



Understanding Freelisting and its Application in Research

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Introduction

- Freelistings is a qualitative research method used to **identify and rank items** within a specific **domain**.
- It helps researchers understand what people consider most important in a given topic by asking them to **list all the items** that come to mind.
- It can be used as an elicitation technique during one-on-one interviews or in group settings.
- It was developed by anthropologists in the early 1980s and has been increasingly used since.
- However, lack of resources providing guidance is a barrier to conducting studies that incorporate freelistings.

Introduction (2)

Example: Researchers ask participants to name all the items that come to mind in response to a prompt, “What comes to mind when you think about staying healthy?”

Freelister 1	Freelister 2	Freelister 3
1. Eating vegetables	1. Exercising daily	1. Eating fresh foods
2. Exercising daily	2. Eating high protein diet	2. Exercising daily
3. Drinking enough water	3. Running or jogging	3. Getting enough sleep
4. Getting enough sleep	4. Staying hydrated	4. Taking prescribed medications
5. Reducing stress	5. Getting enough sleep	5. Spending time with family

Items are ranked by:

- **Frequency** - how often an item is mentioned.
- **Salience** - a measure that considers both frequency of items as well as its rank.

Why Use Freelisting in Research?

- **Identify Key Concepts** – What are the most important things people associate with a topic?
- **Prioritize Issues** – What concerns or ideas are mentioned the most?
- **Compare Groups** – How do different people (e.g., men vs. women, patients vs. doctors) think about the same topic?
- **Develop Research Tools** – Can be used to design **surveys, interview guides, or focus group discussions.**

Assumptions of Freelisting

- Freelisting is a well-established research method that rests on three assumptions.
 - **First**, when people freelist, they tend to list terms in order of familiarity.
 - **Second**, individuals who know a lot about a subject list more terms than do people who know less.
 - And **third**, terms that most respondents mention indicate locally prominent items.

Phases of the Freelisting Process

1. Design and Recruitment
2. Data Collection
3. Data Management
4. Data analysis

- Select the population.
- Sample size of 20 is required to reach saturation.
- Determine what comparisons to make (between groups or between concepts), if any.
- Determine how to incorporate freelisting into overall design of the study (on its own or with other methods).

Phases of the Freelisting Process

1. Design and Recruitment
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- Design the interview guide.
- Determine how it will be administered (in person, online, on the telephone.)
- Pilot the guide.
- **Collect the Lists – everything participants can think of and in order**
- Collect demographic data or other data if the plan is to sort the data and make comparisons.

Phases of the Freelisting Process

1. Design and Recruitment
2. Data Collection
3. Data Management
4. Data analysis

- Create a final list for each question, and clean the list to combine root words, synonyms, and words with similar meanings.
Eg: “scent” and “smells”
- If making comparisons, create separate lists (files) for each group for each question.
- Convert each file into a text file.

Phases of the Freelisting Process

1. Design and Recruitment
2. Data Collection
3. Data Management
4. Data analysis

- Import the files into an analytic software.
Eg: Anthropac, FLARES
- Observe frequency, salience, and patterns.
- Create a scree plot to visually determine most salient items.
- Use tables and Venn diagrams to display differences and similarities between groups.

Example : DataDENT

Study Title: Improving Measurement of Maternal Nutrition Micronutrient Supplement Coverage in Ethiopia

Aim: improve the validity of indicators and questions used to measure coverage of maternal nutrition micronutrient supplementation in large scale household surveys in LMIC.

Phase I: Included Freelisting to identify products [e.g. tablets, pills, syrups, powders] that women are exposed to during pregnancy and postpartum.

Example : DataDENT (2)

- Interviewer asked, “When women in your community are pregnant, what products are they exposed to at a health center, pharmacy, or market?”

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	IV_P_01	IV_P_02	Pub_Pharm_03	Pub_Pharm_01	PC_HP_01	PC_P_01	PC_PW_03	PC_PW_01	PC_PW_02	HC2_HP_02	HC2_HP_01	1	1	HC_HP_01
2	pregnancy	pregnancy	pregnancy	ferrous sulfate	folic acid	pregnancy	pregnancy	folic acid	pregnancy	folic	iron	iron	Don't know name	iron with folic acid
3	postnatal		foliron	fenza	pregnancy	promam		pregnancy	antibiotic	albendazole	plumpy nut		Like a supplement	albendazole
4			fenza	folic acid	iron folate	fenza			glucose					magnesium sulfate
5						ferrotone								heam up
6						folic acid								pregnancy

Example : DataDENT (3)

anthrocogs.com/shiny/flares/

FLARES - Free List Analysis under R Environment using Shiny

Introduction Upload Normalization & Categorization Item Analyses Respondent Analyses

Introduction

Tell us about yourself and your dataset!

