

Faculty Accomplishments Analysis of Card Sorting interviews

A card sort is a qualitative data collection method that involves the arrangement of words, phrases, or images on cards. Each participant is given a deck of cards and is told to separate and categorize the cards as they see fit. A talk-aloud protocol may be used while the participant sorts the cards. The conversation between the researcher and the participant may or may not be recorded, but the sorted cards act as a lasting record of the participant's conceptual model at that moment.

This conceptual model can provide a wide variety of information, such as the participant's priorities (via sort order), perspective (via categories), and language (via labeling of categories).

The purpose of the card sort discussed here was to make explicit the cognitive models through which users will approach the information and task space of the Faculty Accomplishments system. The results of this analysis will be used in the design of the Faculty Accomplishments web site: the most common categories will influence the arrangement of functionality and navigation structures, the language will affect the labeling of components, and the sort order will drive the prioritization (or lack thereof) of content and functionality.

Method

I interviewed four people at the Information School:

1. Faculty member: Tenured administrator (TA)
2. Faculty member: Non-tenured lecturer (NL)
3. Student: Assistant to tenured administrator (ATA)
4. Student: Assistant to non-tenured faculty (ANF)

I asked each participant (in four individual interviews) to sort a stack of 37 cards, on which were printed tasks culled from interviews with faculty members, administrators, and assistants. I instructed the participant first to separate the cards into broad categories, then further subdivide and sort the cards within each category. I then asked them to label each category.

The data from the cards was entered into an Excel spreadsheet (see Appendix). For each card, a numerical hierarchical code was assigned: the top-level categories were numbered with single digits (1, 2, 3, etc.). Within each category, the subcategories were numbered, preceded by the number of its parent (1.1, 1.2, 1.3, etc.). For categories created by the participant, a new category was created and coded with the participant's initials. In this format, the data can be sorted according to each participant's perspective. The degree of agreement between participants can also be extrapolated, either by "eyeballing" or through more rigorous quantitative means. Those terms with the highest degree of

agreement between participants would have a high probability of usefulness across all users of the Faculty Accomplishments system.

Results

Sort order

Within categories, the sort order appeared to generally follow a chronological sequence, following the development of a process. For instance, research was sorted according to the order of events: Preparing a grant application, Conducting research, and Writing scholarly articles.

Categories

The most common top-level categories were: Teaching, Research, and Service. It appears that these categories are congruent with role theory (Leckie & Pettigrew, 1996 & 1997), which posits that a user's information behavior and cognitive models mimic the role they play in their work setting. For instance, if a faculty member's job duties are categorized into Teaching, Research, and Service in their job description, annual evaluation, and tenure review materials, they will tend to categorize their tasks according to those areas: Teaching, Research, and Service.

Within the top-level categories, participants varied widely as to the separation scheme and depth of hierarchy they used. It seemed to be highly dependent on the tasks most important to each person's role.

Labels

The labels chosen for categories were generally in agreement with role theory as well. Categories which were less defined, such as those dealing with documentation or evaluation were given labels ranging from "Representing and describing what I do" to "Self-promotion". These labels are quite useful in eliciting how the participants feel about these activities. The feelings expressed by the participants must be taken into account, since the Faculty Accomplishments system aims to specifically address the documentation and promotion of faculty based on their activities as recorded in the system.

Other findings

The "Doing what I'm good at" card received the most interesting comments from the interviewees. TA and ATA both categorized this card near the top of their list, in the facet that represented the most frequent activity: "Evangelism" and "Describing what I do". The other two interviewees did not see the "Doing what I'm good at" card as being relevant to their jobs, stating that it depends on the individual person and that they could not choose one area of expertise. It is possible that this effect is due to the tenure status – faculty members who have not attained tenure must demonstrate equal effort in the areas

of Teaching, Research, and Service and therefore cannot afford to concentrate on only the activity they are "good at".

Participants also varied in relation to how they saw the delegation of tasks to their assistants. ATA and ANF both said that those tasks covered nearly all of the categories. The faculty members, however, placed the "Delegating tasks to my assistant" in only one or two categories. This is indicative that assistants are required to cover far more duties than the faculty members may realize. ANF, particularly, is an assistant to several faculty members and must complete a wide variety of administrative tasks that run the gamut of the categories on the cards.

Design Recommendations

Based on these findings, it is recommended that the main profile portion of the Faculty Accomplishments web site be made the "home page" of each faculty member. Within the CV editing page, the subsections of Teaching, Research, and Service (and any other sections mandated by the faculty member's job description) should appear by default. However, the faculty member (or their assistant) should be able to reorder these subcategories as they see fit.

Faculty members should have the ability to assign certain tasks within the system to their assistant(s), and assistants should be able to manage those tasks across several faculty members (as with ANF).

The progression of screens and order of processes should follow a generally chronological format. Where chronological progress is not possible, functionality should be arranged thematically according to the different roles and task spaces the user operates in.

References

- Leckie , G. J., Pettigrew , K. E., and Sylvain, C. (1996). Modelling the information seeking of professionals: A general model derived from research on engineers, health care professionals, and lawyers. *Library Quarterly*, 66(2), 161-193.
- Leckie , G. J., & Pettigrew , K. E. (1997). A general model of the information seeking of professionals: Role theory through the back door? In P. Vakkari, et al., (Eds.), *Information Seeking in Context: Proceedings of an International Conference on Research in Information Needs, Seeking and Use in Different Contexts* (Aug 14-16, 1996, Tampere, Finland) (pp. 99-110). London: Graham Taylor.

