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Housekeeping

The Recording will be provided after the presentation

Recording

Later: Live Questions and Answers session will be opened to participants

Q&A

Live Interaction: The comment box will be used for interaction among participants

Live Chat

Introduction to Academic Surveys

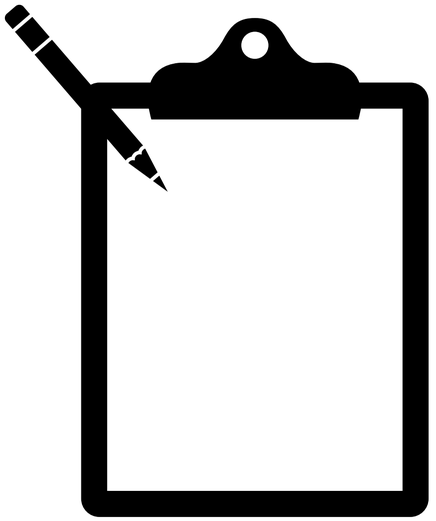
By: Benjamin Ohene Kwapong Baffoe, D.Eng.

20th February, 2022.

Source: Ms. Reynolds Classroom Canvas

Note

The content of this presentation is not intended to be a Codebook but for Introductory reference purposes; the presentation is by no means complete or comprehensive.



Refer to Survey Methodology Textbooks, Peer-review Articles, and others for a comprehensive review of the topic presented.

"Some useful survey specialists you can refer to are: Robert M. Groves, Don A. Dillman, Floyd J. Fowler Jr., Mick P. Couper, James M. Lepkowski, Eleanor Singer, Roger Tourangeau, Paul P. Biemer, Lars E. Lyberg, and other notable scholars" (Baffoe, 2020).

TOTAL SLIDES FOR THE PRESENTATION IS 22

What is/are your “expectation(s)” for this session?

Today's Learning Objectives:

- ✓ Define and Identify the Purpose of a Survey
- ✓ Recognise the Various Sampling Method
- ✓ Gain the Ability to Develop Standardised Questioning
- ✓ Utilise the Appropriate Data Collection Method
- ✓ Gain the Ability to Critique a Research Survey Article
- ✓ Gain an Advice on Effective Research Survey

What is a “Survey” in an Academic Research?

“A survey is a systematic method for gathering information from (a sample of) entities for the purposes of constructing quantitative descriptors of the attributes of the larger population of which the entities are members”

Source: *Groves, R. M., Fowler, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2009). Survey methodology second edition. Pp. 2*

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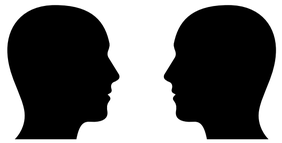
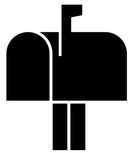
Techniques in Administering a Survey

Traditional

Face to face Interviewing



Self-administered Mail Questionnaires



Telephone Interviewing

Note:

These two techniques serves as an

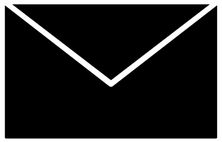
Alternative

or

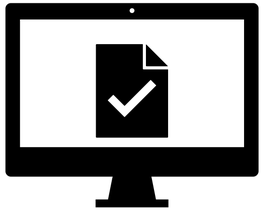
Complement

Modern

E-mail Surveys



Web-based Surveys



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Purpose of Research Survey

Obtaining/ verifying/ confirming facts

Source: ichemblog website

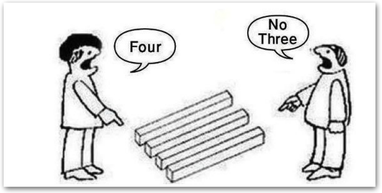
Assessment of performance

Source: theheadteacher website

Understanding/ analysing attitudes

Source: Worknlearn website

Understanding/ analysing perceptions



Source: proprofs website

Understand the Keywords from the Definition of a Research Survey

Keywords

- Systematic method
- (A sample of) entities
- Quantitative descriptors
- Attribute of a larger population

