

Card Sorting Part 1: Preparing Paper Sorts

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Free 60-Minute Card Sorting Webinars

- 1. Preparing paper sorts: 24-Jan-13
- 2. Basic card sort analysis (online and paper sorts): 31-Jan-13
- 3. Advanced analysis (SynCaps V3): 7-Feb-13

Check our SynCaps Webinars page to download slides and recordings (www.syncaps.com)

Resources

Free

- Interactions article Playing Your Cards Right (ACM Digital Library and <u>www.syntagm.co.uk/design/articles</u>
- Interaction Design Encyclopedia entry on card sorting (bit.ly/ixd-card-sorting)
- Presentations, videos and free SynCaps V1 software (www.syncaps.com)
- Caps (Computer-Aided Paper Sorting) videos on YouTube: just search for 'caps card sorting' (also on the <u>Syntagm web</u> <u>site</u>)

Courses

- CHI 2013, Paris (chi2013.acm.org)
- Guerrilla UCD Webinar 7 (www.guerrillaucd.com)

Questions

- If you're watching the live webinar, use the GotoWebinar Question Interface
- If you're watching a recording, or questions occur to you after the webinar, email me: william.hudson@syntagm.co.uk
- You can join our card sorting email list / discussion group by emailing caps-subscribe@mailman.syntagm.co.uk

Topics

- Benefits of paper sorting
- Open versus closed sorts
- Ad hoc items
- Basic ingredients item, group and participant cards
- Using MS Word mail merge
- Printing cards and labels
- Advanced topics quality of fit and nested groups

Challenges of Design



How controls and displays should be organized

Challenges of Design



How people think about a problem domain



help
Card sorting can solve all of these problems

Benefits

- Card Sorting allows cost-effective research into users' view of a problem domain – concepts, terminology & organization
- Much more effective than usability testing for moderate to large numbers of items
- Can be used as a either a *qualitative* or a *quantitative* research method
 - Qualitative small numbers, typically one-to-one sessions using paper cards
 - Quantitative usually a minimum of 15 participants, one-tomany sessions, paper cards or online sorting
- Although primarily used to research navigation, can also be effective for layout (which elements should appear together)

Type

- Paper-based, face-to-face
- Virtual cards, sorted on screen

Scope

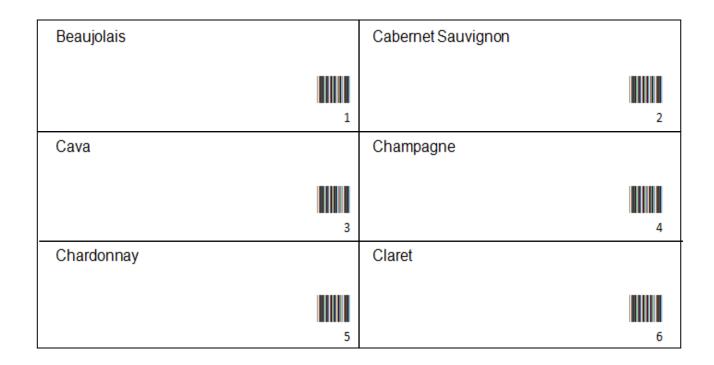
- Open sorts participants make their own groups and name them
- Closed sorts groups are provided (with names)
- Hybrid sorts some groups are provided, some are left to participants



Some online services allow photographs to be sorted



Almost anything can be sorted in face-to-face sessions



Bar codes can make data collection quick and easy (Shown here on self-adhesive labels)

Item name Fit □ Perfect A line or two to provide missing context (optional) Alternatives: Other words that □ Good users might prefer (optional) □ Fair

Large cards allow plenty of room for comments or alternatives (A6 = $105 \times 148 \text{ mm} = 4.13 \times 5.83 \text{ in}$)

Face-to-Face Approaches

- One-to-one
 - Excellent for qualitative research
 - In-depth understanding of similarities and differences
- Two-to-one
 - Two participants perform sort and discuss issues; researcher takes notes and makes enquiries
- Many-to-one
 - Individuals perform sorts without discussion
 - Focus group can follow





Benefits of Paper Sorting

- Facilitator present
 - Deal with questions or confusion
 - Steer participant to more useful solutions
 - For research, sorts can be much more open (including 'ad-hoc' items)
 - Much more substantial investigation and feedback available
- Materials
 - Anything can be sorted (just a label is needed on the back)
 - Much less intimidating to some participants than online sorting solutions

Terminology

- Avoid superficial matches
 - Participants will naturally tend to group items containing the same or similar words together
 - Adjust the 'stimulus words" that appear in the card sort to prevent this
 - For example, on intranets, the word "manage" can appear in many different and unrelated contexts:
 - Manage absence and holidays
 - Manage difficult colleagues
 - Change management
 - Omit unnecessary words or use synonyms to overcome this:
 - Absence and holidays
 - Coping with difficult colleagues
 - Change management

Ad-Hoc Sorts

- Online sorts usually require all items to be defined at the outset
- Paper sorts can be entirely open
 - Start with blank cards or just a few 'known' items
 - With SynCaps V1 (free), new items will need to be assigned numbers afterwards
 - SynCaps V2 & V3 allow them to be typed in during data capture
- Most forms of sorting allow groups to be partially defined
 - These can help to give participants a better sense of what is required

Basic Ingredients

- Participant cards
 - Can be blank (for participants to write name) or prenumbered
- Item cards
 - Usually pre-printed
 - Can include bar code for easy data collection
 - If using labels, ask participants to apply them to index cards or similar
- Group cards
 - Supply those you know you need (even for an open sort)
 - Give participants places to put 'meta' items: for example, page header, page footer, help, don't know/unsorted

