listed below with any concerns or questions.



Middle Content

- 1 sensitive question
- 2-3 heavy cognitive load questions



End

- Demographics
- Don't forget to thank respondent
- Deliver incentives



A landscape photograph with a dark blue sky and a white foreground, possibly snow or a bright field. The text "A few last details" is centered in the middle of the image.

A few last details



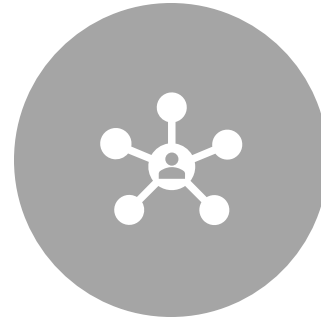
Design of web-based surveys

- Use a progress bar and number your questions.
- Avoid excess color.
 - Bright colors make concentration difficult.
- Avoid unnecessary in-between pages or images
- Do not use background images if they make the text harder to read.
- Do not break up a question and its answers between pages.
- Avoid drop down lists that require scrolling or scrolling back and forth horizontally.
- Make sure the survey can be re-administered.
- <https://fiu.qualtrics.com>

Do you need to go through IRB?



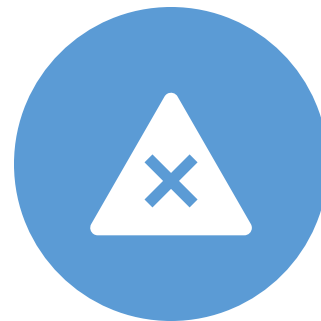
• IRB approval is required when conducting “**research**” with “**human subjects**”



• **Interaction** includes communication or interpersonal contact between investigator and subject



• **Private information** includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation or recording is taking place, and information that has been provided for specific purposes by an individual and that the individual can reasonably expect will not be made public (e.g., a medical record).



• **Identifiable private information** is private information for which the identity of the subject is or may readily be ascertained by the investigator or associated with the information.

Kelley Rowan: krowan@fiu.edu

Don't forget to
pre-test!

Ask a minimum of 2 other people to
review your survey

[Dataverse.fiu.edu](https://dataverse.fiu.edu)

Contact Jill Krefft

jkrefft@fiu.edu

FIU Research Data Portal

Metrics 1 Download

Contact S

Share and publish your data. Find and cite data across all research fields.

Welcome to FIU's Research Data Portal, a dataverse repository. Add, share, and publish your data to the main FIU dataverse, or choose your project or lab's data collection.

Learn More:

- Go to the Research Data Portal User Guide
- Contact Us

Search this dataverse... Find Advanced Search + Add

Datasets (0)

Datasets (3)

Files (9)

Metadata Source

FIU Dataverse (2)
FIU Research Data Portal (1)

Publication Year

2019 (3)

Author Name

Admin, Dataverse (2)
Jason Fontana (1)
Wazim Mowla (1)

Subject

Arts and Humanities (1)
Earth and Environmental Sciences (1)
Other (1)

Keyword Term

Crime (1)
Miami (1)
Overtown (1)
test (1)

Deposit Date

2019 (3)

1 to 3 of 3 Results

Segregated Crime in Overtown, Miami (1950-1958)

Nov 25, 2019

Wazim Mowla; Jason Fontana, 2019, "Segregated Crime in Overtown, Miami (1950-1958)", <https://doi.org/10.34703/gzcx1-9v95/TANBMW>, FIU Research Data Portal, V1, UNF:6.vPgnq8FzK20Wd3VBXgRTw [fileUNF]

This dataset represents 3,544 cases from Miami's Negro Municipal Court between September 1950 to December 1958. The case was first reported by Elliott J. Pieze, a staff writer for the historically black newspaper, The Miami Times. His recurring article, "Good Morning Judge," cata...

Test 4

Aug 14, 2019

Admin, Dataverse, 2019, "Test 4", <https://doi.org/10.23674/gzcx1-9v95/7QJCEY>, FIU Research Data Portal, V1, UNF:6.vOZriR1NKIKYR8JE94Ucw== [fileUNF]

LOREM IPSUM GENERATOR Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in r...

Test2

Aug 9, 2019

Admin, Dataverse, 2019, "Test2", <https://doi.org/10.23674/gzcx1-9v95/ROBPYS>, FIU Research Data Portal, V1

Test2

Why use Dataverse & how to start saving your data

- Allows data to be usable by others, increasing citation and impact
- A data management plan (DMP) is being required by federal and other funding agencies as well as journals

Saving your data

- File name should accurately represent what it is
- Avoid symbols *%@\$#
- Data should be formatted by YYYYMMDD
- Use underscores (_), not spaces, dashes, or hyphens
- Under 32 characters

Example of file name:

Survey_privacy_Rowan_20200329

Check for usable formats:

<http://rdm.fiu.edu/dataverse/>

Resources

- Kelley Rowan
 - Krowan@fiu.edu
 - 305.348.1079
- FIU Libraries LibGuide
 - <https://library.fiu.edu/SurveyDesign>
- Duke University: Initiative on Survey Methodology
 - <https://dism.ssri.duke.edu/survey-help/tipsheets>