Objective

Ethical and proper way of doing surveys:

- ➡ Survey planning
- ➡ Survey questions formats
- ➡ Survey instrument development
- ➡ Survey administration
- ➡ Result processing
- ➡ Survey data analysis

Results

- Ensure Validity of study
- Ensure Reliability of study
- Minimise cost
- Minimise respondent's burden

Sources:

- *Tourangeau, R., Rips, L. J., & Rasinski, K. A. (2000). The psychology of survey response. Cambridge University Press.*
- *Snijkers, G. (2013). Designing and conducting business surveys. Wiley.*
- *Suskie, L. & Association for Institutional Research. (1996). Questionnaire survey research: What works. Association for Institutional Research.*
- *Groves, R. M., Fowler, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2009). Survey methodology second edition.*

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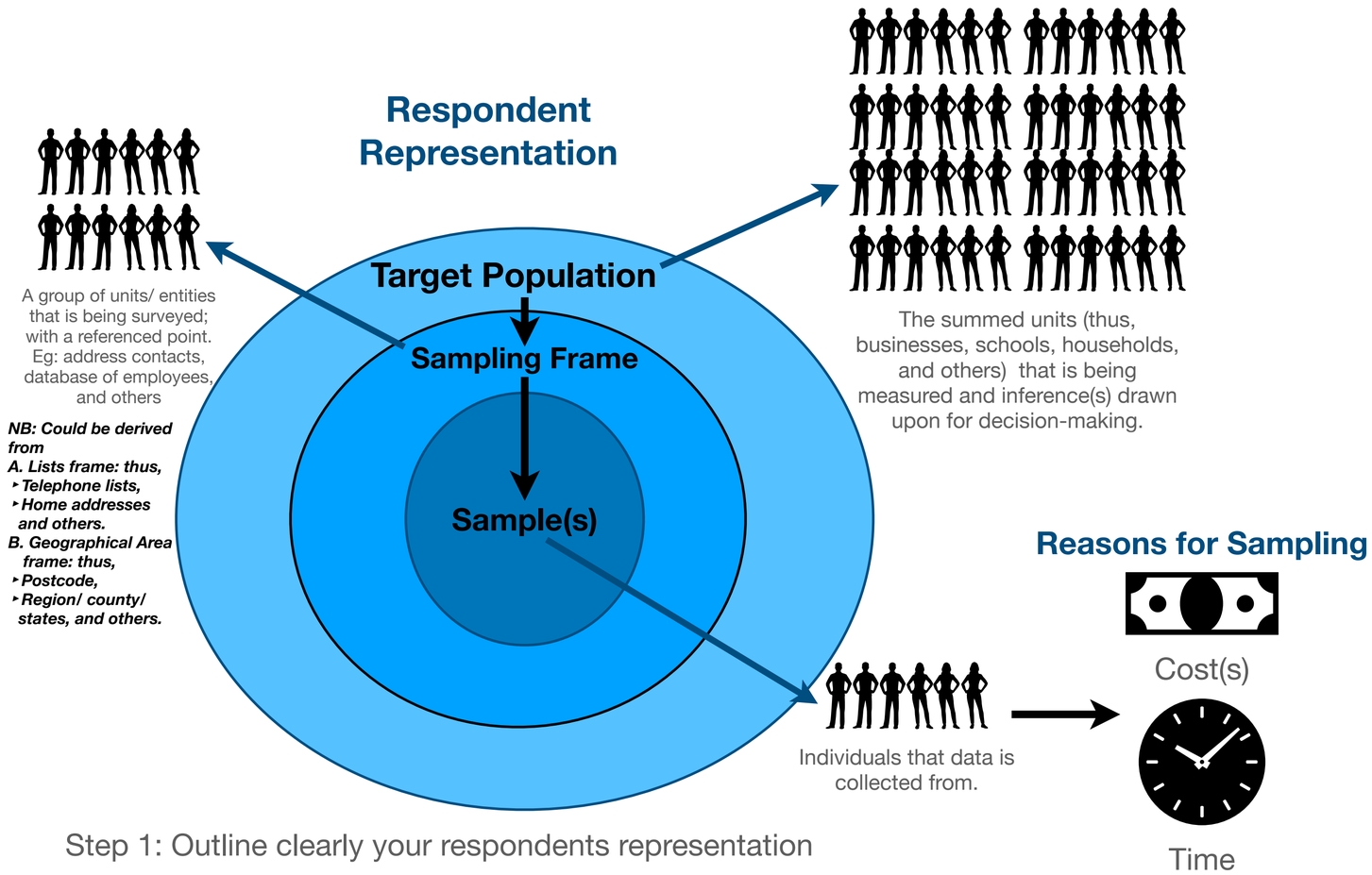
Sampling Techniques