Using MS Word Mail Merge

- Instructions for this can be found in the SynCaps combined download at www.syntagm.co.uk/design/cardsortdl.shtml (see the section 'Templates for Printing')
- Item cards normally need to be printed for all sorts
- Customized group and participant cards are optional

Printing Cards and Labels

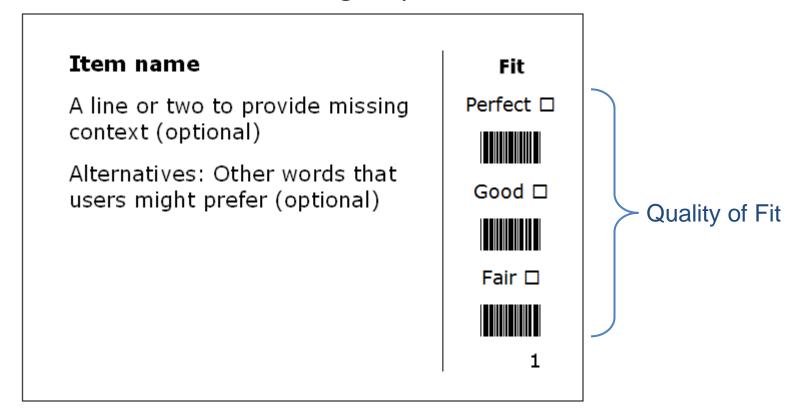
- Laser printing onto light card is best if using bar codes
- Address labels can also be used but ask participants to apply them to index cards (or similar) for ease of handling
- Other technologies will work but be sure to test first, especially if using bar codes (the bar code font size can be increased if using ink jet printers, for example)

Advanced Topics

- Items can be weighted in the analysis, so we can ask participants about...
 - Quality of fit (how well an item fits its group) or
 - Frequency of use (how often they use an item)
- Most navigational hierarchies are multiple levels but traditional card sorting does not cater for this
 - SynCaps V3 introduces nested groups

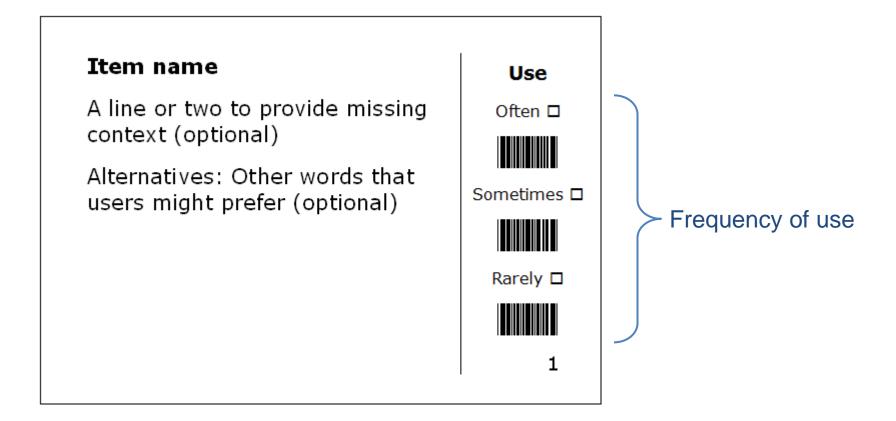
Quality of Fit

- Basic cluster analysis counts how many times cards appear in the same group
- Adding a quality of fit measure lets participants say how well an item fits into its group



Frequency of Use

 The same principle can be used to weight results according to how often items are used



Fit versus Use

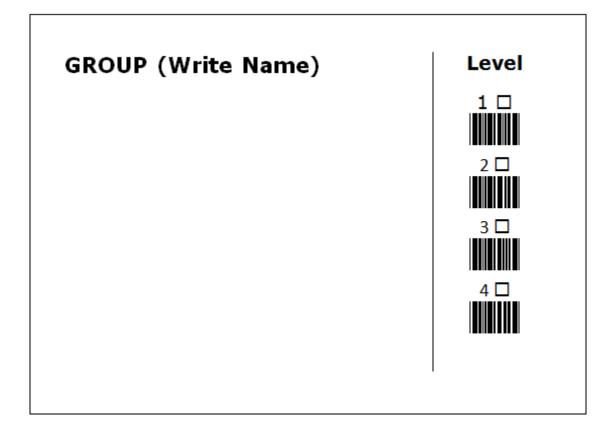
- Quality of fit is helpful when you have a small number of participants – it allows them to express their intentions more subtly. Ask participants to do this <u>after</u> sorting.
- Frequency of use gives higher precedence to more frequently used items. It also engages participants with the meaning of the items.
 Ask them to do this <u>before</u> sorting.
- You can't do both!

Nested Groups (SynCaps V3)

- Card sorting has traditionally been done as a single level – groups with items under each
- Some tools support 'anonymous' sub-groups (SynCaps V2 & V3 for example)
- SynCaps V3 introduces nested groups
 - Up to 9 levels
 - Groups can be assigned levels either by participants or by the researcher
 - Consider providing at least some predetermined group names to reduce stress on participants

Nested Groups (SynCaps V3)

 Nested group levels can either be selected on pre-printed cards or written on the card



Nested Groups (SynCaps V3)

- Nested groups affect the weights applied in cluster analysis
 - Items appearing together in the same sub-group are weighted most heavily
 - Items appearing in 'child' groups are weighted less heavily (according to how many levels intervene)
 - Items with no common parent receive a 0 score
- V3 also introduces a Subgroups x Groups chart to show how groups were nested (more in webinar 2)

Questions

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Commercial Messages

- If you're an existing SynCaps user and would like to beta-test SynCaps V3 during February 2013, please get in touch: william.hudson@syntagm.co.uk
- Look out for my new book Lighting the Road
 Ahead The 55-minute guide to usability,
 accessibility and search-engine optimisation
 www.lightingtheroadahead.com



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