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)

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Resources

- Free
  - Interactions article *Playing Your Cards Right* (ACM Digital Library and www.syntagm.co.uk/design/articles
  - 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 Syntagm web site)
- 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

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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

Card sorting can solve all of these problems

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-to-many sessions, paper cards or online sorting
- Although primarily used to research navigation, can also be effective for layout (which elements should appear together)

Approaches

- 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

Approaches

Some online services allow photographs to be sorted

Approaches

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

Approaches

Beaujolais	Cabernet Sauvignon
1	2
Cava	Champagne
3	4
Chardonnay	Claret
5	6

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

Approaches

Large cards allow plenty of room for comments or alternatives (A6 = 105 x 148 mm = 4.13 x 5.83 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

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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

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Basic Ingredients

- Participant cards
  - Can be blank (for participants to write name) or pre-numbered
- 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)

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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

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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

Item name

A line or two to provide missing context (optional)

Alternatives: Other words that users might prefer (optional)

Fit

Perfect ☐

Good ☐

Fair ☐

1

Quality of Fit

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Frequency of Use

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

Item name

A line or two to provide missing context (optional)

Alternatives: Other words that users might prefer (optional)

Use

Often ☐

Sometimes ☐

Rarely ☐

1

Frequency of use

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

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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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