Step 1: Outline clearly your respondents representation

*Example: International students in Peking University (**Target Population**) > Contact lists of International Students with Mainland China's phone number (**Sampling Frame using list frame**) > International students using Chinese phone service for more than two years (**Sample**).*

Sampling Techniques

Probability sampling

- ➡ Simple random sampling
- ➡ Stratified random sampling
- ➡ Systematic random sampling
- ➡ Cluster random sampling
- ➡ Multi-stage random sampling

Non-probability sampling

- ➡ Snowball sampling
- ➡ Purposive sampling
- ➡ Quota sampling
- ➡ Convenience sampling
- ➡ Self-selected/ Voluntary response sampling

Aid in generalisation of study

Does not aid in generalisation of study

Step 2 Choose a suitable sampling technique

For more useful resource links on Random Sampling, click here

Sources:

- *Tourangeau, R., Rips, L. J., & Rasinski, K. A. (2000). The psychology of survey response. Cambridge University Press.*
- *Groves, R. M., Fowler, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2009). Survey methodology second edition.*
- *Click Link 1; Link 2; and Link 3 for more details*

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Questionnaire Design

1. **Decide what information is needed**. Conduct focus groups if needed to explore the topic to find out what information is required.

2. **Search data archives** for existing questions and scales on the topics of interest.

Emphasis added: "Ensure to give credit to the author(s) of the previous study by referencing the source you obtained the existing questions from"

3. Draft new questions or revise existing questions.

4. Put the questions in sequence.

5. **Format** the questionnaire.

6. **Pre-code** the possible responses.

7. Use **pretest interviews** and solicit peer feedback of draft questionnaires.

8. **Revise the draft and test** the revised questionnaire on yourself, friends, or coworkers.

9. **Prepare simple interviewer instructions for pilot testing**; revise questionnaire if the instruction writing or interviewer training uncovers any problems *(If possible).*

10. **Pilot-test** on a small sample of respondents (twenty to fifty) similar to the universe from which you are sampling.

11. **Obtain comments** from interviewers and respondents in writing or at interviewer debriefings *(if possible).*

12. **Eliminate questions** that do not discriminate between respondents or that do not appear to provide the specific kind of information required.

13. Revise questions that cause difficulty.

14. **Pilot-test again** if revisions are substantial.

15. **Prepare final interviewer instructions**; **revise questionnaire** if the instruction writing uncovers any problems.

16. **Use the experience gained** on one questionnaire for future planning.

Note: *The the complete design steps for interview/ questionnaire can be found in the reference below. Nonetheless, the above can aid you in questionnaire design.*

Source*: Bradburn, N. M., Sudman, S., & Wansink, B. (2004). Asking questions: the definitive guide to questionnaire design for market research, political polls, and social and health questionnaires. John Wiley & Sons. Pp. 316*

Most of you have answered some survey questionnaire(s) before; what are some of the problem(s)/ challenge(s) you encountered during your questionnaire response(s)?