Submitting your email address is required to continue.

All other fields are optional.

* **Email address.**

john.doe@mymail.cor

Welcome back!

I'm working with a new dataset.

FLARES

Free-listing

How to?

Users across the globe

About

FLARES is an online, open-source software for free-list analyses.

FLARES was developed to overcome some of the limitations of its direct ancestor [FLAME](#) which is a set of VBA macros running under Microsoft Excel (Pennec et al., 2012).

While maintaining the same philosophy - making free-list analysis as user-friendly as possible - FLARES offers:

- **An extended accessibility.** Web-based, you just need a web-browser and you can access FLARES from any operating system.
- **Regular updates.** Users are always sure to work with the latest version of FLARES as the application is regularly updated on the server.
- **Integrated statistical analyses.** While FLAME required the use of third-party software to conduct exploratory and multivariate analyses, the latter have been directly integrated into FLARES through the use of existing R packages (listed in the 'About' sub-tab).
- **A user-friendly and interactive interface.** The use of rStudio's shiny package allows for an interactive interface allowing user's to generate tables and aesthetic plots without ever modifying their original data.

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Example : DataDENT (4)

Upload file containing free lists

Select your file format

Lists by columns (FLAME) ▼

For the selected file format a data format example is provided on the right hand side of your screen.

Choose your CSV file

Browse... Freelist_all.csv

Upload complete

Seperator

Semicolon

Comma

Tab

Quote

None

Double Quote

Single Quote

Uploading data

[Item categorical information](#)

No pair of duplicates was found in your dataset.

IV_P_01	IV_P_02	Pub_Pharm_03	Pub_Pharm_01	PC_HP_01	PC_P_01	PC_PW_03
prenatal	prenatal	prenatal	ferrous sulfete	folic acid	prenatal	prenatal
postnatal		foliron	fenza	prenatal	promam	
		fenza	folic acid	iron folate	fenza	
					ferrotone	
					folic acid	

Example : DataDENT (5)

Free-List Analyses

Dataset summary

Nb of Respondents: 27
 Number of different cited items: 35
 Total number of cited items: 77
 Average list length: 2.9

Download Item-by-Resp Matrix

Type of matrix

Presence/Absence Rank

Choose CVS Format

Semicolon (FR) Comma (ENG)

[Download](#)

Cultural Saliency Item by Item Proximity Item categories analysis Data Saturation

Table Chart Methods

Download Free-List Results Table

Choose CSV Format

Semicolon (FR) [Download](#)

Comma (ENG)

Smith Index

The most popular index is **Smith's index** (Smith and Borgatti 1997; Sutrop 2001).