Appendix: Raw data

Code	Label	TA	NL	ATA	ANF
TA, ANF	Representing & describing what I do / Awareness about self	1			1.3
D1	Doing what I'm good at	1.1	?	1.1	?
H2	Defining my role and work duties	1.2	3.3.1	3.1	?
H1	Describing to others what I do in my job	1.3	4.1.1	1.2	7.1
A2	Deciding what words are relevant to my work	1.4	2.3.3	2.1	1.3.3, 3.2, 4.6
A1	Explaining work-related vocabulary to others	1.5	2.3.2	1.3	4.5
K2	Reporting on my activities to my superiors	1.6	3.3.3	3.2.1	1.3.2
G1	Reporting on a community service activity I was involved in	1.7	3.3.2	3.2.2.1.2	5.4
TA, NL	Documentation	2	3.1		
K1	Delegating tasks to my assistant	2.1	1.1.2, 2.2.1	3.2.2	6.1
TA, ATA	CV	2.1.1		3.2.2.2	1.2
I2	Maintaining a list of my publications	2.1.1.1	3.1.2.2	3.2.2.1.1	1.2.4
M1	Editing my CV	2.1.1.2	3.1.1.1	3.2.2.2.3	1.2.1
N1	Formatting my CV	2.1.1.3	3.1.1.2	3.2.2.2.2	1.2.2
J2	Printing out my CV	2.1.1.4	3.1.1.3	3.2.2.2.1	1.2.3
P1	Writing a biographical sketch about myself	2.1.1.5	3.1.2.1	3.2.2.4.1	1.3.1
L2	Searching for one of my own publications	2.1.1.6	2.3.4	2.4	1.4.5, 4.8
TA, ANF	Tenure review / Evaluation / Performance review	2.1.2			1.4
J1	Putting together materials for annual evaluation	2.1.2.1	3.2.1	3.2.3	1.4.2
F2	Managing tenure review files	2.1.2.2	3.2.3	3.2.3.1	1.4.4
F1	Printing out tenure review materials	2.1.2.3	3.2.2	3.2.3.1.1	1.4.3
TA, NL, ANF	Service	3	4		5
C1	Doing professional service	3.1	4.2.2.3	4.1	5.3
C2	Serving the community	3.2	4.1.4	6.1	5.2
TA	Chairing committees	3.3			
S2	Attending committee meetings	3.4	4.2.1.1	4.2	5.1
TA, ATA, ANF	Networking / Professional associations	4		5	2
P2	Networking with other UW faculty members	4.1	4.2.2.2	5.3	2.3
O1	Searching for a UW faculty member who has similar interests as me	4.2	2.1.1	5.5	2.5
E2	Looking for a UW faculty member to work with	4.3	2.1.2	5.4	2.6
G2	Helping someone find a UW faculty member	4.4	4.1.2	5.2	2.4
O2	Responding to email messages from UW faculty members I don't know	4.5	2.3.1, 4.2.2.1	5.1	2.2
L1	Searching for a publication by a UW faculty member	4.6	4.1.3	2.5	2.1, 3.1, 4.4
TA, ATA, NL, ANF	Research/Scholarship	5	2	2	3

B1	Conducting research	5.1	2.2	2.3	3.5
S1	Preparing grant applications	5.2	2.1.3	2.2	3.3
D2	Writing scholarly articles	5.3	2.3.5	2.6	3.4
TA, ATA, NL, ANF	Teaching	6	1	7	4
R2	Creating a syllabus	6.1	1.1.3	7.2	4.1
Q2	Looking up articles for a course I'm going to teach	6.2	1.1.1	7.1	4.3
B2	Teaching classes	6.3	1.2	7.3	4.2
E1	Reviewing course evaluations for a course I taught	6.4	1.1.4	7.4	1.4.1, 4.7
M2	Editing my resume	N/A	3.1.1.4	3.2.2.3.2	1.1.2
N2	Formatting my resume	N/A	3.1.1.5	3.2.2.3.3	1.1.1
I1	Printing out my resume	N/A	3.1.1.6	3.2.2.3.1	1.1.3
ATA	Bio			3.2.2.4	
ATA	Community Service			6	
NL	Course Preparation		1.1		
NL	Documentation: Resources		3.1.2		
NL	Documentation: Types		3.1.1		
ATA	Evangelism			1	
ATA	Intellectual Outputs			3	
ANF	Maintaining a professional image				1
ATA	Managing CV			3.2.2.1	
NL	Outreach		4.1		
ANF	Outside the academy				7
ATA	Performance Measurements			3.2	
NL	Professional Development		3		
NL	Professional Development: Collections		3.2		
ATA	Professional Service			4	
NL	Research: Preparation		2.1		
NL	Research: Writing		2.3		
ATA, ANF	Resume			3.2.2.3	1.1
NL	Self Promotion		3.3		
NL	Service: Internal		4.2		
NL	Service: Internal: Ad Hoc		4.2.2		
NL	Service: Internal: Compulsory		4.2.1		
ANF	Workflow				6