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Attention: Cognitive Process in Answering Questions

To Do

1. Ensure that question(s) can be comprehended by the respondents (thus, understood).
2. Design the question(s) for respondents to easily retrieve information meant for answering your questions (thus, simple and less complex).
3. Questionnaire should be well designed that respondents will be in a position to provide you with a good judgement and estimate answer.
4. Questionnaire should be designed in a way that respondents will be able to report accurately, the answers needed for the study.

To Prevent

1. Complex syntax
2. Working memory overload
3. Vague or ambiguous noun phrase
4. Unfamiliar technical term
5. Vague or imprecise predicate or relative term
6. Misleading or incorrect presupposition
7. Unclear question category
8. Amalgamation of more than one question category
9. Mismatch between the question category and the answer options
10. Difficult to access (that is, recall) information
11. Respondent unlikely to know answer
12. Unclear question purpose

Source: *Groves, R. M., Fowler, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2009). Survey methodology second edition. Pp. 218-224; 260-261*

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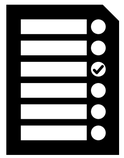
Validity, Reliability, and Ethical Requirements Prior to Data Collection

Initial Steps



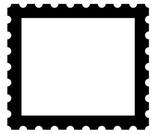
Questionnaire developed.

Experts and selected sample members to pre-test the questionnaire.

Experts and selected sample members to post/pilot test the questionnaire.

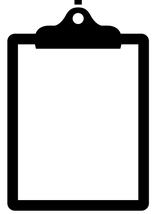
Supervisor(s), College, Institutional Review Board (IRB) approves the questionnaire.

Pre and Post Submission Steps



Obtain an official letter of introduction to respondents from your institution after your questions have been approved.

Include a scan copy of your student ID (your details must be clear) and attach it to the letter of introduction meant for respondents.



Develop a respondents data distribution and collection schedule to remind them of the survey (Usually after an introductory letter is sent and the initial survey questions submitted, an extra 3 or 4 follow up schedule notices sent to respondents are ideal).

Objective

- Establish Credibility
- Encourage Trust
- Accord Respect
- Establish a Line of Communication and Friendship
- And others

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Data Collection: Survey Introduction and Informed Consent

Letter	Meaning
A	Institution name or logo.
B	Title of your survey research.
C	Purpose of the study (be brief).
D	Completion time of survey (be honest to participants).
E	Target sample to survey and their requirement (be clear about it).
F	Research personnel involved in the study.
G	Potential risk/ discomfort to participants.
H	Potential benefits participants may gain from the study.
I	Anonymity/ confidentiality clause.
J	Voluntary withdrawal notice.
K	Contact details of primary researcher for participants to reach for any concerns or questions.
L	Anonymity/ confidentiality agreement between researcher and participants, re-confirmed for ethical purposes.
M	Participant's requirement, is re-confirmed to ensure you are surveying the right sample.

Key points

- Establish Credibility
- Encourage Trust
- Accord Respect
- Establish a Line of Communication and

A — WALDEN UNIVERSITY

B — **Cloud Computing Adoption Survey for U.S. Hospitals - Consent**

C — **Purpose**. You are invited to participate in a research study being conducted for a dissertation at Walden University. The purpose of this study is to examine the relationship between the technological and organizational factors and the intention for IT managers of U.S. hospitals to adopt cloud computing.

D — It will take about 10 to 15 minutes to complete and there is no deception in this study. I am interested in your opinions about cloud computing adoption.

E — **Participation Requirements**. Participants for this study are expected to (a) have some expertise pertaining to the IT activities and operations, (b) play a role in influencing the adoption decision process and (c) work in a U.S. hospital.