$$S_a = \frac{\sum_{i=1}^N \frac{L_i - R_{ai} + 1}{L_i}}{N}$$

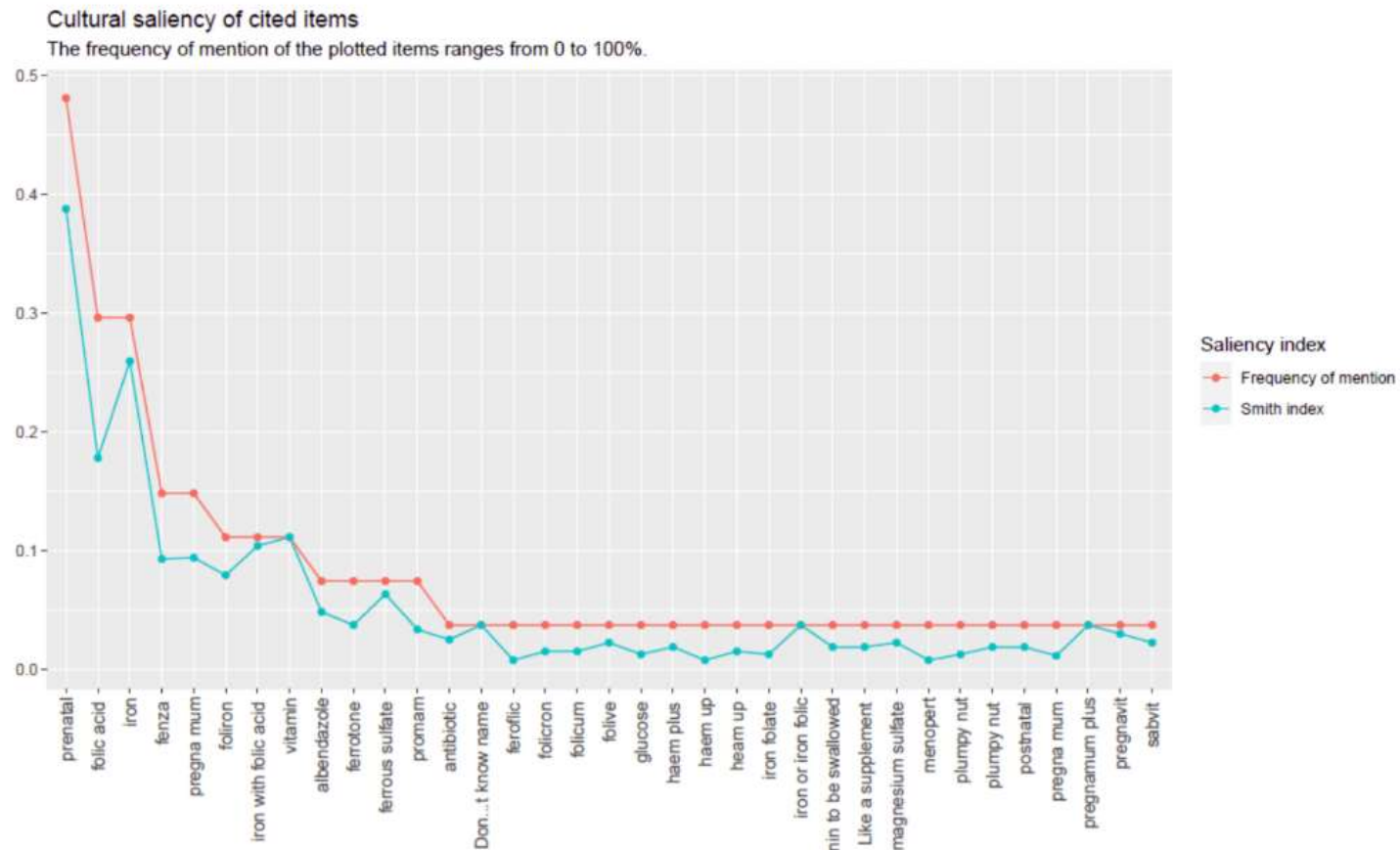
With:

- S_a : Cultural salience of item a
- N : Number of lists (number of respondents)
- L_i : Length of list i
- R_{ai} : Citation rank of item a in list i

Show **All** entries

	Cited_Items	Freq. of Mention	Rel. Freq. of Mention	Mean Rank of Citation	Smith Index
32	prenatal	13	0.481	1.692	0.3877
17	iron	8	0.296	1.25	0.2593
8	folic acid	8	0.296	2.75	0.1778
35	vitamin	3	0.111	1	0.1111

Example : DataDENT (6)



Limitations

- Inventories may not be as exhaustive as inventories gained through other methods such as KIIs.
- The specificity of domains can limit freelists.
- Variation in participant knowledge.
- They reflect only terms in a respondent's active vocabulary.
- Recall bias

Strengths

- Can be rapidly collected, analyzed, and quantified.
- Recognition tasks, questionnaires, and sorting and ranking interviews, for example, have predetermined responses built into the instrument.
- Unlike data from less structured interviewing, freelists are quantifiable.
- Results can be incorporated into mixed-methods studies.

Summary

- Freelistng is a qualitative research method used to identify and rank items by frequency and salience.
- Freelistng helps identify key concepts in a domain, prioritize Issues, compare groups or concepts, develop research tools, develop educational material, etc.
- Despite its limitations, freelistng is an efficient way to gather structured data on subjective topics.
- To enhance its effectiveness, freelistng is often combined with other qualitative methods, such as in-depth interviews or surveys, to provide a more comprehensive understanding.

References

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Thank you!