Card Sorting

NELL RICE
User Experience Design

SUMMARY

Card sorting asks users to organize data into logical groups. By analyzing the outcome of a card sort, UX designers can identify patterns and trends in how users classify data and apply it to the way information is grouped, labeled, and organized within a site or application.

METHODOLOGY

Users were asked to organize the following labelled cards into similar groups and assign each group a name.

CARD 1
Read reviews about local contractors

CARD 2
Write and submit a review

CARD 3
View a list of contractors

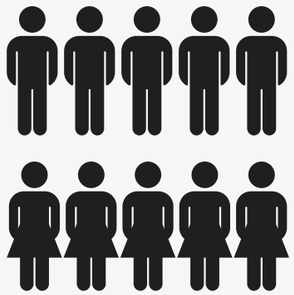
CARD 4
View a list of reviewers

CARD 5
Read about how to choose a contractor

CARD 6
Become a reviewer

CARD 7
List yourself as a contractor

PARTICIPANT DATA:



10
# of Particpants

HIGH LEVEL RESULTS:

15
# of unique categories

3
Average # of categories created

3
Highest # of categories created

Card Groupings : C= Card / P=Participant-2

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Group 1	Reviews C1 C2 C4 C6	Submit a Review C2 C6	Reviews C1 C3 C4 C5	Write a Review C2 C4 C6	Read Reviews C1 C3 C4 C5	Review Contractors C1 C3 C5	Lists C3 C4	Reviewers C2 C4 C6	Find a Contractor C1 C3 C5	Contractors C1 C3 C5 C7
Group 2	Contractors C3 C5 C7	Choose a Contractor C1 C5 C7	Become a Reviewer C2 C6	Choose a Contractor C1 C3 C5	Contribute C2 C6 C7	Reviewers C2 C4 C6	Reviews C1 C5	Contractors C1 C3 C5 C7	Submit a Review C2 C4	Reviewers C2 C4 C6
Group 3		View a List C4 C3	Become a Contractor C7	Become a Contractor C7		Become a Contractor C7	Contribute C2 C6 C7		Join C7 C6	

DATA REPORTING & ANALYSIS: AGREEMENT

The data collected from each participant's card sort was configured to create an agreement matrix counting the frequency of co-occuring card pairs and assigning a similarity rating based on the % of participants in agreement regarding that pair.

A 10% threshold was used to eliminate card combinations selected by only one participant or no participants.

Agreement Matrix

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Sum	Similarity Rating
C1 & C5		1	1	1	1	1	1	1	1	1	9	90%
C2 & C6	1	1	1	1	1	1	1	1		1	9	90%
C3 & C5	1		1	1	1	1		1	1	1	8	80%
C1 & C3			1	1	1	1		1	1	1	7	70%
C2 & C4	1			1				1	1	1	5	50%
C3 & C4		1	1		1	1	1				5	50%
C4 & C6	1			1	1			1		1	5	50%
C5 & C7	1	1						1		1	4	40%
C1 & C4	1		1		1						3	30%
C1 & C7		1						1		1	3	30%
C2 & C7					1	1	1				3	30%
C3 & C7	1							1		1	3	30%
C6 & C7						1	1		1		3	30%
C4 & C5			1			1					2	20%