F — Research Personnel. The following people are involved in this research project and may be contacted at any time:
Terence Lee (Researcher-Primary contact) - terence.lee@waldenu.edu
Dr. Christos Makrigeorgis (Dissertation Chair) - christos.makrigeorgis@waldenu.edu

G — Potential Risk / Discomfort. There is no known or anticipated risk in this study. However, you can choose not to answer any question that makes you uncomfortable.

H — **Potential Benefits**. If desired, you could receive a summary of the investigation finding upon completion of the research. The results will have scientific interest that may eventually have benefits for people who contemplate adopting cloud computing. No incentive for participation is offered.

I — **Anonymity/Confidentiality**. The data collected in this study are confidential. To ensure the anonymity of the respondents, this survey tool is utilized to provide anonymous response collection. All data is collected and coded such that your email are not associated with them. In addition, the coded data are made available only to the researcher associated with this project.

J — **Withdrawal**. Participation in this study is voluntary and can withdraw at any time. You may also skip questions on the questionnaire if you do not want to answer them. I am happy to answer any question that may arise about the study. Please direct your questions or comments to: Terence Lee, via email at: terence.lee@waldenu.edu. If you have any question concerning your rights as participants, you would contact the Walden Research Participant Advocate (phone: 1-612-312-1210 or email: irb@waldenu.edu).

K

L

1) To authorize participation in this survey, please consent to the above anonymity/confidentiality terms, please select "I agree" below to proceed with the survey. *Please keep/print a copy of this consent page for your future reference.	
I agree	
I do not agree	

M

2) For the purpose of this survey, the participant is expected to have IT knowledge, play a critical role in influencing technology adoption decisions and work in an U.S. hospital. Please indicate whether you meet this profile.	
Yes	
No	

Source: Lee, Terence H. 'Regression Analysis of Cloud Computing Adoption for U.S. Hospitals"'. Walden Dissertations and Doctoral Studies. 588, 2015, pp. 231-232

Mate Masie

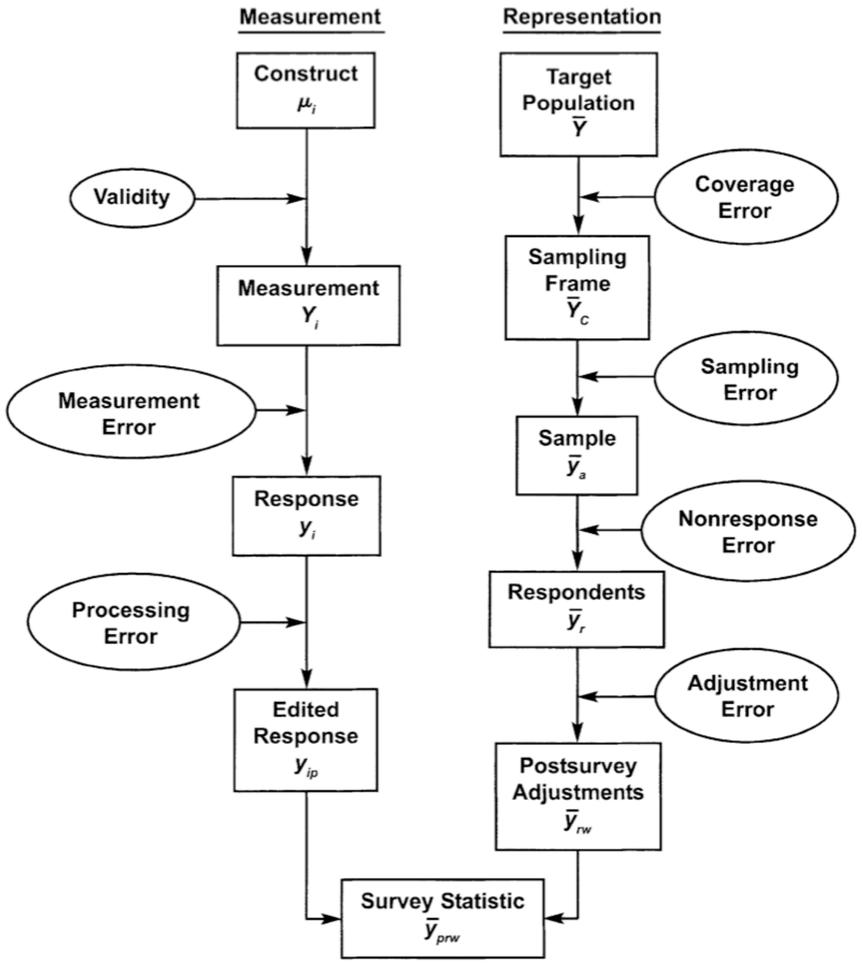
Research Survey Article Critique

For more details refer to these sources:

- *Kelley, K. (2003). Good practice in the conduct and reporting of survey research. International Journal for Quality in Health Care, 15(3), 261–266. https://doi.org/10.1093/intqhc/mzg031*

- *Draugalis, J. R., Coons, S. J., & Plaza, C. M. (2008). Best Practices for Survey Research Reports: A Synopsis for Authors and Reviewers. American Journal of Pharmaceutical Education, 72(1), 11. https://doi.org/10.5688/aj720111*

Key Goals: Prevent Errors, Produce Ethical, Valid, Reliable, and if Possible Generalised Survey Results



Objective

- Reduce/ Eliminate Survey Errors
- Prevent Bias in the Study
- Reduce/ Prevent Non-Response(s)
- Obtain a Valid, Reliable, and Usable Data for Statistical Analysis and Decision-Making
- Encourage Replicability of Survey Process, Results, and others

Source: *Groves, R. M., Fowler, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2009). Survey methodology second edition. Pp. 48*

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Advice

- *Understand what Independent and Dependent Variables are; learn how to identify and develop a questionnaire using them, and study its associated advantages and disadvantages.*
- *Learn what an Effect Size is, and how it is calculated.*
- *Pay attention to your Questionnaire Design (it is important to learn how you can develop a good, concise, and understandable Open and Close Ended Questions) to prevent Respondents Burden, Errors, and Bias.*
- *Endeavour to seek Permission, Acknowledge, and Reference author(s), whose survey instrument(s)/ questionnaire(s) were used or modified in your study.*
- *Be Honest with your respondents on the estimated Time they will likely spend answering your questions.*
- *Indicate exactly the Total Number of Questions the respondents may respond to in your introductory message.*
- *Avoid Coercing respondents (leads to information bias).*
- *Try to avoid the use of Excess Incentives (may also lead to information bias).*
- *Pay attention to Grammar issues in your questionnaire design and development.*
- *Learn proper Data Management Procedures and Protocols for your survey.*
- *Make sure to report the Response Rate and Non-Response Rate with their associated reasons in your study.*
- *Learn about the Ethics and Procedures for your Data Cleaning, Analysis, and Reporting.*
- *Do not forget to state the Software(s) or Tool(s) used in your survey instrument development, data collection, data processing and cleaning, analysis, and reporting.*

Things to Ponder On: "O. O. T"

"Others have laboured and we share their glory,

Ours to do exploits and add to their gain,

Those who come after will take up our story,

May it be worthy of singing again."

Source: ***Adisadel College School Ode***

Please, Let YOUR LIGHT SHINE to the WORLD; in ALL your THOUGHTS, DEEDS, and ACTIONS to your FELLOW MEN.

Benjamin Ohene Kwapong Baffoe, D.Eng

Questions and Answers

Q&A

Feedback(s)

baffoe.pro-borno@outlook.com

References

1. *References and links to source materials can be found in the slides.*
2. *Adinkra Symbols, accessed via http://www.adinkra.org/htmls/adinkra_index.htm, 14th February, 2022.*
3. *All pictures obtained from the internet are duly referenced with the source link (click the image to the source site).*
4. *Other artworks were done using Mac OS Keynote software.*