DATA REPORTING & ANALYSIS: SIMILARITY & CORRELATION

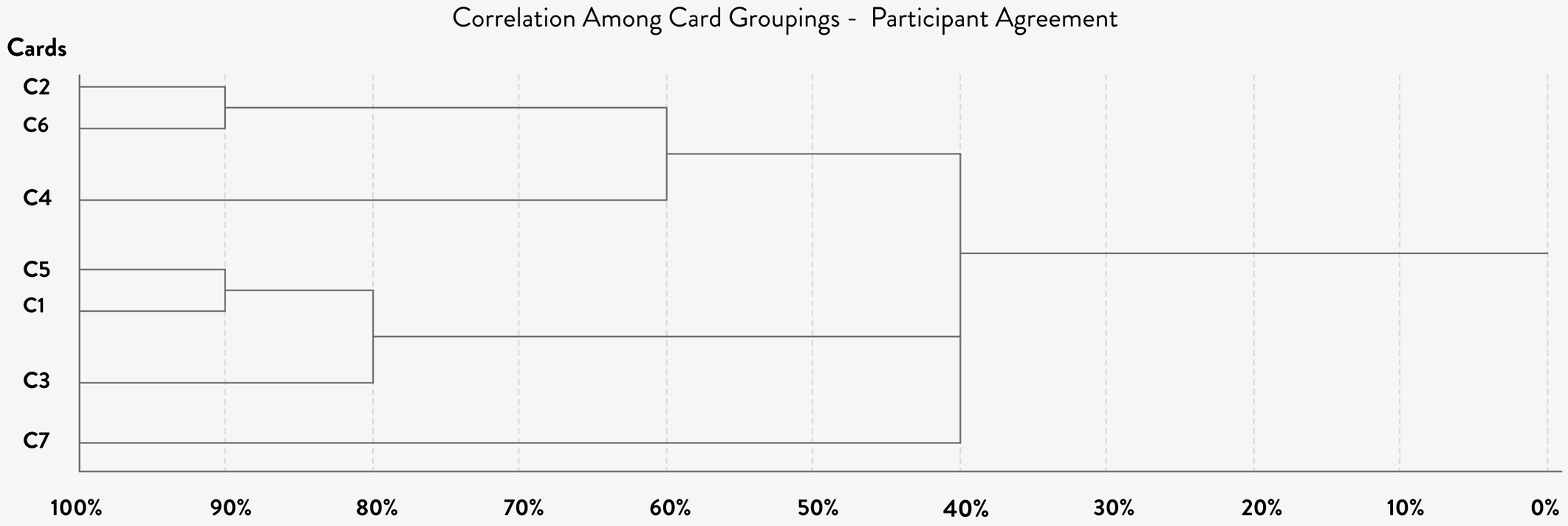
The similarity matrix at right displays the frequency with which any one card was grouped with another as a percentage.

The dendogram below is a visual representation of the hierarchical relationship between the cards, clearly indicating the primary clusters,

90% of participants agreed cards C2 and C6 (group A) should be grouped together, and cards C5 and C1 (group B) should be grouped together. 80% agreed card C3 should accompany group B, while 60% agreed C4 should accompany group A. Card C7 was the most difficult for most participants to place, with 30% opting to leave it in a category on its own.

Similarity Matrix

C2						
90	C6					
60	50	C4				
0	0	20	C5			
10	10	30	90	C1		
0	0	40	80	70	C3	
20	30	0	40	30	30	C7



DATA REPORTING & ANALYSIS: CATEGORIES

Most participants categorized the cards into three groups; three was also the maximum number of groups created. Although 15 unique category names were provided, only 8 were suggested by more than one participant.

Those categories may be distilled into the following schemes:

AUDIENCE

Reviewers
Contractors

TOPICS

Reviews

TASKS

Become a Contractor
Submit a Review
Read Reviews
Choose a Contractor
Contribute

7 of 10 participants categorized schemes relating to reviews and reviewers ahead of those pertaining to choosing or becoming a contractor.

Categories by Participant

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	TOTAL
Reviewers						1		1		1	3
Contractors	1							1		1	3
Become a Contractor			1	1		1					3
Reviews			1				1				2
Submit a Review		1							1		2
Read Reviews	1				1						2
Choose a Contractor		1		1							2
Contribute					1		1				2

Common Categories

	C1	C2	C3	C4	C5	C6	C7
Reviewers		3		3		3	
Contractors	2		3		3		3
Become a Contractor							3
Reviews	3	1	1	2	2	1	
Submit a Review		2		1		1	
Read Reviews	1		1	1	1		
Choose a Contractor	2		1		2		1
Contribute		2				2	2

RECOMMENDATIONS: ARCHITECTURAL HIERARCHY

Although category names may vary, participant responses indicate the category relating to reviews should precede those relating to contractors.

Beneath reviews, users should be able to write and submit a review, view a list of reviewers, or become a reviewer themselves. Likewise, under contractors, they should be able to read reviews about contractors in their area, view a list of contractors, and learn more about how to choose a contractor.

In the example below, the category “Find a Contractor” is suggested as a separate option from “Become a Contractor” to allow for a clear differentiation between information about contractors and information for contractors.

Structuring the site in a way that separates those who need to hire a contractor from contractors looking for business allows for a longer architectural runway by creating a format in which content can be customized to serve a specific audience.

LIMITATIONS:

As this was an open card sort, participants were asked to assign category names to the groups they created. Certain themes emerged among the user assigned names but they were highly variable, lacked focus, and did not provide a consistent labelling schema. In a card sort, this occurs because participants are provided only superficial details regarding a niche subject and asked to organize that information with limited knowledge. Without additional context, the meaning of some of the card labels may have been diminished for the participants.

Although card sorting provides guidance on how to structure the data of a website or application, it should be one of several research methods used to assess the user experience.

ADDITIONAL RESEARCH:

1) user research to determine the best labelling schema for the site.

2) user research involving contractors to investigate their needs.

3) create personas to develop a better picture of site user needs.

4) development of use cases

5) low fidelity testing of initial designs to assess discoverability